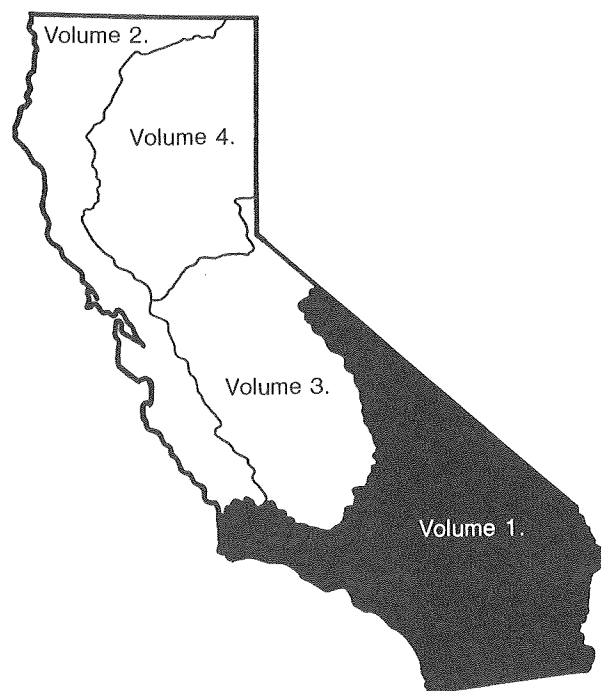


Water Resources Data California Water Year 1986

Volume 1. Southern Great Basin from Mexican Border to Mono Lake Basin, and Pacific Slope Basins from Tijuana River to Santa Maria River



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-86-1
Prepared in cooperation with the California Department of
Water Resources and with other agencies

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

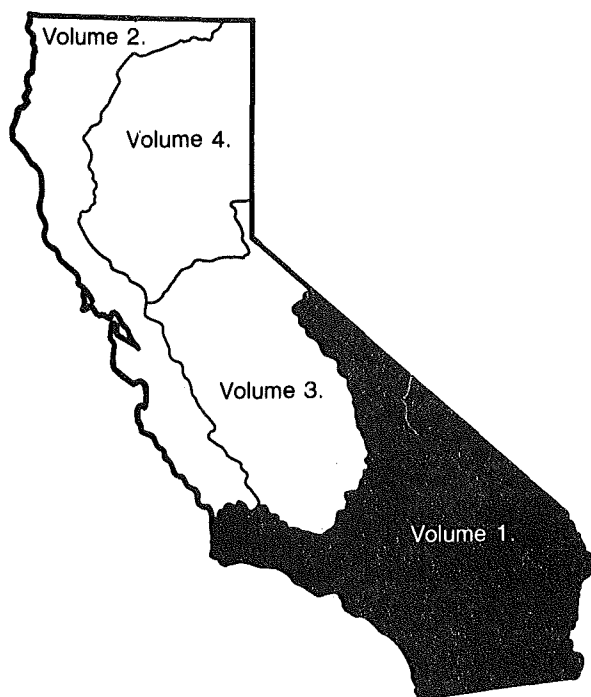
Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons



Water Resources Data California Water Year 1986

Volume 1. Southern Great Basin from Mexican Border
to Mono Lake Basin, and Pacific Slope Basin
from Tijuana River to Santa Maria River

by J.C. Bowers, C.E. McConaughy, K.G. Polinoski, and G.B. Smith



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-86-1
Prepared in cooperation with the California Department of
Water Resources and with other agencies

DEPARTMENT OF THE INTERIOR
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U.S. GEOLOGICAL SURVEY
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For information on the water program in California write to
District Chief, Water Resources Division
U.S. Geological Survey
Room W-2234, Federal Building
2800 Cottage Way
Sacramento, California 95825

PREFACE

This volume of the annual hydrologic data report of California is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for California are contained in five volumes:

- Volume 1. Southern Great Basin from Mexican Border to Mono Lake Basin, and Pacific Slope Basins from Tijuana River to Santa Maria River
- Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State line except Central Valley
- Volume 3. Southern Central Valley Basins and The Great Basin from Walker River to Truckee River
- Volume 4. Northern Central Valley Basins and The Great Basin from Honey Lake Basin to Oregon State Line
- Volume 5. Ground-water data for California

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to U.S. Geological Survey policy and established guidelines, the individuals contributing significantly to the collection, processing, and tabulation of the data are given on page V.

This report was prepared in cooperation with the California Department of Water Resources and with other agencies, under the general supervision of John M. Klein, District Chief, California.

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CONTENTS

Preface.....	Page III
List of surface-water and water-quality stations, in downstream order, for which records are published.....	VIII
Introduction.....	1
Cooperation.....	2
Summary of hydrologic conditions.....	2
Surface water.....	2
Water quality.....	5
Sediment.....	5
Special networks and programs.....	5
Explanation of the records.....	7
Station identification numbers.....	7
Downstream order system.....	7
Latitude-longitude system.....	7
Records of stage and water discharge.....	8
Data collection and computation.....	8
Data presentation.....	9
Identifying estimated daily discharge.....	10
Accuracy of the records.....	10
Other records available.....	11
Records of surface-water quality.....	11
Classification of records.....	11
Arrangement of records.....	11
Onsite measurements and sample collection.....	11
Water temperature.....	12
Sediment.....	12
Cross-section data.....	12
Laboratory measurements.....	12
Data presentation.....	13
Remark codes.....	13
Access to WATSTORE data.....	14
Definition of terms.....	14
Publications on Techniques of Water-Resources Investigations.....	21
Discontinued gaging stations.....	23
Gaging station and water-quality records.....	37
Discharge at partial-record stations and miscellaneous sites.....	290
Analyses of samples collected at water-quality partial-record stations.....	291
Index.....	299

ILLUSTRATIONS

Figure 1. Map of California showing runoff, in percent of median, for the 1986 water year.....	Page 3
2. Graph showing comparison of discharge during water year 1986 with long-term median discharge at four representative gaging stations.....	4
3. Graph showing comparison of monthly mean dissolved-solids concentration during water year 1986 with long-term dissolved-solids concentration of two selected stations.....	6
4. System for numbering miscellaneous sites (latitude and longitude).....	7
5-16. Maps showing location of discharge and water-quality stations:	
5. Imperial County.....	25
6. Inyo County.....	26
7. Kern County.....	27
8. Los Angeles County.....	28
9. Mono County.....	29
10. Orange County.....	30
11. Riverside County.....	31
12. San Bernardino County.....	32
13. San Diego County.....	33
14. San Luis Obispo County.....	34
15. Santa Barbara County.....	35
16. Ventura County.....	36
17-18. Schematic diagrams showing diversions and storage:	
17. Santa Ana River basin.....	142
18. San Gabriel and Los Angeles River basins.....	194

SURFACE-WATER AND WATER-QUALITY STATIONS
IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letters after station name designate type of data: (d), discharge;
(l), lake contents; (c), chemical; (b), biological; (p), precipitation;
(t), water temperature; and (s), sediment]

	Page
<u>THE GREAT BASIN</u>	
<u>PANAMINT VALLEY</u>	
Darwin Creek near Darwin (d).....	38
<u>DEATH VALLEY</u>	
Salt Creek near Stovepipe Wells (dc).....	39
<u>BRISTOL LAKE BASIN</u>	
Caruthers Creek near Ivanpah (d).....	41
<u>SALTON SEA BASIN</u>	
Salton Sea near Westmorland (l).....	42
Inflow to Salton Sea (d).....	42
Salt Creek near Mecca (d).....	43
Alamo River at Drop No. 3, near Calipatria (dots).....	44
Alamo River near Niland (d).....	47
New River at International Boundary, at Calexico (d).....	48
New River near Westmorland (d).....	49
Coyote Creek near Borrego Springs (d).....	50
Coyote Creek below Box Canyon, near Borrego Springs (d).....	51
Borrego Palm Creek near Borrego Springs (d).....	52
San Felipe Creek near Westmorland (d).....	53
Whitewater River at White Water cutoff, at White Water (dc).....	54
Snow Creek near White Water (dc).....	56
Whitewater River at Windy Point, near White Water (d).....	58
Mission Creek near Desert Hot Springs (d).....	59
Chino Canyon Creek near Palm Springs (dc).....	60
<u>New River:</u>	
<u>Moringo Wash:</u>	
Tahquitz Creek near Palm Springs (d).....	62
Palm Canyon Creek near Palm Springs (d).....	63
Andreas Creek near Palm Springs (d).....	64
Deep Creek near Palm Desert (d).....	65
Whitewater River at Indio (d).....	66
Whitewater River near Mecca (d).....	67
<u>MOJAVE RIVER BASIN</u>	
Deep Creek (head of Mojave River) near Hesperia (d).....	68
<u>West Fork Mojave River:</u>	
Houston Creek above Lake Gregory, at Crestline (d).....	69
Abondigas Creek above Lake Gregory, at Crestline (d).....	70
Lake Gregory at Crestline (l).....	71
Houston Creek below Lake Gregory, at Crestline (d).....	72
West Fork Mojave River near Hesperia (d).....	73
Mojave River below Mojave Forks Reservoir, near Hesperia (d).....	74
Mojave River at lower narrows, near Victorville (d).....	75
Mojave River near Hodge (d).....	76
Mojave River at Barstow (d).....	77
Mojave River at Afton (d).....	78
<u>ANTELOPE VALLEY</u>	
Big Rock Creek near Valyermo (d).....	79
Oak Creek near Mojave (d).....	80
<u>OWENS LAKE BASIN</u>	
Bishop Creek below powerplant No. 6, near Bishop (d).....	81
<u>MONO LAKE BASIN</u>	
Mono Lake near Mono Lake (l).....	84
Mill Creek below Lundy Lake, near Mono Lake (d).....	85
Rush Creek below Agnew Lake, near June Lake (d).....	86
<u>PACIFIC SLOPE BASINS IN CALIFORNIA</u>	
<u>TIJUANA RIVER BASIN</u>	
Cottonwood Creek (head of Tijuana River) above Tecate Creek, near Dulzura (d).....	87
<u>Tecate Creek:</u>	
Campo Creek near Campo (d).....	88
Tijuana River near Dulzura (d).....	89
Rodriguez Reservoir at Rodriguez Dam, Baja California, Mexico (l).....	90
<u>OTAY RIVER BASIN</u>	
Jamul Creek near Jamul (d).....	91
Lower Otay Lake near Chula Vista (l).....	92
<u>SWEETWATER RIVER BASIN</u>	
Sweetwater River near Descanso (d).....	93
<u>SAN DIEGO RIVER BASIN</u>	
El Capitan Lake near Lakeside (l).....	94
San Vicente Reservoir near Lakeside (l).....	95
Los Coches Creek near Lakeside (d).....	96
Forester Creek at El Cajon (d).....	97
San Diego River at Mast Road, near Santee (d).....	98
San Diego River at Fashion Valley, at San Diego (d).....	99

SURFACE-WATER AND WATER-QUALITY STATIONS
IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

Page

THE GREAT BASIN--Continued

LOS PENASQUITOS CREEK BASIN

Poway Creek (head of Los Penasquitos Creek) near Poway (d).....	100
Rattlesnake Creek at Poway (d).....	101
Beeler Creek at Pomerado Road, near Poway (d).....	102
Los Penasquitos Creek below Poway Creek, near Poway (d).....	103
Los Penasquitos Creek near Poway (d).....	104
Carroll Creek near La Jolla (ds).....	105
Carmel Creek near Del Mar (ds).....	109

SAN DIEGUITO RIVER BASIN

Santa Ysabel Creek (head of San Dieguito River) near Ramona (d).....	113
Santa Maria Creek near Ramona (d).....	114
Lake Hodges near Escondido (l).....	115
San Dieguito Creek near Del Mar (ds).....	116

ESCONDIDO CREEK BASIN

Lake Wohlford near Escondido (l).....	118
---------------------------------------	-----

SAN LUIS REY RIVER BASIN

San Luis Rey River:

Agua Caliente Creek near Warner Springs (d).....	119
West Fork San Luis Rey River near Warner Springs (d).....	120
San Luis Rey River at Monserate Narrows, near Pala (d).....	121
San Luis Rey River at Oceanside (dcts).....	122

SANTA MARGARITA RIVER BASIN

Temecula Creek (head of Santa Margarita River) near Aguanga (d).....	128
Murrieta Creek at Temecula (d).....	129
Santa Margarita River near Temecula (d).....	130
Santa Margarita River at Ysidora (d).....	131

SAN JUAN CREEK BASIN

San Juan Creek at San Juan Capistrano (dts).....	132
Arroyo Trabuco at San Juan Capistrano (ds).....	137

ALISO CREEK BASIN

Aliso Creek at South Laguna (d).....	140
--------------------------------------	-----

SAN DIEGO CREEK BASIN

San Diego Creek at Campus Drive, near Irvine (d).....	141
---	-----

SANTA ANA RIVER BASIN

Santa Ana River:

Bear Creek:	
Big Bear Lake near Big Bear Lake (l).....	143
Santa Ana River near Mentone (dts).....	144
Mill Creek near Yucaipa (d).....	149
Plunge Creek near East Highlands (d).....	151
Warm Creek:	
City Creek near Highland (d).....	153
San Timoteo Creek:	
San Timoteo Creek near Loma Linda (d).....	155
Warm Creek:	
East Twin Creek near Arrowhead Springs (d).....	156
Santa Ana River at E Street, near San Bernardino (dts).....	157
Warm Creek near San Bernardino (d).....	159
Little Creek near Fontana (d).....	160

Cajon Creek:

Lone Pine Creek near Keenbrook (d).....	162
Cajon Creek below Lone Pine Creek, near Keenbrook (d).....	163
Devil Canyon Creek near San Bernardino (d).....	164
Lytle Creek at Colton (d).....	165
Santa Ana River at MWD Crossing, near Arlington (dc).....	166

San Jacinto River:

San Jacinto River near San Jacinto (d).....	168
Bautista Creek at Valle Vista (d).....	170
San Jacinto River near Elsinore (d).....	171
Temescal Creek above Main Street, at Corona (d).....	172

Chino Creek:

Chino Creek at Schaefer Avenue, near Chino (d).....	173
Cucamonga Creek near Mira Loma (d).....	174
Santa Ana River below Prado Dam (dcts).....	175
Santa Ana River spreading diversion below Imperial Highway, near Anaheim (d).....	187
Carbon Creek below Carbon Canyon Dam (d).....	188
Santa Ana River at Ball Road, at Anaheim (d).....	189
Santiago Creek at Modjeska (d).....	190
Santiago Creek at Santa Ana (d).....	191
Santa Ana River at Santa Ana (dts).....	192

SAN GABRIEL RIVER BASIN

San Gabriel River below Santa Fe Dam, near Baldwin Park (d).....	195
San Gabriel River above Whittier Narrows Dam (d).....	196
Brea Creek below Brea Dam, near Fullerton (d).....	197
Fullerton Creek below Fullerton Dam, near Brea (d).....	198

SURFACE-WATER AND WATER-QUALITY STATIONS
IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

	Page
<u>PACIFIC SLOPE BASINS IN CALIFORNIA--Continued</u>	
<u>LOS ANGELES RIVER BASIN</u>	
Big Tujunga Creek below Hansen Dam (d).....	199
Arroyo Seco near Pasadena (d).....	200
Rio Hondo above Whittier Narrows Dam (d).....	201
Rio Hondo below Whittier Narrows Dam (d).....	202
Los Angeles River at Long Beach (cts).....	203
<u>SANTA CLARA RIVER BASIN</u>	
Santa Clara River at Los Angeles-Ventura County line (dcs).....	207
Lockwood Creek:	
Piru Creek above Lake Piru (d).....	210
Lake Piru near Piru (l).....	211
Piru Creek below Santa Felicia Dam (d).....	212
Sespe Creek near Wheeler Springs (d).....	213
Santa Paula Creek near Santa Paula (d).....	214
Saticoy Diversion near Saticoy (dt).....	215
Santa Clara River at Montalvo (d).....	221
<u>VENTURA RIVER BASIN</u>	
Matilija Reservoir at Matilija Hot Springs (l).....	222
Matilija Creek at Matilija Hot Springs (d).....	223
Ventura Creek near Meiners Oaks (d).....	224
Coyote Creek near Oak View (d).....	225
Santa Ana Creek near Oak View (d).....	226
Lake Casitas near Casitas Springs (l).....	227
Ventura River near Ventura (ds).....	228
<u>CARPINTERIA CREEK BASIN</u>	
Carpinteria Creek near Carpinteria (dc).....	234
<u>MISSION CREEK BASIN</u>	
Mission Creek at Rocky Nook Park, at Santa Barbara (dts).....	236
Mission Creek near Mission Street, at Santa Barbara (d).....	241
<u>ARROYO BURRO CREEK BASIN</u>	
Arroyo Burro Creek at Santa Barbara (d).....	242
<u>ATASCADERO CREEK BASIN</u>	
Maria Ygnacio Creek at University Drive, near Goleta (d).....	243
Atascadero Creek near Goleta (d).....	244
<u>SAN JOSE CREEK BASIN</u>	
San Jose Creek (tributary to Pacific Ocean) near Goleta (dc).....	245
San Jose Creek at Goleta (dts).....	248
<u>GAVIOTA CREEK BASIN</u>	
Gaviota Creek near Gaviota (d).....	249
<u>SANTA YNEZ RIVER BASIN</u>	
Santa Ynez River at Jameson Lake, near Montecito (d).....	250
Santa Ynez River above Gibraltar Dam, near Santa Barbara (d).....	251
Santa Ynez River below Gibraltar Dam, near Santa Barbara (d).....	252
Santa Ynez River below Los Laureles Canyon, near Santa Ynez (d).....	253
Santa Cruz Creek near Santa Ynez (d).....	254
Lake Cachuma near Santa Ynez (l).....	255
Alisal Reservoir near Solvang (l).....	256
Santa Ynez River at Solvang (d).....	257
Salsipuedes Creek near Lompoc (dc).....	258
Santa Ynez River at narrows, near Lompoc (dc).....	261
Miguelito Creek at Lompoc (dc).....	264
<u>SAN ANTONIO CREEK BASIN</u>	
San Antonio Creek at Los Alamos (d).....	267
San Antonio Creek above Barka Slough, near Orcutt (dc).....	268
San Antonio Creek near Casmalia (dc).....	271
<u>SANTA MARIA RIVER BASIN</u>	
Cuyama River (head of Santa Maria River):	
Cuyama River below Buckhorn Canyon, near Santa Maria (dc).....	274
Huasna River near Arroyo Grande (dc).....	277
Sisquoc River near Sisquoc (dc).....	280
Tepusquet Creek near Sisquoc (d).....	283
Sisquoc River near Garey (d).....	284
Bradley ditch near Donovan Road, at Santa Maria (d).....	285
Santa Maria River at Guadalupe (d).....	286
Orcutt Creek near Orcutt (dc).....	287

WATER RESOURCES DATA -- CALIFORNIA, WATER YEAR 1986

VOLUME 1--SOUTHERN GREAT BASIN FROM MEXICAN BORDER TO MONO LAKE BASIN,
AND PACIFIC SLOPE BASINS FROM TIJUANA RIVER TO SANTA MARIA RIVER

By J.C. Bowers, C.E. McConaughy, K.G. Polinoski, and G.B. Smith

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of California each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the U.S. Geological Survey, the data are published annually in this report series entitled "Water Resources Data - California."

This report includes records on surface water in the State. Specifically, it contains: (1) Discharge records for 144 streamflow-gaging stations and 4 crest-stage partial-record streamflow stations; (2) stage and contents records for 15 lakes and reservoirs; and (3) water-quality records for 21 streamflow-gaging stations. Records included for stream stages are only a small fraction of those obtained during the water year.

This series of annual reports for California began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format changed to one volume, including data on quantities of surface water, quality of surface and ground water, and ground-water levels. Beginning with the 1985 water year, a separate volume for ground-water levels and quality was published for California.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for California were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 10 and 11." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." These Water-Supply Papers may be consulted in public libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 810, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CA-86-3." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (916) 978-4668.

COOPERATION

The U.S. Geological Survey and organizations of the State of California have had cooperative agreements for the systematic collection of records since 1903. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

California Department of Water Resources, David N. Kennedy, Director.
 California State Water Resources Control Board, Michael Campos, Executive Director.
 East Bay Municipal Utility District, Jerome B. Gilbert, General Manager.
 El Dorado County Water Agency, Robert E. Dorr, Chairman, Board of Supervisors.
 Fresno County Metropolitan Flood Control District, Doug Harrison, General Manager-Secretary.
 Kings River Conservation District, Jeff L. Taylor, General Manager-Chief Engineer.
 Madera Irrigation District, Robert L. Stanfield, General Manager-Chief Engineer.
 Merced, City of, Steven M. Stroud, Director of Public Works.
 Merced Irrigation District, Tom Reta, Chief Engineer-Manager.
 San Francisco, City and County, Hetch-Hetchy Water and Power, Rudolf Nothenberg, General Manager of Public Utilities.
 Tahoe Regional Planning Agency, David S. Ziegler, Senior Planner.
 Terra Bella Irrigation District, John E. Boudreau, Engineer-Manager.
 Tulare County Flood Control District, Jack L. Carlsen, Flood Control Engineer.
 Turlock Irrigation District, Paul S. Brown, Controller.
 University of California (Davis), Division of Environmental Studies.
 Woodbridge Irrigation District, Mabel Hall, Manager-Secretary.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army; Forest Service and Soil Conservation Service, U.S. Department of Agriculture; Bureau of Reclamation and Fish and Wildlife Service, U.S. Department of Interior.

The following organizations aided in collecting records: Pacific Gas and Electric Co.; Southern California Edison Co.; Merced, Nevada, and Oakdale-South San Joaquin Irrigation Districts.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Runoff was above normal during the 1986 water year for the area included in this volume and averaged 184 percent of the 1951-80 median runoff (based on five representative streamflow records). Runoff in percent of median at selected sites in California is shown in figure 1. Runoff was 162 percent of median in the Santa Ana River basin, 171 percent in the Los Angeles River basin, 487 percent in the Sespe Creek subbasin of the Santa Clara River basin, and 243 percent in the Santa Ynez River basin. The variation in runoff during the 1986 water year and comparison of the 1986 monthly mean flows to the 1951-80 maximum, minimum, and median monthly mean flows is shown in figure 2.

There were no peaks of record in the area. Flooding and mud slides occurred near Ojai and in Matilija Canyon. The excessive runoff noted above for Sespe Creek was due to higher than normal rainfall, and to a drainage basin denuded by wildfire the previous summer.

Precipitation for the area averaged 127 percent of the 1951-80 mean and ranged from 82 percent at Blythe to 162 percent at Los Angeles International Airport.

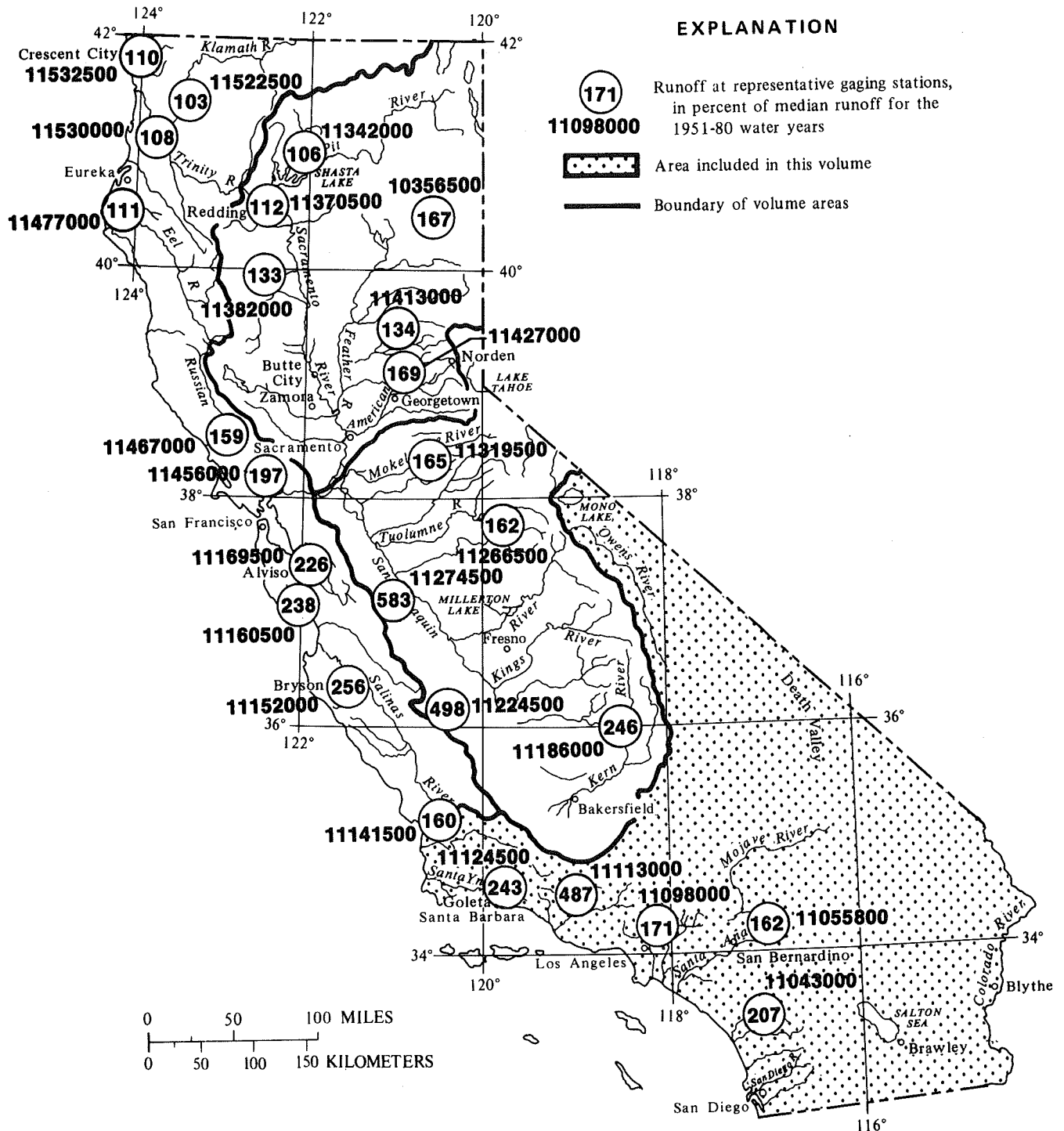


FIGURE 1.—Runoff, in percent of median, for the 1986 water year.

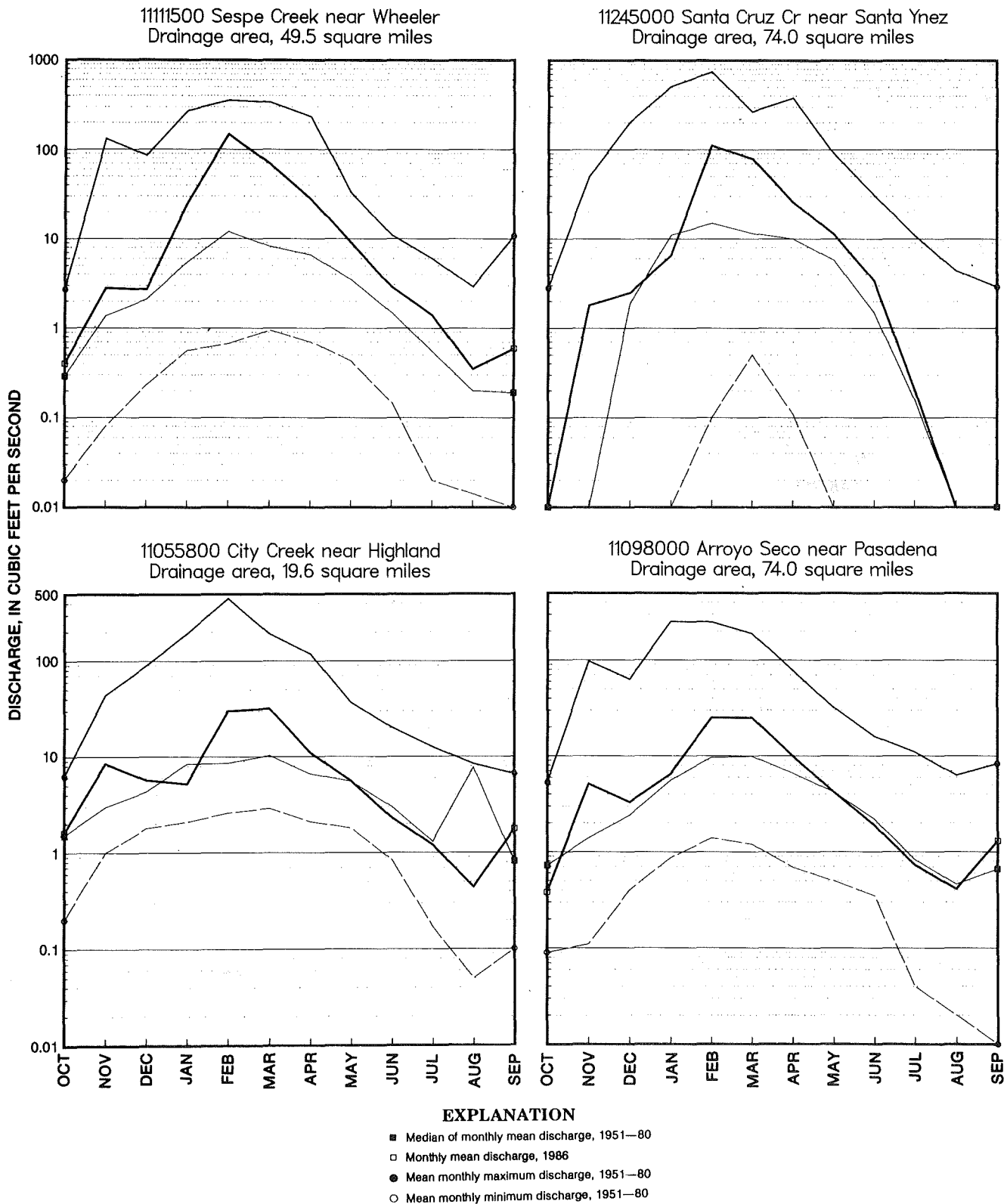


FIGURE 2. — Comparison of discharge during water year 1986 with long-term median discharge at four representative gaging stations.

Water Quality

Water samples collected at six NASQAN stations reported in this volume were analyzed for water-quality constituents during the 1986 water year. Specific conductance varied from 168 microsiemens at Owens River below Tinemaha Reservoir, near Big Pine, to 3,470 microsiemens at Alamo River at Drop No. 3, near Calipatria. Specific-conductance values were similar to those reported in the previous year. Median dissolved-solids concentrations for samples collected from these stations also were comparable to 1985 values. The monthly mean dissolved-solids concentrations during water year 1986 are compared in figure 3 with long-term mean dissolved-solids concentrations at two selected stations.

Four NASQAN stations indicated increasing fecal-coliform and fecal-streptococci bacterial densities for the 1985 water year. The largest densities of fecal-coliform and fecal-streptococci bacteria were found in water samples from Alamo River at Drop 3, near Calipatria, (greater than 21,000 and 75,000 colonies per 100 milliliters, respectively).

Chemical constituents in excess of U.S. Environmental Protection Agency (EPA) criteria were detected in water samples collected at several sites during the year. The sites and chemical constituents are listed below:

Station No.	Station name	Constituent exceeding EPA criteria
10251100	Salt Creek near Stovepipe Wells	Boron, sulfate
10254670	Alamo River at Drop No. 3, near Calipatria	Sulfate, manganese
11042000	San Luis Rey River at Oceanside	Sulfate, manganese
11074000	Santa Ana River below Prado Dam	Manganese, mercury
11103000	Los Angeles River at Long Beach	Sulfate
11108500	Santa Clara River at Los Angeles-Ventura County line	Sulfate
340313118574701	Little Sycamore Canyon Creek at Highway 1, near Solromar	Lead
11105660	Arroyo Sequit at Leo Carillo State Beach, near Point Magu	Cadmium, chromium
11105500	Malibu Creek at Crater Camp, near Calabasas	Simazine
11105410	Cold Creek at Piuma Road, near Monte Nido	Boron
342015118455401	Latigo Creek at Latigo Canyon Road, near Point Dune	Cadmium, chromium, selenium

Sediment

Suspended-sediment discharge and concentration were monitored daily at 5 stations and periodically at 11 stations in the area included in this volume. The variation in storm patterns and basin characteristics in southern California resulted in significant differences in sediment discharge rates and concentrations at the sampled streams. Sediment discharge was slightly more than normal during the 1986 water year, with the majority of sediment transported during storms in February and March.

Annual sediment discharge at four of the five daily stations ranged from 302 tons for Mission Creek at Santa Barbara to 668,000 tons for Ventura River near Ventura. Annual sediment discharge per square mile of drainage area ranged from a minimum of 29 tons per square mile for San Juan Creek at San Juan Capistrano to a maximum of 3,550 tons per square mile for Ventura River near Ventura.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide. The data provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting that the data may be used for; (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) to detect changes or trends with time in the pattern of occurrence of water-quality characteristics; and (4) to provide a nationally consistent data base useful for water-quality assessment and hydrologic research.

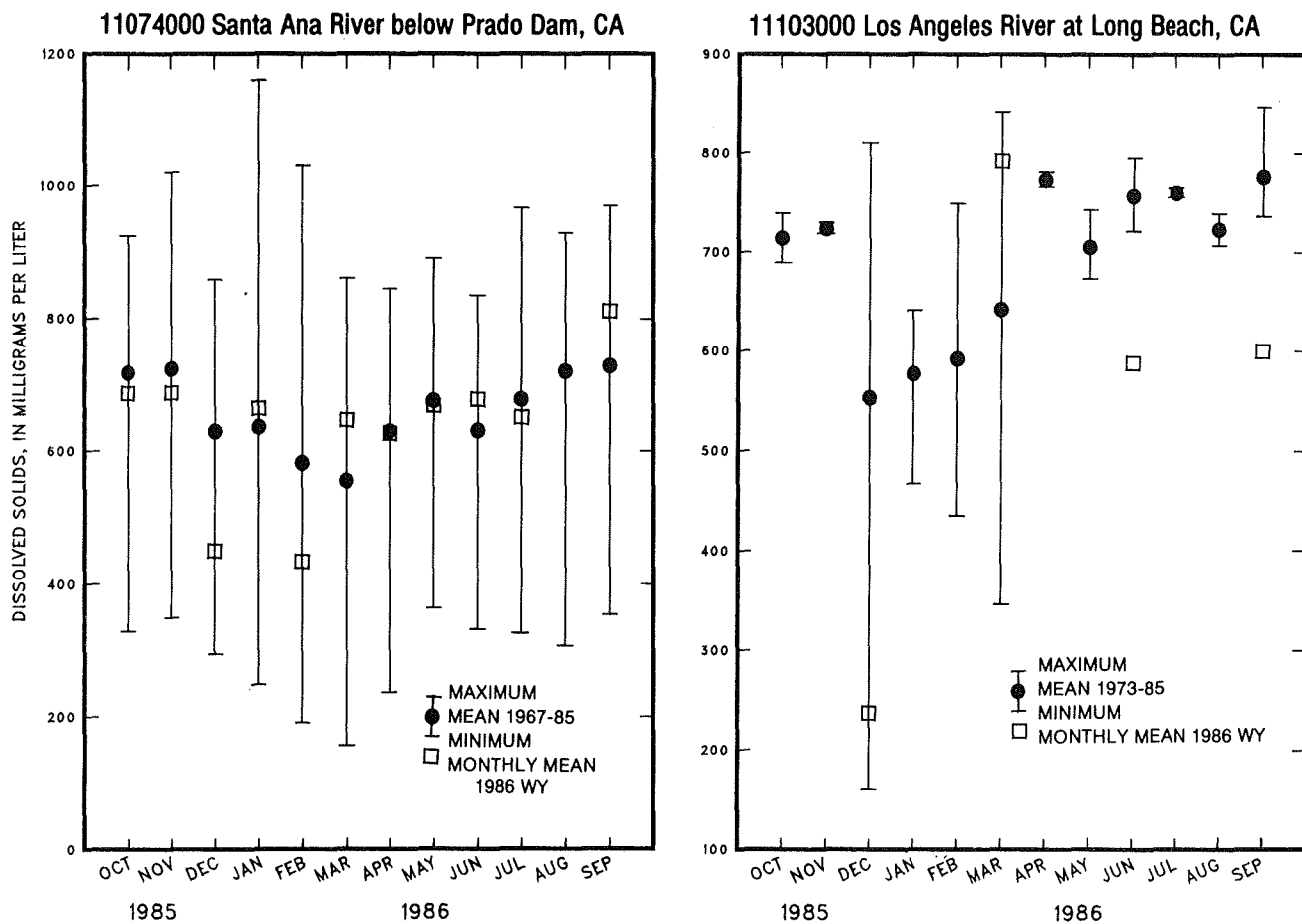


FIGURE 3. — Comparison of monthly mean dissolved-solids concentration during water year 1986 with long-term dissolved-solids concentration of two selected stations.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1986 water year that began October 1, 1985, and ended September 30, 1986. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and contents data for lakes and reservoirs, and water-quality data for surface water. The locations of the stations where the data were collected are shown in figures 5 through 25. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each streamsite data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for surface-water stations in California where only miscellaneous measurements are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports has been in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 11465350, which appears just to the left of the station name, includes the two-digit part number "11" plus the six-digit downstream-order number "465350." The part number designates the major river basin; for example, part "11" is the Pacific Slope Basins in California.

Latitude-Longitude System

The identification numbers for miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description (fig. 4).

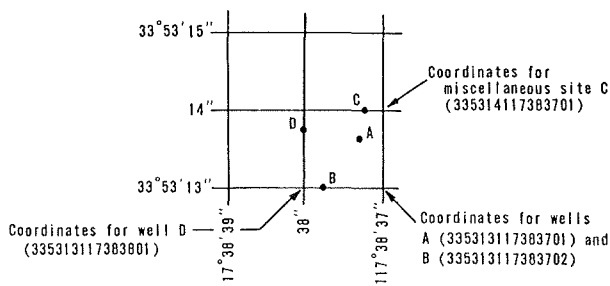


FIGURE 4.--System for numbering miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake and reservoir contents, similarly, are those for which stage or contents may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage partial-record stations for which data are given in this report are shown, by county, in figures 5 through 25.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake contents. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the U.S. Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in U.S. Geological Survey Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge are prepared for any stage within the range of the measurements. If it is necessary to define extremes of discharge outside the range of current-meter measurements, the curves are extended using (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dam or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes or observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available surveys, curves, or tables defining the relationship of stage and contents. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. When this is done, the contents computed may become increasingly in error as time increases since the last survey. Discharges over lake or reservoir spillways are computed from stage-discharge relationships, in the same manner as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation.

The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time when the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see Definition of Terms), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station, and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possible, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were revised after the station was discontinued. If the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton storage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing the table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second (ft^3/s) for values less than $1 \text{ ft}^3/\text{s}$, to the nearest tenth between 1.0 and $10 \text{ ft}^3/\text{s}$, to whole numbers between 10 and $1,000 \text{ ft}^3/\text{s}$, and to three significant figures for more than $1,000 \text{ ft}^3/\text{s}$. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of sites as well as an index of records of discharge collected by other agencies but not published by the U.S. Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge measurement notes, gage-height records, temperature measurements, and rating tables are on file in the California District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 5 through 25.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is the assurance that the data obtained represent the in-situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, are made onsite when samples are taken. To assure that measurements made in the laboratory also represent the in-situ water, carefully prescribed procedures are followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in "Techniques of Water-Resources Investigations," Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapters A1, A3, and A4. All these references are listed on p. ** of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the California District office.

One sample can adequately define the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative value available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values for each constituent measured and are based on hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the District office whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Cross-Section Data

Cross-section surveys of water temperature, pH, specific conductance, dissolved oxygen, and suspended sediment are done at all NASQAN and Hydrologic Bench-mark stations during various seasons and surface-water discharges. Documentation of cross-section variation of water quality is essential in order to determine how many samples in a cross section are necessary to ensure a representative composite sample.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the U.S Geological Survey laboratories in Arvada, Colorado, or Doraville, Georgia. Methods used in analyzing sediment samples and computing sediment records are given in Techniques of Water Resources Investigations Book 5, Chapter C1; methods used by the laboratories are given in Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapters A1, A3, and A4.

WATER RESOURCES DATA -- CALIFORNIA, WATER YEAR 1986

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and other data obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the individual parameters.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptable range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

ACCESS TO WATSTORE DATA

The National Water Data Storage and Retrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report are defined below. See the table for converting inch-pound units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by a well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials, for example, decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35 °C. For the membrane filter method these bacteria are defined as the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C ± 0.5 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter of sample.

Fecal-coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. For the membrane filter method they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5 °C ± 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter of sample.

Fecal-streptococcal bacteria are bacteria found in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. For the membrane filter method they are defined as all the organisms which produce red or pink colonies within 48 hours at 35 °C ± 0.5 °C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Benthic organisms (invertebrates) are the group of animals living in or on the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism that are counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually in milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic foot per second-day (cfs.d) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,445 cubic meters.

Discharge is the volume of water (or more broadly, total fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate. It is recognized that certain kinds of samples cannot be filtered; to provide for this, procedures that are considered equivalent to filtering through a 0.45-micrometer membrane filter will be identified and announced at a later date.

Dissolved-solids concentration of water is determined either analytically or by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = \sum_{i=1}^s \frac{n_i}{n} \log^2 \frac{n_i}{n},$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same; to some positive number, when some or all the organisms in the sample are different.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the Earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water, together with all tributary surface streams and bodies of impounded surface water.

Gage datum is the elevation of the zero point of the reference gage from which gage height is determined as compared to the National Geodetic Vertical Datum of 1929. This elevation is established by a system of levels from known bench marks or by approximation from topographic maps.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap that is required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation

$$I = I_0 e^{-\lambda L},$$

where I_0 is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_0}.$$

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that are usually arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This development process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-pupa-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (UG/G, ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called Sea Level Datum of 1929 or mean sea level in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting that the data may be used for, (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) to detect changes in trends with time in the pattern occurrence of water-quality characteristics, and (4) to provide a nationally consistent data base useful for water-quality assessment and hydrologic research.

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area of the habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a five-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024-0.004	Sedimentation
Silt.....	0.004-0.062	Sedimentation
Sand.....	0.062-2.0	Sedimentation or sieve
Gravel.....	2.0-64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition or percent of total is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, or volume.

Periphyton is the assemblage of micro-organisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, the periphyton also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7 are termed "acidic," and solutions with a pH greater than 7 are termed "basic." Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton are suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton compose the plant part of the plankton. They are usually microscopic, and their movement is subject to water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials into the surrounding water, the phytoplankton have a profound effect on the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are phytoplankton organisms having a blue pigment in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure or organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms, chiefly green plants. The rate of primary production is estimated by measuring the amount of carbon assimilated by plants (carbon method) or the amount of oxygen released (oxygen method).

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg C}/(\text{m}^3 \cdot \text{time})$] for phytoplankton are the units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}_2/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg O}_2/(\text{m}^3 \cdot \text{time})$] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment; thus, the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bedload is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bedload is considered to consist of particles in transit within 0.25 ft (0.076 m) of the streambed.

Bedload discharge (tons per day) is the quantity of sediment, as measured by dry weight, that moves past a section as bedload in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour period.

Suspended-sediment discharge (tons per day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day by multiplying discharge times milligrams per liter times 0.0027.

Suspended-sediment load (tons per day) is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total-sediment discharge or total-sediment load (tons per day) is the sum of suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry mass, that passes a section in a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content in water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic-organism collection and plexiglass strips for periphyton collection.

Surface area of a lake is the area, in square miles or acres, outlined on the latest U.S. Geological Survey topographic map as the boundary of the lake and measured by a planimeter. In localities not covered by topographic maps, the areas are computed from the best maps available. Areas shown are for the lake stage at the time the map was made.

Surficial bed material is the part (upper 0.1 to 0.2 ft or 0.03 to 0.06 m) of the bed material that is sampled by using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment; thus, the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or a digital mechanism that records water temperature in a digital format on punched paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total load (tons) is the total amount of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the milligrams per liter of the constituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment; thus, the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in the dissolved and suspended phases of the sample. A knowledge of the expected form is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all the constituent in the sample.)

Turbidity of a sample is the reduction of transparency due to the presence of particulate matter. In this report it is expressed in Nephelometric turbidity units (NTU), obtained from the Nephelometric method for turbidity determination which measures the intensity of light scattered by suspended particles at 90° from the path of incident light source.

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1986, is called the "1986 water year."

WDR is used as an abbreviation for "Water-Data Reports" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Building 810, Denver, CO 80225. Prepayment is required. Remittance should be sent by check or money order payable to U.S. Geological Survey, Department of the Interior. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. Water temperature--influential factors, field measurement, and data presentation, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. Application of surface geophysics to ground-water investigations, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. Application of borehole geophysics to water-resources investigations, by W.S. Keys, and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. General field and office procedures for indirect discharge measurements, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. Measurement of peak discharge by slope-area method, by Tate Dalrymple and M.A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. Measurement of peak discharge at culverts by indirect methods, by G.L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. Measurement of peak discharge at width contractions by indirect methods, by H.F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. Measurement of peak discharge at dams by indirect methods, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. General procedure for gaging streams, by R.W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. Stage measurements at gaging stations, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. Discharge measurements at gaging stations, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. Measurement of time of travel and dispersion in streams by dye tracing, by E.F. Hubbard, F.A. Kilpatrick, L.A. Martens, and J.F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A10. Discharge ratings at gaging stations, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. Measurement of discharge by moving-boat method, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A13. Computation of continuous records of streamflow, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. Use of flumes in measuring discharge, by F.A. Kilpatrick and V.R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. Computation of water-surface profiles in open channels, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

- 3-B1. Aquifer-test design, observation, and data analysis, by R.W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. Introduction to ground-water hydraulics, a programmed text for self-instruction, by G.D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. Type curves for selected problems of flow to wells in confined aquifers, by J.E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-C1. Fluvial sediment concepts, by H.P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. Field methods for measurement of fluvial sediment, by H.P. Guy and V.W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. Computation of fluvial sediment discharge, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. Some statistical tools in hydrology, by H.C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. Frequency curves, by H.C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. Low-flow investigations by H.C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. Storage analyses for water supply, by H.C. Riggs and C.H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. Regional analyses of streamflow characteristics, by H.C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. Computation of rate and volume of stream depletion by wells, by C.T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. Methods for determination of inorganic substances in water and fluvial sediments, edited by M.W. Skougstad and others: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. Determination of minor elements in water by emission spectroscopy, by P.R. Barnett and E.C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. Methods for analysis of organic substances in water, by D.F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. Methods for collection and analysis of aquatic biological and microbiological samples, edited by P.E. Greeson, T.A. Ehlke, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 322 pages.
- 5-A5. Methods for determination of radioactive substances in water and fluvial sediments, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. Quality assurance practices for the chemical and biological analyses of water and fluvial sediments, by L.C. Friedman, and D.E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. Laboratory theory and methods for sediment analysis, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. Finite difference model for aquifer simulation in two dimensions with results of numerical experiments, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. Computer model of two-dimensional solute transport and dispersion in ground water, by L.F. Konikow and J.D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. A model for simulation of flow in singular and interconnected channels by R.W. Shaffranek, R.A. Baltzer, and D.E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. Methods of measuring water levels in deep wells, by M.S. Garber and F.C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. Installation and service manual for U.S. Geological Survey manometers, by J.D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. Calibration and maintenance of vertical-axis type current meters, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

DISCONTINUED GAGING STATIONS

The following continuous-record streamflow stations in California have been discontinued as of the 1986 water year. Daily streamflow or stage records were collected and published for the period of record shown for each station.

Station No.	Station name	Drainage area (mi ²)	Period of record
10257710	Chino Canyon Creek near Palm Springs	3.88	1975-85
11023400	Carroll Creek near La Jolla	15.8	1985-86
11023450	Carmel Creek near Del Mar	1.11	1985-86
11033000	Wesk Fork San Luis Rey River near Warner Springs	25.5	1913-15, 1957-86
11040000	San Luis Rey River at Monserate Narrows, near Pala	373	1936-41, 1947-86
11048555	San Diego Creek at Campus Drive, near Irvine	105	1978, 1983-95
11054000	Mill Creek near Yucaipa	42.4	1919-38, 1948-86
11119745	Mission Creek at Rocky Nook Park, at Santa Barbara	6.60	1984-86
11134800	Miguelito Creek at Lompoc	11.6	1971-86
11137900	Huasna River near Arroyo Grande	103	1959-86

DISCONTINUED WATER-QUALITY STATIONS

The following water-quality stations in California have been discontinued as of the 1986 water year. Continuous daily records of water temperature and/or sediment were collected and published for the period of record shown for each station.

Station No.	Station name	Drainage area (mi ²)	Type of record	Period of record
11023400	Carroll Creek near La Jolla	15.8	S	1985-86
11023450	Carmel Creek near Del Mar	1.11	S	1985-86
11118500	Ventura River near Ventura	1.88	T,S	1968-69, 1971-73, 1975-81, 1985-86
11119745	Mission Creek at Rocky Nook Park, at Santa Barbara	6.60	T,S	1984-86
11137900	Huasna River near Arroyo Grande	103	C	1979-86
10277400	Owens River below Tinemala Reservoir near Big Pine	1,964	C,B,S	1976-86
11023350	Los Penasquitos Creek near La Jolla	57.4	S	1982-83, 1985-86

Type of record: T (water temperature); S (sediment); C (chemical); B (biological).

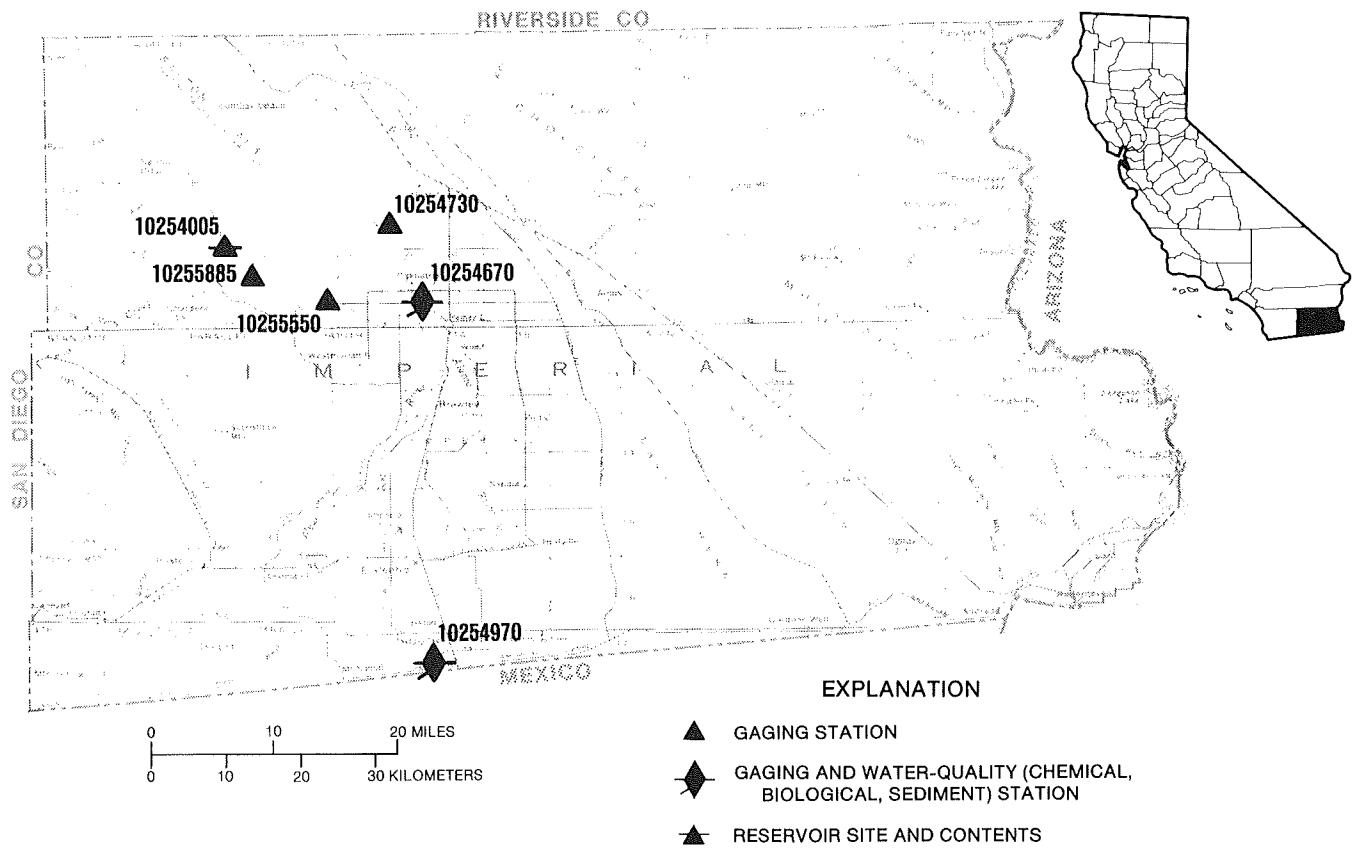


FIGURE 5.—Location of discharge and water-quality stations in Imperial County.

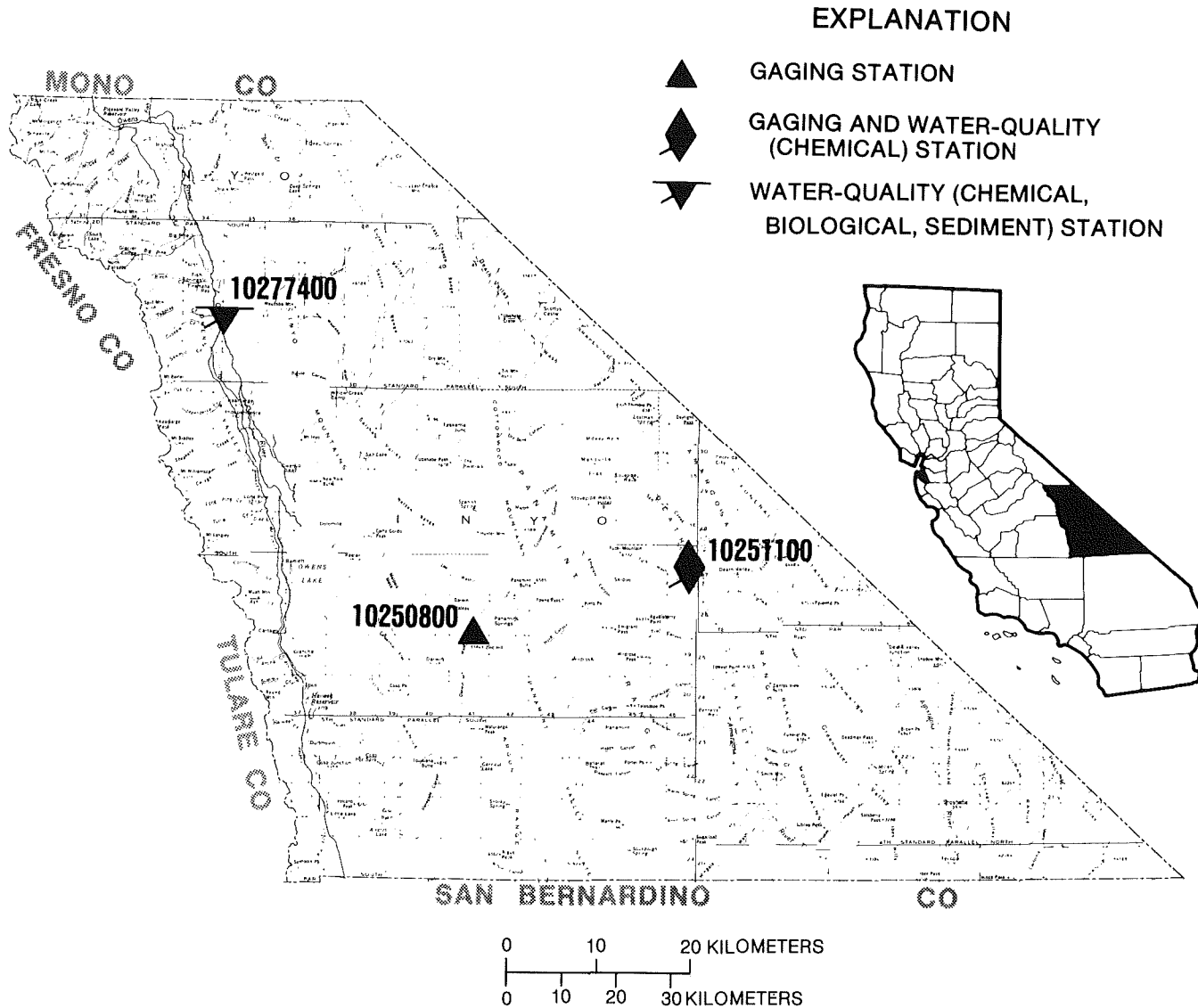


FIGURE 6.—Location of discharge and water-quality stations in Inyo County.

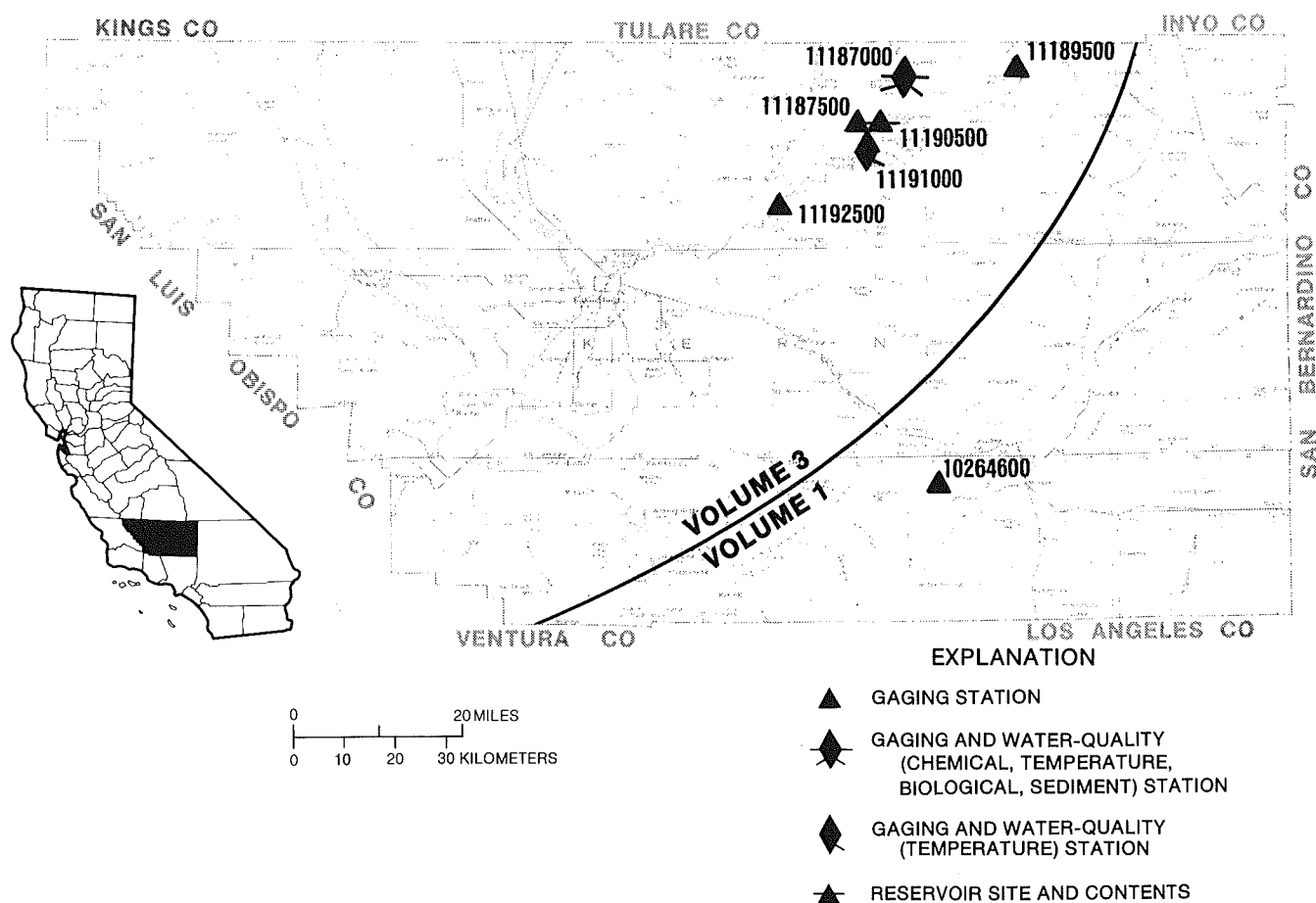


FIGURE 7.—Location of discharge and water-quality stations in Kern County.
 (Note: Records for stations 11187000 through 11192500 published in volume 3)

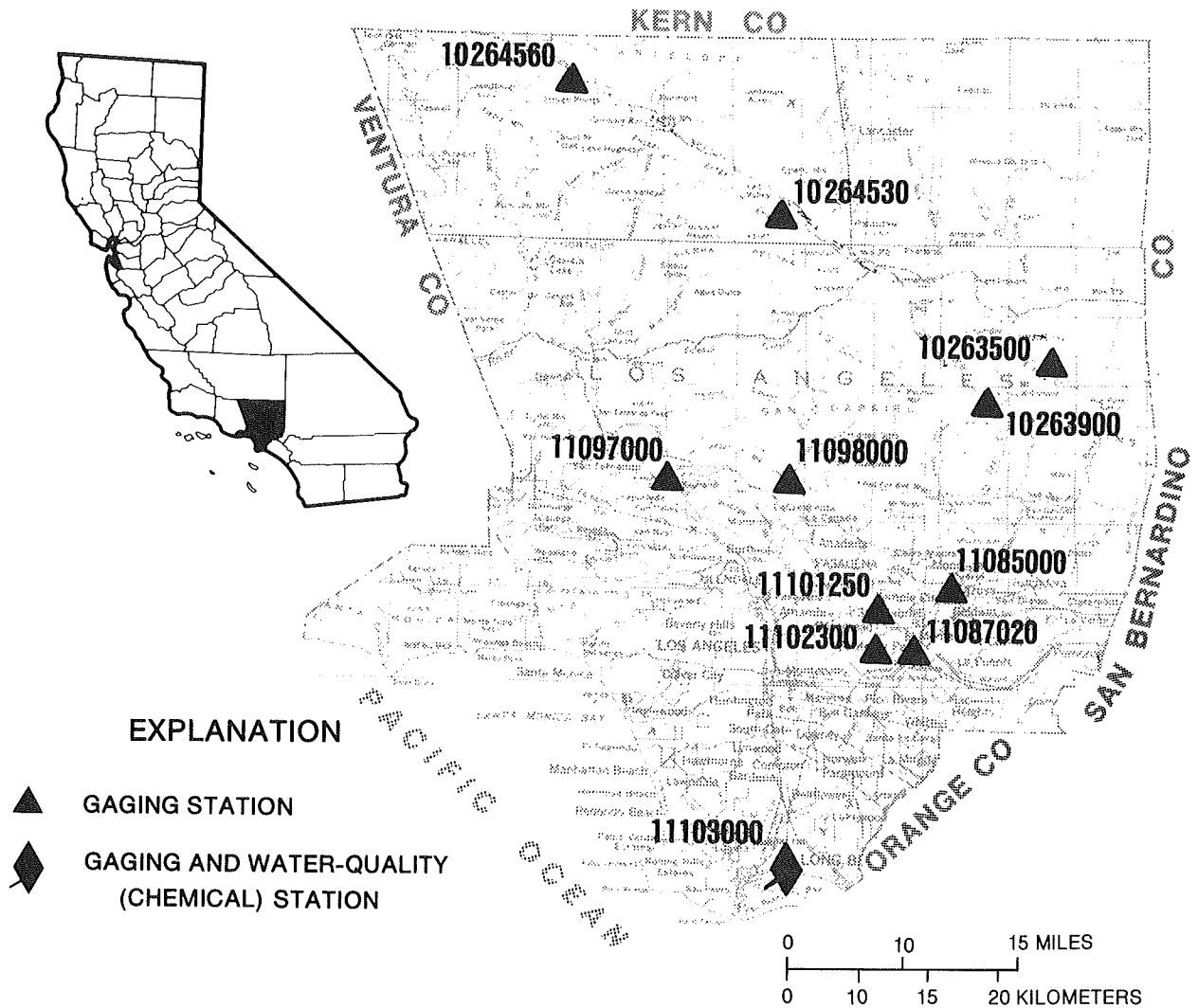


FIGURE 8.—Location of discharge and water-quality stations in Los Angeles County.

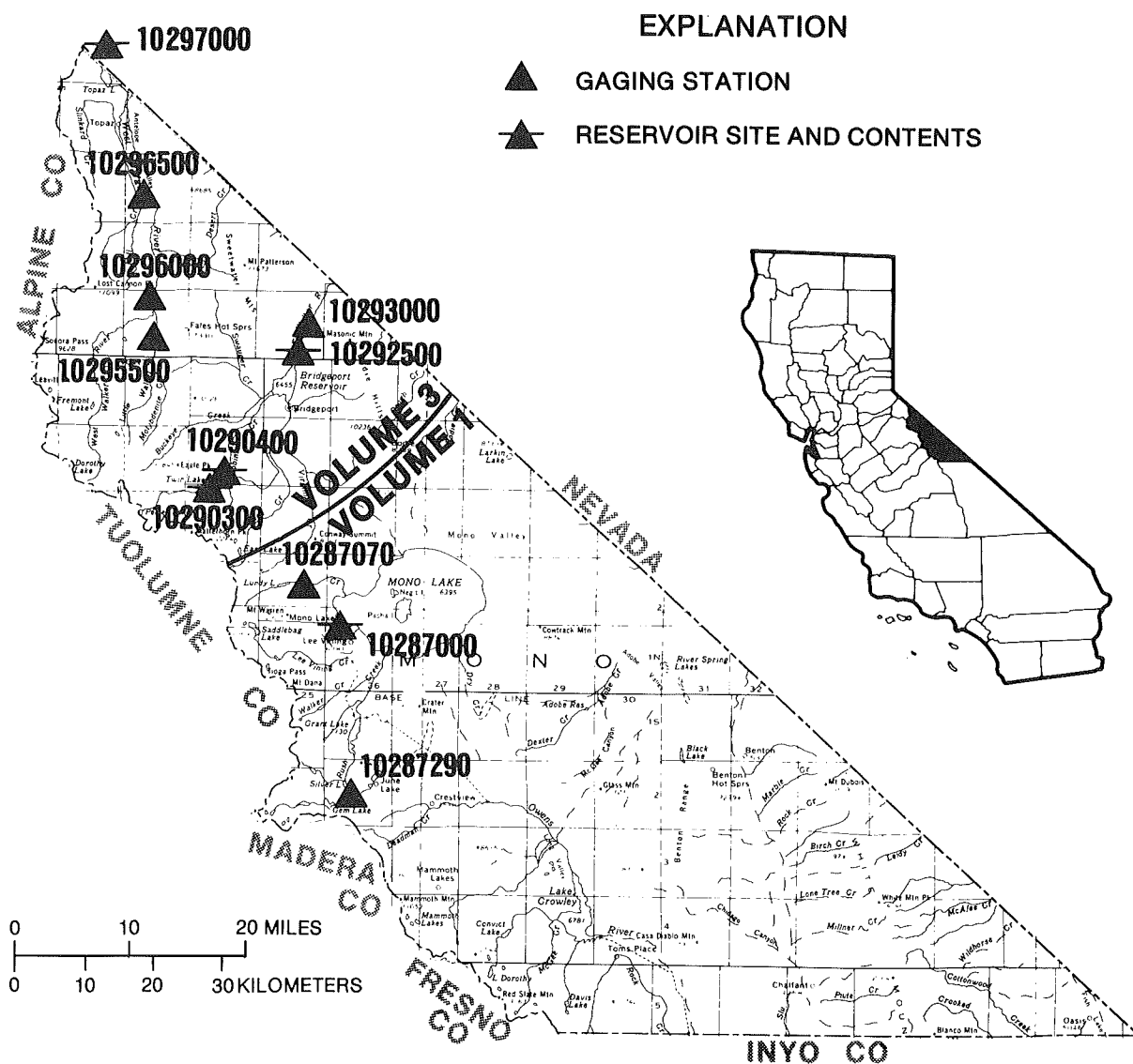


FIGURE 9.—Location of discharge stations in Mono County.
(Note: Records for stations 10290300 through 10297000 published in volume 3)

EXPLANATION

- ▲ GAGING STATION
- ◆ GAGING AND WATER-QUALITY (SEDIMENT) STATION
- ◆ GAGING AND WATER-QUALITY (TEMPERATURE) STATION

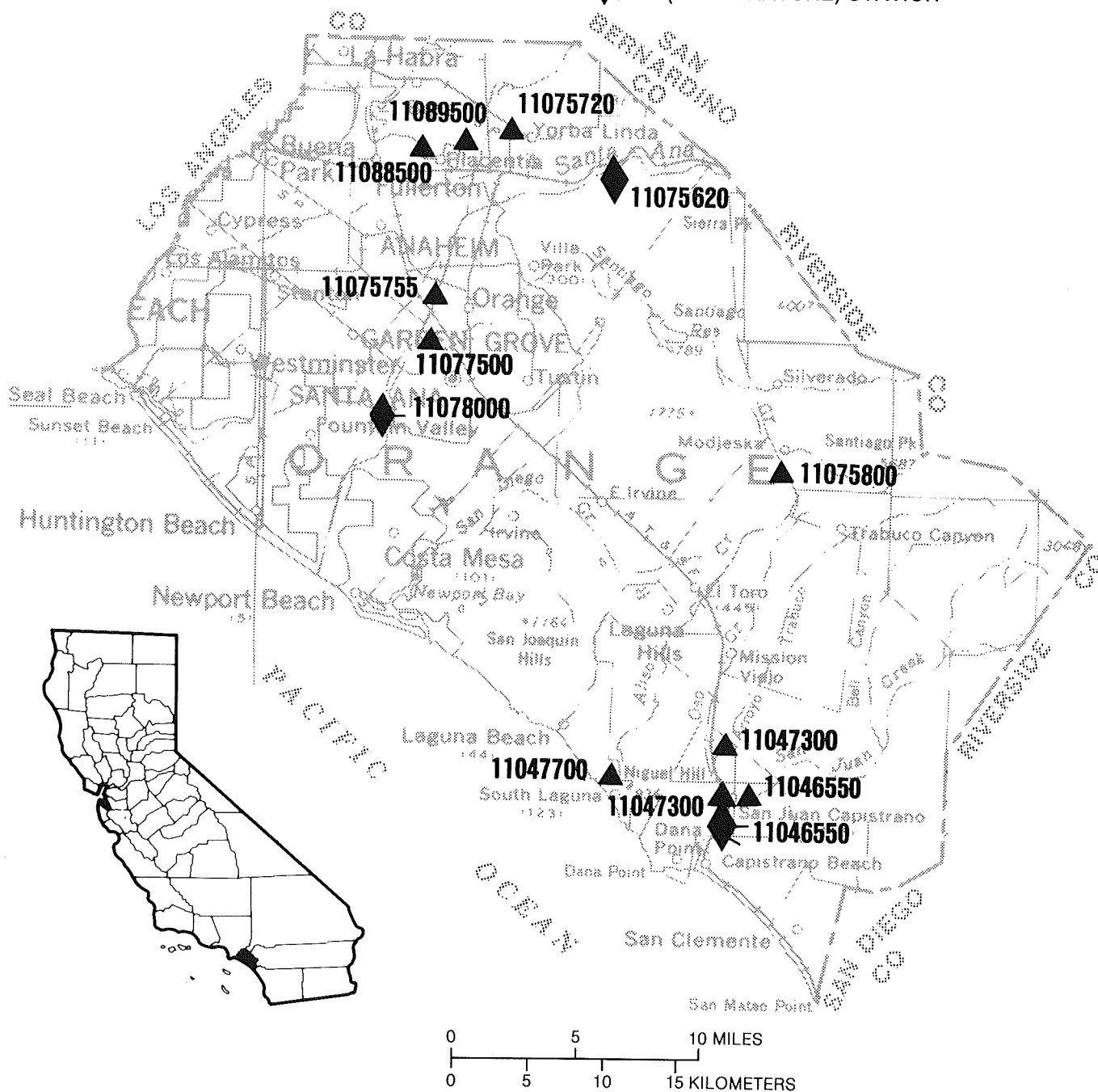


FIGURE 10.—Location of discharge and water-quality stations in Orange County.



FIGURE 11.—Location of discharge and water-quality stations in Riverside County.

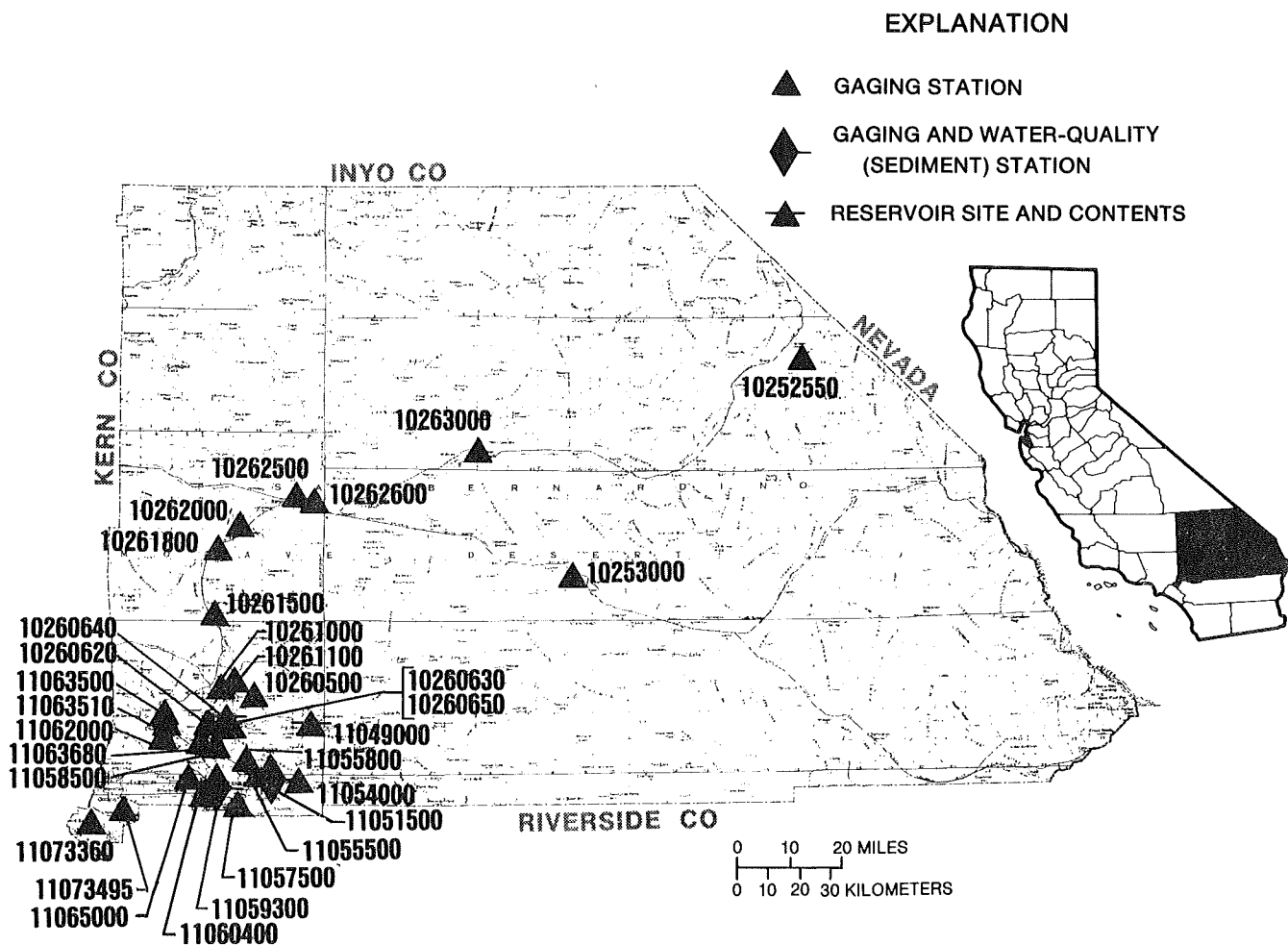


FIGURE 12.—Location of discharge and water-quality stations in San Bernardino County.

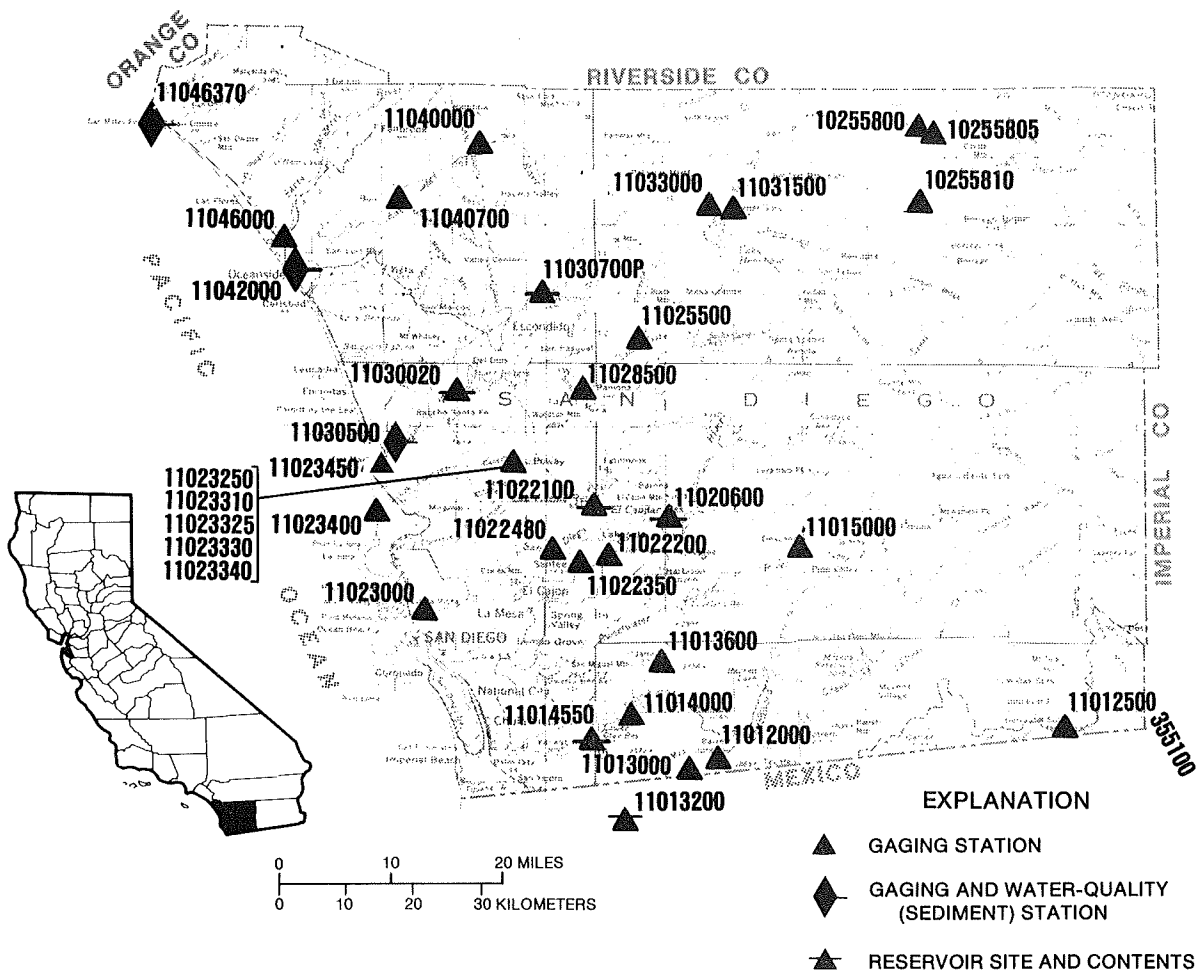
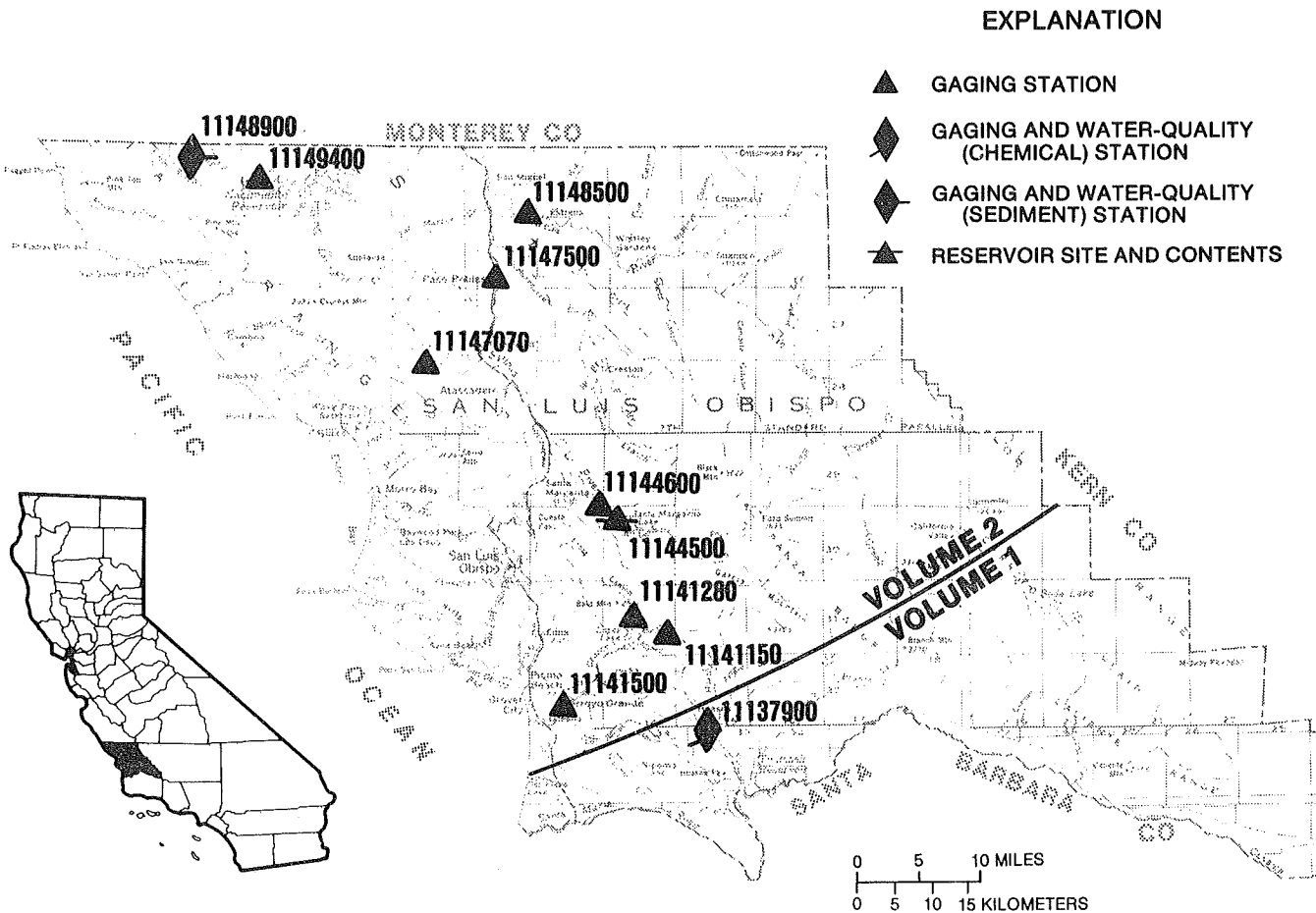


FIGURE 13.—Location of discharge and water-quality stations in San Diego County.



EXPLANATION

- ▲ GAGING STATION
- ◆ GAGING AND WATER-QUALITY (CHEMICAL) STATION
- ◆ GAGING AND WATER-QUALITY (TEMPERATURE) STATION
- ◆ GAGING AND WATER-QUALITY (SEDIMENT) STATION
- ▲ RESERVOIR SITE AND CONTENTS

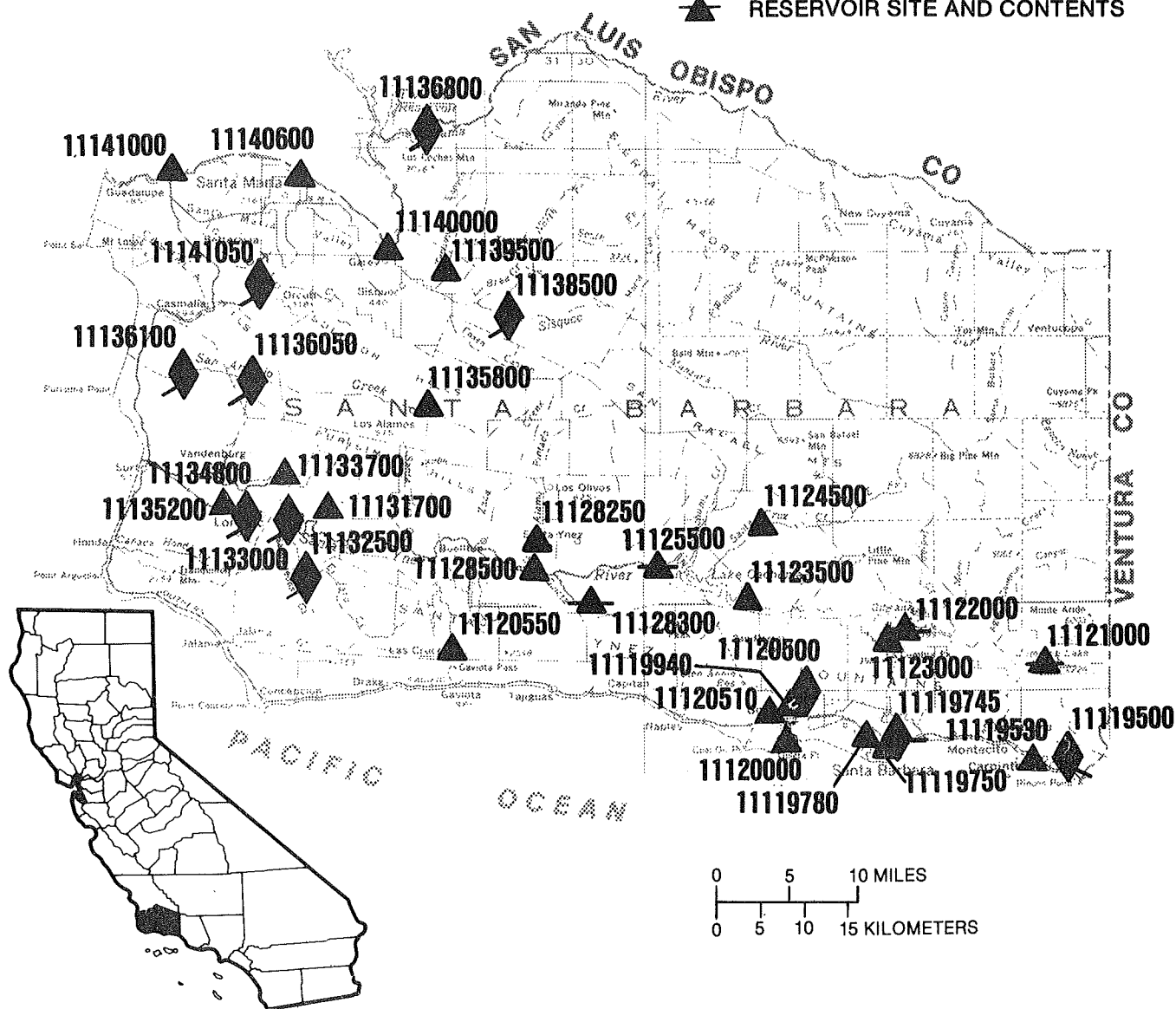


FIGURE 15.—Location of discharge and water-quality stations in Santa Barbara County.

EXPLANATION

- ▲ GAGING STATION
- ◆ GAGING AND WATER-QUALITY (SEDIMENT) STATION
- ◆ GAGING AND WATER-QUALITY (CHEMICAL, SEDIMENT) STATION
- ◆ GAGING AND WATER-QUALITY (CHEMICAL, TEMPERATURE) STATION
- ★ RESERVOIR SITE AND CONTENTS

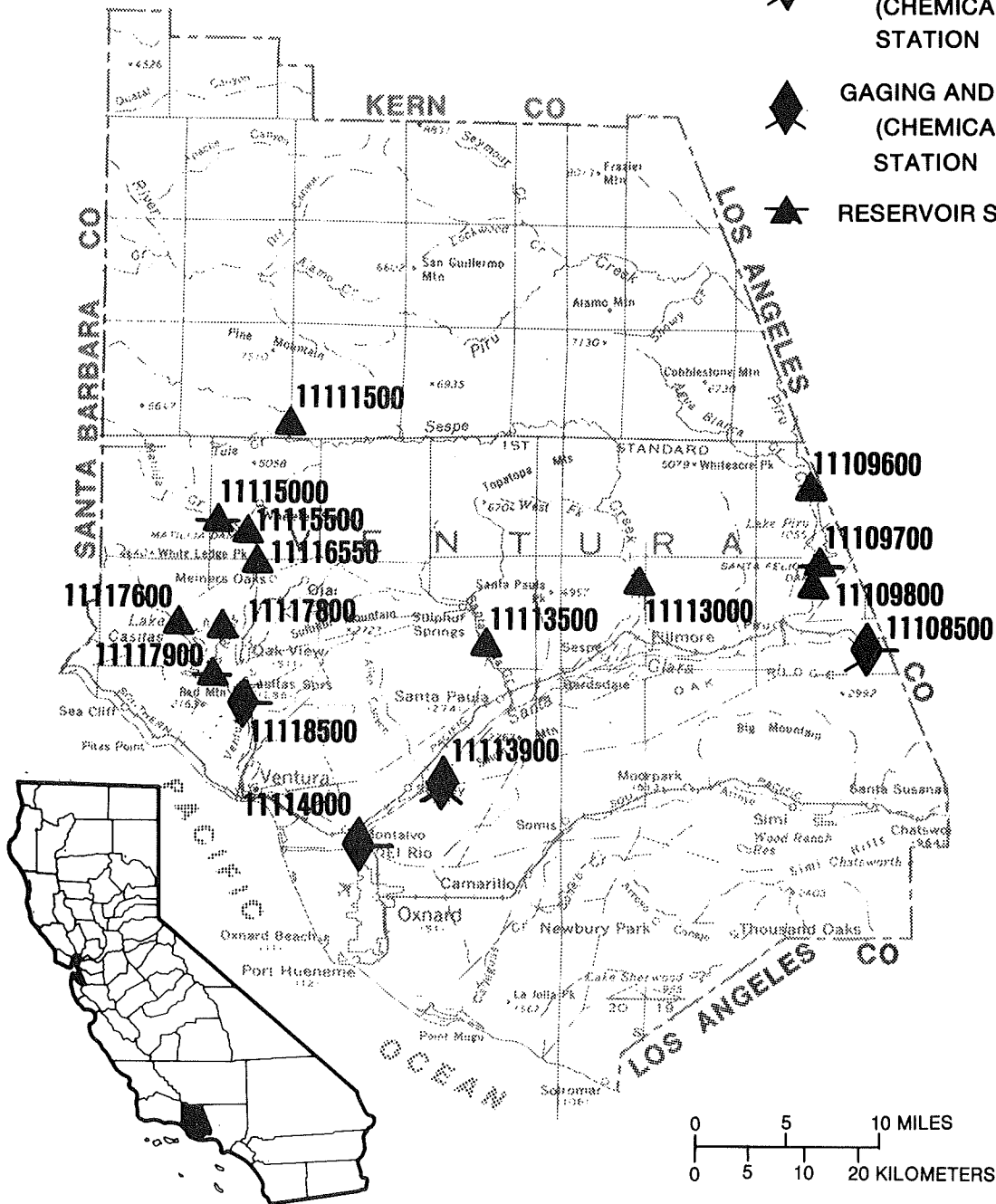


FIGURE 16.—Location of discharge and water-quality stations in Ventura County.

GAGING STATION AND WATER-QUALITY STATIONS

PANAMINT VALLEY

10250800 DARWIN CREEK NEAR DARWIN, CA

LOCATION.--Lat 36°19'14", long 117°31'23", in SE 1/4 SW 1/4 sec.34, T.18 S., R.41 E., Inyo County, Hydrologic Unit 18090204, on left bank 510 ft downstream from Darwin Falls, 1.6 mi upstream from unnamed tributary, and 5.2 mi northeast of Darwin.

DRAINAGE AREA.--173 mi².

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,640 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 6, 1970, at site 190 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 7-10, Nov. 2-14, and June 7-14. Records fair except for periods of estimated record, which are poor. No regulation above station. Town of Darwin pumps water above station for municipal supply.

AVERAGE DISCHARGE.--24 years, 0.40 ft³/s, 290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s, Jan. 25, 1969, gage height, 8.40 ft, at site then in use, from floodmarks, on basis of slope-conveyance study of peak flow; minimum daily, 0.05 ft³/s, Aug. 30 to Sept. 4, 1969, Sept. 10-12, 15, 17, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 20.42 ft, present site, from floodmarks, date and discharge unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 18	1430	*0.96	*4.41				

Minimum daily, 0.16 ft³/s, May 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.28	.26	.34	.37	.28	.28	.16	.21	.23	.23	.26
2	.23	.28	.26	.34	.34	.34	.31	.16	.21	.21	.23	.26
3	.23	.28	.26	.31	.34	.34	.28	.16	.21	.21	.21	.23
4	.23	.28	.26	.31	.34	.31	.28	.18	.23	.18	.21	.23
5	.21	.28	.26	.31	.31	.28	.28	.18	.23	.21	.21	.21
6	.21	.29	.26	.31	.31	.26	.34	.21	.26	.21	.21	.23
7	.23	.29	.26	.31	.31	.26	.34	.21	.26	.18	.21	.23
8	.25	.29	.28	.31	.31	.26	.31	.21	.25	.18	.21	.23
9	.27	.29	.31	.31	.31	.26	.28	.18	.25	.21	.21	.26
10	.29	.29	.34	.34	.31	.28	.28	.18	.24	.21	.21	.26
11	.31	.32	.37	.34	.31	.28	.28	.21	.24	.18	.21	.26
12	.31	.31	.40	.34	.31	.26	.28	.21	.23	.18	.21	.26
13	.31	.30	.40	.34	.31	.28	.31	.18	.23	.18	.21	.26
14	.31	.29	.40	.34	.37	.26	.31	.18	.23	.18	.21	.26
15	.28	.31	.37	.37	.37	.26	.31	.18	.23	.23	.21	.28
16	.28	.31	.37	.37	.34	.28	.34	.21	.23	.21	.21	.28
17	.28	.31	.34	.37	.34	.31	.28	.21	.23	.23	.21	.28
18	.28	.31	.34	.37	.34	.31	.28	.18	.23	.21	.39	.28
19	.28	.31	.34	.37	.34	.31	.28	.18	.23	.23	.34	.28
20	.31	.31	.34	.37	.34	.31	.28	.18	.21	.23	.28	.28
21	.31	.31	.34	.34	.34	.28	.23	.21	.21	.28	.23	.28
22	.34	.28	.34	.34	.34	.28	.26	.21	.21	.34	.21	.26
23	.31	.28	.34	.34	.31	.31	.28	.21	.21	.31	.21	.28
24	.31	.28	.34	.34	.31	.34	.28	.18	.21	.29	.21	.28
25	.28	.28	.31	.37	.34	.31	.31	.18	.18	.26	.21	.28
26	.28	.28	.31	.37	.34	.28	.31	.18	.18	.26	.21	.28
27	.28	.26	.31	.37	.31	.28	.28	.18	.18	.26	.35	.28
28	.28	.26	.31	.37	.28	.28	.23	.18	.18	.26	.26	.28
29	.28	.28	.31	.40	---	.28	.21	.18	.21	.26	.26	.26
30	.28	.28	.31	.52	---	.28	.18	.18	.21	.23	.26	.26
31	.28	---	.31	.40	---	.31	---	.21	---	.23	.26	---
TOTAL	8.56	8.72	9.95	10.93	9.19	8.96	8.50	5.85	6.62	7.07	7.29	7.86
MEAN	.28	.29	.32	.35	.33	.29	.28	.19	.22	.23	.24	.26
MAX	.34	.32	.40	.52	.37	.34	.34	.21	.26	.34	.39	.28
MIN	.21	.26	.26	.31	.28	.26	.18	.16	.18	.18	.21	.21
AC-FT	17	17	20	22	18	18	17	12	13	14	14	16
CAL YR 1985	TOTAL	110.05	MEAN .30	MAX .66	MIN .10	AC-FT 218						
WTR YR 1986	TOTAL	99.50	MEAN .27	MAX .52	MIN .16	AC-FT 197						

DEATH VALLEY

10251100 SALT CREEK NEAR STOVEPIPE WELLS, CA

LOCATION.--Lat 36°35'58", long 117°00'46", in NE 1/4 sec.6, T.16 S., R.46 E., Inyo County, Hydrologic Unit 18090203, Death Valley National Monument, on left bank 3.0 mi southeast of intersection of State Highway 190 and Stovepipe Wells Road, and 7.4 mi southeast of Stovepipe Wells Hotel.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1974 to current year.

GAGE.--Water-stage recorder, Parshall flume, and flashboard weir. Flashboard weir installed Feb. 2, 1984. Elevation of gage is 180 ft below National Geodetic Vertical Datum of 1929, from topographic map.

AVERAGE DISCHARGE.--12 years (water years 1975-86), 0.341 ft³/s, 247 acre-ft/yr.

REMARKS.--No estimated daily discharges. Records good below 6 ft³/s and fair above. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 363 ft³/s, Feb. 9, 1976, gage height, 4.81 ft based on slope-conveyance study of peak flow; maximum gage height, 4.87 ft, July 22, 1984 (flashboard weir installed); minimum daily, 0.05 ft³/s, July 14, 19, Aug. 4-6, 8, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft³/s and maximum (*), from rating curve extended above 6.2 ft³/s on basis of theoretical weir formula:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 12	0715	15	3.26	July 23	0145	*149	*4.63
May 7	0045	5.2	2.79				

Minimum daily, 0.06 ft³/s, July 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.13	.20	.33	.55	.46	.37	.22	.09	.09	.10	.09
2	.10	.14	.21	.33	.51	.44	.32	.20	.08	.08	.09	.09
3	.10	.14	.21	.33	.50	.42	.33	.19	.08	.07	.09	.09
4	.10	.15	.21	.34	.46	.44	.35	.19	.08	.07	.09	.09
5	.10	.14	.21	.40	.45	.45	.35	.20	.08	.08	.09	.09
6	.09	.14	.21	.36	.42	.44	.37	.27	.09	.08	.08	.09
7	.09	.15	.21	.33	.43	.45	.38	.87	.09	.08	.08	.09
8	.10	.15	.21	.34	.45	.46	.37	.28	.09	.08	.09	.09
9	.10	.14	.21	.35	.44	.42	.37	.26	.09	.08	.09	.09
10	.11	.14	.21	.35	.45	.48	.36	.25	.10	.09	.08	.10
11	.11	.19	.21	.36	.46	.48	.35	.23	.10	.08	.08	.11
12	.12	3.2	.21	.37	.48	.48	.32	.23	.09	.07	.08	.10
13	.11	.22	.22	.37	.50	.48	.30	.22	.09	.06	.07	.10
14	.11	.20	.24	.38	.52	.50	.33	.21	.09	.07	.07	.09
15	.11	.20	.24	.39	.52	.46	.32	.19	.09	.08	.07	.10
16	.12	.20	.25	.38	.49	.49	.33	.17	.08	.07	.07	.10
17	.12	.20	.26	.39	.49	.47	.33	.15	.08	.07	.08	.10
18	.12	.19	.26	.40	.50	.42	.30	.17	.08	.07	.10	.10
19	.12	.18	.26	.42	.46	.43	.30	.16	.09	.08	.09	.10
20	.13	.20	.27	.41	.44	.44	.30	.14	.09	.08	.09	.11
21	.11	.19	.27	.40	.45	.44	.30	.12	.09	.08	.08	.11
22	.13	.20	.28	.40	.46	.44	.28	.13	.09	.10	.08	.11
23	.13	.20	.28	.41	.47	.44	.25	.15	.09	12	.08	.12
24	.13	.20	.29	.40	.47	.44	.24	.15	.09	.18	.07	.12
25	.13	.20	.29	.40	.48	.42	.24	.14	.08	.12	.08	.12
26	.13	.20	.30	.42	.48	.41	.24	.13	.08	.10	.08	.12
27	.13	.20	.30	.42	.47	.40	.24	.12	.08	.10	.09	.13
28	.14	.20	.30	.42	.46	.40	.25	.12	.08	.09	.09	.13
29	.13	.20	.31	.43	---	.38	.24	.11	.07	.10	.08	.13
30	.14	.20	.32	.78	---	.38	.22	.09	.08	.10	.08	.13
31	.13	---	.33	.61	---	.39	---	.09	---	.10	.09	---
TOTAL	3.59	8.39	7.78	12.42	13.26	13.65	9.25	6.15	2.58	14.60	2.58	3.14
MEAN	.12	.28	.25	.40	.47	.44	.31	.20	.086	.47	.083	.10
MAX	.14	3.2	.33	.78	.55	.50	.38	.87	.10	.12	.10	.13
MIN	.09	.13	.20	.33	.42	.38	.22	.09	.07	.06	.07	.09
AC-FT	7.1	17	15	25	26	27	18	12	5.1	29	5.1	6.2

CAL YR 1985 TOTAL 108.74 MEAN .30 MAX 3.2 MIN .06 AC-FT 216

DEATH VALLEY

10251100 SALT CREEK NEAR STOVEPIPE WELLS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1975-76, 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
SEP 05...	0915	0.12	20100	8.20	22.5	1400	760	110	270

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
SEP 05...	4100	83	48	330	623	2500	5800	1.6

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
SEP 05...	74	14000	18.4	<0.10	0.08	25000	80	50

< Actual value is known to be less than the value shown.

BRISTOL LAKE BASIN

10252550 CARUTHERS CREEK NEAR IVANPAH, CA

LOCATION.--Lat 35°14'33", long 115°17'58", in NW 1/4 NE 1/4 sec.6, T.13 N., R.16 E., San Bernardino County, Hydrologic Unit 15030102, on left bank 6.6 mi south of Ivanpah.

DRAINAGE AREA.--1.13 mi².

PERIOD OF RECORD.--October 1963 to September 1981, May 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,640 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--22 years (water years 1964-81, 1983-86), 0.119 ft³/s, 86 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 814 ft³/s, Aug. 12, 1979, gage height, 5.75 ft, from rating curve extended above 2.5 ft³/s, on basis of slope-conveyance studies; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1615	*1.5	*0.98				

No flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.11		0	0					0	
2		0	.04		0	0					0	
3		0	.02		0	0					0	
4		0	0		0	0					0	
5		0	0		0	0					0	
6		0	0		0	0					0	
7		0	0		0	0					0	
8		0	0		0	.03					0	
9		0	0		0	.12					0	
10		0	0		0	.35					0	
11		0	0		0	.72					0	
12		0	0		0	.44					0	
13		0	0		0	.29					0	
14		0	0		0	.21					0	
15		0	0		.20	.14					0	
16		0	0		.01	.18					0	
17		0	0		0	.18					0	
18		0	0		0	.21					0	
19		0	0		0	.21					0	
20		0	0		0	.14					0	
21		0	0		0	.11					0	
22		0	0		0	.08					.02	
23		0	0		0	.06					0	
24		0	0		0	.01					0	
25		0	0		0	0					0	
26		0	0		0	0					.18	
27		0	0		0	0					.02	
28		0	0		0	0					.01	
29		.25	0		---	0					0	
30		.21	0		---	0					0	
31		---	0		---	0	---		---		0	---
TOTAL	0	.46	.17	0	.21	3.48	0	0	0	0	.23	0
MEAN	0	.015	.006	0	.008	.11	0	0	0	0	.007	0
MAX	0	.25	.11	0	.20	.72	0	0	0	0	.18	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	.9	.3	0	.4	6.9	0	0	0	0	.5	0

CAL YR 1985 TOTAL 51.67 MEAN .14 MAX 8.4 MIN 0 AC-FT 102
WTR YR 1986 TOTAL 4.55 MEAN .013 MAX .72 MIN 0 AC-FT 9

Alamo River	127	153	139	168	151	191	194	227	154	163	151	112
New River	19780	19760	21730	21240	20640	24310	26890	22120	19040	22850	22710	20950
Cal Yr 1985:	Alamo River	1,870 ac-ft				Wtr Yr 1986:	1,930 ac-ft					
Cal Yr 1985:	New River	246,400 ac-ft				Wtr Yr 1986:	262,000 ac-ft					

SALTON SEA BASIN

10254050 SALT CREEK NEAR MECCA, CA

LOCATION.--Lat 33°26'49", long 115°50'33", in SE 1/4 SW 1/4 sec.28, T.8 S., R.11 E., Riverside County, Hydrologic Unit 18100200, on pier of Southern Pacific railroad bridge, 0.3 mi upstream from mouth, and 16 mi southeast of Mecca.

DRAINAGE AREA.--269 mi².

PERIOD OF RECORD.--January 1961 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 230 ft below National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 21, 1984, at same site, but at datum 2.50 ft lower.

REMARKS.--No estimated daily discharges. Records fair below 10 ft³/s, poor above. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--25 years, 7.57 ft³/s, 5,480 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,900 ft³/s, Sept. 24, 1976, gage height, 16.8 ft, present datum, from floodmarks, from rating curve extended above 20 ft³/s on basis of contracted-opening measurement of peak flow; maximum gage height, 19.4 ft, present datum, Mar. 2, 1983 (backwater from Salton Sea and channel vegetation); minimum daily, 0.06 ft³/s, Nov. 1, 4, 5, 9, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,460 ft³/s, July 21, gage height, 11.46 ft, from rating curve extended above 10 ft³/s on basis of estimated peak flow; minimum daily, 0.81 ft³/s, June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.2	5.9	5.4	6.3	4.1	3.7	1.6	1.3	.97	2.3	1.6
2	2.7	2.5	6.1	5.4	5.7	4.3	3.6	1.5	1.3	1.0	2.2	1.6
3	2.7	2.7	6.3	5.4	5.4	4.3	3.3	1.6	1.3	1.0	2.1	1.6
4	2.7	3.2	6.1	5.2	5.4	4.0	3.1	1.6	1.2	1.0	2.0	1.6
5	3.0	3.4	6.1	5.0	4.9	4.0	3.0	1.6	1.2	1.0	2.0	1.6
6	3.1	3.4	6.1	5.2	4.9	4.0	2.9	1.5	1.2	1.0	2.0	1.6
7	3.0	3.2	5.9	5.0	5.0	3.8	2.7	1.5	1.2	1.1	2.0	1.6
8	2.8	3.2	5.9	4.6	5.6	3.8	2.7	1.5	1.0	1.1	2.0	1.6
9	2.5	3.4	5.7	4.6	7.1	3.8	2.7	1.4	.97	1.1	2.0	1.6
10	2.8	3.3	5.7	4.9	5.9	7.5	2.6	1.4	1.0	1.0	2.0	1.6
11	3.3	3.4	12	5.0	5.4	5.2	2.5	1.4	1.1	1.0	2.0	1.6
12	3.3	4.0	7.5	5.2	5.4	4.3	2.5	1.4	1.1	1.1	2.0	1.6
13	3.2	4.7	4.9	5.0	5.4	4.0	2.4	1.6	1.1	1.0	2.0	1.6
14	3.2	4.1	4.9	5.2	5.6	4.0	2.4	1.7	1.0	1.1	2.0	1.6
15	2.9	3.7	5.0	6.1	101	4.0	2.3	1.6	1.0	1.1	2.0	1.6
16	2.5	3.8	5.2	6.3	17	4.0	2.3	2.0	.97	1.1	1.9	1.7
17	3.0	4.0	5.2	5.6	6.7	4.7	2.2	1.9	.97	1.1	1.8	2.0
18	3.4	4.0	4.9	5.4	5.7	4.4	2.1	1.3	.97	1.1	1.9	1.8
19	4.0	3.8	4.7	5.4	5.4	4.0	2.1	1.3	.93	1.1	1.9	1.7
20	3.4	3.7	4.9	5.4	5.2	3.8	2.0	1.5	.89	1.0	1.9	1.6
21	3.4	3.3	5.0	5.4	4.9	3.8	2.0	1.3	.89	445	1.9	1.5
22	3.3	3.8	5.0	5.7	4.7	3.8	2.0	1.4	.93	163	1.8	1.6
23	3.2	4.0	5.2	5.7	4.6	3.7	2.0	1.4	.89	4.9	1.6	1.7
24	3.2	4.1	5.2	5.6	4.4	3.7	1.8	1.4	.89	2.7	1.6	1.8
25	3.3	184	5.2	5.2	4.3	3.4	1.8	1.7	.89	2.4	1.6	1.7
26	3.4	27	5.0	5.2	4.3	3.2	1.8	1.5	.89	2.2	1.7	1.7
27	3.4	8.2	5.0	5.2	4.3	3.2	1.7	1.4	.85	2.1	1.8	1.6
28	3.6	7.1	5.0	5.2	4.3	3.1	1.6	1.3	.81	2.0	1.7	1.7
29	3.4	6.7	5.2	5.0	---	3.7	1.6	1.4	.93	2.0	1.7	1.7
30	3.3	6.5	5.2	9.2	---	4.4	1.6	1.3	.97	2.1	1.6	1.7
31	3.4	---	5.2	9.7	---	4.0	---	1.3	---	2.1	1.6	---
TOTAL	97.2	325.4	175.2	172.4	254.8	126.0	71.0	46.3	30.64	651.47	58.6	49.5
MEAN	3.14	10.8	5.65	5.56	9.10	4.06	2.37	1.49	1.02	21.0	1.89	1.65
MAX	4.0	184	12	9.7	101	7.5	3.7	2.0	1.3	445	2.3	2.0
MIN	2.5	2.5	4.7	4.6	4.3	3.1	1.6	1.3	.81	.97	1.6	1.5
AC-FT	193	645	348	342	505	250	141	92	61	1290	116	98
CAL YR 1985	TOTAL	1379.30	MEAN	3.78	MAX	184	MIN	.67	AC-FT	2740		
WTR YR 1986	TOTAL	2058.51	MEAN	5.64	MAX	445	MIN	.81	AC-FT	4080		

SALTON SEA BASIN

10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA
(National stream-quality accounting network station)

LOCATION.--Lat 33°06'13", long 115°32'39", on line between secs.19 and 20, T.12 S., R.14 E., Imperial County, Hydrologic Unit 18100200, on right bank 2.2 mi southeast of Calipatria.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year. Records prior to October 1979 in files of the Imperial Irrigation District.

GAGE.--Water-stage recorder and broad-crested weir. Elevation of gage is 185 ft below National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. Flow is mainly return from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,940 ft³/s, Mar. 3, 1983, gage height, 5.95 ft, from rating curve extended above 1,000 ft³/s; maximum gage height, 6.93 ft, July 22, 1984 (backwater from debris); minimum daily, 259 ft³/s, Jan. 2, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,000 ft³/s, Nov. 25, gage height, 3.35 ft; minimum daily, 299 ft³/s, Dec. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	678	768	356	429	523	709	728	840	637	639	631	538
2	636	723	377	393	453	751	756	859	597	652	673	497
3	629	715	422	436	423	670	816	925	590	671	685	546
4	693	678	391	525	442	678	840	899	607	651	675	556
5	730	693	356	584	472	667	846	864	622	606	667	545
6	738	708	359	543	529	663	780	826	630	624	652	563
7	738	700	374	401	543	686	768	801	650	578	611	565
8	685	708	379	368	630	714	753	795	644	575	626	556
9	685	693	371	390	659	697	790	810	649	592	638	517
10	723	745	395	460	478	684	847	822	601	587	627	541
11	738	693	515	523	432	712	911	794	593	615	597	537
12	615	738	617	578	467	615	931	709	578	619	627	557
13	643	745	394	528	549	605	923	729	590	584	686	588
14	643	650	340	539	526	619	814	802	641	600	633	620
15	650	595	328	513	572	672	799	787	649	620	635	624
16	693	608	304	491	470	671	743	776	582	632	664	642
17	723	636	318	473	367	620	725	798	569	606	649	669
18	678	568	314	493	402	638	810	764	591	606	633	656
19	723	595	329	499	451	651	909	706	604	646	614	639
20	745	627	351	463	483	711	881	684	606	634	613	645
21	708	658	369	495	525	746	815	679	621	594	615	729
22	664	638	365	508	585	764	796	720	629	641	643	723
23	723	638	395	548	596	786	808	688	596	644	643	757
24	723	665	408	556	572	838	803	657	597	630	644	735
25	738	975	356	506	561	939	818	672	635	603	618	728
26	775	1020	299	507	650	960	803	639	602	587	700	735
27	775	526	320	513	696	953	813	635	614	576	591	730
28	708	421	375	510	698	958	753	651	590	564	565	746
29	715	385	430	537	---	869	765	656	610	549	543	732
30	753	372	408	612	---	855	808	681	615	600	531	729
31	768	---	422	574	---	786	---	660	---	633	562	---
TOTAL	21836	19884	11737	15495	14754	22887	24352	23328	18339	18958	19491	18945
MEAN	704	663	379	500	527	738	812	753	611	612	629	632
MAX	775	1020	617	612	698	960	931	925	650	671	700	757
MIN	615	372	299	368	367	605	725	635	569	549	531	497
AC-FT	43310	39440	23280	30730	29260	45400	48300	46270	36380	37600	38660	37580
CAL YR 1985	TOTAL	231698	MEAN 635	MAX 1020	MIN 259	AC-FT 459600						
WTR YR 1986	TOTAL	230006	MEAN 630	MAX 1020	MIN 299	AC-FT 456200						

SALTON SEA BASIN

10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-70, 1975 to current year.

CHEMICAL DATA: Water years 1969-70, 1975-77, 1979 to current year.

BIOLOGICAL DATA: Water years 1979-81.

SPECIFIC CONDUCTANCE: Water years 1969-70, 1975-77, 1979 to current year.

WATER TEMPERATURE: Water years 1969-70, 1975-77, 1979 to current year.

SEDIMENT DATA: Water years 1979 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1981 to September 1984.

WATER TEMPERATURE: March 1981 to September 1984.

INSTRUMENTATION.--Water-quality monitor from March 1981 to September 1984.

REMARKS.--Data for the 1975 and 1976 water years are published with 1977 water year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 6,590 microsiemens, Feb. 11, 1983; minimum recorded, 2,890 microsiemens, June 26, 27, 1982, May 8, 1984.

WATER TEMPERATURE: Maximum recorded, 32.5°C on several days during July 1984; minimum recorded, 7.5°C, Jan. 1, 2, 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
DEC 13...	0930	400	3930	8.10	10.0	780	79	11.7	103	21000	75000	930
MAR 26...	1000	963	2990	7.90	20.0	765	94	8.3	92	4700	22000	740
JUN 19...	0700	588	3190	8.00	26.0	760	43	7.0	87	K1000	860	690
SEP 18...	1000	657	3470	8.10	23.0	760	130	7.7	91	K12000	8900	730
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
DEC 13...	730	190	110	550	56	8	12	247	202	202	880	750
MAR 26...	540	160	83	390	53	6	12	251	206	205	770	450
JUN 19...	470	130	88	430	57	7	12	266	218	217	730	520
SEP 18...	520	160	80	460	57	8	11	253	207	208	850	520
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)			
DEC 13...	0.50	9.9	2710	2700	3.7	0.480	10.0	1.40	1.40			
MAR 26...	0.60	11	2060	2000	2.8	0.540	6.70	1.40	1.40			
JUN 19...	0.50	12	2150	2100	2.9	0.200	3.70	0.180	0.160			
SEP 18...	0.50	12	2440	2200	3.3	0.320	6.40	0.700	0.660			

See footnotes at end of table.

SALTON SEA BASIN

10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPE DIS- SOLV (UG/ AS C
DEC 13...	3.0	0.310	0.290	0.260	<10	4	<100	<10	<1	<1	<1	
MAR 26...	3.4	0.980	0.440	0.400	20	5	<100	<10	<1	<1	<1	
JUN 19...	1.4	0.580	0.270	0.240	10	5	--	<10	<1	5	<1	
SEP 18...	1.9	0.300	0.230	0.200	--	--	--	--	--	--	--	
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 13...	50	2	180	60	<0.1	11	2	11	<1	3400	13	2
MAR 26...	40	1	160	40	<0.1	13	1	10	<1	2800	12	2
JUN 19...	40	<5	160	20	<0.1	10	2	7	<1	2800	12	1
SEP 18...	--	--	--	--	--	--	--	--	--	--	--	

K Results based on colony count outside the acceptable range (non-ideal colony count).
 < Actual value is known to be less than the value shown.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR											
26...*	1300	12.0	3090	7.90	21.0	765	8.3	94	1010	79	
26...*	1315	24.0	3080	7.90	21.0	765	8.4	95	1460	56	
26...*	1330	35.0	3080	7.90	21.0	765	8.4	95	1570	56	
26...*	1345	47.0	3060	7.90	21.0	765	8.4	95	1410	64	
26...*	1400	58.0	2820	7.90	21.0	765	8.1	91	1260	89	
SEP											
18...*	1230	12.0	3550	8.00	24.0	760	7.6	92	531	92	
18...*	1245	25.0	3520	8.00	24.0	760	7.6	92	852	77	
18...*	1300	36.0	3530	8.00	24.0	760	7.6	92	568	83	
18...*	1315	47.0	3510	8.00	24.0	760	7.6	92	679	84	
18...*	1330	58.0	3440	8.00	24.0	760	7.6	92	520	96	

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 26: 1,000 ft³/s;
 Sept. 18: 700 ft³/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 13...	0930	400	10.0	289	312	97
MAR 26...	1000	963	20.0	1060	2760	69
26...	1335	1000	21.0	1340	3620	69
JUN 19...	0700	588	26.0	457	726	95

SALTON SEA BASIN

10254730 ALAMO RIVER NEAR NILAND, CA

LOCATION.--Lat 33°11'56", long 115°35'46", in SW 1/4 NW 1/4 sec.23, T.11 S., R.13 E., Imperial County, Hydrologic Unit 18100200, on left bank 1.0 mi upstream from mouth, and 4.5 mi southwest of Niland.

PERIOD OF RECORD.--January 1943 to September 1960 (monthly discharge only, published in WSP 1743), October 1960 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 229 ft below National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 21, Nov. 2-4, 17, Mar. 8, 9, Apr. 1, 2, 12, 16, May 3, Sept. 24, 25. Discharge mainly represents seepage and return flow from irrigated areas.

COOPERATION.--Records were provided by Imperial Irrigation District; seven discharge measurements were made, and records were reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,500 ft³/s, Aug. 17, 1977, estimated by Imperial Irrigation District, minimum daily, 288 ft³/s, Jan 2, 1966, Dec. 15, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,090 ft³/s, Nov. 26; minimum daily, 318 ft³/s, Dec. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	726	802	386	480	552	794	850	882	697	654	682	558
2	682	825	398	468	480	866	900	915	641	668	704	538
3	668	770	449	512	487	771	907	1020	634	719	726	552
4	741	675	430	586	468	763	933	949	697	733	733	565
5	726	704	398	634	532	748	958	882	704	668	711	565
6	726	741	398	572	620	756	924	860	675	675	690	599
7	779	771	417	405	592	779	866	841	733	599	647	606
8	690	949	430	361	697	800	833	802	719	606	634	627
9	661	1030	443	373	719	750	841	850	661	641	647	613
10	741	891	424	436	545	748	907	874	627	634	641	592
11	858	711	599	500	468	850	1040	850	641	661	613	599
12	704	741	697	592	500	697	1030	771	675	675	654	634
13	654	787	430	565	565	620	1020	771	634	641	704	661
14	627	697	361	586	579	606	915	874	690	661	627	675
15	613	647	342	558	641	654	915	866	690	704	579	690
16	682	661	318	538	579	654	900	825	599	779	606	697
17	748	700	330	506	443	599	882	817	599	690	627	719
18	748	654	324	519	424	654	874	810	654	654	627	779
19	763	627	342	525	519	647	924	794	690	661	634	763
20	802	661	379	512	532	704	933	771	690	647	641	748
21	775	719	398	519	552	779	882	810	668	634	641	825
22	726	668	405	532	613	810	866	787	661	719	682	817
23	771	641	436	558	641	841	899	748	627	668	697	850
24	771	697	455	565	613	899	915	711	606	647	697	825
25	779	983	405	545	586	958	949	726	675	627	690	825
26	817	1090	348	532	654	975	907	690	682	592	756	841
27	802	599	354	525	748	941	858	682	682	579	654	833
28	771	474	405	532	763	949	833	711	647	545	620	882
29	771	512	468	558	---	907	850	733	647	532	565	833
30	810	449	461	634	---	891	850	741	634	606	586	802
31	866	---	468	627	---	825	---	704	---	661	620	---
TOTAL	22998	21876	12898	16355	16112	24235	27161	25067	19879	20180	20335	21113
MEAN	742	729	416	528	575	782	905	809	663	651	656	704
MAX	866	1090	697	634	763	975	1040	1020	733	779	756	882
MIN	613	449	318	361	424	599	833	682	599	532	565	538
AC-FT	45620	43390	25580	32440	31960	48070	53870	49720	39430	40030	40330	41880
CAL YR 1985	TOTAL	256896	MEAN 704	MAX 1150	MIN 312	AC-FT 509600						
WTR YR 1986	TOTAL	248209	MEAN 680	MAX 1090	MIN 318	AC-FT 492300						

SALTON SEA BASIN

10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA

LOCATION.--Lat 32°39'57", long 115°30'08", in SW 1/4 SE 1/4 sec.14, T.17 S., R.14 E., Imperial County, Hydrologic Unit 18100200, on left bank 200 ft downstream from bridge on Second Street, 0.2 mi downstream from international boundary in Calexico.

PERIOD OF RECORD.--October 1979 to current year. October 1945 to September 1979, in files of Imperial Irrigation District.

GAGE.--Water-stage recorder. Elevation of gage is 35 ft below National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. Discharge represents seepage and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 735 ft³/s, Dec. 9, 1982, Feb. 5, 1983; minimum daily, 130 ft³/s, Nov. 29, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 524 ft³/s, Mar. 12; minimum daily, 268 ft³/s, Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	357	270	336	378	375	309	499	411	331	342	313	426
2	357	268	363	457	412	308	504	390	329	356	309	422
3	349	281	375	471	441	330	480	375	349	391	307	407
4	333	302	362	425	435	349	462	378	367	399	319	397
5	307	308	316	386	435	364	457	402	338	369	345	372
6	316	303	287	343	416	350	435	447	311	351	348	340
7	324	309	305	326	366	329	453	436	309	345	320	330
8	328	308	308	319	386	322	481	441	300	353	304	331
9	339	297	333	298	395	316	493	423	307	351	305	338
10	338	298	324	305	433	394	482	381	323	348	311	348
11	350	322	472	299	389	474	481	372	322	365	325	350
12	375	337	463	312	350	524	487	377	313	368	375	327
13	368	341	500	314	333	516	482	390	297	367	414	313
14	346	357	442	339	325	461	481	374	294	360	422	319
15	327	351	371	352	338	420	505	346	299	355	433	348
16	340	341	364	333	373	418	480	322	307	368	426	354
17	332	324	374	335	416	456	468	318	320	382	418	337
18	323	323	359	330	422	469	467	322	332	381	406	343
19	311	308	337	325	389	468	456	326	326	373	403	341
20	297	302	320	339	353	447	445	323	314	371	401	334
21	306	290	309	349	331	420	428	329	290	382	379	330
22	282	296	308	338	322	398	427	312	284	419	361	340
23	275	327	305	330	323	388	433	303	306	437	349	358
24	273	341	313	291	334	373	393	300	327	431	345	373
25	277	378	336	300	321	378	370	314	367	397	359	392
26	290	418	365	313	312	376	364	334	374	373	389	387
27	301	468	371	335	346	372	380	359	335	372	395	352
28	318	444	362	368	333	364	411	349	303	366	408	330
29	321	398	339	378	---	356	432	340	298	357	419	317
30	319	352	322	359	---	376	422	331	328	359	416	304
31	295	---	316	360	---	429	---	327	---	334	424	---
TOTAL	9974	9962	10957	10707	10404	12254	13558	11152	9600	11522	11448	10560
MEAN	322	332	353	345	372	395	452	360	320	372	369	352
MAX	375	468	500	471	441	524	505	447	374	437	433	426
MIN	273	268	287	291	312	308	364	300	284	334	304	304
AC-FT	19780	19760	21730	21240	20640	24310	26890	22120	19040	22850	22710	20950
CAL YR 1985	TOTAL	124214	MEAN	340	MAX	523	MIN	254	AC-FT	246400		
WTR YR 1986	TOTAL	132098	MEAN	362	MAX	524	MIN	268	AC-FT	262000		

LOCATION.--Lat 33°06'17", long 115°39'49", in SW 1/4 SW 1/4 sec.19, T.12 S., R.13 E., Imperial County, Hydrologic Unit 18100200, on right bank 3.5 mi upstream from mouth, and 5.2 mi northwest of Westmorland.

GAGE.--Water-stage recorder. Elevation of gage is 220 ft below National Geodetic Vertical Datum of 1929, from topographic map.

COOPERATION.--Records were provided by Imperial Irrigation District; two discharge measurements were made, and records reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,000 ft³/s, Aug. 17, 18, 1977, estimated by Imperial Irrigation District; minimum daily, 293 ft³/s, Jan. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 993 ft³/s, Apr. 12; minimum daily, 527 ft³/s, Dec. 25.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	698	656	593	565	673	734	784	883	706	677	662	742
2	667	639	563	569	654	721	844	894	664	656	645	736
3	669	603	557	635	637	696	910	889	673	658	660	711
4	673	603	587	706	660	687	903	844	677	673	635	736
5	690	631	587	702	685	709	903	813	706	692	637	723
6	675	662	577	631	711	767	846	822	700	698	629	729
7	681	675	540	605	698	774	813	855	681	654	662	702
8	709	669	530	573	696	782	813	889	648	664	633	667
9	681	650	544	585	694	709	866	880	641	675	633	679
10	711	627	542	601	681	673	919	878	643	675	627	685
11	673	583	605	595	656	744	974	864	648	660	605	696
12	658	621	717	599	692	748	993	811	679	679	641	709
13	667	669	706	591	690	778	974	791	660	673	643	709
14	658	637	675	645	667	841	894	780	645	677	654	679
15	645	643	656	667	675	876	896	802	627	685	654	643
16	631	650	587	687	650	835	903	763	633	694	713	658
17	702	662	551	669	613	771	887	742	625	673	732	700
18	685	629	553	662	656	776	887	709	617	687	719	685
19	709	629	581	652	662	789	876	675	645	704	729	721
20	679	625	581	609	658	806	885	681	650	690	719	698
21	650	633	563	637	627	813	889	673	643	652	744	685
22	660	617	551	658	619	813	901	700	652	751	709	667
23	685	621	551	667	631	850	887	715	643	869	694	690
24	677	599	559	660	641	841	899	687	643	811	667	729
25	685	784	527	677	643	850	869	662	671	742	667	738
26	664	976	528	633	660	853	848	635	706	700	677	759
27	671	800	567	631	679	835	835	635	702	662	700	789
28	658	702	599	669	719	853	817	669	706	645	713	767
29	645	690	605	692	---	839	822	683	679	639	696	721
30	631	652	593	767	---	826	844	687	677	629	727	717
31	660	---	595	732	---	767	---	698	---	637	738	---
TOTAL	20847	19837	18070	19971	18627	24356	26381	23709	19890	21281	20964	21270
MEAN	672	661	583	644	665	786	879	765	663	686	676	709
MAX	711	976	717	767	719	876	993	894	706	869	744	789
MIN	631	583	527	565	613	673	784	635	617	629	605	643
AC-FT	41350	39350	35840	39610	36950	48310	52330	47030	39450	42210	41580	42190

CAL YR 1985	TOTAL	246802	MEAN 676	MAX 976	MIN 443	AC-FT	489500
WTR YR 1986	TOTAL	255203	MEAN 699	MAX 993	MIN 527	AC-FT	506200

SALTON SEA BASIN

10255800 COYOTE CREEK NEAR BORREGO SPRINGS, CA

LOCATION (REVISED).--Lat 33°21'54", long 116°24'57", in SW 1/4 NW 1/4 sec.25, T.9 S., R.5 E., San Diego County, Hydrologic Unit 18100200, in Anza-Borrego Desert State Park, on right bank 0.9 mi downstream from Box Canyon, 1.4 mi northwest of Rancho De Anza, and 7.8 mi northwest of Borrego Springs.

DRAINAGE AREA.--144 mi².

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for October and November 1950, published in WSP 1734.

REVISED RECORDS.--WDR CA-72-1: 1969, 1971.

GAGE.--Water-stage recorder. Elevation of gage is 1,120 ft above National Geodetic Vertical Datum of 1929, from topographic map. Since Sept. 30, 1983, at present site and datum. Apr. 19, 1978, to Sept. 30, 1983, at site 0.9 mi upstream at different datum. Mar. 24, 1967, to Apr. 18, 1978, at site 0.5 mi upstream at different datum. Prior to Mar. 24, 1967, at site 1.0 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Aug. 4-18, Aug. 26 to Sept. 18. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--36 years, 2.65 ft³/s, 1,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,890 ft³/s, Feb. 21, 1980, gage height, 7.50 ft, from floodmark in well, on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	1345	*67	2.39	Aug. 27	2000	60	*2.83

Minimum daily, 1.6 ft³/s, July 30, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.5	7.3	6.4	4.8	3.2	2.3	2.0	2.2	2.3	1.6	2.7
2	3.9	4.5	7.1	5.7	4.7	3.6	2.4	2.0	2.2	2.1	1.9	2.7
3	4.5	4.6	7.3	5.5	4.9	4.2	2.5	2.2	2.2	2.0	2.2	2.4
4	4.5	4.4	7.1	5.2	5.0	4.6	2.5	2.1	2.1	2.0	2.1	2.2
5	3.7	4.5	6.8	5.3	4.8	4.7	2.3	2.1	2.1	2.0	2.0	2.0
6	3.8	4.4	6.9	5.6	4.7	4.7	2.3	2.2	2.2	1.9	2.1	1.8
7	4.1	4.3	7.1	5.7	4.5	4.8	2.3	2.3	2.2	1.9	2.2	1.9
8	4.4	4.3	7.1	5.7	5.1	5.2	2.3	2.3	2.3	1.9	2.1	2.0
9	4.6	4.2	7.2	5.8	4.5	4.2	2.3	2.4	2.2	1.9	2.2	2.1
10	5.2	4.5	7.4	5.8	4.7	4.0	2.3	2.2	2.2	1.9	2.2	2.2
11	5.6	4.7	7.5	5.5	4.7	4.4	2.4	2.1	2.2	1.9	2.3	2.2
12	4.8	5.5	7.8	5.5	4.6	4.1	2.5	2.0	2.2	1.9	2.5	2.1
13	4.1	5.5	8.1	5.5	4.7	3.9	2.6	2.1	2.3	1.8	2.1	2.2
14	3.6	5.2	8.1	5.4	4.8	3.8	2.3	2.1	2.3	1.9	2.1	2.2
15	3.6	5.2	7.8	5.0	21	3.8	2.3	2.1	2.3	1.9	2.1	2.2
16	3.7	5.1	8.1	5.0	5.5	4.5	2.5	2.5	2.3	1.8	2.2	2.2
17	4.0	4.7	8.1	5.0	4.4	4.3	2.4	3.2	2.2	1.8	2.2	2.2
18	4.3	5.9	8.1	4.8	4.0	3.8	2.3	2.7	2.3	1.8	2.4	2.1
19	4.1	5.8	8.0	4.8	3.7	3.5	2.3	2.6	2.3	1.8	2.6	2.5
20	3.9	5.3	8.1	4.9	3.5	3.3	2.2	2.4	2.3	1.7	2.6	2.5
21	4.0	5.4	8.1	5.0	3.5	3.4	2.1	2.7	2.3	1.8	2.5	2.5
22	4.2	5.3	8.3	5.1	3.3	3.4	2.0	2.8	2.3	1.9	2.5	2.5
23	4.3	5.6	8.5	5.1	3.3	3.3	2.0	2.7	2.2	2.0	2.4	2.5
24	4.1	6.0	8.5	4.7	3.5	3.1	2.0	2.6	2.3	2.0	2.3	2.6
25	4.3	12	7.7	4.9	3.5	3.2	2.1	2.6	2.4	2.2	3.8	2.6
26	4.3	8.0	6.7	5.0	3.2	3.1	2.1	2.4	2.3	2.1	4.0	2.5
27	4.3	8.8	6.4	5.0	3.3	3.1	2.0	2.4	2.2	2.0	4.5	2.3
28	4.4	6.8	6.3	4.7	3.2	2.5	1.9	2.3	2.2	1.9	2.6	2.3
29	4.5	7.5	6.0	4.7	---	2.0	2.0	2.3	2.2	1.7	2.5	2.3
30	4.5	7.9	5.7	5.1	---	2.2	2.0	2.2	2.2	1.6	2.5	2.4
31	4.5	---	6.1	5.0	---	2.3	---	2.1	---	1.7	2.6	---
TOTAL	131.7	170.4	229.3	162.4	135.4	114.2	67.5	72.7	67.2	59.1	75.9	68.9
MEAN	4.25	5.68	7.40	5.24	4.84	3.68	2.25	2.35	2.24	1.91	2.45	2.30
MAX	5.6	12	8.5	6.4	21	5.2	2.6	3.2	2.4	2.3	4.5	2.7
MIN	3.6	4.2	5.7	4.7	3.2	2.0	1.9	2.0	2.1	1.6	1.6	1.8
AC-FT	261	338	455	322	269	227	134	144	133	117	151	137

CAL YR 1985 TOTAL 1651.0 MEAN 4.52 MAX 12 MIN 1.5 AC-FT 3270

SALTON SEA BASIN

10255805 COYOTE CREEK BELOW BOX CANYON, NEAR BORREGO SPRINGS, CA

LOCATION.--Lat 33°21'54", long 116°24'57", in SW 1/4 NW 1/4 sec.25, T.9 S., R.5 E., San Diego County, Hydrologic Unit 18100200, in Anza-Borrego Desert State Park, on right bank 0.9 mi downstream from Box Canyon, 1.4 mi northwest of Rancho De Anza, and 7.8 mi northwest of Borrego Springs.

DRAINAGE AREA.--154 mi².

PERIOD OF RECORD.--October 1985 to September 1986.

GAGE.--Water-stage recorder. Elevation of gage is 1,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Aug. 4-18, Aug. 26 to Sept. 18. Records fair. No regulation or diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	1345	*67	2.39	Aug. 27	2000	60	*2.83

Minimum daily, 1.6 ft³/s, July 30, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.5	7.3	6.4	4.8	3.2	2.3	2.0	2.2	2.3	1.6	2.7
2	3.9	4.5	7.1	5.7	4.7	3.6	2.4	2.0	2.2	2.1	1.9	2.7
3	4.5	4.6	7.3	5.5	4.9	4.2	2.5	2.2	2.2	2.0	2.2	2.4
4	4.5	4.4	7.1	5.2	5.0	4.6	2.5	2.1	2.1	2.0	2.1	2.2
5	3.7	4.5	6.8	5.3	4.8	4.7	2.3	2.1	2.1	2.0	2.0	2.0
6	3.8	4.4	6.9	5.6	4.7	4.7	2.3	2.2	2.2	1.9	2.1	1.8
7	4.1	4.3	7.1	5.7	4.5	4.8	2.3	2.3	2.2	1.9	2.2	1.9
8	4.4	4.3	7.1	5.7	5.1	5.2	2.3	2.3	2.3	1.9	2.1	2.0
9	4.6	4.2	7.2	5.8	4.5	4.2	2.3	2.4	2.2	1.9	2.2	2.1
10	5.2	4.5	7.4	5.8	4.7	4.0	2.3	2.2	2.2	1.9	2.2	2.2
11	5.6	4.7	7.5	5.5	4.7	4.4	2.4	2.1	2.2	1.9	2.3	2.2
12	4.8	5.5	7.8	5.5	4.6	4.1	2.5	2.0	2.2	1.9	2.5	2.1
13	4.1	5.5	8.1	5.5	4.7	3.9	2.6	2.1	2.3	1.8	2.1	2.2
14	3.6	5.2	8.1	5.4	4.8	3.8	2.3	2.1	2.3	1.9	2.1	2.2
15	3.6	5.2	7.8	5.0	21	3.8	2.3	2.1	2.3	1.9	2.1	2.2
16	3.7	5.1	8.1	5.0	5.5	4.5	2.5	2.5	2.3	1.8	2.2	2.2
17	4.0	4.7	8.1	5.0	4.4	4.3	2.4	3.2	2.2	1.8	2.2	2.2
18	4.3	5.9	8.1	4.8	4.0	3.8	2.3	2.7	2.3	1.8	2.4	2.1
19	4.1	5.8	8.0	4.8	3.7	3.5	2.3	2.6	2.3	1.8	2.6	2.5
20	3.9	5.3	8.1	4.9	3.5	3.3	2.2	2.4	2.3	1.7	2.6	2.5
21	4.0	5.4	8.1	5.0	3.5	3.4	2.1	2.7	2.3	1.8	2.5	2.5
22	4.2	5.3	8.3	5.1	3.3	3.4	2.0	2.8	2.3	1.9	2.5	2.5
23	4.3	5.6	8.5	5.1	3.3	3.3	2.0	2.7	2.2	2.0	2.4	2.5
24	4.1	6.0	8.5	4.7	3.5	3.1	2.0	2.6	2.3	2.0	2.3	2.6
25	4.3	12	7.7	4.9	3.5	3.2	2.1	2.6	2.4	2.2	3.8	2.6
26	4.3	8.0	6.7	5.0	3.2	3.1	2.1	2.4	2.3	2.1	4.0	2.5
27	4.3	8.8	6.4	5.0	3.3	3.1	2.0	2.4	2.2	2.0	4.5	2.3
28	4.4	6.8	6.3	4.7	3.2	2.5	1.9	2.3	2.2	1.9	2.6	2.3
29	4.5	7.5	6.0	4.7	---	2.0	2.0	2.3	2.2	1.7	2.5	2.3
30	4.5	7.9	5.7	5.1	---	2.2	2.0	2.2	2.2	1.6	2.5	2.4
31	4.5	---	6.1	5.0	---	2.3	---	2.1	---	1.7	2.6	---
TOTAL	131.7	170.4	229.3	162.4	135.4	114.2	67.5	72.7	67.2	59.1	75.9	68.9
MEAN	4.25	5.68	7.40	5.24	4.84	3.68	2.25	2.35	2.24	1.91	2.45	2.30
MAX	5.6	12	8.5	6.4	21	5.2	2.6	3.2	2.4	2.3	4.5	2.7
MIN	3.6	4.2	5.7	4.7	3.2	2.0	1.9	2.0	2.1	1.6	1.6	1.8
AC-FT	261	338	455	322	269	227	134	144	133	117	151	137

CAL YR 1985	TOTAL	1651.0	MEAN	4.52	MAX	12	MIN	1.5	AC-FT	3270
WTR YR 1986	TOTAL	1354.7	MEAN	3.71	MAX	21	MIN	1.6	AC-FT	2690

SALTON SEA BASIN

10255810 BORREGO PALM CREEK NEAR BORREGO SPRINGS, CA

LOCATION.--Lat 33°16'44", long 116°25'45", in Anza-Borrego Desert State Park, San Diego County, Hydrologic Unit 18100200, on left bank 3.3 mi northwest of Borrego Springs.

DRAINAGE AREA.--21.8 mi².

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1960, published as Palm Canyon Creek near Borrego Springs. Monthly discharge only for October to November 1950, published in WSP 1734.

GAGE.--Water-stage recorder. Elevation of gage is 1,200 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--36 years, 0.99 ft³/s, 717 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft³/s, Aug. 16, 1979, gage height, 9.8 ft, from floodmarks, on basis of slope-area measurement of peak flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 25	1000	31	3.71	Feb. 15	0945	*52	*4.02
Nov. 29	2315	16	3.39	Mar. 16	1945	22	3.54

No flow many days July to September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.59	3.1	1.6	1.9	1.5	1.9	.74	.32	.03		
2	.14	.60	2.5	1.6	1.6	1.4	1.9	.71	.32	.01		
3	.14	.61	3.8	1.6	1.5	1.4	1.7	.71	.30	.01		
4	.14	.61	2.5	1.5	1.5	1.4	1.6	.80	.27	0		
5	.17	.61	2.2	1.6	1.4	1.4	1.6	.86	.26	0		
6	.17	.61	1.9	1.6	1.5	1.3	1.9	1.0	.26	0		
7	.25	.64	1.8	1.5	1.5	1.3	2.1	1.0	.25	0		
8	.34	.65	1.7	1.5	3.1	1.7	1.6	.94	.25	0		
9	.38	.74	1.7	1.5	2.4	3.3	1.5	.85	.22	0		
10	.44	.83	2.2	1.5	2.1	5.0	1.4	.77	.22	0		
11	.43	2.7	3.7	1.5	2.2	6.1	1.3	.74	.20	0		
12	.41	4.2	2.6	1.5	2.3	4.9	1.4	.74	.19	0		
13	.40	2.1	2.4	1.5	2.2	4.7	1.3	.71	.18	0		
14	.41	1.7	2.3	1.6	2.0	4.5	1.2	.70	.17	0		
15	.39	1.6	2.3	1.7	2.4	3.7	1.2	.73	.17	0		
16	.38	1.5	2.3	1.5	11	13	1.3	.72	.16	0		
17	.44	1.9	2.2	1.5	5.3	14	1.3	.62	.14	0		
18	.48	1.5	2.1	1.5	3.6	11	1.2	.58	.14	0		
19	.51	1.3	2.0	1.5	3.0	7.9	1.1	.54	.13	0		
20	.52	1.3	1.9	1.4	2.7	6.2	.98	.51	.12	0		
21	.57	1.2	1.8	1.4	2.3	5.3	.90	.61	.10	0		
22	.67	1.2	1.8	1.4	2.1	4.3	.84	.70	.09	0		
23	.65	1.1	1.8	1.4	2.0	3.5	.83	.62	.10	0		
24	.60	1.2	1.8	1.4	1.8	3.0	.85	.62	.07	0		
25	.58	1.4	1.8	1.4	1.7	2.6	.84	.56	.05	0		
26	.58	4.4	1.8	1.4	1.7	2.3	.89	.50	.05	0		
27	.57	2.4	1.7	1.4	1.6	2.1	.84	.46	.03	0		
28	.54	1.8	1.7	1.4	1.5	2.0	.81	.42	.03	0		
29	.55	4.1	1.7	1.4	---	1.9	.75	.38	.02	0		
30	.56	7.4	1.7	4.0	---	1.8	.75	.36	.03	0		
31	.56	---	1.6	2.4	---	1.7	---	.36	---	0		---
TOTAL	13.11	65.09	66.4	49.7	91.5	126.2	37.78	20.56	4.84	.05	0	0
MEAN	.42	2.17	2.14	1.60	3.27	4.07	1.26	.66	.16	.002	0	0
MAX	.67	14	3.8	4.0	24	14	2.1	1.0	.32	.03	0	0
MIN	.14	.59	1.6	1.4	1.4	1.3	.75	.36	.02	0	0	0
AC-FT	26	129	132	99	181	250	75	41	9.6	.10	0	0
CAL YR 1985	TOTAL 487.50		MEAN 1.34	MAX 14	MIN 0	AC-FT 967						
WTR YR 1986	TOTAL 475.23		MEAN 1.30	MAX 24	MIN 0	AC-FT 943						

SALTON SEA BASIN

10255885 SAN FELIPE CREEK NEAR WESTMORLAND, CA

LOCATION.--Lat 33°07'24", long 115°51'10", in NW 1/4 SW 1/4 sec.17, T.12 S., R.11 E., Imperial County, Hydrologic Unit 18100200, on right bank 35 ft downstream from State Highway 86, and 14.6 mi northwest of Westmorland.

DRAINAGE AREA.--1,693 mi².

PERIOD OF RECORD.--December 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 190 ft below National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 10, 1976, at site on left bank 320 ft downstream from bridge on State Highway 86, at different datum.

REMARKS.--Estimated daily discharges: All daily discharges below 100 ft³/s and Aug. 25, 26. Records poor. No regulation above station. Diversion and pumping for domestic use and irrigation in Borrego Valley 25 mi upstream.

AVERAGE DISCHARGE.--25 years (water years 1962-86), 7.68 ft³/s, 5,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft³/s, Sept. 10, 1976, gage height, 19.0 ft, site and datum then in use, from rating curve extended above 500 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for months most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*), from rating curve extended above 10 ft³/s on basis of discharge measurement at gage height 14.53 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 25	1630	824	8.85	July 21	1830	*2,390	*11.65
Dec. 11	1500	339	7.35	Aug. 25	Unknown	1,710	10.65
Feb. 15	1430	256	6.99	Aug. 26	Unknown	1,390	10.08

Minimum daily, 0.20 ft³/s, several days May to July.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.1	2.0	1.7	1.6	1.6	1.3	1.4	.90	.40	1.2	1.1
2	1.3	1.1	2.0	1.7	1.7	1.6	1.3	1.4	.90	.40	1.2	1.1
3	1.2	1.1	2.0	1.6	1.7	1.6	1.3	1.4	.90	.40	1.2	1.1
4	1.2	1.1	2.0	1.6	1.7	1.5	1.3	1.4	.90	.40	1.2	1.1
5	1.2	1.1	2.0	1.6	1.8	1.5	1.3	1.4	.80	.40	1.2	1.1
6	1.2	1.1	2.0	1.6	1.8	1.5	1.3	1.4	.80	.40	1.2	1.1
7	1.2	1.1	2.0	1.5	1.8	1.5	1.3	1.4	.80	.30	1.2	1.1
8	1.2	1.1	2.0	1.5	1.8	1.5	1.3	1.4	.80	.30	1.2	1.1
9	1.2	1.1	2.0	1.5	1.9	1.5	1.3	1.4	.80	.30	1.2	1.1
10	3.0	1.1	2.0	1.5	1.9	1.4	1.4	1.4	.80	.30	1.2	1.1
11	1.5	1.1	160	1.5	1.9	1.4	1.4	1.4	.70	.30	1.2	1.1
12	1.3	1.1	93	1.5	2.0	1.4	1.4	1.4	.70	.30	1.2	1.1
13	1.2	1.1	10	1.5	2.0	1.4	1.4	1.4	.70	.30	1.2	1.1
14	1.2	1.1	2.5	1.5	2.0	1.4	1.4	1.3	.70	.30	1.2	1.1
15	1.2	1.1	2.0	1.5	144	1.4	1.4	1.3	.70	.30	1.2	1.1
16	1.2	1.1	2.0	1.5	131	1.3	1.4	1.3	.70	.30	1.2	1.1
17	1.2	1.1	2.0	1.5	1.7	1.3	1.4	1.2	.70	.30	1.2	1.1
18	1.2	1.1	2.0	1.5	1.8	1.3	1.4	1.2	.60	.30	1.2	1.1
19	1.2	1.1	2.0	1.5	1.8	1.3	1.4	1.2	.60	.30	1.2	1.1
20	1.2	1.1	2.0	1.5	1.8	1.3	1.4	1.2	.60	.30	1.2	1.1
21	1.2	1.1	2.0	1.5	1.8	1.3	1.4	1.1	.60	629	1.2	1.1
22	1.2	1.1	1.9	1.5	1.8	1.3	1.4	1.1	.60	422	1.2	1.1
23	1.2	1.1	1.9	1.5	1.7	1.2	1.4	1.1	.60	294	1.2	1.1
24	5.0	1.1	1.9	1.5	1.7	1.2	1.4	1.1	.50	10	1.2	1.1
25	3.0	270	1.9	1.5	1.7	1.2	1.4	1.0	.50	1.8	125	1.1
26	1.5	123	1.8	1.5	1.7	1.2	1.4	1.0	.50	1.5	140	1.1
27	1.4	14	1.8	1.5	1.6	1.2	1.4	1.0	.50	1.4	6.5	1.1
28	1.3	4.0	1.8	1.5	1.6	1.2	1.4	1.0	.50	1.3	1.3	1.1
29	1.2	2.0	1.8	1.5	---	1.2	1.4	1.0	.50	1.2	1.2	1.1
30	1.1	2.0	1.7	1.6	---	1.2	1.4	1.0	.40	1.2	1.2	1.1
31	1.1	---	1.7	1.6	---	1.2	---	.90	---	1.2	1.1	---
TOTAL	45.7	441.4	317.7	47.5	321.3	42.1	41.1	38.20	20.30	1371.20	305.1	33.0
MEAN	1.47	14.7	10.2	1.53	11.5	1.36	1.37	1.23	.68	44.2	9.84	1.10
MAX	5.0	270	160	1.7	144	1.6	1.4	1.4	.90	629	140	1.1
MIN	1.1	1.1	1.7	1.5	1.6	1.2	1.3	.90	.40	.30	1.1	1.1
AC-FT	91	876	630	94	637	84	82	76	40	2720	605	65

CAL YR 1985 TOTAL 1908.40 MEAN 5.23 MAX 270 MIN .70 AC-FT 3790
WTR YR 1986 TOTAL 3024.60 MEAN 8.29 MAX 629 MIN .30 AC-FT 6000

SALTON SEA BASIN

10256060 WHITEWATER RIVER AT WHITE WATER CUTOFF, AT WHITE WATER, CA

LOCATION.--Lat 33°55'31", long 116°38'07", in NE 1/4 SE 1/4 sec.11, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, on center pier of White Water Cutoff (old Highway 99) bridge, 0.1 mi east of White Water, 0.75 mi downstream from Metropolitan Water District's Colorado River Aqueduct turnout, and 2.0 mi upstream of S Gorgonio River.

DRAINAGE AREA.--59.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1985 (discharge measurements only), October 1985 to September 1986.

GAGE.-- Water-stage recorder and concrete rectangular weir. Elevation of gage is 1,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 15, Dec. 5-11, Jan. 16-22, Feb. 16 to Mar. 2, Mar. 14 to Apr. 9, Apr. 28 to May 7, July 4-6, July 14 to Aug. 13, Sept. 12-30. Records fair except for periods of estimated daily discharges, which are poor. Imported water is released to the Whitewater River from the Colorado River Aqueduct at a point 0.75 mi upstream. Water is diverted out of the basin 16.5 mi upstream to powerplants in the San Gorgonio River basin and then to an area north of Banning for irrigation. For records of releases and diversions see Whitewater River at Windy Point near White Water (station 10257550).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,020 ft³/s, Feb. 15, gage height, 11.97 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	410	460	180	366	16	28	340	470	407	760	500	751
2	410	460	200	368	0	440	340	470	402	765	0	594
3	410	460	250	368	196	491	340	470	400	143	0	773
4	410	0	250	372	423	353	340	400	400	0	0	797
5	410	0	250	380	430	270	340	400	399	0	150	803
6	410	0	250	381	417	271	340	370	275	0	150	817
7	410	0	250	378	411	256	340	460	217	365	160	785
8	410	0	250	379	415	245	340	427	190	0	200	774
9	410	0	250	377	421	204	340	464	191	0	230	650
10	460	0	240	380	423	198	306	455	338	0	350	342
11	460	0	240	385	416	179	291	453	457	0	600	371
12	460	0	235	382	281	64	255	376	456	0	170	0
13	460	0	235	224	120	66	256	293	451	0	170	0
14	460	0	230	100	527	66	293	246	452	500	157	0
15	460	0	276	0	577	66	328	339	457	700	153	0
16	460	0	388	180	28	66	361	361	635	740	187	0
17	460	0	430	180	28	114	286	367	771	650	180	350
18	460	99	452	180	28	340	119	381	861	520	354	470
19	460	259	402	180	28	340	312	212	803	540	499	470
20	460	258	396	180	28	340	324	134	705	450	495	580
21	460	265	385	180	28	340	410	146	741	450	592	580
22	460	264	387	180	28	340	386	248	729	840	630	920
23	460	257	393	75	28	340	308	304	729	840	625	960
24	460	263	391	98	28	340	164	421	718	840	617	900
25	460	286	389	30	28	340	0	419	700	800	634	700
26	460	321	386	27	28	340	0	412	657	760	798	600
27	460	331	383	100	28	340	0	413	729	720	866	380
28	460	330	367	127	28	340	470	335	780	720	892	600
29	460	369	374	123	---	340	470	410	766	720	869	520
30	460	216	370	180	---	340	470	402	759	800	790	600
31	460	---	368	61	---	340	---	405	---	680	779	---
TOTAL	13810	4898	9847	6921	5437	8137	8869	11463	16575	14303	12797	16087
MEAN	445	163	318	223	194	262	296	370	553	461	413	536
MAX	460	460	452	385	577	491	470	470	861	840	892	960
MIN	410	0	180	0	0	28	0	134	190	0	0	0
AC-FT	27390	9720	19530	13730	10780	16140	17590	22740	32880	28370	25380	31910
WTR YR 1986	TOTAL	129144	MEAN	354	MAX	960	MIN	0	AC-FT	256200		

SALTON SEA BASIN

10256060 WHITEWATER RIVER AT WHITE WATER CUTOFF, AT WHITE WATER, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-76, 1978 to current year.

CHEMICAL DATA: Water years 1972-76, 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 31...	1230	555	866	8.40	19.5	270	140	70	24	74
MAY 22...	1300	269	863	8.40	22.0	260	130	66	24	76

DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L - CACO3)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3	CAR- BONATE IT-FLD (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 31...	37	2	4.0	151	132	131	5.0	220	76	0.3
MAY 22...	38	2	3.7	154	136	134	6.0	220	56	0.3

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 31...	9.0	553	560	0.75	0.20	<0.01	110	12	2
MAY 22...	8.8	541	540	0.74	0.25	<0.01	110	10	<1

< Actual value is known to be less than the value shown.

SALTON SEA BASIN

10256500 SNOW CREEK NEAR WHITE WATER, CA

LOCATION.--Lat 33°52'14", long 116°40'49", in NW 1/4 NW 1/4 sec.33, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, on left bank 10 ft upstream from Desert Water Agency diversion dam, 0.1 mi downstream from East Fork, and 4.4 mi southwest of White Water.

DRAINAGE AREA.--10.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to December 1921, May 1922 to February 1927, December 1927 to September 1931, October 1951 to current year. Yearly discharge only for 1930, published in WSP 1314.

GAGE.--Water-stage recorder on creek; water-stage recorder and Parshall flume on diversion. Elevation of both gages is 2,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to September 1931, at various sites within 500 ft of present site at different datums. October 1959 to Oct. 6, 1970, at site 40 ft upstream at present datum. Oct. 6, 1970, to Oct. 25, 1978, at site 290 ft upstream above diversion at present datum. Gage moved to present site 10 ft downstream from diversion and 10 ft upstream from concrete diversion dam Oct. 25, 1978.

REMARKS.--Estimated daily discharges: Oct. 8-9, Feb. 13-19, and July 7-31. Records good. No regulation above station. Desert Water Agency diverts 10 ft upstream, generally taking most of the base flow. Total flow is computed by combining discharge records for the diversion and the creek. Discharge records for Snow Creek diversion beginning October 1978 available in files of the U.S. Geological Survey.

AVERAGE DISCHARGE.--Combined creek and diversion: 34 years (water years 1923-26, 1929-31, 1960-86), 9.88 ft³/s, 7,160 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s, Jan. 25, 1969, gage height, 13.8 ft, from floodmarks, site and datum then in use, from rating curve extended above 55 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 2.1 ft³/s, June 23-27, Sept. 5-11, 1961.

EXTREMES FOR CURRENT YEAR.--Combined creek and diversion: Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1530	275	3.44	Jan. 30	0730	121	2.84
Dec. 2	2100	119	2.81	Feb. 15	Unknown	*580	*4.32

Minimum daily, 2.5 ft³/s, Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.3	12	6.1	12	11	18	11	8.8	5.7	6.0	6.1
2	4.2	4.3	35	5.6	8.7	11	18	11	8.7	5.8	6.2	6.1
3	4.2	4.3	38	5.6	7.7	10	15	11	8.4	5.7	6.1	6.1
4	4.2	4.3	16	5.7	6.7	9.7	14	11	8.3	5.6	6.0	6.1
5	4.5	4.3	12	6.4	6.7	9.6	14	10	7.6	5.6	6.0	5.8
6	3.9	4.3	9.5	7.0	6.8	9.1	14	9.7	7.4	5.5	6.2	5.7
7	2.9	4.3	8.2	6.1	5.5	9.1	14	9.5	7.2	5.3	6.2	5.7
8	2.9	4.2	7.7	5.9	7.9	26	13	9.3	7.1	5.3	6.4	5.7
9	3.0	4.2	6.9	5.8	6.3	23	12	9.4	6.9	5.3	6.3	5.7
10	3.0	4.2	6.5	5.8	5.9	38	12	9.4	6.9	5.3	6.4	6.0
11	3.8	13	6.5	5.7	5.8	31	12	8.9	6.8	5.3	6.9	5.9
12	4.4	8.1	5.6	5.6	5.8	21	12	8.8	6.9	5.3	7.3	5.8
13	4.3	5.7	6.0	5.6	5.6	17	12	8.5	6.6	5.3	6.0	5.9
14	2.5	5.4	6.0	5.4	5.5	15	12	8.8	6.5	5.3	5.7	6.0
15	3.5	5.4	6.0	5.3	152	14	11	9.4	6.4	5.3	5.7	6.0
16	4.4	5.5	6.0	5.7	92	31	12	9.4	6.3	5.3	5.6	5.8
17	4.4	5.9	5.8	5.6	55	22	11	9.1	6.3	5.3	5.8	5.8
18	4.4	5.4	5.8	5.5	43	19	10	8.6	6.1	5.3	7.3	5.7
19	4.4	5.2	5.9	5.5	35	17	10	8.8	6.0	5.3	8.0	5.9
20	4.3	5.1	5.9	5.5	24	17	10	9.0	6.0	5.3	7.5	6.1
21	4.3	5.3	6.3	5.4	11	17	11	8.6	5.9	5.3	6.6	6.2
22	4.4	5.3	6.7	5.4	8.4	17	11	8.5	5.9	5.3	5.6	6.8
23	4.4	5.3	6.3	5.4	7.1	17	11	8.3	6.0	5.6	5.5	8.0
24	4.4	5.7	6.5	5.3	7.7	17	11	8.3	5.9	5.6	5.8	8.3
25	4.4	40	6.6	5.3	13	16	10	8.3	5.8	5.6	6.7	14
26	4.3	14	6.1	5.2	12	17	10	8.4	5.8	6.0	8.0	9.6
27	4.3	8.8	5.6	5.2	12	18	10	8.6	5.8	6.0	7.6	7.4
28	4.4	7.6	5.6	5.1	12	19	10	8.3	5.8	6.0	6.7	6.9
29	4.3	73	5.8	5.2	---	19	11	8.9	5.8	6.0	5.9	6.3
30	4.3	28	6.3	45	---	19	11	9.1	5.8	6.0	6.1	6.0
31	4.3	---	6.5	18	---	18	---	9.1	---	6.0	6.0	---
TOTAL	125.3	300.4	279.6	225.9	581.1	554.5	362	285.0	199.7	171.5	198.1	197.4
MEAN	4.04	10.0	9.02	7.29	20.8	17.9	12.1	9.19	6.66	5.53	6.39	6.58
MAX	4.5	73	38	45	152	38	18	11	8.8	6.0	8.0	14
MIN	2.5	4.2	5.6	5.1	5.5	9.1	10	8.3	5.8	5.3	5.5	5.7
AC-FT	249	596	555	448	1150	1100	718	565	396	340	393	392

SALTON SEA BASIN

10256500 SNOW CREEK NEAR WHITE WATER, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-76, 1978 to current year.

CHEMICAL DATA: Water years 1972-76, 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 22...	1115	5.2	115	7.90	9.5	37	0	13	1.1	9.1
MAY 21...	1100	10	86	7.60	14.0	27	0	9.4	0.91	6.5
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 22...	33	0.7	2.0	67	0	55	55	2.8	1.7	<0.1
MAY 21...	32	0.6	1.9	51	0	42	42	2.0	1.2	<0.1
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
NOV 22...	20	81	83	0.11	<0.10	0.02	30	14	1	
MAY 21...	18	62	65	0.08	<0.10	0.02	10	13	2	

< Actual value is known to be less than the value shown.

SALTON SEA BASIN

10257550 WHITEWATER RIVER AT WINDY POINT, NEAR WHITE WATER, CA

LOCATION.--Lat 33°53'56", long 116°37'13", in SW 1/4 NE 1/4 sec.24, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, on right bank 200 ft north of Highway 111, 2.0 mi southeast of White Water, and 3.8 mi east of the junction of Highway 111 and Interstate 10.

DRAINAGE AREA.--263 mi².

PERIOD OF RECORD.--October 1984 to current year. Discharge measurements only, July 1982 to September 1984.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 1,040 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 15-22, Feb. 16 to Mar. 2, Mar. 18 to June 4, July 4-10, Aug. 2-3. Records fair except for periods of estimated discharge, which are poor. Imported water is released to the Whitewater River from the Colorado River Aqueduct at a point 2.75 mi upstream for ground-water recharge in the upper Coachella Valley. Water is diverted out of the basin 18.5 mi upstream to powerplants in the San Geronimo River basin and then to an area north of Banning for irrigation.

COOPERATION.--Records of diversion out of basin were provided by Southern California Edison Co. Records of Colorado River Aqueduct releases were provided by Coachella Valley Water District (from Metropolitan Water District's monthly reports).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,140 ft³/s, Aug. 21, 1986, gage height, 4.13 ft; no flow for several days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft³/s, Aug. 21, gage height, 4.13 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	378	285	191	253	31	0	340	350	350	619	337	859
2	375	299	231	249	0	0	340	350	350	734	0	730
3	373	302	324	301	117	134	340	350	350	401	0	614
4	376	98	346	270	240	190	340	250	350	0	47	602
5	360	0	282	273	234	157	340	250	327	0	133	618
6	314	0	352	291	290	174	340	240	186	0	131	552
7	313	0	384	312	365	212	340	360	166	400	135	481
8	384	0	375	305	461	282	340	240	141	0	188	529
9	415	0	356	301	434	171	340	360	149	0	196	545
10	419	0	356	293	439	240	340	360	301	0	230	546
11	423	18	368	324	414	315	340	360	455	0	503	228
12	425	4.1	366	382	298	113	340	360	464	0	165	0
13	414	2.7	371	222	122	56	340	360	489	0	165	0
14	422	2.5	347	109	399	76	360	150	457	412	157	0
15	413	2.5	359	0	117	100	360	350	445	657	137	0
16	429	2.0	368	140	0	169	360	350	429	673	185	0
17	396	1.6	313	140	0	294	360	350	369	484	190	311
18	386	140	182	140	0	300	0	350	379	384	484	490
19	352	355	160	140	0	300	360	350	429	391	777	492
20	356	218	172	140	0	300	360	150	655	317	798	522
21	327	199	154	140	0	300	360	150	288	507	737	522
22	332	230	152	140	0	300	400	350	465	648	500	847
23	337	343	185	142	0	300	360	200	561	791	687	890
24	333	357	239	154	0	300	360	350	567	796	755	798
25	336	382	242	46	0	300	360	350	620	776	565	528
26	335	419	244	32	0	320	0	350	645	737	425	412
27	335	414	242	147	0	320	0	350	584	661	491	305
28	329	394	213	149	0	320	350	350	583	675	402	521
29	330	323	193	146	---	320	350	350	558	667	442	428
30	325	204	216	183	---	320	350	350	573	727	923	510
31	313	---	256	124	---	340	---	350	---	466	825	---
TOTAL	11355	4995.4	8539	5988	3961	7023	9470	9740	12685	12923	11710	13880
MEAN	366	167	275	193	141	227	316	314	423	417	378	463
MAX	429	419	384	382	461	340	400	360	655	796	923	890
MIN	313	0	152	0	0	0	0	150	141	0	0	0
AC-FT	22520	9910	16940	11880	7860	13930	18780	19320	25160	25630	23230	27530
a	29110	14230	27440	17120	10420	17440	20170	23670	31570	26800	21320	27530
b	120	120	133	165	152	263	355	362	249	229	215	194

CAL YR 1985 TOTAL 81430.40 MEAN 223 MAX 429 MIN 0 AC-FT 161500

WTR YR 1986 TOTAL 112269.40 MEAN 308 MAX 923 MIN 0 AC-FT 222700

aDischarge, in acre-feet, of imported water released to river 2.75 mi upstream.

bDischarge, in acre-feet, diverted out of basin 18.5 mi upstream

SALTON SEA BASIN

10257600 MISSION CREEK NEAR DESERT HOT SPRINGS, CA

LOCATION.--Lat 34°00'40", long 116°37'38", in NE 1/4 SW 1/4 sec.12, T.2 S., R.3 E., Riverside County, Hydrologic Unit 18100200, in Mission Creek Indian Reservation, 0.6 mi downstream from West Fork, and 6.8 mi northwest of Desert Hot Springs.

DRAINAGE AREA.--35.7 mi².

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 15 to Feb. 6, Mar. 10, Apr. 6 to May 6, May 28 to June 5, June 21 to Aug. 19, and Aug. 26 to Sept. 30. Records fair except for periods of estimated record, which are poor. Slight regulation of low flow by two small dams with a combined capacity of about 3 acre-ft, 2 mi above station.

AVERAGE DISCHARGE.--19 years, 3.90 ft³/s, 2,830 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft³/s, Aug. 17, 1983, gage height, 3.33 ft, on basis of slope-conveyance study of peak flow; maximum gage height, 6.40 ft, Jan. 25, 1969; no flow for long periods in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0615	*53	*1.49				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.48	2.3	1.6	2.3	0	0	1.5	.40	0	2.5	.10
2	.48	.48	2.5	1.8	2.0	0	0	1.5	.40	0	2.5	.10
3	.47	.48	2.3	1.8	2.0	0	0	1.5	.40	0	2.5	.10
4	.47	.48	2.2	1.8	2.0	0	0	1.5	.40	0	2.5	.10
5	.46	.48	2.2	1.8	2.0	0	0	1.5	.36	0	2.5	.10
6	.46	.48	2.0	1.8	2.0	0	1.5	1.6	.68	.10	2.5	.10
7	.47	.48	2.0	1.5	2.0	0	1.5	1.6	.68	.10	2.5	.10
8	.58	.48	2.0	1.4	2.3	0	1.5	1.6	.68	.15	2.5	.10
9	.68	.58	2.0	1.5	2.2	0	1.5	7.4	.68	.15	2.5	.10
10	.68	.68	2.2	1.4	2.0	.20	1.5	9.6	.48	.15	2.5	.10
11	.68	1.7	2.2	1.4	2.0	0	1.5	1.5	.47	.15	2.5	.10
12	.68	1.6	2.0	1.2	2.0	0	1.5	1.5	.47	.15	2.5	.10
13	.58	1.4	1.9	1.2	2.0	0	1.5	1.4	.47	.15	2.5	.10
14	.58	1.2	1.9	1.2	2.0	0	1.5	1.2	.46	.15	2.5	.10
15	.58	1.2	1.9	1.2	19	0	1.5	1.2	.46	.15	2.5	.10
16	.58	1.2	1.9	1.2	.10	0	1.5	.89	.44	.15	2.5	.10
17	.58	1.2	1.9	1.2	0	0	1.5	.89	.43	.15	2.5	.10
18	.58	1.2	1.9	1.2	0	0	1.5	.68	.43	.15	4.2	.10
19	.58	1.2	1.8	1.2	0	0	1.5	.47	.43	.15	3.7	.10
20	.58	1.2	1.8	1.2	0	0	1.5	.58	.43	.15	2.2	.10
21	.58	1.2	1.6	1.2	0	0	1.5	.78	.16	.50	2.2	.10
22	.58	1.2	1.6	1.2	0	0	1.5	.68	.16	.50	2.0	.25
23	.58	1.2	1.6	1.2	0	0	1.5	.48	.16	.50	2.0	.80
24	.58	1.2	1.6	1.2	0	0	1.5	.48	.16	.50	2.3	2.5
25	.58	1.6	1.6	1.2	0	0	1.5	.48	.10	.50	3.8	3.0
26	.48	1.6	1.6	1.2	0	0	1.5	.48	.10	1.0	2.8	2.2
27	.48	1.4	1.6	1.2	0	0	1.5	.44	.10	1.0	2.6	1.9
28	.48	1.4	1.6	1.2	0	0	1.5	.44	.05	1.0	.50	1.9
29	.48	3.5	1.6	1.2	---	0	1.5	.44	0	1.0	.10	1.9
30	.48	2.5	1.6	2.5	---	0	1.5	.44	0	1.0	.10	1.9
31	.48	---	1.6	2.0	---	0	---	.44	---	1.0	.10	---
TOTAL	17.11	35.00	58.5	43.9	47.90	.20	37.5	45.19	10.64	10.65	71.10	18.45
MEAN	.55	1.17	1.89	1.42	1.71	.007	1.25	1.46	.35	.34	2.29	.62
MAX	.68	3.5	2.5	2.5	19	.20	1.5	9.6	.68	1.0	4.2	3.0
MIN	.46	.48	1.6	1.2	0	0	0	.44	0	0	.10	.10
AC-FT	34	69	116	87	95	.4	74	90	21	21	141	37
CAL YR 1985	TOTAL 625.79		MEAN 1.71	MAX	4.8	MIN .42	AC-FT 1240					
WTR YR 1986	TOTAL 396.14		MEAN 1.09	MAX	19	MIN 0	AC-FT 786					

SALTON SEA BASIN

10257710 CHINO CANYON CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°50'21", long 116°36'45", in SW 1/4 NW 1/4 sec.7, T.4 S., R.4 E., Riverside County, Hydrologic Unit 18100200, on left bank 800 ft downstream from tram building, 3.7 mi west of Highway 111 on road leading to Palm Springs aerial tramway, and 5.5 mi west of Palm Springs.

DRAINAGE AREA.--3.88 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to July 1985 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 2,500 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No daily discharge record collected for the 1986 water year. Two diversions for the city of Palm Springs, 0.5 mi upstream. Gage destroyed by debris flow on July 19, 1985. Discharge measurements made during the period July 19, 1985 to Sept. 30, 1986, in files of U.S. Geological Survey. Beginning Oct. 1, 1986, Chino Canyon Creek is being gaged at a new site 1.5 mi downstream, Chino Canyon Creek below Tramway, near Palm Spring (10257720). Records are not equivalent due to the increase in drainage area.

AVERAGE DISCHARGE.--10 years (water years 1975-84), 0.93 ft³/s, 674 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 247 ft³/s, Aug. 15, 1977, gage height, 5.93 ft, from floodmark, from rating curve extended above 61 ft³/s on basis of slope-area measurement of peak flow; no flow for several days in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 19, 1985, was a debris flow as a result of intense thunderstorm activity less than 2 weeks after a brushfire denuded over 75 percent of the drainage basin. The maximum stage for this flood exceeded gage height 20.7 ft, completely filling the existing channel with boulders and mud, and altering the entire canyon floor at the gage. The peak discharge for this flood is unknown.

SALTON SEA BASIN

10257710 CHINO CANYON CREEK NEAR PALM SPRINGS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-76, 1978 to current year.

CHEMICAL DATA: Water years 1972-76, 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 22...	1515	0.92	220	8.40	8.5	85	0	29	3.0	10
MAY 21...	1515	1.5	209	8.30	20.0	79	0	27	2.7	9.6

DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 22...	19	0.5	6.7	118	2.0	100	100	7.7	2.6	<0.1
MAY 21...	20	0.5	5.8	107	4.0	94	98	6.4	2.3	<0.1

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 22...	18	134	140	0.18	0.20	0.03	40	310	6
MAY 21...	19	127	130	0.17	0.19	0.02	20	9	2

< Actual value is known to be less than the value shown.

SALTON SEA BASIN

10258000 TAHQUITZ CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°48'18", long 116°33'30", in SW 1/4 SW 1/4 sec.22, T.4 S., R.4 E., Riverside County, Hydrologic Unit 18100200, 2.2 mi southwest of Palm Springs, and 7 mi upstream from mouth.

DRAINAGE AREA.--16.8 mi².

PERIOD OF RECORD.--October 1947 to September 1982, October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 762.5 ft above National Geodetic Vertical Datum of 1929 (levels by Riverside County Flood Control District). Prior to Aug. 25, 1970, at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Jan. 26 to Feb. 6, Feb. 18-19, Apr. 3 to May 7, and Aug. 7 to Sept. 4. Records good except for periods of estimated daily discharges, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--38 years (water years 1948-82, 1984-86), 5.37 ft³/s, 3,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,900 ft³/s, Nov. 22, 1965, Jan. 25, 1969, gage height, 12.34 ft, from rating curve extended above 70 ft³/s on basis of slope-area measurements at gage heights 10.45 ft and 12.34 ft; maximum gage height, 15.78 ft, Sept. 7, 1981, from debris wave produced by thunderstorm following a brushfire; no flow for parts of most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 85 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0700	*422	*8.12				

Minimum daily, 0.43 ft³/s, Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.53	.52	5.4	3.2	4.3	14	19	17	6.4	1.6	.90	.69
2	.48	.55	9.2	3.1	3.7	13	20	16	6.0	1.5	.92	.69
3	.47	.56	20	2.9	3.5	12	21	16	5.8	1.5	.86	.68
4	.49	.57	8.3	2.9	3.4	11	21	16	5.5	1.4	.79	.68
5	.43	.55	5.7	3.2	3.4	11	21	16	5.4	1.3	.75	.68
6	.47	.55	4.7	3.6	3.4	10	21	15	5.2	1.3	.76	.62
7	.55	.56	4.1	3.2	3.1	10	21	14	5.1	1.2	.76	.60
8	.59	.60	3.8	3.0	4.2	14	21	13	4.4	1.1	.73	.61
9	.63	.63	3.5	2.8	3.4	17	21	12	3.6	1.3	.74	.63
10	.67	.66	3.3	2.8	3.3	17	21	12	3.4	1.3	.75	.65
11	.66	1.8	3.4	2.7	3.2	17	21	11	3.2	1.3	.77	.66
12	.64	2.4	3.2	2.5	3.1	16	19	11	3.1	1.3	.81	.65
13	.60	1.6	3.1	2.5	6.0	15	19	11	3.1	1.3	.68	.65
14	.54	1.3	3.0	2.6	7.9	14	19	11	3.2	1.4	.60	.68
15	.53	1.2	2.9	2.6	228	13	19	11	3.0	1.7	.54	.68
16	.50	1.2	2.8	2.5	76	17	19	10	2.9	1.4	.51	.67
17	.50	1.2	2.7	2.4	39	17	19	9.9	2.7	1.3	.50	.64
18	.53	1.2	2.7	2.4	37	15	19	9.5	2.7	1.2	2.7	.65
19	.58	1.1	2.7	2.4	32	15	19	9.3	2.6	1.1	1.9	.67
20	.54	1.1	2.7	2.4	28	14	18	9.1	2.5	.99	1.4	.70
21	.54	1.1	2.6	2.4	23	15	18	9.0	2.3	1.2	1.2	.70
22	.60	1.1	2.6	2.4	19	15	18	8.5	2.2	1.9	1.0	.69
23	.61	1.1	2.6	2.3	17	17	18	8.3	2.2	3.2	.96	.77
24	.58	1.1	2.5	2.3	16	17	18	8.3	2.1	2.1	.90	.78
25	.55	9.7	2.5	2.3	15	17	18	7.7	2.1	1.7	.85	2.4
26	.53	5.9	2.5	2.2	15	17	18	7.7	1.9	1.5	.79	2.5
27	.52	3.4	2.5	2.2	14	17	17	7.9	1.7	1.4	.75	1.8
28	.52	2.8	2.5	2.2	14	16	17	7.7	1.7	1.3	.72	1.6
29	.53	14	2.5	2.2	---	16	17	7.4	1.6	1.2	.71	1.5
30	.52	12	2.9	7.0	---	16	17	7.2	1.7	1.1	.70	1.3
31	.52	---	3.4	5.0	---	19	---	6.9	---	.94	.70	---
TOTAL	16.95	72.05	126.3	88.2	628.9	464	574	336.4	99.3	44.03	27.65	27.22
MEAN	.55	2.40	4.07	2.85	22.5	15.0	19.1	10.9	3.31	1.42	.89	.91
MAX	.67	14	20	7.0	228	19	21	17	6.4	3.2	2.7	2.5
MIN	.43	.52	2.5	2.2	3.1	10	17	6.9	1.6	.94	.50	.60
AC-FT	34	143	251	175	1250	920	1140	667	197	87	55	54

CAL YR 1985 TOTAL 1172.31 MEAN 3.21 MAX 20 MIN .18 AC-FT 2330
WTR YR 1986 TOTAL 2505.00 MEAN 6.86 MAX 228 MIN .43 AC-FT 4970

SALTON SEA BASIN

10258500 PALM CANYON CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°44'42", long 116°32'05", in SW 1/4 SE 1/4 sec.11, T.5 S., R.4 E., Riverside County, Hydrologic Unit 18100200, on right bank 0.8 mi upstream from Murray Canyon Creek, and 6 mi south of Palm Springs.

DRAINAGE AREA.--93.3 mi².

PERIOD OF RECORD.--January 1930 to January 1942, October 1947 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 700 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 14, 1942, at datum 0.2 ft higher.

REMARKS.--Estimated daily discharges: Mar. 17-19. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--50 years (water years 1931-41, 1948-86), 5.40 ft³/s, 3,910 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,000 ft³/s, Feb. 21, 1980, gage height, 7.29 ft, from rating curve extended above 650 ft³/s on basis of slope-area measurement at gage height 6.38 ft; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 25	0800	234	3.47	Mar. 10	1430	452	3.85
Nov. 29	2015	407	3.78	Mar. 16	0500	1,100	4.60
Feb. 15	0645	*3,360	*5.98	July 22	1815	1,760	5.11

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	10	.84	1.7	3.7	9.2	2.2		0		0
2		0	9.2	.84	1.1	3.7	8.8	2.2		0		0
3		0	17	.84	.92	3.4	7.7	2.0		0		0
4		0	8.8	.84	.70	3.4	7.0	1.9		0		0
5		0	6.0	.84	.63	3.4	7.0	1.9		0		0
6		0	4.1	.76	.57	3.0	7.7	1.8		0		0
7		0	3.5	.70	.63	3.0	7.7	1.9		0		0
8		0	2.7	.76	10	5.7	7.0	1.8		0		0
9		0	2.2	.76	6.7	8.4	6.7	1.7		0		0
10		0	2.2	.70	3.7	156	6.4	1.4		0		0
11		.05	6.7	.63	2.9	61	6.0	1.4		0		0
12		1.4	3.7	.57	2.7	38	5.7	1.3		0		0
13		1.0	2.9	.57	4.6	32	5.4	1.2		0		0
14		.46	2.4	.63	6.7	23	5.1	1.2		0		0
15		.33	2.4	.70	1050	25	4.9	1.2		0		0
16		.33	2.0	.70	66	439	4.9	.92		0		0
17		.37	1.8	.63	24	85	4.9	.41		0		0
18		.33	1.7	.57	14	56	4.6	.22		0		0
19		.29	1.5	.51	10	45	4.4	.21		0		0
20		.26	1.4	.51	8.4	27	3.9	.11		0		0
21		.26	1.4	.51	7.3	23	3.7	.17		0		0
22		.26	1.3	.51	6.4	20	3.5	.30		82		0
23		.26	1.2	.51	5.4	19	3.5	.22		9.2		0
24		.33	1.0	.51	5.1	16	3.3	.10		5.1		0
25		65	.92	.51	4.6	15	3.0	0		3.7		0
26		8.8	.92	.51	4.4	13	3.0	0		2.7		0
27		3.9	.84	.46	3.9	12	2.9	0		1.5		0
28		2.4	.84	.46	3.9	11	2.7	0		0		0
29		47	.84	.46	---	11	2.5	0		0		0
30		31	.84	3.4	---	11	2.2	0		0		.32
31		---	.84	2.5	---	10	---	0		0		---
TOTAL	0	164.03	103.14	24.24	1256.95	1185.7	155.3	27.76	0	104.2	0	.32
MEAN	0	5.47	3.33	.78	44.9	38.2	5.18	.90	0	3.36	0	.011
MAX	0	65	17	3.4	1050	439	9.2	2.2	0	82	0	.32
MIN	0	0	.84	.46	.57	3.0	2.2	0	0	0	0	0
AC-FT	0	325	205	48	2490	2350	308	55	0	207	0	.6
CAL YR 1985	TOTAL	1000.28	MEAN 2.74	MAX 65	MIN 0	AC-FT 1980						
WTR YR 1986	TOTAL	3021.64	MEAN 8.28	MAX 1050	MIN 0	AC-FT 5990						

SALTON SEA BASIN

10259000 ANDREAS CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°45'36", long 116°32'57", in SE 1/4 SE 1/4 sec.3, T.5 S., R.4 E., Riverside County, Hydrologic Unit 18100200, on left bank at U.S. Bureau of Indian Affairs diversion dam, 1.1 mi above mouth, and 5.1 mi south of Palm Springs.

DRAINAGE AREA.--8.61 mi².

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 800 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 25, 1949, reference point at same site at different datum.

REMARKS.--Estimated daily discharges: July 3 to Aug. 4. Records fair except for estimated daily discharges, which are poor. No regulation above station. One small diversion for domestic use about 1 mi above station.

AVERAGE DISCHARGE.--38 years, 3.05 ft³/s, 2,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,960 ft³/s, Aug. 31, 1954, gage height, 7.11 ft, from rating curve extended above 80 ft³/s on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0700	*263	*3.79				
Minimum daily, 1.5 ft ³ /s, Oct. 2, 3, 5.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.8	5.9	2.8	3.4	6.1	7.5	4.2	2.6	1.9	3.8	3.2
2	1.5	1.8	10	2.8	3.0	6.0	7.3	4.0	2.6	1.9	3.6	3.2
3	1.5	1.8	11	2.7	2.9	5.8	7.0	4.0	2.6	1.9	3.4	3.1
4	1.6	1.8	6.7	2.7	2.8	5.6	6.8	3.9	2.5	1.9	3.4	3.1
5	1.5	1.9	5.7	2.7	2.7	5.1	6.8	3.9	2.5	1.9	3.2	3.1
6	1.6	1.9	5.0	2.8	2.6	4.8	7.0	4.0	2.5	1.9	3.2	3.1
7	1.7	1.9	4.6	2.7	2.6	4.8	6.6	4.0	2.4	1.9	3.2	3.0
8	1.7	1.9	4.3	2.7	4.7	7.2	6.4	3.9	2.4	2.0	3.2	3.0
9	1.8	1.9	4.0	2.6	3.6	7.6	6.2	3.8	2.3	2.0	3.3	3.1
10	1.9	1.9	4.2	2.6	3.2	12	6.1	3.6	2.4	2.0	3.3	3.1
11	1.8	5.2	4.6	2.6	3.2	11	5.9	3.6	2.3	2.0	3.4	3.1
12	1.8	4.2	4.0	2.6	3.2	8.9	5.8	3.6	2.2	2.0	3.3	3.1
13	1.7	2.7	3.7	2.6	5.7	7.4	5.7	3.5	2.2	2.0	3.2	3.1
14	1.8	2.5	3.6	2.6	5.6	7.5	5.6	3.4	2.2	2.0	3.2	3.0
15	1.7	2.4	3.5	2.6	95	7.2	5.5	3.4	2.2	2.0	3.2	3.0
16	1.7	2.4	3.3	2.6	22	13	5.5	3.3	2.1	2.0	3.2	3.0
17	1.7	2.4	3.2	2.6	14	11	5.5	3.2	2.1	2.0	3.2	3.0
18	1.8	2.3	3.2	2.6	11	10	5.3	3.1	2.1	2.0	4.2	3.0
19	1.8	2.3	3.1	2.5	11	9.4	5.1	3.0	2.1	2.0	3.9	3.0
20	1.8	2.3	3.0	2.5	9.9	9.2	4.9	3.0	2.0	2.0	3.4	3.1
21	1.8	2.3	2.9	2.5	9.1	9.1	4.8	3.1	2.0	2.0	3.3	3.0
22	1.9	2.3	2.9	2.5	8.3	9.0	4.7	3.0	2.0	6.0	3.3	3.1
23	1.8	2.3	2.9	2.5	7.7	8.8	4.6	3.0	2.1	5.6	3.2	3.2
24	1.8	2.5	2.8	2.5	7.2	8.5	4.6	2.9	2.0	5.0	3.4	3.3
25	1.8	11	2.8	2.5	6.9	8.2	4.6	2.8	1.9	4.8	3.5	4.1
26	1.8	5.2	2.8	2.5	6.6	8.2	4.5	2.8	1.8	4.6	3.5	3.4
27	1.7	3.7	2.8	2.5	6.5	8.2	4.5	2.8	1.8	4.6	3.5	3.3
28	1.8	3.0	2.8	2.4	6.2	8.2	4.5	2.7	1.9	4.4	3.4	3.3
29	1.8	13	2.7	2.4	---	8.0	4.3	2.6	1.9	4.4	3.4	3.2
30	1.8	9.6	2.7	6.7	---	7.7	4.3	2.6	2.0	4.2	3.4	3.1
31	1.8	---	2.8	4.4	---	7.5	---	2.7	---	4.0	3.2	---
TOTAL	53.8	102.2	127.5	86.3	270.6	251.0	167.9	103.4	65.7	88.9	104.9	94.4
MEAN	1.74	3.41	4.11	2.78	9.66	8.10	5.60	3.34	2.19	2.87	3.38	3.15
MAX	1.9	13	11	6.7	95	13	7.5	4.2	2.6	6.0	4.2	4.1
MIN	1.5	1.8	2.7	2.4	2.6	4.8	4.3	2.6	1.8	1.9	3.2	3.0
AC-FT	107	203	253	171	537	498	333	205	130	176	208	187

CAL YR 1985 TOTAL 1018.5 MEAN 2.79 MAX 13 MIN 1.0 AC-FT 2020
WTR YR 1986 TOTAL 1516.6 MEAN 4.16 MAX 95 MIN 1.5 AC-FT 3010

SALTON SEA BASIN

10259200 DEEP CREEK NEAR PALM DESERT, CA

LOCATION.--Lat 33°37'52", long 116°23'29", in NE 1/4 SE 1/4 sec.19, T.6 S., R.6 E., Riverside County, Hydrologic Unit 18100200, on left bank 500 ft downstream from unnamed tributary, and 6.3 mi south of Palm Desert.

DRAINAGE AREA.--30.6 mi².

PERIOD OF RECORD.--May 1962 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-4, Nov. 26 to Dec. 26, Feb. 16 to Mar. 18, Aug. 22-26. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--24 years, 2.40 ft³/s, 1,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,100 ft³/s, Sept. 10, 1976, gage height, 7.84 ft, from rating curve extended above 40 ft³/s on basis of slope-area measurements at gage heights 2.68 ft, 5.15 ft, and 7.84 ft; maximum gage height, 10.27 ft, Aug. 14, 1984 (backwater from debris); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s and maximum (*), from rating curve extended above 10 ft³/s on basis of slope-area measurements at gage heights 2.68 ft, 5.15 ft, and 7.84 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 25	1145	257	3.60	Mar. 16	Unknown	Unknown	Unknown
Feb. 15	0815	*1,180	*5.17	Aug. 21	1730	315	3.74

Minimum daily, 0.01 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.09	3.0	.74	1.4	2.0	3.3	.64	.10	.01	.01	.03
2	.08	.09	2.1	.73	1.2	1.9	2.7	.63	.10	.01	.01	.03
3	.08	.09	3.8	.72	1.1	1.8	2.3	.59	.09	.01	.01	.02
4	.08	.09	2.6	.71	1.0	1.8	2.1	.58	.08	.01	.01	.02
5	.06	.09	1.8	.71	.99	1.8	2.0	.57	.07	.01	.01	.02
6	.06	.10	1.5	.71	.95	1.7	2.5	.57	.07	.01	.01	.02
7	.06	.10	1.2	.69	.97	1.7	2.5	.60	.07	.01	.01	.02
8	.06	.10	1.1	.74	2.4	2.7	1.9	.59	.07	.01	.01	.02
9	.06	.10	1.0	.77	1.5	3.2	1.7	.53	.07	.01	.01	.02
10	.06	.10	1.1	.74	1.4	8.5	1.6	.47	.06	.01	1.0	.02
11	.06	1.0	1.2	.74	1.4	10	1.5	.42	.05	.01	.03	.02
12	.06	1.3	1.0	.73	1.5	7.5	1.4	.39	.05	.01	.02	.02
13	.06	.28	.95	.73	1.9	7.8	1.4	.38	.05	.01	.02	.02
14	.06	.15	.85	.77	2.6	8.4	1.3	.35	.05	.01	.02	.02
15	.06	.10	.80	.76	355	7.0	1.2	.32	.04	.01	.02	.02
16	.06	.09	.80	.74	90	30	1.1	.30	.04	.01	.02	.02
17	.06	.09	.80	.74	25	13	1.1	.28	.04	.01	.02	.02
18	.06	.09	.80	.73	9.0	8.0	1.1	.26	.04	.01	.02	.02
19	.07	.09	.80	.72	6.0	9.2	.99	.23	.03	.01	.02	.02
20	.07	.09	.80	.71	4.5	8.7	.95	.21	.03	.01	.02	.02
21	.08	.09	.78	.71	3.7	8.7	.91	.20	.03	.01	16	.02
22	.08	.09	.78	.72	3.2	8.2	.87	.18	.03	.27	.50	.02
23	.09	.09	.78	.72	2.8	7.8	.84	.17	.03	.01	.30	.01
24	.09	.11	.77	.71	2.6	7.2	.81	.16	.03	.01	.15	.01
25	.09	100	.75	.70	2.4	6.8	.77	.15	.02	.01	.05	.01
26	.09	22	.75	.69	2.3	6.3	.76	.15	.02	.01	.03	.01
27	.09	1.5	.72	.69	2.1	5.8	.76	.14	.02	.01	.03	.01
28	.09	1.3	.72	.69	2.0	5.4	.74	.13	.02	.01	.03	.01
29	.09	14	.72	.69	---	5.0	.69	.12	.01	.01	.03	.01
30	.10	11	.73	1.8	---	4.4	.65	.11	.01	.01	.03	.01
31	.10	---	.75	1.6	---	3.6	---	.11	---	.01	.03	---
TOTAL	2.29	154.41	36.25	24.35	530.91	205.9	42.44	10.53	1.42	.57	18.48	.54
MEAN	.074	5.15	1.17	.79	19.0	6.64	1.41	.34	.047	.018	.60	.018
MAX	.10	100	3.8	1.8	355	30	3.3	.64	.10	.27	16	.03
MIN	.06	.09	.72	.69	.95	1.7	.65	.11	.01	.01	.01	.01
AC-FT	4.5	306	72	48	1050	408	84	21	2.8	1.1	37	1.1

CAL YR 1985 TOTAL	728.64	MEAN 2.00	MAX 100	MIN .02	AC-FT 1450
WTR YR 1986 TOTAL	1028.09	MEAN 2.82	MAX 355	MIN .01	AC-FT 2040

SALTON SEA BASIN

10259300 WHITEWATER RIVER AT INDIO, CA

LOCATION.--Lat 33°44'14", long 116°14'07", in SE 1/4 NE 1/4 sec.15, T.5 S., R.7 E., Riverside County, Hydrologic Unit 18100200, on right bank of concrete drop structure, 1,000 ft upstream from Monroe Street bridge, and 1.7 mi northwest of Indio.

DRAINAGE AREA.--1,073 mi²

PERIOD OF RECORD.--March 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Oct. 1, 1979. Elevation of gage is 0 ft National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1979, water-stage recorder at site 0.5 mi upstream at different datum. Oct. 1, 1979, to Feb. 17, 1983, at datum 1.03 ft lower.

REMARKS.--No estimated daily discharges. Records good. No regulation upstream from station. Water diverted from tributary streams for municipal supply in vicinity of Palm Springs.

AVERAGE DISCHARGE.--20 years, 3.44 ft³/s, 2,490 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s, Jan. 25, 1969, gage height, 14.41 ft, site and datum then in use, from rating curve extended above 1,300 ft³/s on basis of slope-area measurement at gage height 15.3 ft, for flood of Nov. 22, 1965; no flow all or most of each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 2 or 3, 1938, reached a discharge of 29,000 ft³/s, on basis of slope-area measurement, at site 5.0 mi upstream. Flood of November 22, 1965, reached a stage of 15.3 ft, from floodmark, at site and datum used prior to Oct. 1, 1979, discharge 14,100 ft³/s on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*), from rating curve extended above 450 ft³/s on basis of critical-depth study:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	1215	*1,350	*3.17				

No flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0			0	0	0			0		
2		0			0	0	0			0		
3		0			0	0	0			0		
4		0			0	0	0			0		
5		0			0	0	0			0		
6		0			0	0	0			0		
7		0			0	0	0			0		
8		0			0	0	0			0		
9		0			0	0	0			0		
10		0			0	0	0			0		
11		0			0	0	0			0		
12		0			0	0	0			0		
13		0			0	0	0			0		
14		0			0	0	.07			0		
15		0			326	0	0			0		
16		0			19	.10	0			0		
17		0			.14	1.1	0			0		
18		0			0	0	0			0		
19		0			0	0	0			0		
20		0			0	0	0			0		
21		0			0	0	0			0		
22		0			0	0	0			.21		
23		0			0	0	0			2.2		
24		0			0	0	0			0		
25		.18			0	0	0			0		
26		.15			0	0	0			0		
27		0			0	0	0			0		
28		0			0	0	0			0		
29		0			---	0	0			0		
30		0			---	0	0			0		
31		---			---	0	---		---	0		---
TOTAL	0	.33	0	0	345.14	1.20	.07	0	0	2.41	0	0
MEAN	0	.011	0	0	12.3	.039	.002	0	0	.078	0	0
MAX	0	.18	0	0	326	1.1	.07	0	0	2.2	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	.7	0	0	685	2.4	.1	0	0	4.8	0	0

SALTON SEA BASIN

10259540 WHITEWATER RIVER NEAR MECCA, CA

LOCATION.--Lat 33°31'29", long 116°04'36", in NW 1/4 NW 1/4 sec.32, T.7 S., R.9 E., Riverside County, Hydrologic Unit 18100200, on left bank 1.6 mi upstream from mouth at Salton Sea, and 3.3 mi south of Mecca.

DRAINAGE AREA.--1,495 mi².

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 221.00 ft below National Geodetic Vertical Datum of 1929 (levels by Coachella County Water District). Oct. 1, 1960, to Mar. 22, 1967, at site 1.3 mi downstream and Mar. 23, 1967, to July 22, 1970, at site 0.7 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Nov. 11 to Dec. 3. Records fair. Most of the flow represents seepage and return flow from irrigated areas.

COOPERATION.--Twenty discharge measurements were provided by Coachella Valley County Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,500 ft³/s, Jan. 25, 1969, estimated; minimum daily, 37 ft³/s, Nov. 25-29, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,250 ft³/s, Feb. 16; minimum daily, 63 ft³/s, June 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	98	71	86	91	132	106	83	89	80	101	103
2	87	148	70	94	88	133	104	90	82	83	100	107
3	80	152	68	85	86	129	105	85	78	89	121	123
4	84	118	67	82	86	128	103	83	77	88	109	142
5	96	98	65	90	89	124	95	113	75	97	121	147
6	104	84	73	93	94	127	105	102	73	101	150	141
7	96	74	73	93	95	119	103	93	76	83	134	141
8	88	65	73	95	108	118	106	86	81	81	116	137
9	89	70	75	93	105	117	106	101	81	78	108	124
10	90	66	71	81	91	120	137	116	79	84	112	122
11	92	70	79	83	88	119	118	107	75	91	114	128
12	87	69	77	90	91	106	99	107	71	90	105	147
13	84	69	75	84	95	102	87	101	72	95	111	100
14	91	68	79	86	105	96	90	110	77	83	107	109
15	93	68	82	90	483	93	89	104	72	89	112	102
16	94	68	76	89	1250	100	83	106	68	84	128	99
17	98	68	75	91	198	99	127	115	71	101	109	123
18	101	69	76	87	146	89	135	104	67	102	120	124
19	140	70	76	84	143	83	109	99	68	105	105	115
20	122	72	76	79	127	83	84	103	67	108	107	106
21	102	75	79	81	128	81	81	106	71	109	101	105
22	95	79	75	78	129	81	84	114	73	98	130	121
23	96	83	76	83	133	83	83	114	68	153	131	95
24	103	87	80	85	136	86	90	109	71	101	130	84
25	97	94	73	82	126	87	89	108	66	86	111	85
26	101	82	70	83	130	87	91	115	63	93	102	85
27	95	77	71	82	139	89	87	107	64	109	104	87
28	92	76	70	83	135	93	93	117	73	99	138	87
29	89	78	75	84	---	91	99	123	83	100	130	88
30	105	73	77	82	---	124	93	125	83	94	137	84
31	92	---	83	92	---	120	---	103	---	100	112	---
TOTAL	2975	2468	2306	2670	4715	3239	2981	3249	2214	2954	3616	3361
MEAN	96.0	82.3	74.4	86.1	168	104	99.4	105	73.8	95.3	117	112
MAX	140	152	83	95	1250	133	137	125	89	153	150	147
MIN	80	65	65	78	86	81	81	83	63	78	100	84
AC-FT	5900	4900	4570	5300	9350	6420	5910	6440	4390	5860	7170	6670
CAL YR 1985	TOTAL	32322	MEAN	88.6	MAX	152	MIN	56	AC-FT	64110		
WTR YR 1986	TOTAL	36748	MEAN	101	MAX	1250	MIN	63	AC-FT	72890		

MOJAVE RIVER BASIN

10260500 DEEP CREEK NEAR HESPERIA, CA

LOCATION.--Lat 34°20'28", long 117°13'39", in NE 1/4 SE 1/4 sec.18, T.3 N., R.3 W., San Bernardino County, Hydrologic Unit 18090208, on right bank 0.5 mi upstream from confluence with West Fork Mojave River at Mojave Forks Dam, 7 mi southeast of Hesperia, and 11 mi downstream from Lake Arrowhead.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--October 1904 to September 1922, October 1929 to current year. Prior to January 1930, monthly discharge only, published in WSP 1314.

GAGE.--Water-stage recorder. Broad-crested weir since December 1938. Elevation of gage is 3,050 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1314 for history of changes prior to Dec. 10, 1938.

REMARKS.--No estimated daily discharges. Records good. Slight regulation by Lake Arrowhead, capacity, 48,000 acre-ft, used principally for recreation.

AVERAGE DISCHARGE.--75 years, 71.4 ft³/s, 51,730 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,600 ft³/s, Mar. 2, 1938, gage height unknown, based on slope-area measurement of peak flow; maximum gage height, 23.81 ft, Feb. 10, 1978 (backwater from Mojave Forks Reservoir); no flow July 17, 18, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 25	1315	446	2.98	Feb. 15	1115	*5,110	*6.29
Nov. 29	1930	2,440	4.61	Feb. 19	1715	1,710	4.09
Jan. 30	1545	2,000	4.31	Mar. 10	1930	583	3.15

Minimum daily, 0.60 ft³/s, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	3.9	70	13	174	47	89	23	7.3	1.2	1.1	1.9
2	1.9	3.9	42	13	93	45	84	23	6.9	1.1	1.1	1.8
3	2.1	3.8	84	13	66	42	76	22	6.6	1.1	.91	1.6
4	1.8	3.7	53	13	53	38	70	23	6.3	1.0	.81	1.4
5	2.4	3.8	35	13	44	37	65	22	6.1	1.0	.75	1.2
6	2.2	4.0	27	14	37	34	73	21	6.0	.98	.69	1.5
7	1.9	3.6	22	17	32	32	91	20	6.0	.98	.63	1.3
8	2.0	3.6	20	15	30	48	81	19	5.7	.98	.60	1.3
9	1.9	3.6	18	13	28	157	74	20	5.2	1.1	.65	1.2
10	2.6	3.6	16	13	23	198	67	20	5.1	.98	.70	1.3
11	3.1	20	17	12	23	213	62	19	4.8	1.0	.76	1.3
12	3.1	33	14	12	22	136	58	19	4.8	1.1	.85	1.2
13	3.0	14	14	11	22	112	54	17	4.5	1.0	.94	1.2
14	3.1	10	13	11	54	100	50	16	3.7	.90	.93	1.2
15	2.9	8.7	13	12	3060	92	48	16	3.4	1.0	.90	1.3
16	2.9	8.2	13	11	1660	163	46	16	3.4	1.1	.89	1.6
17	2.8	8.4	13	11	384	160	44	15	3.3	.87	.89	1.6
18	2.7	9.2	13	11	220	165	43	14	3.1	.97	.96	1.7
19	2.6	8.9	13	11	557	146	40	13	3.0	1.4	1.2	1.8
20	2.6	8.2	12	11	372	133	38	12	2.9	1.3	1.1	2.0
21	2.6	7.7	12	11	183	154	36	12	2.9	1.4	.96	2.0
22	2.8	7.6	12	10	123	167	34	12	2.9	1.5	.94	2.0
23	3.5	7.5	12	10	97	171	33	12	2.9	2.6	.95	2.2
24	4.2	7.9	11	9.7	82	148	31	12	2.9	1.7	.97	2.4
25	3.8	141	11	9.6	72	141	30	11	2.9	1.9	1.1	9.5
26	4.0	87	11	9.5	64	144	29	10	2.8	1.8	1.1	21
27	4.5	39	11	9.4	57	141	27	9.1	2.2	1.7	1.1	8.6
28	4.5	25	11	9.4	52	134	26	8.6	1.9	1.5	1.1	5.6
29	4.2	437	11	9.2	---	123	25	8.1	1.6	1.4	1.4	4.6
30	4.2	258	12	523	---	112	24	7.7	1.5	1.4	2.0	4.2
31	4.2	---	12	263	---	99	---	7.4	---	1.2	1.8	---
TOTAL	92.2	1183.8	648	1123.8	7684	3632	1548	479.9	122.6	39.16	30.78	91.5
MEAN	2.97	39.5	20.9	36.3	274	117	51.6	15.5	4.09	1.26	.99	3.05
MAX	4.5	437	84	523	3060	213	91	23	7.3	2.6	2.0	21
MIN	1.8	3.6	11	9.2	22	32	24	7.4	1.5	.87	.60	1.2
AC-FT	183	2350	1290	2230	15240	7200	3070	952	243	78	61	181

MOJAVE RIVER BASIN

10260620 HOUSTON CREEK ABOVE LAKE GREGORY, AT CRESTLINE, CA

LOCATION.--Lat 34°14'33", long 117°16'48", in NE 1/4 SE 1/4 sec.22, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 0.1 mi east of Wildrose Road, 0.1 mi southeast of intersection of Lake Gregory Road and Wildrose Road, and 0.3 mi east of Crestline.

DRAINAGE AREA.--0.35 mi².

PERIOD OF RECORD.--March 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station.

AVERAGE DISCHARGE.--7 years, 0.84 ft³/s, 609 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 295 ft³/s, Feb. 19, 1980, gage height, 7.40 ft, from rating curve extended above 70 ft³/s on basis of slope-conveyance study at gage height 7.40 ft; no flow many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1200	58	6.10	Mar. 8	1330	54	6.05
Jan. 31	1615	71	6.28	Mar. 10	1245	*135	*6.82
Feb. 15	1700	57	6.09				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.01	.40	.05	.62	.39	.53	.15	.04	.02	0	0
2	0	.01	2.0	.04	.28	.36	.49	.15	.04	.02	0	0
3	0	.01	.63	.05	.47	.34	.41	.15	.04	.01	.01	0
4	0	0	.34	.03	.21	.37	.41	.17	.04	.02	.01	0
5	0	.01	.27	.03	.20	.30	1.7	.19	.04	.02	.01	0
6	0	0	.23	.03	.21	.27	5.1	.20	.04	.02	.01	0
7	.01	0	.21	.04	.17	.25	1.5	.16	.04	.02	.01	0
8	0	0	.19	.05	.24	7.5	.93	.19	.04	.02	.02	0
9	.05	0	.15	.05	.14	1.0	.75	.15	.04	.02	.01	0
10	0	.01	.16	.05	.12	12	.66	.10	.04	.01	0	0
11	0	6.5	.15	.08	.12	3.7	.55	.10	.04	.01	0	0
12	0	.27	.11	.08	.12	2.3	.56	.10	.03	.01	0	0
13	0	.25	.09	.08	1.5	2.9	.44	.10	.04	.02	0	0
14	0	.25	.08	.09	3.6	3.0	.36	.10	.04	.02	0	0
15	0	.43	.09	.08	22	2.1	.33	.10	.04	.02	0	0
16	0	.28	.10	.11	12	2.6	.32	.10	.06	.02	0	0
17	0	.28	.09	.12	2.9	3.7	.28	.08	.03	.02	0	0
18	0	.21	.08	.12	1.4	3.3	.23	.08	.03	.02	0	0
19	.01	.15	.08	.10	11	3.4	.20	.08	.03	.02	0	0
20	.01	.16	.08	.15	2.5	3.3	.18	.07	.03	.02	0	0
21	2.2	.17	.05	.12	1.4	3.0	.16	.08	.03	.02	0	0
22	.02	.17	.05	.12	1.1	2.5	.15	.07	.03	.02	0	0
23	.01	.21	.05	.12	.88	2.0	.15	.07	.02	.01	0	0
24	.01	2.4	.05	.12	.75	1.6	.15	.07	.02	0	0	5.5
25	.01	9.1	.05	.12	.67	1.4	.15	.06	.02	0	0	2.7
26	.01	.83	.05	.12	.58	1.1	.15	.05	.02	.01	0	0
27	.02	.63	.05	.12	.53	.96	.15	.05	.02	.01	0	0
28	.02	.58	.05	.12	.46	.82	.18	.05	.02	0	0	0
29	.02	13	.06	.16	---	.74	.18	.05	.02	.01	0	0
30	.02	.90	.05	8.6	---	.67	.20	.04	.02	0	0	0
31	.01	---	.05	4.0	---	.57	---	.04	---	.01	0	---
TOTAL	2.43	36.82	6.09	15.15	66.17	68.44	17.55	3.15	.99	.45	.08	8.2
MEAN	.078	1.23	.20	.49	2.36	2.21	.59	.10	.033	.015	.003	.27
MAX	2.2	13	2.0	8.6	22	12	5.1	.20	.06	.02	.02	5.5
MIN	0	0	.05	.03	.12	.25	.15	.04	.02	0	0	0
AC-FT	4.8	73	12	30	131	136	35	6.2	2.0	.9	.2	16

CAL YR 1985 TOTAL 95.72 MEAN .26 MAX 13 MIN 0 AC-FT 190
WTR YR 1986 TOTAL 225.52 MEAN .62 MAX 22 MIN 0 AC-FT 447

MOJAVE RIVER BASIN

10260630 ABONDIGAS CREEK ABOVE LAKE GREGORY, AT CRESTLINE, CA

LOCATION.--Lat 34°14'16", long 117°15'51", in SW 1/4 SE 1/4 sec.23, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on right bank 400 ft south of east gate for San Moritz Park, and 1.4 mi east of Crestline.

DRAINAGE AREA.--1.15 mi².

PERIOD OF RECORD.--March 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,555 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1983, at site 200 ft upstream at datum 5.78 ft higher.

REMARKS.--Estimated daily discharges: Feb. 18-19, Mar. 25 to Apr. 4. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--7 years, 1.50 ft³/s, 1,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 580 ft³/s, Feb. 27, 1983, gage height, 6.32 ft, site and datum then in use, from rating curve extended above 94 ft³/s on basis of field estimate of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1245	60	7.71	Mar. 10	1330	*66	*7.88
Feb. 15	0315	50	7.42				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.55	.09	.90	.96	1.4	.25	.21	.03		0
2	0	0	1.6	.07	.32	.93	1.3	.24	.21	.03		0
3	0	0	.72	.07	.46	.80	1.2	.24	.20	.02		0
4	0	0	.40	.07	.25	.74	1.2	.36	.18	.03		0
5	0	0	.30	.07	.21	.68	1.2	.55	.19	.04		0
6	0	0	.26	.07	.19	.63	4.2	.66	.18	.04		0
7	0	0	.24	.07	.18	.62	5.0	.56	.18	.03		0
8	0	0	.21	.07	.18	7.4	2.7	.52	.17	.03		0
9	0	0	.22	.07	.19	3.0	2.1	.58	.15	.02		0
10	0	0	.22	.07	.18	12	1.8	.48	.14	.02		0
11	0	1.4	.21	.07	.16	6.4	1.6	.48	.13	.03		0
12	0	.04	.19	.07	.16	4.5	1.5	.46	.13	.02		0
13	0	.02	.19	.07	1.0	4.1	1.9	.44	.13	.02		0
14	0	.02	.18	.07	2.3	4.0	2.2	.42	.13	.02		0
15	0	.02	.16	.06	21	3.3	2.0	.42	.11	.04		0
16	0	.02	.16	.06	12	3.5	1.4	.38	.10	.04		0
17	0	.02	.16	.06	3.7	3.8	.54	.35	.09	.04		0
18	0	.02	.15	.06	2.0	3.5	.49	.33	.09	.06		0
19	0	.02	.15	.06	12	3.6	.45	.33	.09	.05		0
20	0	.02	.15	.05	3.7	4.4	.44	.32	.08	.02		0
21	.12	.02	.14	.05	3.2	4.5	.40	.33	.07	.02		0
22	.04	.02	.14	.05	2.4	4.4	.38	.33	.06	.05		0
23	.01	.02	.14	.05	1.9	3.7	.36	.33	.06	.05		0
24	.01	.31	.12	.05	1.6	3.2	.35	.31	.05	.03		3.7
25	0	4.9	.11	.05	1.3	2.5	.35	.29	.04	.02		3.1
26	0	.18	.11	.12	1.2	2.2	.33	.27	.04	0		.10
27	0	.07	.11	.17	1.1	1.9	.31	.26	.04	0		.06
28	0	.05	.11	.17	1.0	1.7	.28	.24	.03	0		.04
29	0	11	.11	.18	---	1.6	.27	.24	.03	0		.04
30	0	1.6	.10	4.3	---	1.5	.27	.24	.03	0		.03
31	0	---	.09	2.9	---	1.4	---	.23	---	0		---
TOTAL	.18	19.77	7.70	9.44	74.78	97.46	37.92	11.44	3.34	.80	0	7.07
MEAN	.006	.66	.25	.30	2.67	3.14	1.26	.37	.11	.026	0	.24
MAX	.12	11	1.6	4.3	21	12	5.0	.66	.21	.06	0	3.7
MIN	0	0	.09	.05	.16	.62	.27	.23	.03	0	0	0
AC-FT	.4	39	15	19	148	193	75	23	6.6	1.6	0	14
CAL YR 1985	TOTAL	142.05	MEAN	.39	MAX	11	MIN	0	AC-FT	282		
WTR YR 1986	TOTAL	269.90	MEAN	.74	MAX	21	MIN	0	AC-FT	535		

MOJAVE RIVER BASIN

10260640 LAKE GREGORY AT CRESTLINE, CA

LOCATION.--Lat 34°14'35", long 117°16'22", in NW 1/4 SW 1/4 sec.23, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, in boathouse on north side of Lake Gregory, 0.8 mi east of Lake Gregory Drive, and 0.9 mi east of Crestline.

DRAINAGE AREA.--2.66 mi².

PERIOD OF RECORD.--August 1978 to current year. Records for September 1966 through November 1971 in files of California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 4,510.00 ft, based on map from land survey of 1892 (see REMARKS paragraph); approximately 4,517.0 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated monthend elevations. Lake is formed by earth-type dam. Dam was completed to a height of 90 ft in 1938. Capacity table developed from land survey dated 1892 (provided by California Department of Water Resources). Capacity is 2,070 acre-ft below spillway elevation, 4,517.0 ft. Water is released from lake to Houston Creek for eventual water supply and recreational use in Silverwood Lake, 4.5 mi downstream. Spillway elevation is raised by addition of flashboards to accommodate summer recreational use.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents recorded, 2,360 acre-ft, Jan. 29, 1980, elevation, 4,520.33 ft; minimum, 1,920 acre-ft, Nov. 7, 1984, elevation, 4,515.22 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents recorded, 2,270 acre-ft, Apr. 7, elevation, 4,519.35 ft; minimum, 1,960 acre-ft, Oct. 21, elevation, 4,515.70 ft.

MONTHEND ELEVATION, 1892 DATUM, AND CONTENTS, AT 0800 HRS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	4,515.91	1,980	--
Oct. 31.....	4,515.89	1,980	0
Nov. 30.....	4,517.84	2,140	+160
Dec. 31.....	4,517.33	2,100	-40
CAL YR 1985.....	--	--	0
Jan. 31.....	4,517.89	2,150	+50
Feb. 28.....	4,517.31	2,100	-50
Mar. 31.....	4,519.07	2,250	+150
Apr. 30.....	4,519.03	2,250	0
May 31.....	4,518.95	2,240	-10
June 30.....	4,518.59	2,210	-30
July 31.....	4,517.96	2,160	-50
Aug. 31.....	4,517.26	2,090	-70
Sept. 30.....	4,517.54	2,120	+30
WTR YR 1986.....	--	--	+140

MOJAVE RIVER BASIN

10260650 HOUSTON CREEK BELOW LAKE GREGORY, AT CRESTLINE, CA

LOCATION.--Lat 34°14'54", long 117°16'05", in NE 1/4 NW 1/4 sec.23, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank of channel on Camp Switzerland campgrounds, 0.2 mi downstream from Lake Gregory spillway, 0.5 mi east of the intersection of Lake Gregory Road and Lake Gregory Drive, and 1.2 mi northeast of Crestline.

DRAINAGE AREA.--2.68 mi².

PERIOD OF RECORD.--March 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharge: Oct. 1. Records fair. Flow regulated by Lake Gregory (10260640) 0.2 mi upstream, usable capacity, 2,070 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 570 ft³/s, Jan. 29, 1980, gage height, 7.31 ft, from rating curve extended above 180 ft³/s on basis of velocity-area study of peak flow; no flow for several days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 89 ft³/s, Feb. 15, gage height, 6.44 ft; minimum daily, 0.03 ft³/s several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.05	8.5	.28	15	2.4	3.6	1.2	.16	.08	.05	.19
2	.04	.05	6.1	.29	8.0	2.3	2.4	1.0	.21	.08	.05	.12
3	.04	.05	5.9	.28	5.7	2.1	2.2	1.2	.19	.07	.05	.07
4	.04	.05	3.9	.42	4.9	2.0	2.6	.79	.22	.07	.06	.06
5	.03	.05	2.8	.46	3.8	1.9	2.4	1.0	.20	.07	.05	.06
6	.03	.05	2.2	.42	2.8	1.9	10	.88	.15	.07	.05	.04
7	.04	.05	1.5	.82	2.3	1.7	13	.65	.13	.07	.05	.04
8	.05	.05	1.0	.90	2.2	10	6.4	.70	.08	.07	.06	.04
9	.08	.06	.93	.78	1.9	13	4.5	.89	.08	.07	.07	.04
10	.07	.06	.87	.71	1.8	27	3.8	1.3	.08	.07	.07	.05
11	.06	2.5	1.0	.61	1.6	25	3.3	.80	.09	.07	.06	.04
12	.05	1.4	.87	.39	1.6	14	3.3	.41	.11	.08	.04	.04
13	.05	1.3	.71	.30	3.7	11	2.1	.50	.10	.08	.04	.05
14	.04	1.4	.71	.22	6.4	11	2.5	.64	.12	.08	.04	.05
15	.04	1.3	.70	.18	60	9.5	2.6	.55	.12	.09	.04	.06
16	.04	1.3	.69	.14	56	13	1.9	.49	.10	.08	.04	.06
17	.03	1.3	.64	.15	21	12	1.7	.50	.08	.08	.03	.05
18	.03	1.2	.60	.15	15	11	1.8	.48	.07	.08	.04	.05
19	.03	1.1	.59	.17	25	9.6	1.7	.75	.07	.08	.04	.05
20	.03	1.1	.55	.19	19	3.5	1.7	.71	.07	.06	.03	.04
21	.25	.96	.49	.17	13	.25	1.9	.55	.07	.07	.04	.05
22	.07	.86	.34	.16	9.0	.25	1.9	.14	.06	.08	.05	.05
23	.05	.72	.35	.19	7.0	.19	1.6	.21	.06	.08	.08	.05
24	.04	1.1	.34	.17	3.5	.17	1.4	.16	.09	.07	.13	.31
25	.04	5.4	.34	.17	2.2	.17	1.1	.20	.08	.07	.15	.29
26	.04	7.3	.33	.17	2.4	.16	.84	.34	.06	.08	.15	.10
27	.04	4.7	.32	.17	2.4	.15	.95	.38	.06	.07	.17	.09
28	.04	4.1	.34	.20	2.4	.16	1.2	.35	.06	.06	.17	.09
29	.04	24	.34	.26	---	.34	1.3	.25	.07	.06	.17	.09
30	.04	17	.33	16	---	1.2	1.1	.19	.08	.05	.17	3.5
31	.04	---	.28	19	---	2.6	---	.14	---	.05	.19	---
TOTAL	1.55	80.56	44.56	44.52	299.6	189.54	86.79	18.35	3.12	2.24	2.43	5.82
MEAN	.050	2.69	1.44	1.44	10.7	6.11	2.89	.59	.10	.072	.078	.19
MAX	.25	24	8.5	19	60	27	13	1.3	.22	.09	.19	3.5
MIN	.03	.05	.28	.14	1.6	.15	.84	.14	.06	.05	.03	.04
AC-FT	3.1	160	88	88	594	376	172	36	6.2	4.4	4.8	12
CAL YR 1985	TOTAL	366.08	MEAN	1.00	MAX	24	MIN	.02	AC-FT	726		
WTR YR 1986	TOTAL	779.08	MEAN	2.13	MAX	60	MIN	.03	AC-FT	1550		

MOJAVE RIVER BASIN

10261000 WEST FORK MOJAVE RIVER NEAR HESPERIA, CA

LOCATION.--Lat 34°20'20", long 117°15'25", in NW 1/4 NW 1/4 sec.24, T.3 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank on upstream wingwall of concrete double box culvert on Arrowhead Lake Road, 0.1 mi northeast of junction with Highway 174, 4.5 mi downstream from Cedar Springs Dam, and 6.5 mi southeast of Hesperia.

DRAINAGE AREA.--70.3 mi².

PERIOD OF RECORD.--October 1904 to September 1922, October 1929 to September 1971, October 1974 to current year.

REVISED RECORDS.--WDR CA-84-1: 1983.

GAGE.--Water-stage recorder. Elevation of gage is 3,040 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 30, 1922, nonrecording gage or water-stage recorder 1.6 mi downstream at different datum. June 30, 1922, to September 1971, water-stage recorder 1.5 mi downstream at different datum. June 30, 1942, to Apr. 14, 1966, at datum 2.00 ft higher than datum then in use.

REMARKS.--Estimated daily discharges: Feb. 5, May 2-7, June 9-10. Records good except for estimated daily discharges, which are poor. Since 1972 regulated by Cedar Springs Dam (holding basin for imported water), total capacity, 78,000 acre-ft, 4.5 mi upstream.

AVERAGE DISCHARGE.--60 years (water years 1905-22, 1930-71), 39.4 ft³/s, 28,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft³/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 388 ft³/s, Feb. 15, gage height, 1.90 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	32	5.7	17	32	5.7			
2		0	4.0	0	11	4.2	16	16	5.4			
3		0	49	0	6.3	3.8	18	14	4.7			
4		0	53	0	3.3	3.3	18	14	3.8			
5		0	18	0	2.8	3.3	18	13	3.8			
6		0	.12	0	2.0	3.0	40	12	3.8			
7		0	0	0	1.7	2.6	52	11	3.8			
8		0	0	0	2.4	11	30	12	3.3			
9		0	0	0	2.0	11	25	12	1.5			
10		0	0	0	1.7	104	23	10	.90			
11		0	0	0	7.1	182	25	10	0			
12		0	0	0	36	237	68	10	0			
13		0	0	0	45	178	66	9.4	0			
14		0	0	0	55	7.4	65	8.7	0			
15		0	0	0	259	9.4	63	8.0	0			
16		0	0	0	274	152	61	8.4	0			
17		0	0	0	331	261	69	8.0	0			
18		0	0	0	295	208	67	8.0	0			
19		0	0	0	234	120	26	6.8	0			
20		0	0	0	200	106	12	6.8	0			
21		0	0	0	150	99	17	6.8	0			
22		0	0	0	111	93	16	18	0			
23		0	0	0	102	84	15	59	0			
24		0	0	0	91	67	15	60	0			
25		0	0	0	84	27	15	50	0			
26		0	0	0	76	24	16	47	0			
27		0	0	0	19	23	31	45	0			
28		0	0	0	6.2	24	78	15	0			
29		13	0	0	---	23	89	5.7	0			
30		7.5	0	20	---	21	89	5.7	0			
31		---	0	25	---	18	---	5.7	---			---
TOTAL	0	20.5	124.12	45	2440.5	2115.7	1160	548.0	36.70	0	0	0
MEAN	0	.68	4.00	1.45	87.2	68.2	38.7	17.7	1.22	0	0	0
MAX	0	13	53	25	331	261	89	60	5.7	0	0	0
MIN	0	0	0	0	1.7	2.6	12	5.7	0	0	0	0
AC-FT	0	41	246	89	4840	4200	2300	1090	73	0	0	0
CAL YR 1985	TOTAL	3113.02	MEAN	8.53	MAX	120	MIN	0	AC-FT	6170		
WTR YR 1986	TOTAL	6490.52	MEAN	17.8	MAX	331	MIN	0	AC-FT	12870		

MOJAVE RIVER BASIN

10261100 MOJAVE RIVER BELOW MOJAVE FORKS RESERVOIR, NEAR HESPERIA, CA

LOCATION.--Lat 34°21'17", long 117°14'40", in NE 1/4 NE 1/4 sec.13, T.3 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank, 0.8 mi downstream from Mojave Forks Reservoir, 6.2 mi downstream from Silverwood Lake on West Fork Mojave River, 6.5 mi southeast of Hesperia, and 12.2 mi downstream from Lake Arrowhead on Deep Creek (East Fork Mojave River).

DRAINAGE AREA.--211 mi².

PERIOD OF RECORD.--October 1971 to September 1974, October 1980 to current year.

GAGE.--Water-stage age is 3,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1971 to September 1974 water-stage recorder at site 0.8 mi upstream on reservoir outlet channel at different datum.

REMARKS.--Estimated daily discharges: Nov. 11-25. Records fair except for period of estimated record, which is poor. Flow partially regulated by Lake Arrowhead, capacity, 48,000 acre-ft used principally for recreation; Silverwood Lake, capacity, 78,000 acre-ft used for the storage and distribution of imported water and recreation; and Mojave Forks Reservoir, capacity, 89,700 acre-ft used for flood control. Silverwood Reservoir releases all natural inflow to the West Fork Mojave River as soon as possible after a storm. Sewage effluent from Lake Arrowhead area is released above gage at times.

AVERAGE DISCHARGE.--9 years (water years 1972-74, 1981-86), 83.5 ft³/s, 60,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 11,700 ft³/s, Mar. 2, 1983, on basis of flood routing; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,050 ft³/s, Feb. 15, gage height, 4.56 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	64	9.8	205	51	110	66	13			0
2		0	39	10	91	45	100	37	12			0
3		0	100	10	69	43	97	36	11			0
4		0	98	10	53	37	87	34	9.8			0
5		0	39	9.8	43	34	78	34	9.2			0
6		0	21	9.8	39	32	114	32	8.1			0
7		0	18	10	36	31	156	29	7.5			0
8		0	17	11	35	34	122	28	7.1			0
9		0	15	9.8	35	150	118	28	6.2			0
10		0	14	9.2	34	241	90	25	5.3			0
11		3.8	15	8.6	36	446	87	25	4.3			0
12		6.5	14	7.6	51	345	114	25	4.0			0
13		1.3	14	7.6	58	322	126	24	3.4			0
14		.60	14	7.6	68	147	114	22	3.1			0
15		.39	13	7.1	2700	122	110	21	2.9			0
16		.37	12	7.6	1650	312	107	21	2.2			0
17		.38	12	7.1	733	467	107	19	2.1			0
18		.42	11	7.6	530	373	110	19	1.7			0
19		.20	10	7.6	654	256	66	18	1.5			0
20		.10	9.2	7.1	592	250	54	16	1.3			0
21		0	9.2	6.6	327	269	51	15	1.3			0
22		0	9.2	6.6	232	276	49	18	1.3			0
23		0	8.6	6.1	187	269	47	58	.92			0
24		0	8.6	5.6	171	226	45	69	.71			0
25		7.4	8.6	5.2	156	161	45	75	.01			0
26		79	8.1	5.2	147	166	45	75	0			.10
27		36	7.6	5.2	81	171	50	72	0			.10
28		23	7.6	5.2	51	156	93	39	0			0
29		152	8.1	4.8	---	142	107	17	0			0
30		265	8.1	287	---	130	103	14	0			0
31		---	8.6	307	---	122	---	13	---			---
TOTAL	0	576.46	641.5	819.4	9064	5826	2702	1024	119.94	0	0	.20
MEAN	0	19.2	20.7	26.4	324	188	90.1	33.0	4.00	0	0	.007
MAX	0	265	100	307	2700	467	156	75	13	0	0	.10
MIN	0	0	7.6	4.8	34	31	45	13	0	0	0	0
AC-FT	0	1140	1270	1630	17980	11560	5360	2030	238	0	0	.4
CAL YR 1985	TOTAL	9804.68	MEAN 26.9	MAX 265	MIN 0	AC-FT 19450						
WTR YR 1986	TOTAL	20773.50	MEAN 56.9	MAX 2700	MIN 0	AC-FT 41200						

MOJAVE RIVER BASIN

10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA

LOCATION.--Lat 34°34'23", long 117°19'11", in SW 1/4 SE 1/4 sec.29, T.6 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 650 ft upstream from bridge on county road (formerly U.S. Highway 66), 0.6 mi downstream from Atchison, Topeka, and Santa Fe Railway bridge, 3 mi northwest of Victorville, 17.8 mi downstream from Mojave Forks Reservoir, 24 mi downstream from Silverwood Lake on the West Fork Mojave River, and 30 mi downstream from Lake Arrowhead on Deep Creek (East Fork Mojave River).

DRAINAGE AREA.--513 mi².

PERIOD OF RECORD.--February 1899 to September 1906, October 1930 to current year. Monthly discharge only for January to September 1906, October, November 1930, published in WSP 1314. Prior to October 1936, published as "at Victorville" and as "near Victorville" in 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,643.01 ft above National Geodetic Vertical Datum of 1929. See WSP 1314 for history of gage changes prior to Mar. 28, 1938. Mar. 28, 1938, to Apr. 14, 1966, at site 350 ft upstream at datum 5.00 ft higher; Apr. 15, 1966, to July 17, 1969, at site 350 ft upstream at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Regulation by Lake Arrowhead, capacity, 48,000 acre-ft used principally for recreation; Silverwood Lake, capacity, 78,000 acre-ft used for the storage and distribution of imported water and recreation; and Mojave Forks Reservoir, capacity, 89,700 acre-ft. Diversions and pumping for irrigation of about 5,000 acres and Mojave State Fish Hatchery above station. During the year no imported water was released from Silverwood Lake into the West Fork Mojave River, only natural inflow.

AVERAGE DISCHARGE.--63 years (water years 1900-06, 1931-86), 78.9 ft³/s, 57,160 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,600 ft³/s, Mar. 2, 1938, gage height 3.7 ft, present datum, from rating curve extended above 10,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 3.4 ft³/s, July 25, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 599 ft³/s, Feb. 16, gage height, 5.16 ft; minimum daily, 3.6 ft³/s, Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	24	33	36	29	30	24	23	10	9.1	5.9	7.1
2	18	24	33	36	24	29	24	21	11	8.2	5.5	8.2
3	18	24	35	37	24	27	26	22	12	7.3	3.8	8.0
4	19	23	33	37	26	26	29	22	11	7.6	3.6	7.8
5	19	22	36	37	29	25	28	21	11	8.3	3.7	6.1
6	19	22	35	37	28	27	34	22	7.2	8.2	4.7	5.3
7	19	24	35	37	28	24	28	17	9.1	7.5	5.1	5.4
8	19	24	35	37	32	28	23	17	12	7.0	5.1	3.9
9	20	23	34	38	31	24	26	19	9.9	5.9	5.4	4.0
10	22	23	35	36	28	23	28	20	8.9	6.9	4.5	5.6
11	22	31	35	37	28	25	25	19	9.8	8.2	4.3	7.1
12	22	28	36	36	31	26	27	17	11	9.0	4.1	7.6
13	22	28	38	36	29	25	27	18	9.3	7.6	4.1	8.5
14	22	27	35	37	31	27	27	18	7.0	6.9	3.8	9.9
15	22	26	39	38	58	27	26	16	7.8	7.3	3.8	9.6
16	23	26	35	35	349	41	26	16	7.5	5.3	5.4	11
17	24	25	34	33	170	30	27	16	7.5	4.7	4.6	12
18	24	29	36	35	116	46	25	13	6.3	4.9	5.1	12
19	23	27	36	34	64	50	21	12	5.6	5.6	6.5	11
20	22	28	34	34	281	37	21	13	6.9	5.1	5.6	12
21	22	30	35	33	102	32	21	14	7.5	6.5	5.3	12
22	21	28	33	35	45	31	21	15	7.6	8.1	6.7	11
23	22	28	35	35	42	38	20	15	8.3	7.1	7.2	9.4
24	23	28	34	33	39	43	22	13	9.2	6.9	6.4	12
25	23	33	34	34	38	31	20	13	8.3	6.3	5.7	12
26	23	31	34	35	36	28	23	11	9.2	5.7	9.4	14
27	23	31	34	34	33	27	22	9.1	10	5.2	11	16
28	23	31	36	33	30	30	22	8.7	9.8	5.1	9.2	11
29	23	33	35	30	---	26	20	8.3	10	5.2	9.1	9.6
30	23	33	36	31	---	25	21	10	9.1	5.4	8.4	10
31	23	---	36	41	---	24	---	9.6	---	5.7	5.5	---
TOTAL	666	814	1084	1097	1801	932	734	488.7	269.8	207.8	178.5	279.1
MEAN	21.5	27.1	35.0	35.4	64.3	30.1	24.5	15.8	8.99	6.70	5.76	9.30
MAX	24	33	39	41	349	50	34	23	12	9.1	11	16
MIN	18	22	33	30	24	23	20	8.3	5.6	4.7	3.6	3.9
AC-FT	1320	1610	2150	2180	3570	1850	1460	969	535	412	354	554

CAL YR 1985 TOTAL 9964.2 MEAN 27.3 MAX 51 MIN 8.6 AC-FT 19760

MOJAVE RIVER BASIN

10262000 MOJAVE RIVER NEAR HODGE, CA

LOCATION.--Lat 34°50'09", long 117°11'27", in SE 1/4 SE 1/4 sec.28, T.9 N., R.3 W., San Bernardino County, Hydrologic Unit 18090208, at county bridge 1.5 mi north of Hodge, 10.9 mi southwest of Barstow, 42 mi downstream from Mojave Forks Reservoir, 48 mi downstream from Silverwood Lake on West Fork Mojave River, and 54 mi downstream from Lake Arrowhead on Deep Creek (East Fork Mojave River).

DRAINAGE AREA.--1,091 mi².

PERIOD OF RECORD.--October 1930 to September 1932, October 1970 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,260 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1970, at different datum.

REMARKS.--Estimated daily discharge: Feb. 20. Records fair. Regulation by Lake Arrowhead, capacity 48,000 acre-ft used principally for recreation; Silverwood Lake, capacity, 78,000 acre-ft used for the storage and distribution of imported water and recreation; and Mojave Forks Reservoir, capacity 89,700 acre-ft. Diversion and pumping for irrigation of about 12,000 acres above station.

AVERAGE DISCHARGE.--18 years (water years 1931-32, 1971-86), 44.4 ft³/s, 32,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s, Feb. 10, 1978, gage height, 8.80 ft, on basis of slope-area measurement of peak flow; no flow all or most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft³/s, Feb. 20, gage height unknown; no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0							
2					0							
3					0							
4					0							
5					0							
6					0							
7					0							
8					0							
9					0							
10					0							
11					0							
12					0							
13					0							
14					0							
15					0							
16					0							
17					0							
18					0							
19					0							
20					1.3							
21					0							
22					0							
23					0							
24					0							
25					0							
26					0							
27					0							
28					0							
29					---							
30					---							
31		---			---		---		---			---
TOTAL	0	0	0	0	1.3	0	0	0	0	0	0	0
MEAN	0	0	0	0	.046	0	0	0	0	0	0	0
MAX	0	0	0	0	1.3	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	2.6	0	0	0	0	0	0	0
CAL YR 1985	TOTAL 0.00	MEAN .0000	MAX .00	MIN 0	AC-FT .0							
WTR YR 1986	TOTAL 1.30	MEAN .0040	MAX 1.3	MIN 0	AC-FT 2.6							

MOJAVE RIVER BASIN

10262500 MOJAVE RIVER AT BARSTOW, CA

LOCATION.--Lat 34°54'25", long 117°01'19", in SW 1/4 SW 1/4 sec.31, T.10 N., R.1 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 75 ft upstream from bridge on U.S. Highway 91 at Barstow, 54 mi downstream from Mojave Forks Reservoir, 60 mi downstream from Silverwood Lake on West Fork Mojave River, and 66 mi downstream from Lake Arrowhead on Deep Creek (East Fork Mojave River).

DRAINAGE AREA.--1,291 mi².

PERIOD OF RECORD.--October 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,089.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: May 11 to June 2. No flow since Sept. 12, 1984. Regulation by Lake Arrowhead, capacity, 48,000 acre-ft used principally for recreation; Silverwood Lake, capacity, 78,000 acre-ft used for the storage and distribution of imported water and recreation; and Mojave Forks Reservoir, capacity, 89,700 acre-ft. Diversions and pumping for irrigation of about 15,000 acres above station.

AVERAGE DISCHARGE.--56 years, 25.2 ft³/s, 18,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,300 ft³/s, Mar. 3, 1938, gage height, 8.60 ft, on basis of slope-area measurement of peak flow; no flow for all or most of each year.

EXTREMES FOR CURRENT YEAR.--No flow entire year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3												
4												
5												
6												
7												
8												
9												
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24												
25												
26												
27												
28												
29												
30												
31		---					---		---			---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0
CAL YR 1985	TOTAL 0.00	MEAN 0	MAX 0	MIN 0	AC-FT 0							
WTR YR 1986	TOTAL 0.00	MEAN 0	MAX 0	MIN 0	AC-FT 0							

MOJAVE RIVER BASIN

10263000 MOJAVE RIVER AT AFTON, CA

LOCATION.--Lat 35°02'14", long 116°23'00", in NW 1/4 SE 1/4 sec.18, T.11 N., R.6 E., San Bernardino County, Hydrologic Unit 18090208, on downstream end of right pier of Union Pacific Railroad bridge, 0.3 mi west of Afton, and 63 mi east of Barstow.

DRAINAGE AREA.--2,121 mi².

PERIOD OF RECORD.--October 1929 to September 1932, October 1952 to current year. Records for the water year 1930 incomplete, yearly estimate published in WSP 1314. Records for the water years 1979 and 1980 incomplete, discharge measurements only were published at that time.

GAGE.--Water-stage recorder. Datum of gage is 1,398.15 ft above National Geodetic Vertical Datum of 1929. Dec. 21, 1929, to Sept. 30, 1932, at site 1.7 mi downstream at different datum; October 1952 to May 1978 at datum 2 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Natural flow affected by ground-water withdrawals, diversions, municipal use, and storage in upstream reservoirs 100 mi upstream. For description of upstream reservoirs see Mojave River at Barstow (station 10262500).

AVERAGE DISCHARGE.--35 years (water years 1930-32, 1953-78, 1981-86), 6.70 ft³/s, 4,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s, Jan. 26, 1969, gage height, 10.40 ft, from rating curve extended above 3,200 ft³/s on basis of slope-area measurement of peak flow; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 22	1745	*56	*1.15				

Minimum daily, 0.15 ft³/s many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.2	1.0	1.2	1.0	1.0	1.2	.43	.20	.20	.34	.20
2	1.2	1.0	1.2	1.2	1.0	1.0	1.0	.43	.15	.20	.26	.20
3	1.2	1.2	1.0	1.4	1.0	1.0	1.0	.43	.15	.20	.20	.20
4	1.0	1.2	1.0	1.4	1.0	1.0	1.0	.43	.15	.20	.20	.20
5	.83	1.2	1.0	1.2	1.0	1.0	1.0	.43	.17	.20	.20	.20
6	.83	1.2	1.0	1.2	1.2	1.0	1.2	.43	.15	.15	.16	.20
7	.83	1.2	1.0	1.2	1.2	1.2	1.0	.43	.20	.20	.15	.26
8	.83	1.2	1.0	1.2	1.2	1.2	.83	.55	.15	.20	.15	.26
9	.83	1.0	1.0	1.2	1.2	1.2	.83	.43	.15	.15	.20	.26
10	.83	1.0	1.2	1.2	1.2	1.4	.83	.37	.20	.15	.20	.34
11	.83	1.4	1.2	1.2	1.2	1.2	.83	.34	.20	.20	.26	.43
12	.83	1.2	1.0	1.2	1.2	1.0	.68	.26	.20	.15	.26	.43
13	.68	1.2	1.0	1.2	1.4	1.2	.68	.26	.20	.15	.15	.55
14	.68	1.2	1.0	1.2	1.7	1.2	.83	.34	.15	.15	.15	.55
15	.68	1.0	1.0	1.2	2.7	1.2	.83	.34	.15	.20	.20	.55
16	.55	1.2	1.0	1.4	2.0	1.2	.68	.34	.15	.15	.26	.55
17	.61	1.2	.83	1.4	2.0	1.2	.68	.34	.15	.15	.34	.55
18	.68	1.2	1.0	1.2	2.0	1.2	.68	.34	.15	.20	.43	.68
19	.68	1.2	1.2	1.2	1.4	1.2	.74	.43	.15	.20	.34	.68
20	.68	1.2	1.2	1.2	1.4	1.2	.55	.34	.15	.15	.34	.68
21	.55	1.2	1.2	1.2	1.4	1.0	.76	.34	.15	.26	.26	.68
22	.55	1.2	1.2	1.1	1.2	1.0	.43	.34	.15	7.5	.26	.68
23	.68	1.2	1.2	1.0	1.2	1.2	.43	.34	.20	1.5	.34	.68
24	.68	1.2	1.2	1.0	1.2	1.2	.43	.26	.20	.43	.26	.68
25	.68	1.2	1.2	1.0	1.2	1.2	.34	.26	.15	.34	.26	.68
26	.68	1.2	1.4	.83	1.1	1.0	.43	.26	.15	.34	.23	.68
27	.68	1.2	1.4	.83	1.0	1.0	.43	.20	.15	.34	.26	.55
28	1.0	1.2	1.2	1.0	1.0	1.0	.43	.20	.20	.34	.20	.68
29	1.0	1.4	1.2	1.0	---	1.0	.43	.20	.20	.34	.20	.68
30	1.0	1.0	1.2	1.0	---	1.0	.43	.20	.20	.26	.20	.68
31	.83	---	1.2	1.2	---	1.2	---	.20	---	.34	.20	---
TOTAL	24.81	35.4	34.43	35.96	37.3	34.6	21.61	10.49	5.07	15.54	7.46	14.64
MEAN	.80	1.18	1.11	1.16	1.33	1.12	.72	.34	.17	.50	.24	.49
MAX	1.2	1.4	1.4	1.4	2.7	1.4	1.2	.55	.20	7.5	.43	.68
MIN	.55	1.0	.83	.83	1.0	1.0	.34	.20	.15	.15	.15	.20
AC-FT	49	70	68	71	74	69	43	21	10	31	15	29

CAL YR 1985 TOTAL 323.30 MEAN .89 MAX 5.2 MIN .18 AC-FT 641
WTR YR 1986 TOTAL 277.31 MEAN .76 MAX 7.5 MIN .15 AC-FT 550

ANTELOPE VALLEY

10263500 BIG ROCK CREEK NEAR VALYERMO, CA

LOCATION.--Lat 34°25'15", long 117°50'19", in SE 1/4 NE 1/4 sec.20, T.4 N., R.9 W., Los Angeles County, Hydrologic Unit 18090206, on left bank 0.1 mi upstream from Punchbowl Canyon, and 1.9 mi southeast of Valyermo.

DRAINAGE AREA.--22.9 mi².

PERIOD OF RECORD.--January 1923 to current year. Monthly discharge only for October 1937 to January 1939, published in WSP 1314. Prior to October 1954, published as Rock Creek near Valyermo.

GAGE.--Water-stage recorder. Elevation of gage is 4,050 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 4, 1938, at same site at different datums. May 4, 1938, to Jan. 26, 1939, at site 0.2 mi downstream (below Punchbowl Canyon) at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-3. Records good except for period of estimated record, which is fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--63 years (water years 1924-86), 17.8 ft³/s, 12,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,300 ft³/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow; minimum daily, 0.70 ft³/s, Nov. 5, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 25	1215	130	2.77	Feb. 15	1245	229	3.08
Nov. 29	1615	72	2.55	Mar. 10	1415	57	2.39
Jan. 30	1145	*632	*3.85	Mar. 23	0130	54	2.37

Minimum daily, 2.6 ft³/s, Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.1	16	7.9	84	29	40	23	16	10	9.0	5.7
2	3.2	3.1	17	7.7	55	28	38	23	16	9.8	8.9	5.6
3	3.3	3.1	22	7.4	39	26	37	23	15	9.7	8.6	5.5
4	3.4	3.1	17	7.3	29	25	35	23	15	9.6	8.4	5.2
5	3.3	3.2	14	7.5	24	25	34	23	15	9.5	8.5	5.2
6	3.3	3.2	13	8.9	21	24	38	22	15	9.6	8.7	5.3
7	3.4	3.4	11	8.6	18	24	34	22	15	9.8	8.7	5.4
8	3.4	3.4	11	8.1	16	32	33	22	14	9.7	8.7	5.4
9	3.6	3.5	9.8	7.8	15	33	32	22	13	9.7	8.8	5.7
10	3.5	3.8	9.5	7.6	14	43	32	22	13	9.7	8.7	5.7
11	3.3	5.3	9.0	7.4	13	43	32	21	13	9.6	8.6	5.6
12	3.1	3.8	8.5	7.1	12	43	30	21	13	9.5	8.2	5.1
13	3.1	3.6	8.4	7.0	14	42	29	21	12	9.2	8.2	5.4
14	3.1	3.6	8.0	7.1	33	40	28	21	12	9.2	7.5	5.3
15	3.1	3.6	8.0	7.3	199	41	28	20	12	9.2	7.3	5.2
16	2.9	3.6	8.0	7.1	148	45	28	20	12	9.2	7.2	5.4
17	2.8	3.6	7.8	6.9	96	42	28	20	11	9.0	7.1	5.4
18	2.8	3.5	7.4	6.9	80	40	27	19	11	8.8	7.2	5.6
19	2.7	3.5	7.2	6.9	125	41	26	19	11	8.7	7.3	5.7
20	2.6	3.6	7.4	7.0	100	44	25	19	11	8.6	7.1	5.7
21	3.0	3.7	7.2	7.1	72	48	24	19	11	9.1	7.0	5.9
22	3.1	3.7	7.4	7.0	59	51	24	20	11	9.6	6.9	5.7
23	3.1	3.8	7.3	6.9	49	53	24	19	10	10	6.9	5.7
24	3.0	4.1	7.1	6.9	41	52	24	18	10	9.9	6.9	6.0
25	2.9	63	6.9	6.8	37	52	23	18	10	9.8	6.9	6.4
26	2.9	25	6.9	6.8	34	52	23	17	10	9.7	6.9	6.3
27	2.9	11	6.8	6.8	32	50	23	17	10	9.5	7.3	6.4
28	2.9	7.3	6.7	6.7	30	48	23	16	10	9.4	7.7	6.1
29	3.0	30	6.6	8.6	---	48	24	16	10	9.5	7.6	6.1
30	2.9	29	6.9	251	---	46	23	16	10	9.2	6.8	5.8
31	3.0	---	7.3	120	---	42	---	16	---	9.1	5.7	---
TOTAL	95.7	251.2	297.1	584.1	1489	1252	869	618	367	292.9	239.3	169.5
MEAN	3.09	8.37	9.58	18.8	53.2	40.4	29.0	19.9	12.2	9.45	7.72	5.65
MAX	3.6	63	22	251	199	53	40	23	16	10	9.0	6.4
MIN	2.6	3.1	6.6	6.7	12	24	23	16	10	8.6	5.7	5.1
AC-FT	190	498	589	1160	2950	2480	1720	1230	728	581	475	336

CAL YR 1985 TOTAL 2924.8 MEAN 8.01 MAX 63 MIN 2.6 AC-FT 5800
WTR YR 1986 TOTAL 6524.8 MEAN 17.9 MAX 251 MIN 2.6 AC-FT 12940

ANTELOPE VALLEY

10264600 OAK CREEK NEAR MOJAVE, CA

LOCATION.--Lat 35°03'00", long 118°21'25", in NW 1/4 sec.15, T.11 N., R.14 W., Kern County, Hydrologic Unit 18090206, on upstream right wingwall of culvert, 100 ft downstream from unnamed tributary, 0.1 mi west of junction of Oak Creek and Willow Springs Roads, and 10.5 mi west of Mojave.

DRAINAGE AREA.--15.8 mi².

PERIOD OF RECORD.--August 1957 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 4,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--29 years, 1.27 ft³/s, 920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft³/s, May 14, 1973, by slope-area measurement, peak caused by failure of small earthen dam 4 mi upstream during intense local thunderstorm; maximum gage height, 10.53 ft, May 14, 1973 (ponding at culvert 0.1 mi downstream); no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*); from rating curve extended above 2.0 ft³/s on basis of slope area measurement at gage height 5.74 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	2345	*11	*2.68				

Minimum daily, 0.01 ft³/s for several days in July and August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.13	.35	.28	.85	.53	.75	.49	.56	.04	.04	.03
2	.04	.12	.68	.30	.58	.54	.76	.53	.52	.02	.03	.03
3	.04	.10	.37	.28	.57	.57	.73	.56	.44	.01	.03	.03
4	.04	.11	.31	.28	.53	.59	.71	.69	.41	.01	.02	.02
5	.04	.10	.29	.27	.51	.60	.69	.74	.45	.02	.01	.02
6	.04	.12	.30	.25	.50	.62	.91	.82	.43	.02	.01	.02
7	.04	.13	.31	.28	.47	.64	.86	.81	.45	.02	.01	.02
8	.05	.12	.29	.28	.47	1.1	.68	.78	.44	.02	.01	.02
9	.04	.13	.29	.30	.47	.90	.61	.73	.39	.02	.01	.02
10	.04	.17	.29	.32	.42	1.7	.56	.71	.32	.02	.01	.02
11	.04	.27	.29	.29	.44	.89	.55	.73	.27	.03	.01	.02
12	.04	.16	.25	.29	.49	.71	.52	.74	.27	.03	.01	.02
13	.04	.13	.25	.30	1.4	.65	.55	.72	.25	.03	.01	.02
14	.04	.14	.29	.29	1.6	.60	.56	.70	.23	.03	.01	.02
15	.04	.16	.29	.30	2.2	.57	.52	.73	.24	.03	.01	.03
16	.04	.16	.26	.29	.77	.85	.61	.73	.25	.03	.01	.03
17	.04	.16	.25	.29	.67	.84	.65	.72	.24	.04	.01	.02
18	.05	.15	.27	.31	.60	.67	.60	.74	.28	.05	.01	.02
19	.05	.15	.29	.33	.57	.60	.54	.72	.29	.05	.02	.02
20	.05	.17	.29	.33	.54	.59	.51	.75	.23	.05	.02	.02
21	.05	.20	.26	.33	.53	.60	.46	.89	.21	.05	.02	.02
22	.09	.19	.22	.34	.53	.60	.46	.95	.21	.06	.02	.02
23	.08	.19	.25	.34	.52	.60	.48	.98	.16	.07	.03	.03
24	.08	.20	.25	.35	.50	.59	.50	.95	.11	.07	.02	.04
25	.09	.24	.27	.36	.49	.61	.56	.87	.06	.05	.02	.04
26	.08	.20	.29	.39	.49	.61	.59	.81	.04	.05	.03	.03
27	.08	.20	.27	.40	.50	.60	.53	.76	.03	.06	.02	.03
28	.10	.21	.26	.39	.49	.65	.47	.70	.04	.06	.02	.02
29	.12	.74	.30	.41	---	.69	.47	.66	.09	.06	.03	.02
30	.12	.57	.29	2.0	---	.71	.51	.64	.08	.06	.03	.02
31	.15	---	.26	1.5	---	.72	---	.57	---	.06	.03	---
TOTAL	1.88	5.82	9.13	12.67	18.70	21.74	17.90	22.92	7.99	1.22	.57	.72
MEAN	.061	.19	.29	.41	.67	.70	.60	.74	.27	.039	.018	.024
MAX	.15	.74	.68	2.0	2.2	1.7	.91	.98	.56	.07	.04	.04
MIN	.04	.10	.22	.25	.42	.53	.46	.49	.03	.01	.01	.02
AC-FT	3.7	12	18	25	37	43	36	45	16	2.4	1.1	1.4
CAL YR 1985	TOTAL 214.13	MEAN .59	MAX 4.2	MIN .03	AC-FT 425							
WTR YR 1986	TOTAL 121.26	MEAN .33	MAX 2.2	MIN .01	AC-FT 241							

OWENS LAKE BASIN

10271210 BISHOP CREEK BELOW POWERPLANT NO. 6, NEAR BISHOP, CA

LOCATION.--Lat 37°20'59", long 118°27'41", in SE 1/4 SE 1/4 sec.9, T.7 S., R.32 E., Inyo County, Hydrologic Unit 18090102, below powerplant No. 6 tailrace, and 3.6 mi west of Bishop.

DRAINAGE AREA.--104 mi², natural flow.

PERIOD OF RECORD.--October 1936 to current year. Monthly and yearly mean discharge prior to October 1969, published in WSP 2127.

GAGE.--None.

REMARKS.--Flow regulated for power development by South Lake, Lake Sabrina, and Intake No. 2 Reservoir, combined capacity, 20,660 acre-ft and many powerhouses. Records for "actual flow" include Bishop Creek above powerplant No. 6 tailrace and Bishop Creek powerplant No. 6 conduit. Records for "natural flow" include "actual flow" of Bishop Creek below powerplant No. 6, Abelour ditch near Bishop, minus Birch-McGee diversion to Bishop Creek powerplant near Bishop, and the change in contents and evaporation for South Lake, Lake Sabrina, and Intake No. 2 Reservoir. Records for water years 1984 and 1985, not previously published, are published herein.

COOPERATION.--Records were provided by Southern California Edison Co. and reviewed by U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (Actual flow).--51 years, 104 ft³/s, 75,350 acre-ft/yr.
(Natural flow).--51 years, 108 ft³/s, 78,250 acre-ft/yr.

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 1,070 ft³/s, Sept. 26, 1982; minimum daily, 32 ft³/s, Dec. 19, 1977.

EXTREMES (ACTUAL FLOW) FOR CURRENT YEAR.--Maximum daily discharge, 444 ft³/s, June 4; minimum daily, 59 ft³/s, Jan. 8, 11, and 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES
(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	65	125	140	84	124	114	137	164	193	277	175
2	157	100	126	137	84	130	119	137	163	191	273	176
3	157	131	120	127	84	131	72	138	161	187	230	175
4	155	129	123	122	85	134	77	138	157	188	214	175
5	155	127	128	123	84	134	79	138	168	228	200	175
6	156	126	129	124	83	129	108	137	164	248	189	176
7	153	135	126	133	92	132	126	138	155	245	180	146
8	143	125	126	134	133	131	131	138	160	232	175	140
9	142	136	125	126	137	132	120	139	159	233	174	139
10	143	130	124	121	138	132	105	138	159	220	174	139
11	141	131	130	120	137	132	79	138	168	210	177	138
12	138	130	124	120	137	120	118	138	155	206	175	138
13	139	129	126	124	137	119	133	138	149	202	175	138
14	140	132	126	134	136	119	134	140	151	193	174	138
15	137	130	124	132	138	120	137	138	159	199	178	138
16	142	130	115	121	140	119	109	138	152	219	186	138
17	136	135	127	120	137	120	105	138	150	287	183	138
18	107	133	133	122	138	120	105	138	151	360	183	139
19	75	132	116	122	137	119	109	138	159	409	191	139
20	70	130	105	126	138	121	130	139	160	477	195	139
21	71	109	103	138	136	122	137	139	161	412	200	139
22	72	104	114	137	137	122	139	139	155	350	218	139
23	70	93	108	106	136	122	143	139	157	339	212	139
24	67	129	131	94	137	123	139	147	162	317	194	139
25	68	135	132	93	138	123	139	153	164	282	185	139
26	68	134	133	93	138	123	138	157	164	256	177	139
27	68	135	96	109	138	123	140	161	166	252	173	139
28	65	113	96	136	137	121	140	160	173	248	171	139
29	65	123	107	136	135	119	134	154	174	246	174	139
30	59	120	111	103	---	120	140	156	190	243	174	139
31	65	---	135	84	---	122	---	169	---	253	173	---
TOTAL	3480	3711	3744	3757	3611	3858	3599	4435	4830	8125	5954	4389
MEAN	112	124	121	121	125	124	120	143	161	262	192	146
MAX	157	136	135	140	140	134	143	169	190	477	277	176
MIN	59	65	96	84	83	119	72	137	149	187	171	138
AC-FT	6900	7360	7430	7450	7160	7650	7140	8800	9580	16120	11810	8710
a	5535	4514	4668	3715	3354	3770	4992	14974	14605	17525	10251	6108
CAL YR 1983	TOTAL	65268	MEAN 179	MAX 621	MIN 59	AC-FT 129500	a	121687				
WTR YR 1984	TOTAL	53493	MEAN 146	MAX 477	MIN 59	AC-FT 106100	a	94011				

OWENS LAKE BASIN

10271210 BISHOP CREEK BELOW POWERPLANT NO. 6, NEAR BISHOP, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES
(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	82	79	99	85	98	101	143	135	120	113	98
2	89	84	88	100	84	97	98	141	137	120	113	96
3	86	81	111	101	81	96	122	133	142	119	113	95
4	86	81	81	102	113	94	118	141	133	118	112	101
5	85	81	79	100	114	94	119	142	125	119	112	95
6	87	78	81	76	112	93	121	141	126	122	112	93
7	92	80	79	65	114	109	128	141	137	122	111	90
8	86	80	78	61	112	108	127	167	136	111	113	89
9	89	81	78	58	113	109	126	169	132	111	112	88
10	87	82	80	59	116	109	129	170	135	110	114	89
11	88	86	81	60	113	99	143	170	140	55	112	93
12	90	82	80	60	112	94	144	169	139	115	92	90
13	93	87	81	61	99	94	147	169	137	114	91	91
14	96	94	78	60	65	98	148	167	139	111	91	89
15	87	110	81	61	83	98	148	177	142	111	91	88
16	87	81	80	61	84	98	148	151	143	110	91	89
17	87	80	81	67	83	99	144	147	143	118	100	88
18	86	81	71	90	82	98	142	139	141	112	99	88
19	86	81	81	89	86	97	144	138	137	112	99	90
20	85	82	81	90	90	101	132	140	138	126	98	89
21	85	76	79	89	95	98	127	128	138	130	99	89
22	86	80	83	88	96	101	107	114	137	141	100	91
23	88	84	81	86	99	101	105	120	134	147	99	92
24	85	81	81	88	100	101	112	136	140	154	101	90
25	85	81	85	88	102	99	118	136	127	117	102	90
26	86	80	81	87	101	101	133	136	113	116	104	87
27	87	80	80	89	99	98	121	136	109	119	104	87
28	85	81	99	88	98	99	132	136	113	118	101	87
29	85	80	81	87	---	100	134	134	119	118	101	90
30	85	81	81	91	---	101	140	134	119	113	105	86
31	84	---	82	86	---	98	---	135	---	118	100	---
TOTAL	2697	2478	2542	2487	2731	3080	3858	4500	3986	3647	3205	2718
MEAN	87.0	82.6	82.0	80.2	97.5	99.4	129	145	133	118	103	90.6
MAX	96	110	111	102	116	109	148	177	143	154	114	101
MIN	84	76	71	58	65	93	98	114	109	55	91	86
AC-FT	5350	4920	5040	4930	5420	6110	7650	8930	7910	7230	6360	5390
a	970	1430	2811	3469	4052	3621	6578	10433	14988	10713	5880	2872
CAL YR 1984	TOTAL	50275	MEAN 137	MAX 477	MIN 71	AC-FT	99720	a	84505			
WTR YR 1985	TOTAL	37929	MEAN 104	MAX 177	MIN 55	AC-FT	75230	a	67817			

a Computed natural flow, in acre-feet.

OWENS LAKE BASIN

10271210 BISHOP CREEK BELOW POWERPLANT NO. 6, NEAR BISHOP, CA--Continued
OWENS LAKE BASIN

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	82	80	84	61	92	142	178	400	249	204	147
2	89	84	88	83	89	92	139	186	414	256	219	142
3	86	81	111	83	84	93	148	187	421	283	232	140
4	86	81	81	85	79	79	142	187	444	369	235	138
5	85	81	79	82	88	91	142	180	425	423	237	137
6	87	78	81	62	83	91	142	176	401	412	233	142
7	92	80	80	61	82	94	134	177	420	373	234	142
8	86	80	79	59	84	114	150	177	393	354	227	137
9	89	81	79	61	84	109	142	176	391	356	222	139
10	87	82	81	60	84	114	142	180	358	325	225	138
11	87	86	81	59	84	116	142	174	349	265	255	138
12	86	82	80	60	84	113	141	180	356	285	254	137
13	86	87	81	60	82	111	142	195	364	319	249	136
14	86	82	77	60	86	118	138	191	381	335	240	139
15	86	81	81	60	86	119	142	197	375	337	236	111
16	86	81	80	60	84	110	143	198	353	373	229	99
17	86	80	81	60	84	110	141	191	317	345	217	99
18	86	81	71	60	97	96	142	197	317	316	205	98
19	86	82	81	60	95	94	142	215	296	292	197	98
20	85	83	81	60	89	93	142	235	250	277	186	103
21	85	76	79	61	98	93	143	202	257	265	208	107
22	86	80	83	59	95	93	142	216	249	273	210	110
23	88	84	81	62	87	93	143	213	259	299	201	133
24	85	81	81	77	85	93	140	211	262	286	191	140
25	85	81	85	84	84	87	143	222	269	270	181	138
26	86	81	81	85	84	94	141	242	272	289	173	139
27	87	80	81	85	84	96	136	265	279	282	171	139
28	84	81	81	85	88	134	147	317	289	254	170	138
29	85	80	82	86	---	130	141	336	269	220	167	139
30	85	81	81	66	---	130	157	372	252	196	160	136
31	84	---	82	61	---	140	---	399	---	188	154	---
TOTAL	2671	2440	2530	2130	2394	3232	4271	6772	10082	9366	6522	3879
MEAN	86.2	81.3	81.6	68.7	85.5	104	142	218	336	302	210	129
MAX	92	87	111	86	98	140	157	399	444	423	255	147
MIN	84	76	71	59	61	79	134	174	249	188	154	98
AC-FT	5300	4840	5020	4220	4750	6410	8470	13430	20000	18580	12940	7690
a	3546	3395	3713	3270	4696	4715	6524	17960	31923	23411	14495	7247
CAL YR 1985	TOTAL	37853	MEAN 104	MAX 177	MIN 55	AC-FT	75080	a	73260			
WTR YR 1986	TOTAL	56289	MEAN 154	MAX 444	MIN 59	AC-FT	111600	a	124895			

a Computed natural flow, in acre-feet.

MONO LAKE BASIN

10287000 MONO LAKE NEAR MONO LAKE, CA

LOCATION.--Lat 37°58'46", long 119°08'11", in NW 1/4 sec. 5, T.2 N., R.26 E., Mono County, Hydrologic Unit 18090101, on west bank 1 mi south of town of Mono Lake.

DRAINAGE AREA.--785 mi².

PERIOD OF RECORD.--June 1912 to current year. Records prior to September 1934, published in WSP 765.

GAGE.--Nonrecording gage or reference point read once a week. Gage readings have been reduced to elevations to National Geodetic Vertical Datum of 1929. Gage heights prior to October 1944 are converted to elevations to NGVD in WSP 1314.

REMARKS.--Since 1941 water diverted to Owens Lake basin via Mono tunnel, capacity, 200 ft³/s. No elevation readings were provided for January and February, lake frozen at gages.

COOPERATION.--Records were provided by city of Los Angeles, Department of Water and Power.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 6,428.1 ft, July 18, 1919, present datum; minimum observed, 6,372.00 ft, Dec. 17, 30, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
Oct. 3	6,378.69	Jan. 16	6,378.66	Apr. 23	6,380.09	July 17	6,380.97
10	6,378.67	23	6,378.64	30	6,380.16	23	6,380.99
17	6,378.64	Feb. 6	6,378.67	May 7	6,380.18	30	6,381.01
24	6,378.58	20	6,379.31	14	6,380.26	Aug. 6	6,380.94
31	6,378.56	28	6,379.36	22	6,380.32	13	6,380.89
Nov. 7	6,378.53	Mar. 6	6,379.38	28	6,380.47	20	6,380.83
14	6,378.48	13	6,379.54	June 4	6,380.57	27	6,380.77
21	6,378.46	20	6,379.64	11	6,380.63	Sept. 3	6,380.68
27	6,378.44	27	6,379.74	18	6,380.67	10	6,380.57
Dec. 5	6,378.52	Apr. 3	6,379.85	25	6,380.73	16	6,380.47
12	6,378.48	9	6,379.97	July 2	6,380.85	24	6,380.31
19	6,378.46	16	6,380.01	9	6,380.94		

MONO LAKE BASIN

10287070 MILL CREEK BELOW LUNDY LAKE, NEAR MONO LAKE, CA

LOCATION.--Lat 38°01'58", long 119°12'53", in SE 1/4 NE 1/4 sec. 16, T.2 N., R.25 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, at road crossing 1,500 ft downstream from Lundy Lake Dam, and 4.9 mi northwest of Mono Lake Post Office.

DRAINAGE AREA.--18.1 mi², natural flow.

PERIOD OF RECORD.--October 1942 to current year. Monthly and yearly mean discharges prior to October 1969, published in WSP 2127.

GAGE.--Water-stage recorder and Parshall flume on creek. Elevation of gage is 7,760 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Flow regulated for power development by Lundy Lake, capacity, 3,820 acre-ft. Records for "actual flow" include Mill Creek, Lundy powerplant tailrace, and Upper Conway ditch. Records for "natural flow" are computed as the "actual flow" plus change in contents and evaporation of Lundy Lake.

COOPERATION.--Records were provided by Southern California Edison Co. and reviewed by the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (Actual flow).--45 years, 29.9 ft³/s, 21,660 acre-ft/yr.

(Natural flow).--45 years, 31.2 ft³/s, 22,600 acre-ft/yr.

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 229 ft³/s, June 22, 1983; no flow for many days in 1971 and 1974.

EXTREMES (ACTUAL FLOW) FOR CURRENT YEAR.--Maximum daily discharge, 216 ft³/s, June. 5; minimum daily, 12 ft³/s, for many days.

REVISIONS.--The average discharges for the 1984 and 1985 water years have been revised, and are given below.

These figures supersede those published in the report for 1985.

1984 (Actual flow).--43 years, 29.8 ft³/s, 21,590 acre-ft/yr.

(Natural flow).--43 years, 31.3 ft³/s, 22,680 acre-ft/yr.

1985 (Actual flow).--44 years, 29.6 ft³/s, 21,450 acre-ft/yr.

(Natural flow).--44 years, 31.2 ft³/s, 22,600 acre-ft/yr.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	13	14	14	14	12	24	53	65	119	69	48
2	22	13	14	14	13	12	28	53	111	119	69	48
3	22	13	14	14	13	14	31	50	163	121	69	48
4	22	13	14	14	13	16	39	52	185	156	68	45
5	22	13	14	14	13	16	44	54	216	183	67	40
6	21	13	14	14	13	25	44	56	186	181	67	39
7	21	13	14	14	13	40	44	52	165	136	67	39
8	21	13	14	14	13	40	44	59	146	84	69	39
9	21	13	14	14	13	40	43	60	115	84	69	39
10	20	13	14	14	13	40	43	60	104	83	69	30
11	19	13	14	14	13	40	43	60	105	84	68	24
12	19	13	14	14	13	40	43	57	106	84	68	18
13	19	13	14	14	13	40	43	52	107	113	68	14
14	19	13	14	14	13	40	43	51	108	135	69	18
15	17	13	14	14	13	40	43	52	109	134	69	23
16	12	13	14	14	13	40	43	52	131	109	69	18
17	12	13	14	14	12	40	23	52	149	84	69	23
18	12	13	14	14	12	40	12	55	150	81	69	23
19	12	13	14	14	12	40	12	59	121	82	60	23
20	12	13	14	14	12	40	12	59	93	82	51	23
21	12	14	14	14	12	28	12	59	94	75	51	23
22	12	14	14	14	12	22	30	59	113	69	51	23
23	12	14	14	14	12	22	45	59	131	69	51	23
24	12	14	14	14	12	23	43	59	141	69	50	23
25	13	14	14	14	12	24	56	59	144	68	49	23
26	13	14	14	14	12	24	54	60	168	69	49	23
27	13	14	14	14	12	24	53	60	196	70	50	23
28	13	14	14	14	12	24	52	61	190	70	49	23
29	13	14	14	14	---	24	51	63	149	70	49	23
30	13	14	14	14	---	24	53	64	120	69	48	20
31	13	---	14	14	---	24	---	64	---	69	48	---
TOTAL	506	400	434	434	353	918	1150	1765	4081	3021	1888	849
MEAN	16.3	13.3	14.0	14.0	12.6	29.6	38.3	56.9	136	97.5	60.9	28.3
MAX	22	14	14	14	14	40	56	64	216	183	69	48
MIN	12	13	14	14	12	12	12	50	65	68	48	14
AC-FT	1000	793	861	861	700	1820	2280	3500	8090	5990	3740	1680
a	864	749	765	710	985	1548	2173	5510	9112	5890	2848	1214

CAL YR 1985 TOTAL 1681.20 MEAN 4.61 MAX 22 MIN .00 AC-FT 3330 a 17495
WTR YR 1986 TOTAL 15799.00 MEAN 43.3 MAX 216 MIN 12 AC-FT 31340 a 32368

aComputed natural flow, in acre-ft.

MONO LAKE BASIN

10287290 RUSH CREEK BELOW AGNEW LAKE, NEAR JUNE LAKE, CA

LOCATION.--Lat 37°45'32", long 119°07'47", in NE 1/4 SW 1/4 sec.20, T.2 S., R.26 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, 500 ft downstream from Agnew Lake Dam, and 3.4 mi southwest of town of June Lake.

DRAINAGE AREA.--23.3 mi², natural flow.

PERIOD OF RECORD.--October 1951 to current year. Monthly and yearly mean discharges prior to October 1969, published in WSP 2127.

GAGE.--Water-stage recorder and Parshall flume on creek. Elevation of gage is 8,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Flow regulated for power development by Waugh, Gem, and Agnew Lakes, combined capacity, 23,420 acre-ft, and Rush Creek powerplant. "Actual flow" is total flow of Rush Creek below Agnew Lake and Rush Creek powerplant tailrace. "Natural flow" is the sum of "actual flow", change in contents and evaporation for Waugh, Gem, and Agnew Lakes.

COOPERATION.--Records were provided by Southern California Edison Co., and reviewed by the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (ACTUAL FLOW).--35 years, 57.9 ft³/s, 41,950 acre-ft/yr.
(NATURAL FLOW).--35 years, 62.4 ft³/s, 45,210 acre-ft/yr.

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 421 ft³/s, July 15, 1978; minimum daily, 0.90 ft³/s, Aug. 31 to Sept. 2, 1976.

EXTREMES (ACTUAL FLOW) FOR CURRENT YEAR.--Maximum daily discharge, 324 ft³/s, July 4; minimum daily, 9.3 ft³/s, Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	37	30	27	25	26	40	82	85	235	88	85
2	17	30	28	27	25	25	55	82	106	272	88	72
3	17	31	27	28	25	26	55	82	106	315	87	67
4	16	31	27	28	22	27	70	82	102	324	87	68
5	16	31	26	28	20	27	85	82	133	290	87	68
6	16	31	26	28	22	27	85	82	257	243	87	67
7	16	31	26	28	22	27	77	82	256	202	86	67
8	15	31	26	27	22	36	67	80	255	155	86	67
9	16	33	26	28	22	28	71	82	255	149	86	69
10	15	32	26	30	22	28	80	82	205	150	86	70
11	16	30	26	31	22	29	85	82	99	156	86	68
12	16	30	26	31	22	29	85	82	99	184	86	48
13	16	30	25	29	22	29	76	83	101	203	86	48
14	16	32	25	29	22	28	63	83	102	203	86	68
15	16	32	25	26	22	28	63	83	101	178	86	69
16	16	31	25	25	18	28	49	83	100	196	86	52
17	16	31	25	28	43	31	41	83	99	129	86	69
18	29	31	25	30	56	37	39	84	99	155	86	69
19	47	31	25	29	37	36	36	85	152	111	86	69
20	47	31	25	29	36	36	35	83	285	100	69	69
21	46	31	25	29	36	35	38	83	282	95	85	69
22	46	31	25	29	34	35	50	83	286	94	85	67
23	52	31	25	29	34	36	61	83	287	92	85	70
24	60	31	25	29	35	36	75	83	240	88	85	59
25	62	31	25	29	34	37	82	83	100	90	85	9.3
26	61	31	25	29	34	37	82	82	100	88	85	31
27	52	31	25	29	34	37	82	83	100	89	85	69
28	45	31	25	26	29	37	82	83	167	88	86	69
29	45	31	25	25	---	37	82	83	241	89	85	70
30	44	31	25	26	---	37	82	83	233	87	85	51
31	47	---	26	25	---	39	---	83	---	88	85	---
TOTAL	955	937	796	871	797	991	1973	2561	5033	4938	2647	1893.3
MEAN	30.8	31.2	25.7	28.1	28.5	32.0	65.8	82.6	168	159	85.4	63.1
MAX	62	37	30	31	56	39	85	85	287	324	88	85
MIN	15	30	25	25	18	25	35	80	85	87	69	9.3
AC-FT	1890	1860	1580	1730	1580	1970	3910	5080	9980	9790	5250	3760
a	582	681	806	643	1220	1530	3470	15500	21785	9400	2990	645

CAL YR 1985 TOTAL 15534.0 MEAN 42.6 MAX 88 MIN 14 AC-FT 30810 a 45796
WTR YR 1986 TOTAL 24392.3 MEAN 66.8 MAX 324 MIN 9.3 AC-FT 48380 a 59250

TIJUANA RIVER BASIN

11012000 COTTONWOOD CREEK ABOVE TECATE CREEK, NEAR DULZURA, CA

LOCATION.--Lat 32°34'30", long 116°45'11", in NW 1/4 SW 1/4 sec.26, T.18 S., R.2 E., San Diego County, Hydrologic Unit 18070305, on right bank 0.8 mi upstream from confluence with Tecate Creek, 5.1 mi south of Dulzura, and 11.3 mi downstream from Barrett Reservoir.

DRAINAGE AREA.--310 mi².

PERIOD OF RECORD.--October 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 569.40 ft above National Geodetic Vertical Datum of 1929 (levels by International Boundary and Water Commission).

REMARKS.--Estimated daily discharges: May 27 to June 17, Aug. 29 to Sept. 22. Records good. Flow regulated by Morena Reservoir, capacity, 50,120 acre-ft and Barrett Reservoir, capacity, 44,760 acre-ft. Water diverted from Barrett Reservoir through San Diego and Dulzura conduits to Lower Otay Reservoir.

AVERAGE DISCHARGE.--50 years, 15.0 ft³/s, 10,870 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s, Feb. 21, 1980, gage height, 11.15 ft; no flow for part of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 92 ft³/s, Feb. 15, gage height, 4.22 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.9	1.2	1.8	2.9	5.0	.24				
2		0	1.5	1.2	1.3	2.7	4.8	.22				
3		0	2.0	1.2	1.3	2.5	4.4	.20				
4		0	1.6	1.0	1.2	2.3	4.1	.20				
5		0	1.5	.94	1.1	2.2	3.9	.20				
6		0	1.3	.90	1.1	2.0	4.0	.23				
7		0	1.2	.76	1.0	2.0	3.7	.23				
8		0	1.0	.68	2.7	2.2	3.3	.21				
9		0	1.0	.64	3.0	2.8	3.1	.19				
10		0	1.4	.66	1.9	4.3	2.9	.18				
11		0	4.8	.64	1.5	7.5	2.7	.18				
12		0	5.6	.60	1.3	8.5	2.6	.18				
13		0	4.1	.61	1.3	7.4	2.4	.19				
14		0	3.3	.76	1.2	8.1	2.1	.20				
15		0	2.8	.78	45	7.5	1.9	.20				
16		0	2.5	.74	30	28	1.7	.20				
17		0	2.2	.74	13	61	1.5	.17				
18		0	1.9	.73	9.2	30	1.3	.15				
19		0	1.7	.72	7.9	20	1.1	.13				
20		0	1.5	.74	7.0	15	.88	.10				
21		0	1.4	.74	6.1	12	.75	.11				
22		0	1.3	.74	5.2	10	.63	.15				
23		0	1.3	.74	4.7	9.1	.56	.16				
24		0	1.3	.73	4.1	8.1	.53	.16				
25		4.8	1.2	.69	3.7	7.4	.49	.15				
26		2.4	1.2	.65	3.4	6.8	.50	.11				
27		.63	1.1	.62	3.2	6.1	.42	.09				
28		.43	1.1	.63	3.0	5.9	.33	.06				
29		1.6	1.1	.62	---	5.8	.29	.04				
30		3.5	1.1	1.8	---	5.4	.26	.02				
31		---	1.1	2.0	---	5.1	---	0	---			---
TOTAL	0	13.36	58.0	26.20	167.2	300.6	62.14	4.85	0	0	0	0
MEAN	0	.45	1.87	.85	5.97	9.70	2.07	.16	0	0	0	0
MAX	0	4.8	5.6	2.0	45	61	5.0	.24	0	0	0	0
MIN	0	0	1.0	.60	1.0	2.0	.26	0	0	0	0	0
AC-FT	0	26	115	52	332	596	123	9.6	0	0	0	0
CAL YR 1985	TOTAL	298.02	MEAN	.82	MAX	6.7	MIN	0	AC-FT	591		
WTR YR 1986	TOTAL	632.35	MEAN	1.73	MAX	61	MIN	0	AC-FT	1250		

TIJUANA RIVER BASIN

11012500 CAMPO CREEK NEAR CAMPO, CA

LOCATION.--Lat 32°35'28", long 116°31'29", in NE 1/4 SE 1/4 sec.24, T.18 S., R.4 E., San Diego County, Hydrologic Unit 18070305, on left bank just upstream from bridge on State Highway 94, and 3.5 mi southwest of Campo.

DRAINAGE AREA.--85.0 mi², of which 3 mi² are in Mexico.

PERIOD OF RECORD.--October 1936 to current year.

GAGE.--Water-stage recorder and broad-crested weir. Broad-crested weir buried by sand Mar. 25, 1982, to Sept. 30, 1985, and was ineffective as a control. Datum of gage is 2,178.92 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1954, at datum 1 ft higher.

REMARKS.--Estimated daily discharges: June 12-16. Records fair. Flow regulated by small conservation reservoir 1 mi upstream since August 1956. No diversion above station.

AVERAGE DISCHARGE.--50 years, 3.34 ft³/s, 2,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 895 ft³/s, Mar. 24, 1983, gage height, 5.39 ft, from rating curve extended above 340 ft³/s; no flow for part of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 827 ft³/s, Feb. 15, gage height, 4.01 ft; minimum daily, 0.03 ft³/s, Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.30	8.5	4.4	6.9	5.3	5.0	1.4	.52	.21	.11	.07
2	.15	.22	7.0	4.4	6.0	5.2	5.4	1.3	.50	.19	.11	.08
3	.13	.24	9.0	4.6	5.2	5.2	5.3	1.2	.49	.19	.09	.08
4	.17	.25	7.5	4.4	5.6	4.9	4.9	1.2	.47	.21	.09	.07
5	.15	.36	6.5	4.4	5.5	4.7	4.7	1.2	.45	.23	.10	.05
6	.25	.36	6.0	4.7	5.1	4.4	5.0	1.3	.42	.23	.09	.04
7	.33	.36	5.2	4.3	5.0	4.4	5.9	1.3	.42	.22	.11	.03
8	.35	.48	5.0	3.8	32	4.9	4.9	1.2	.43	.21	.12	.03
9	.32	.55	5.0	3.8	13	9.3	4.3	1.1	.40	.20	.11	.04
10	.46	.60	5.5	3.8	7.2	17	4.2	1.1	.38	.20	.11	.07
11	.23	1.5	64	3.8	6.1	36	4.3	1.0	.37	.19	.14	.06
12	.16	4.0	30	3.6	5.6	14	4.5	1.1	.35	.18	.11	.06
13	.20	6.1	8.9	3.5	5.4	12	4.8	1.1	.32	.18	.13	.09
14	.16	3.7	6.8	4.0	5.4	12	3.7	1.0	.30	.19	.13	.10
15	.13	1.9	6.2	4.7	198	9.9	3.1	1.0	.28	.20	.13	.11
16	.15	1.2	5.6	4.5	103	16	2.9	.96	.26	.20	.13	.09
17	.20	1.2	4.7	4.1	16	31	3.1	.82	.25	.19	.11	.09
18	.19	1.4	4.4	4.1	11	14	3.0	.74	.23	.19	.13	.10
19	.18	1.2	3.9	3.8	9.7	10	2.5	.67	.23	.18	.13	.12
20	.18	1.0	3.7	3.9	9.2	8.3	2.2	.66	.23	.16	.10	.13
21	.25	1.2	3.8	4.1	7.9	7.2	2.0	.71	.24	.21	.11	.14
22	.32	1.2	3.8	4.0	6.4	6.6	2.0	.70	.24	.22	.08	.15
23	.26	1.3	3.8	3.8	5.5	6.9	1.9	.70	.24	.21	.07	.18
24	.22	1.7	4.1	3.8	5.6	6.6	1.9	.66	.23	.20	.10	.21
25	.22	7.1	4.0	3.5	5.5	6.4	1.8	.59	.22	.19	.11	.30
26	.22	12	3.9	3.3	5.6	5.9	1.8	.58	.21	.19	.10	.21
27	.22	7.8	4.1	3.3	5.4	5.2	1.7	.56	.18	.19	.07	.21
28	.25	6.5	3.8	3.5	5.4	4.8	1.6	.53	.21	.16	.06	.21
29	.28	7.1	4.1	3.5	---	5.0	1.5	.52	.23	.14	.05	.21
30	.30	11	4.1	7.5	---	5.0	1.4	.53	.23	.13	.05	.20
31	.38	---	4.3	9.0	---	5.0	---	.52	---	.12	.05	---
TOTAL	7.21	83.82	247.2	131.9	508.2	293.1	101.3	27.95	9.53	5.91	3.13	3.53
MEAN	.23	2.79	7.97	4.25	18.2	9.45	3.38	.90	.32	.19	.10	.12
MAX	.46	12	64	9.0	198	36	5.9	1.4	.52	.23	.14	.30
MIN	.13	.22	3.7	3.3	5.0	4.4	1.4	.52	.18	.12	.05	.03
AC-FT	14	166	490	262	1010	581	201	55	19	12	6.2	7.0
CAL YR 1985	TOTAL	1843.93	MEAN	5.05	MAX	64	MIN	.04	AC-FT	3660		
WTR YR 1986	TOTAL	1422.78	MEAN	3.90	MAX	198	MIN	.03	AC-FT	2820		

TIJUANA RIVER BASIN

11013000 TIJUANA RIVER NEAR DULZURA, CA

LOCATION.--Lat 32°33'56", long 116°46'27", in E 1/2 sec.33, T.18 S., R.2 E., San Diego County, Hydrologic Unit 18070305, on left bank 0.5 mi downstream from confluence of Cottonwood and Tecate Creeks, 5.5 mi south of Dulzura, and 12.8 mi downstream from Barrett Reservoir.

DRAINAGE AREA.--481 mi², of which 70 mi² are in Mexico.

PERIOD OF RECORD.--October 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 542.42 ft above National Geodetic Vertical Datum of 1929 (levels by International Boundary and Water Commission). Prior to Sept. 19, 1939, at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Morena Reservoir, capacity, 50,210 acre-ft and Barrett Reservoir, capacity, 44,760 acre-ft. Water diverted from Barrett Reservoir through San Diego and Dulzura conduits to Lower Otay Reservoir.

AVERAGE DISCHARGE.--50 years, 25.4 ft³/s, 18,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, Mar. 3, 1983, gage height, 7.03 ft, from rating curve extended above 3,500 ft³/s; maximum gage height, 11.19 ft, Feb. 18, 1980; no flow for part of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 667 ft³/s, Feb. 15, gage height, 3.75 ft; no flow several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	3.6	12	8.8	8.3	8.5	7.3	1.3	.29	.26	.08	.03
2	0	3.6	10	7.8	5.6	8.3	7.2	.99	.24	.18	.07	.02
3	0	2.9	14	8.7	5.3	7.9	6.1	1.0	.25	.19	.05	.03
4	0	2.5	10	8.9	6.1	7.6	6.1	1.4	.27	.15	.06	.02
5	0	2.9	9.0	9.0	5.2	6.6	5.7	1.4	.27	.19	.06	.02
6	0	3.4	8.1	8.4	5.0	5.8	5.6	1.3	.27	.22	.07	.01
7	0	4.2	7.2	7.1	4.3	5.5	5.4	1.5	.28	.24	.07	.01
8	0	4.7	6.5	6.1	16	6.9	5.1	1.5	.30	.20	.07	.01
9	.79	4.8	6.5	6.4	16	11	5.1	1.1	.30	.17	.07	.01
10	1.2	5.1	15	6.2	8.5	47	5.1	.99	.26	.16	.06	.02
11	1.7	6.7	120	5.8	7.3	112	5.1	1.0	.27	.16	.07	.02
12	1.8	16	51	5.1	5.8	50	4.8	.99	.31	.20	.05	.02
13	1.7	13	17	5.1	6.2	34	4.7	.99	.31	.12	.05	.02
14	1.4	7.1	16	5.6	6.4	32	4.8	.99	.33	.13	.04	.02
15	1.1	3.9	15	5.6	309	22	4.7	1.0	.32	.12	.04	.01
16	1.4	3.1	14	5.5	259	79	4.7	.93	.27	.11	.03	.01
17	2.0	3.2	13	5.5	78	195	4.1	.59	.24	.10	.04	0
18	2.4	2.9	13	5.3	28	64	3.1	.43	.17	.08	.03	0
19	2.7	2.8	13	4.9	17	37	1.8	.31	.14	.06	.03	0
20	2.9	2.8	13	4.9	14	30	2.2	.34	.09	.07	.02	0
21	2.7	3.0	13	4.5	13	23	2.1	.43	.08	.06	.02	0
22	3.1	3.1	13	4.5	12	19	1.9	.46	.16	.07	.02	0
23	3.3	3.2	12	4.2	11	18	1.4	.47	.29	.10	.01	0
24	3.3	3.2	12	3.7	10	17	1.3	.54	.32	.10	.03	0
25	3.0	119	11	3.6	9.9	15	2.0	.55	.23	.14	.03	.01
26	2.7	96	10	3.1	9.2	13	1.9	.56	.26	.13	.03	.01
27	2.9	31	10	2.8	9.0	10	1.6	.55	.24	.11	.03	.03
28	2.8	23	9.4	2.6	8.5	9.8	.99	.54	.19	.08	.03	.37
29	2.7	36	9.6	2.9	---	8.5	1.2	.52	.17	.08	.02	.69
30	3.0	64	8.6	8.7	---	7.9	1.2	.49	.18	.08	.03	1.0
31	3.3	---	9.0	7.8	---	7.6	---	.44	---	.06	.04	---
TOTAL	53.89	480.7	500.9	179.1	893.6	918.9	114.29	25.60	7.30	4.12	1.35	2.39
MEAN	1.74	16.0	16.2	5.78	31.9	29.6	3.81	.83	.24	.13	.044	.080
MAX	3.3	119	120	9.0	309	195	7.3	1.5	.33	.26	.08	1.0
MIN	0	2.5	6.5	2.6	4.3	5.5	.99	.31	.08	.06	.01	0
AC-FT	107	953	994	355	1770	1820	227	51	14	8.2	2.7	4.7

CAL YR 1985 TOTAL 3517.65 MEAN 9.64 MAX 120 MIN 0 AC-FT 6980
WTR YR 1986 TOTAL 3182.14 MEAN 8.72 MAX 309 MIN 0 AC-FT 6310

TIJUANA RIVER BASIN

11013200 RODRIGUEZ RESERVOIR AT RODRIGUEZ DAM, BAJA CALIFORNIA, MEXICO

LOCATION.--Lat 32°26'40", long 116°54'25", Baja California, Mexico, Hydrologic Unit 18070305, at Rodriguez Dam on Rio de las Palmas, 0.2 mi upstream from Arroyo Matanuco, and 10 mi southeast of Tijuana.

DRAINAGE AREA.--977 mi², of which 10 mi² are in the United States.

PERIOD OF RECORD.--April 1937 to current year. Published with record for Tijuana River near Nestor, Calif., October 1953 to September 1957. Monthend contents for April 1937 to September 1950 published in WSP 1315-B and for October 1950 to September 1960 in WSP 1735.

GAGE.--Nonrecording gage read once a day. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by National Irrigation Commission, Mexico).

REMARKS.--Reservoir is formed by thin-shell concrete-arch dam completed in 1936; storage began in 1937. Capacity table is based on surveys made in 1927. Maximum storage at crest of spillway gates, elevation, 410.10 ft, 111,070 acre-ft; at spillway lip, elevation, 380.08 ft, 74,580 acre-ft; dead storage below outlet, elevation, 267.39 ft, 1,650 acre-ft included in contents. Reservoir stores water for irrigation of 3,000 acres on both banks 0.5 to 5.5 mi downstream and municipal supply for city of Tijuana. Since August 1972, Colorado River water diverted through Otay aqueduct into the reservoir for Tijuana emergency use; this year none was imported.

COOPERATION.--Records were provided by Ministry of Hydraulic Resources, Government of Mexico, through International Boundary and Water Commission, United States section.

EXTREMES FOR PERIOD OF RECORD.--Reservoir spilled during March 1938, September 1940, February to May 1941, March 1942, February and March 1944, January to July 1980, April 1983; reservoir dry Apr. 2, 1964, to Apr. 9, 1965, Aug. 21 to Nov. 22, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 49,800 acre-ft, Oct. 1; minimum observed, 34,450 acre-ft, Sept. 30.

MONTHEND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	49,800	--
Oct. 31.....	47,850	-1,950
Nov. 30.....	46,570	-1,280
Dec. 31.....	44,920	-1,650
CAL YR 1985.....	--	-17,310
Jan. 31.....	43,360	-1,560
Feb. 28.....	43,930	+570
Mar. 31.....	46,130	+2,200
Apr. 30.....	44,560	-1,570
May 31.....	43,490	-1,070
June 30.....	40,610	-2,880
July 31.....	38,510	-2,100
Aug. 31.....	36,330	-2,180
Sept. 30.....	34,450	-1,880
WTR YR 1986.....	--	-15,350

OTAY RIVER BASIN

11014000 JAMUL CREEK NEAR JAMUL, CA

LOCATION.--Lat 32°38'15", long 116°53'00", in NW 1/4 NE 1/4 sec.4, T.18 S., R.1 E., San Diego County, Hydrologic Unit 18070304, on right bank 300 ft upstream from Otay Road crossing at upper end of Lower Otay Reservoir, 1.4 mi downstream from Dulzura Creek, and 5.5 mi south of Jamul.

DRAINAGE AREA.--70.2 mi².

PERIOD OF RECORD.--April 1940 to September 1978, October 1985 to September 1986.

GAGE.--Water-stage recorder and broad-crested weir control with low-water venturi-type flume. Datum of gage is 511.64 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1951, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-30. Records good. No regulation upstream from station. Water diverted from Cottonwood Creek at Barrett Reservoir via San Diego and Dulzura conduit into Dulzura Creek, a tributary to Jamul Creek, and is included in discharge for this station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s, Dec. 1, 1947, gage height, 6.42 ft, present datum, from rating curve extended above 1,200 ft³/s; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 25	2100	*1,050	*4.14	Feb. 15	0845	880	4.00
Dec. 11	1200	114	3.08	Mar. 16	1415	110	3.07

Minimum daily, 2.60 ft³/s, Oct. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	2.8	30	23	25	24	7.3	24	24	23	23	21
2	24	9.6	29	23	23	24	6.9	24	24	23	23	21
3	24	15	32	23	22	24	6.4	24	24	23	23	21
4	24	16	30	23	22	24	5.9	24	24	23	23	20
5	24	20	29	23	22	24	5.5	24	25	24	23	20
6	24	21	27	23	22	23	6.0	24	24	24	23	21
7	24	21	27	22	22	23	5.4	24	24	23	24	21
8	24	22	27	22	24	24	4.8	24	24	23	24	20
9	24	22	26	23	22	26	4.6	24	24	23	24	20
10	24	22	27	22	22	31	4.5	24	24	23	23	21
11	24	34	47	23	22	48	4.3	24	24	23	23	21
12	24	29	31	22	22	18	4.0	23	24	23	23	21
13	24	25	28	22	22	15	3.7	23	24	23	23	21
14	24	23	26	23	22	15	3.4	23	24	23	23	21
15	24	23	25	23	243	13	3.0	24	24	23	23	21
16	24	23	25	23	71	66	2.7	23	23	23	23	21
17	24	23	24	23	46	82	8.0	23	23	22	22	21
18	24	23	24	23	36	48	14	23	24	22	22	21
19	24	22	24	23	32	29	18	23	23	22	22	21
20	24	22	24	23	31	20	18	24	24	22	22	21
21	24	23	24	23	29	15	18	24	24	23	21	20
22	24	23	24	23	28	13	19	24	24	23	21	21
23	24	22	24	22	27	12	19	24	24	23	21	21
24	24	23	24	22	26	25	19	24	24	23	21	21
25	24	197	23	22	25	53	19	24	24	23	21	22
26	24	58	23	22	25	52	24	24	24	23	21	20
27	24	31	23	22	25	35	24	24	24	23	21	20
28	24	28	23	23	24	9.4	24	24	24	23	21	20
29	12	37	23	25	---	8.7	24	24	23	23	21	20
30	6.0	47	23	28	---	8.2	24	24	23	23	21	20
31	2.6	---	23	30	---	7.7	---	24	---	23	21	---
TOTAL	693.6	907.4	819	717	982	840.0	350.4	737	716	711	690	621
MEAN	22.4	30.2	26.4	23.1	35.1	27.1	11.7	23.8	23.9	22.9	22.3	20.7
MAX	25	197	47	30	243	82	24	24	25	24	24	22
MIN	2.6	2.8	23	22	22	7.7	2.7	23	23	22	21	20
AC-FT	1380	1800	1620	1420	1950	1670	695	1460	1420	1410	1370	1230

WTR YR 1986 TOTAL 8784.4 MEAN 24.1 MAX 243 MIN 2.6 AC-FT 17420

OTAY RIVER BASIN

11014550 LOWER OTAY LAKE NEAR CHULA VISTA, CA

LOCATION.--Lat 32°36'33", long 116°55'45", in NE 1/4 NE 1/4 sec.13, T.18 S., R.1 E., San Diego County, Hydrologic Unit 18070304, on outlet tower near right bank, 1,000 ft west of right end of Savage Dam on Otay River, and 9.0 mi east of Chula Vista.

DRAINAGE AREA.--99.0 mi².

PERIOD OF RECORD.--October 1945 to September 1959 (published with Otay River at Savage Dam, station 11014500), October 1972 to current year. Monthend gage heights October 1936 to September 1945, in files of San Diego County Department of Sanitation and Flood Control.

GAGE.--Nonrecording gage. Datum of gage is 347.20 ft above National Geodetic Vertical Datum of 1929 (levels by county of San Diego); gage readings have been reduced to NGVD. October 1972 to current year, supplementary water-stage recorder for flood warning only, on right bank 30 ft upstream from dam at datum 50.0 ft higher.

REMARKS.--Reservoir is formed by gravity section cyclopean concrete and masonry dam, built in 1919. Capacity from U.S. Geological Survey table dated Apr. 3, 1956. Maximum capacity at top of spillway gates, 56,520 acre-ft elevation, 490.70 ft. Capacity at permanent spillway level, 49,510 acre-ft, elevation, 484.70 ft. Dead storage below lowest outlet, 1,150 acre-ft, elevation, 395.05 ft. Dulzura conduit carries water from Barrett Reservoir on Cottonwood Creek to Dulzura Creek, where water is carried to the reservoir by Jamul Creek (station 11014000). Reservoir storage includes supplemental Colorado River water. Small diversions for local use near reservoir. Water used for municipal supply by city of San Diego.

COOPERATION.--Gage-heights were provided by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 51,860 acre-ft, spilling, Mar. 3, 1983, elevation, 486.78 ft; minimum observed, 3,160 acre-ft, Dec. 31, 1951, elevation, 407.56 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 46,410 acre-ft, Mar. 22, elevation, 481.84 ft; minimum observed, 39,890 acre-ft, Oct. 9, elevation, 475.29 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	475.36	39,960	--
Oct. 31.....	475.82	40,580	+620
Nov. 30.....	477.20	41,710	+1,130
Dec. 31.....	478.43	42,920	+1,210
CAL YR 1985.....	--	--	-750
Jan. 31.....	479.18	43,670	+750
Feb. 28.....	480.80	45,320	+1,650
Mar. 31.....	481.66	46,220	+900
Apr. 30.....	480.88	45,410	-810
May 31.....	481.32	45,870	+460
June 30.....	481.28	45,820	-50
July 31.....	481.20	45,740	-80
Aug. 31.....	481.32	45,870	+130
Sept. 30.....	481.12	45,660	-210
WTR YR 1986.....	--	--	+5,700

SWEETWATER RIVER BASIN

11015000 SWEETWATER RIVER NEAR DESCANSO, CA

LOCATION.--Lat 32°50'05", long 116°37'20", in NW 1/4 SE 1/4 sec.25, T.15 S., R.3 E., San Diego County, Hydrologic Unit 18070304, near right bank at Los Terrenitos Road bridge, 0.7 mi downstream from unnamed tributary, and 1.3 mi south of Descanso.

DRAINAGE AREA.--45.4 mi².

PERIOD OF RECORD.--October 1905 to September 1927 (monthly discharge only, published in WSP 1315-B), October 1956 to current year. Prior to September 1927, records unadjusted for diversion. Records adjusted for diversion, October 1956 to November 1976. No diversion since November 1976.

GAGE.--Water-stage recorder. Datum of gage is 3,269.24 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1927, nonrecording gages at several sites and datums, upstream about 0.1 mile. Diversion gage at site 0.3 mile upstream, October 1956 to September 1984, at different datum.

REMARKS.--Estimated daily discharges: June 15-17. Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--52 years (water years 1906-27, 1957-86), 12.0 ft³/s, 8,690 acre-ft/yr, unadjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 11,200 ft³/s, Feb. 16, 1927, gage height, 13.2 ft, from floodmarks, site and datum then in use, on basis of slope-area measurement of peak flow; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	2030	106	5.56	Mar. 10	2215	199	6.03
Feb. 15	1330	*468	*6.89	Mar. 16	2015	257	6.25

No flow July 30 to Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.09	11	2.2	3.1	6.4	21	4.8	1.6	.17		0
2	.04	.07	7.1	2.2	2.6	6.1	20	4.8	1.5	.17		0
3	.03	.06	19	2.2	2.5	5.4	19	4.7	1.5	.15		0
4	.04	.06	9.5	2.0	2.9	4.8	17	4.8	1.4	.13		0
5	.04	.06	6.1	2.1	2.6	4.4	16	4.9	1.4	.16		0
6	.07	.08	4.8	2.1	2.5	4.2	15	5.0	1.4	.15		0
7	.38	.08	4.0	2.0	2.3	4.1	16	5.1	1.3	.13		0
8	.39	.10	3.5	1.9	4.7	6.1	13	4.7	1.4	.11		0
9	.28	.12	3.2	1.7	3.4	9.9	12	4.5	1.3	.09		0
10	.21	.23	3.7	1.6	2.7	33	11	4.3	1.2	.09		0
11	.16	6.4	4.9	1.6	2.6	109	11	4.2	1.1	.09		0
12	.12	4.8	3.7	1.5	2.5	61	11	4.2	1.1	.08		0
13	.09	1.9	3.2	1.6	2.6	52	11	4.1	1.0	.07		0
14	.08	1.1	3.0	1.8	3.1	61	10	4.0	.98	.09		0
15	.05	.70	3.0	1.8	234	43	10	3.4	.90	.11		0
16	.06	.59	3.0	1.7	68	142	9.9	3.4	.82	.10		0
17	.06	.55	2.9	1.7	26	128	9.6	3.2	.75	.07		0
18	.06	.49	2.7	1.7	16	81	9.1	2.7	.68	.06		0
19	.06	.45	2.5	1.6	13	61	8.2	2.3	.43	.04		0
20	.06	.45	2.6	1.6	12	50	7.8	2.2	.42	.03		0
21	.06	.45	2.6	1.6	11	45	7.2	2.0	.40	.06		0
22	.22	.45	2.5	1.6	9.6	40	6.7	2.0	.35	.13		0
23	.15	.45	2.5	1.6	9.0	36	6.3	2.1	.35	.13		0
24	.09	.58	2.5	1.6	8.3	33	6.2	2.0	.34	.06		.03
25	.08	29	2.3	1.5	7.6	29	6.1	1.9	.27	.04		.72
26	.08	11	2.2	1.4	7.4	27	5.9	1.9	.22	.02		.22
27	.07	6.6	2.2	1.5	7.0	25	5.4	1.8	.17	.02		.17
28	.07	5.6	2.2	1.5	6.6	24	5.2	1.7	.16	.01		.17
29	.08	30	2.2	1.5	---	22	5.1	1.6	.18	.01		.15
30	.08	38	2.2	3.8	---	21	4.9	1.5	.21	0		.14
31	.10	---	2.2	3.5	---	20	---	1.6	---	0		---
TOTAL	3.40	140.51	129.0	57.7	475.6	1194.4	316.6	101.4	24.83	2.57	0	1.60
MEAN	.11	4.68	4.16	1.86	17.0	38.5	10.6	3.27	.83	.083	0	.053
MAX	.39	38	19	3.8	234	142	21	5.1	1.6	.17	0	.72
MIN	.03	.06	2.2	1.4	2.3	4.1	4.9	1.5	.16	0	0	0
AC-FT	6.7	279	256	114	943	2370	628	201	49	5.1	0	3.2

CAL YR 1985 TOTAL 1148.45 MEAN 3.15 MAX 38 MIN 0 AC-FT 2280
 WTR YR 1986 TOTAL 2447.61 MEAN 6.71 MAX 234 MIN 0 AC-FT 4850

SAN DIEGO RIVER BASIN

11020600 EL CAPITAN LAKE NEAR LAKESIDE, CA

LOCATION.--Lat 32°53'00", long 116°48'25", in SE 1/4 NE 1/4 sec.7, T.15 S., R.2 E., San Diego County, Hydrologic Unit 18070304, on outlet tower 100 ft upstream of El Capitan Dam on San Diego River, and 7.0 mi east of Lakeside.

DRAINAGE AREA.--188 mi².

PERIOD OF RECORD.--October 1936 to September 1966 (published with San Diego River at El Capitan Dam, station 11020500), October 1972 to current year. October 1936 to September 1945, published in WSP 1315-B, not equivalent owing to exclusion of greater part of flow released from Cuyamaca Reservoir.

GAGE.--Nonrecording gage. Datum of gage is 553.0 ft above National Geodetic Vertical Datum of 1929 (levels by city of San Diego); gage readings have been reduced to NGVD. October 1972 to current year, supplementary water-stage recorder used for flood warning only, on left side of outlet tower at datum 110.0 ft higher.

REMARKS.--Reservoir is formed by hydraulic fill-rock embankment, completed in 1935. Capacity table dated Mar. 29, 1956. Capacity of reservoir at spillway level, 112,810 acre-ft, elevation, 750.00 ft. Dead storage below lowest outlet, 59.2 acre-ft, elevation, 574.00 ft. Reservoir storage includes supplemental Colorado River water. No significant diversion above reservoir. Flow partly regulated by Cuyamaca Reservoir. Water is released as required for municipal use and irrigation.

COOPERATION.--Gage heights were provided by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 114,500 acre-ft, spilling, Mar. 7, 1980, elevation, 751.09 ft; minimum observed, 2,252 acre-ft, May 1, 1957, elevation, 606.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 36,320 acre-ft, May 17, elevation, 683.28 ft; minimum observed, 14,150 acre-ft, Jan. 21, elevation, 646.97 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	656.62	18,830	--
Oct. 31.....	652.69	16,820	-2,010
Nov. 30.....	650.88	15,940	-880
Dec. 31.....	649.29	15,200	-740
CAL YR 1985.....	--	--	-20,750
Jan. 31.....	647.28	14,290	-910
Feb. 28.....	655.03	18,000	+3,710
Mar. 31.....	674.96	30,080	+12,080
Apr. 30.....	682.15	35,440	+5,360
May 31.....	683.22	36,280	+840
June 30.....	682.76	35,920	-360
July 31.....	681.66	35,060	-860
Aug. 31.....	678.78	32,870	-2,190
Sept. 30.....	677.14	31,660	-1,210
WTR YR 1986.....	--	--	+12,830

SAN DIEGO RIVER BASIN

11022100 SAN VICENTE RESERVOIR NEAR LAKESIDE, CA

LOCATION.--Lat 32°54'45", long 116°55'25", in SW 1/4 NW 1/4 sec.31, T.14 S., R.1 E., San Diego County, Hydrologic Unit 18070304, at outlet tower near center of upstream face of San Vicente Dam on San Vicente Creek, and 3.6 mi north of Lakeside.

DRAINAGE AREA.--74.2 mi².

PERIOD OF RECORD.--October 1946 to September 1961 (published as San Vicente Creek at San Vicente Dam, at Foster, (station 11022000), October 1972 to current year.

GAGE.--Nonrecording gage. Datum of gage is 460.0 ft above National Geodetic Vertical Datum of 1929 (levels by county of San Diego); gage readings have been reduced to NGVD. October 1972 to current year, supplementary water-stage recorder used for flood warning only, at same site at datum 100 ft higher.

REMARKS.--Reservoir is formed by concrete-gravity dam, constructed in 1941-43 by city of San Diego; storage began during construction period. Capacity table is dated Feb. 18, 1944. Capacity of reservoir at spillway level, 90,230 acre-ft, elevation, 650 ft. Dead storage below lowest outlet, 350 acre-ft, elevation, 493.0 ft. Reservoir storage includes supplemental water from the San Diego River, Santa Ysabel Creek, and Colorado River basins. No diversion above reservoir. Water is released as required for municipal use.

COOPERATION.--Gage heights were provided by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 94,200 acre-ft, spilling, Feb. 21, 1980, elevation, 653.54 ft; minimum observed, 12,390 acre-ft, Nov. 1, 1947, elevation, 549.22 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 78,670 acre-ft, May 3, elevation, 638.89 ft; minimum observed, 69,640 acre-ft, Oct. 1, elevation, 629.71 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	629.70	69,630	--
Oct. 31.....	630.07	69,980	+350
Nov. 30.....	631.77	71,620	+1,640
Dec. 31.....	631.83	71,680	+60
CAL YR 1985.....	--	--	+13,560
Jan. 31.....	630.79	70,680	-1,000
Feb. 28.....	630.47	70,370	-310
Mar. 31.....	636.82	76,590	+6,220
Apr. 30.....	638.75	78,530	+1,940
May 31.....	637.83	77,600	-930
June 30.....	635.81	75,580	-2,020
July 31.....	635.15	74,930	-650
Aug. 31.....	633.93	73,730	-1,200
Sept. 30.....	633.81	73,610	-120
WTR YR 1986.....	--	--	+3,980

SAN DIEGO RIVER BASIN

11022200 LOS COCHES CREEK NEAR LAKESIDE, CA

LOCATION.--Lat 32°50'10", long 116°53'58" (revised), in Ex-Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, on upstream right bank side of bridge on Old Highway 8, 2.7 mi upstream from mouth, and 1.9 mi southeast of Lakeside.

DRAINAGE AREA.--12.2 mi², revised.

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 11, 25, Feb. 15, Mar. 12, 13, 16. Record good except for period of estimated daily discharges, which is fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 ft³/s, Dec. 18, 1984, gage height, 7.20 ft, from floodmarks; minimum daily, 0.07 ft³/s, July 11, 12, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 290 ft³/s, Nov. 25, gage height, 6.32 ft, from floodmarks; minimum daily, 0.20 ft³/s, Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.47	2.1	1.5	2.5	2.4	3.5	1.6	1.1	.35	.32	.29
2	.25	.41	3.5	1.5	1.6	2.4	2.9	1.6	.79	.36	.30	.30
3	.20	.39	9.4	1.6	1.5	2.3	2.8	1.6	.82	.38	.28	.31
4	.25	.36	3.3	1.5	1.6	2.0	2.8	1.6	.90	.39	.30	.33
5	.25	.42	2.9	1.6	1.4	2.1	2.8	1.5	.89	.52	.31	.30
6	.27	.44	2.7	1.6	1.4	2.2	8.2	1.5	.86	.46	.33	.26
7	.36	.44	2.6	1.5	2.9	2.2	2.7	1.5	.87	.42	.33	.27
8	.41	.47	2.6	1.4	9.1	7.7	2.5	1.5	.87	.39	.36	.28
9	.37	.47	3.2	1.5	2.4	4.3	2.6	1.4	.84	.38	.34	.28
10	.38	.49	4.7	1.5	1.7	14	2.8	1.3	.80	.38	.34	.29
11	.33	35	9.7	1.6	1.7	24	2.8	1.3	.80	.41	.31	.32
12	.33	9.3	2.9	1.6	1.6	13	2.9	1.2	.78	.37	.29	.35
13	.35	1.6	2.4	1.6	1.6	7.0	2.7	1.3	.72	.35	.29	.36
14	.34	1.1	2.3	1.7	1.7	11	2.4	1.2	.72	.33	.28	.33
15	.28	.94	2.2	1.7	60	7.4	2.2	1.3	.73	.34	.31	.34
16	.28	.89	2.1	1.7	10	19	2.1	1.3	.72	.35	.31	.33
17	.31	.90	2.0	1.7	11	9.7	2.0	1.2	.69	.35	.29	.31
18	.31	.87	1.9	1.7	8.5	10	1.8	1.1	.66	.34	.45	.33
19	.33	1.0	1.9	1.7	6.6	7.4	1.7	1.2	.63	.32	.22	.33
20	.37	.83	1.7	1.7	5.4	6.1	1.6	1.3	.63	.32	.21	.34
21	.37	.81	1.7	1.7	4.6	5.4	1.6	1.4	.68	.48	.21	.37
22	.53	.80	1.7	1.7	3.7	4.3	1.6	1.5	.67	.62	.22	.46
23	.40	.81	1.7	1.7	3.4	3.9	1.6	1.5	.63	.58	.25	.53
24	.37	1.7	1.7	1.7	3.2	3.6	1.7	1.6	.57	.46	.29	.89
25	.36	55	1.6	1.6	2.8	3.3	1.8	1.2	.58	.45	.27	2.9
26	.39	2.8	1.6	1.7	2.7	3.1	1.7	1.3	.54	.44	.25	.75
27	.42	1.5	1.5	1.6	2.7	2.9	1.6	1.3	.46	.42	.26	.69
28	.43	1.4	1.5	1.6	2.6	3.0	1.5	1.2	.39	.40	.24	.69
29	.45	5.6	1.5	1.5	---	2.9	1.6	1.3	.42	.38	.24	.62
30	.48	6.3	1.5	7.3	---	2.9	1.6	1.3	.40	.41	.23	.54
31	.49	---	1.5	3.3	---	2.9	---	1.3	---	.33	.25	---
TOTAL	10.93	133.51	83.6	57.3	159.9	194.4	72.1	42.4	21.16	12.48	8.88	14.69
MEAN	.35	4.45	2.70	1.85	5.71	6.27	2.40	1.37	.71	.40	.29	.49
MAX	.53	.55	9.7	7.3	60	24	8.2	1.6	1.1	.62	.45	2.9
MIN	.20	.36	1.5	1.4	1.4	2.0	1.5	1.1	.39	.32	.21	.26
AC-FT	22	265	166	114	317	386	143	84	42	25	18	29

CAL YR 1985 TOTAL 491.20 MEAN 1.35 MAX 55 MIN .15 AC-FT 974
WTR YR 1986 TOTAL 811.35 MEAN 2.22 MAX 60 MIN .20 AC-FT 1610

SAN DIEGO RIVER BASIN

11022350 FORESTER CREEK AT EL CAJON, CA

LOCATION.--Lat 32°49'16", long 116°58'32", in Ex-Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, on right bank at downstream side of bridge on Billy Mitchell Drive, 0.8 mi upstream from unnamed tributary, and 3.6 mi upstream from mouth.

DRAINAGE AREA.--21.3 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 368 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,800 ft³/s, Feb. 15, 1986, gage height, 9.25 ft; minimum daily, 0.60 ft³/s, Nov. 3, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*), from rating curve extended above 600 ft³/s:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 11	1115	3,600	9.11	Mar. 8	1930	1,180	7.15
Nov. 25	0700	3,290	8.92	Mar. 10	0830	861	6.72
Nov. 29	1515	1,840	7.82	Mar. 12	1330	922	6.81
Dec. 11	0315	778	6.59	Mar. 15	2345	2,750	8.55
Jan. 30	0545	1,700	7.69	Sept. 25	0630	922	6.83
Feb. 15	0615	*3,800	*9.25				

Minimum daily, 0.60 ft³/s, Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.66	3.6	2.3	4.1	2.7	6.9	2.1	2.7	1.4	1.9	1.4
2	1.1	.65	55	2.7	2.0	3.0	4.1	2.1	2.7	1.5	1.9	1.5
3	1.3	.60	73	2.6	2.1	2.7	3.5	2.1	2.5	1.5	1.8	1.5
4	1.3	.70	4.6	2.6	2.3	2.7	3.3	2.1	2.4	1.4	1.7	1.5
5	1.2	.69	3.3	2.8	1.7	2.5	3.1	2.0	2.3	1.3	2.1	1.6
6	2.0	.74	2.9	2.4	1.8	2.4	72	2.0	2.1	1.4	1.8	1.5
7	6.3	.75	2.5	2.1	26	2.4	4.8	2.3	2.2	1.5	1.6	1.3
8	6.7	.74	2.3	2.0	86	107	3.5	2.3	2.2	1.5	1.6	1.3
9	.99	.67	15	2.2	3.4	6.0	3.4	2.3	2.1	1.6	1.5	1.3
10	.98	.63	16	2.2	2.0	146	3.5	2.2	1.9	1.6	1.5	1.3
11	.92	399	90	2.2	1.9	13	3.4	1.9	1.9	1.6	1.5	1.4
12	1.0	70	3.6	2.1	1.9	81	3.1	2.0	2.3	1.6	1.6	1.3
13	.99	3.2	2.9	2.2	2.0	33	2.9	2.2	1.8	1.6	1.6	1.3
14	1.4	1.2	2.6	2.3	1.9	28	2.8	2.6	2.1	1.7	1.7	1.3
15	1.6	1.1	2.5	2.2	645	98	2.9	2.7	1.8	1.9	1.7	1.4
16	2.0	1.1	2.5	2.2	12	221	2.9	2.7	1.9	1.4	1.6	1.3
17	1.8	1.1	2.4	2.3	6.5	37	2.7	2.8	2.0	1.5	1.6	1.3
18	2.1	1.0	2.6	2.3	4.4	8.1	2.5	2.7	2.1	1.8	6.8	1.4
19	1.7	.93	2.3	2.1	4.6	6.2	2.4	2.9	2.1	1.7	1.7	1.4
20	1.9	.94	2.3	2.0	3.5	5.4	2.5	2.9	2.1	1.8	1.8	1.3
21	2.1	1.0	2.4	2.1	3.0	5.0	2.9	2.7	2.5	1.9	1.8	1.3
22	10	1.1	2.1	2.0	2.9	4.8	2.6	2.9	1.7	1.9	1.8	1.5
23	.75	1.0	2.3	2.0	2.9	4.5	2.5	2.9	1.7	2.0	1.5	2.7
24	.69	47	2.4	2.1	3.0	4.3	2.4	3.0	1.8	2.0	1.4	9.5
25	.69	633	2.2	2.0	2.7	4.5	2.5	2.9	1.7	1.9	1.6	103
26	.65	7.8	2.2	2.0	2.8	4.2	2.4	3.0	1.7	1.8	1.6	1.4
27	.71	2.3	2.3	2.0	3.6	4.2	2.3	3.2	1.6	1.5	1.4	1.2
28	.74	1.8	2.5	1.8	2.9	4.1	2.3	3.1	1.5	1.7	1.5	1.2
29	.77	225	2.3	1.7	---	3.9	2.2	3.0	1.4	1.8	1.6	1.3
30	.76	52	2.4	93	---	3.7	2.1	3.1	1.5	1.8	1.5	1.2
31	.69	---	2.3	41	---	3.8	---	2.8	---	1.8	1.5	---
TOTAL	56.93	1458.40	317.3	197.5	838.9	855.1	160.4	79.5	60.3	51.4	56.2	151.9
MEAN	1.84	48.6	10.2	6.37	30.0	27.6	5.35	2.56	2.01	1.66	1.81	5.06
MAX	10	633	90	93	645	221	72	3.2	2.7	2.0	6.8	103
MIN	.65	.60	2.1	1.7	1.7	2.4	2.1	1.9	1.4	1.3	1.4	1.2
AC-FT	113	2890	629	392	1660	1700	318	158	120	102	111	301

CAL YR 1985 TOTAL 2486.47 MEAN 6.81 MAX 633 MIN .60 AC-FT 4930
WTR YR 1986 TOTAL 4283.83 MEAN 11.7 MAX 645 MIN .60 AC-FT 8500

SAN DIEGO RIVER BASIN

11022480 SAN DIEGO RIVER AT MAST ROAD, NEAR SANTEE, CA

LOCATION.--Lat 32°49'29", long 117°03'17", in Ex Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, near left bank at Mast Road bridge, 1.1 mi upstream from Old Mission Damsite, 2.8 mi west of Santee, and 14.2 mi downstream from El Capitan Lake.

DRAINAGE AREA.--368 mi².

PERIOD OF RECORD.--May 1912 to December 1915 (monthly discharge only for some periods and yearly estimates only for 1924-25, published in WSP 1315-B), March 1916 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 10, 1920, nonrecording gage at site 1.5 mi upstream at different datum. Nov. 10, 1920, to Jan. 19, 1982, at site 2.6 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Cuyamaca Reservoir, capacity, 11,540 acre-ft, El Capitan Lake (station 11020800), and San Vicente Reservoir (station 11022100). Diversions by city of San Diego for municipal supply and by Helix Irrigation District. AVERAGE DISCHARGE represents flow to ocean during period of record, regardless of upstream development.

AVERAGE DISCHARGE.--73 years (water years 1913-15, 1917-86), 25.6 ft³/s, 18,550 acre-ft/yr.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 70,200 ft³/s, Jan. 27, 1916, based on slope-conveyance computation of peak flow, gage height, 25.1 ft, from floodmarks, site and datum then in use; no flow at times in some years.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,400 ft³/s, Feb. 16, 1927, on basis of slope-area measurement of peak flow, gage height, 18.1 ft, from floodmarks; no flow for many days some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,250 ft³/s, Nov. 25, gage height, 9.99 ft; minimum daily, 1.50 ft³/s Oct. 2-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.7	65	14	40	20	24	9.3	5.9	3.1	4.1	4.9
2	1.5	1.7	68	13	21	19	20	9.4	6.5	3.1	4.0	5.3
3	1.5	1.7	205	12	17	19	19	9.4	5.5	3.1	4.4	5.2
4	1.5	1.7	71	12	15	18	18	9.1	5.1	3.0	4.5	5.4
5	1.5	1.7	46	11	13	17	17	8.8	4.7	3.1	5.0	5.6
6	1.5	1.7	37	11	12	16	78	8.7	4.1	3.3	4.7	6.0
7	4.6	1.7	29	9.8	27	16	26	8.6	4.4	3.4	4.3	6.0
8	5.2	1.8	27	9.1	129	86	22	8.7	4.6	3.5	4.5	6.0
9	1.9	1.7	39	9.1	38	47	20	9.4	4.7	3.5	5.1	6.3
10	1.7	1.7	42	10	25	154	19	9.1	4.7	4.1	5.4	6.1
11	1.6	501	171	11	15	88	19	8.7	4.1	4.2	5.3	6.1
12	1.6	215	68	11	18	146	18	8.7	4.5	4.4	5.3	5.9
13	1.6	66	45	10	15	99	18	8.8	3.9	4.6	5.4	5.8
14	1.6	37	38	9.9	10	114	17	8.6	4.2	4.4	5.2	5.7
15	1.6	24	33	9.5	679	71	12	8.6	4.1	4.6	5.0	5.7
16	1.6	16	21	9.0	237	398	12	8.9	4.2	4.2	3.7	5.5
17	1.6	4.5	22	9.4	98	380	12	8.6	3.9	3.9	4.2	5.3
18	1.6	4.7	19	10	65	167	11	7.9	3.8	3.9	16	5.0
19	1.6	6.0	19	9.5	50	98	11	7.8	3.6	4.1	6.3	5.0
20	1.6	5.2	20	9.4	44	73	11	7.9	3.7	3.8	5.8	5.2
21	1.6	4.7	18	9.1	38	58	11	7.7	3.7	4.3	5.6	5.4
22	8.7	4.5	17	8.5	24	45	10	7.6	4.2	5.0	5.0	5.9
23	2.0	4.3	17	8.3	26	35	10	7.2	3.9	4.5	5.4	6.3
24	1.7	19	16	8.3	23	33	10	7.1	3.8	4.4	5.1	20
25	1.7	798	15	8.6	19	30	11	7.7	3.5	4.6	5.2	160
26	1.7	182	14	8.4	18	30	11	7.4	3.4	4.8	5.2	26
27	1.8	53	13	8.4	19	28	11	7.2	3.3	4.9	4.9	19
28	1.8	34	13	8.0	20	26	9.7	6.2	3.3	4.6	4.2	14
29	1.8	212	12	8.3	---	25	9.8	5.6	3.3	4.7	4.4	11
30	1.8	156	12	101	---	23	9.4	5.7	3.3	4.4	4.9	9.4
31	1.7	---	12	63	---	22	---	5.7	---	4.3	4.5	---
TOTAL	64.8	2364.0	1244	449.6	1755	2401	506.9	250.1	125.9	125.8	162.6	389.0
MEAN	2.09	78.8	40.1	14.5	62.7	77.5	16.9	8.07	4.20	4.06	5.25	13.0
MAX	8.7	798	205	101	679	398	78	9.4	6.5	5.0	16	160
MIN	1.5	1.7	12	8.0	10	16	9.4	5.6	3.3	3.0	3.7	4.9
AC-FT	129	4690	2470	892	3480	4760	1010	496	250	250	323	772

CAL YR 1985 TOTAL 6006.55 MEAN 16.5 MAX 798 MIN .97 AC-FT 11910
WTR YR 1986 TOTAL 9838.70 MEAN 27.0 MAX 798 MIN 1.5 AC-FT 19520

SAN DIEGO RIVER BASIN

11023000 SAN DIEGO RIVER AT FASHION VALLEY, AT SAN DIEGO, CA

LOCATION.--Lat 32°45'54", long 117°10'04", in Ex Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, on left bank 2.6 mi upstream from mouth, 500 ft upstream from Fashion Valley road crossing, 0.4 mi downstream from unnamed tributary, and 26.4 mi downstream from El Capitan Lake.

DRAINAGE AREA.--429 mi².

PERIOD OF RECORD.--January 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by Cuyamaca Reservoir, capacity 11,540 acre-ft, El Capitan Lake (station 11020600), and San Vicente Reservoir (station 11022100). Diversions by city of San Diego for municipal supply and by Helix Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,280 ft³/s, Mar. 2, 1983, gage height, 13.11 ft, from rating curve extended above 5,800 ft³/s; no flow many days during most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,760 ft³/s, Feb. 15, gage height, 10.87 ft; no flow Oct. 5, 6, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.48	.13	174	23	138	31	42	12	5.7	2.6	2.5	3.4
2	.60	.51	114	22	65	31	43	11	5.4	2.8	2.7	3.1
3	.25	.35	352	21	36	27	41	11	4.9	2.3	3.2	2.4
4	.14	.44	181	22	28	28	39	12	5.0	2.3	3.0	2.6
5	0	.15	95	22	25	28	38	12	4.5	2.8	2.4	3.4
6	0	.05	69	21	20	25	221	12	4.1	2.8	2.3	3.8
7	.90	.08	59	19	22	23	98	12	4.1	2.6	2.2	4.2
8	1.9	.04	52	20	289	75	52	12	4.7	1.9	2.6	4.1
9	2.6	.17	43	17	142	239	38	11	4.6	2.0	2.5	3.8
10	1.4	.39	68	15	59	229	33	11	4.1	1.9	2.9	3.3
11	.98	399	198	16	43	258	30	12	3.9	1.7	2.7	3.2
12	.86	573	184	17	30	174	31	10	3.5	1.8	2.0	3.5
13	.70	234	96	18	26	232	29	9.1	3.5	2.3	1.8	4.1
14	.70	85	73	17	28	273	26	8.2	3.9	2.6	2.1	5.0
15	.55	55	64	17	1600	178	27	7.8	4.3	2.3	2.0	5.0
16	.38	40	58	15	671	668	25	7.4	3.9	2.0	2.0	4.3
17	.18	32	49	16	254	841	23	7.1	2.8	1.9	2.8	4.2
18	0	22	39	17	141	378	22	7.7	3.1	2.1	2.8	4.2
19	0	15	39	18	102	212	23	7.5	3.0	2.5	2.4	4.1
20	.01	11	36	17	82	141	22	6.6	2.9	3.0	2.8	4.6
21	.38	11	35	15	66	105	19	5.8	3.2	2.9	3.6	5.1
22	1.8	10	35	16	59	86	17	5.8	3.8	2.5	3.4	4.9
23	1.5	11	32	16	48	73	16	5.8	3.6	2.5	3.4	7.8
24	1.1	23	29	17	39	58	14	6.8	3.2	2.5	3.9	11
25	.86	1130	29	16	37	56	13	7.0	3.0	2.6	3.4	296
26	.74	608	28	17	32	49	14	6.5	2.7	2.6	2.6	95
27	.63	165	26	14	31	48	15	5.7	2.8	3.0	2.4	45
28	.67	80	24	13	29	48	13	5.4	2.9	2.7	2.5	27
29	.61	293	26	14	---	47	12	5.6	3.3	1.9	3.0	17
30	.48	506	25	161	---	45	11	5.3	3.3	2.1	3.2	14
31	.38	---	23	115	---	41	---	5.5	---	2.3	3.4	---
TOTAL	21.78	4305.31	2355	784	4142	4747	1047	264.6	113.7	73.8	84.5	599.1
MEAN	.70	144	76.0	25.3	148	153	34.9	8.54	3.79	2.38	2.73	20.0
MAX	2.6	1130	352	161	1600	841	221	12	5.7	3.0	3.9	296
MIN	0	.04	23	13	20	23	11	5.3	2.7	1.7	1.8	2.4
AC-FT	43	8540	4670	1560	8220	9420	2080	525	226	146	168	1190

CAL YR 1985 TOTAL 9589.26 MEAN 26.3 MAX 1130 MIN 0 AC-FT 19020
WTR YR 1986 TOTAL 18537.79 MEAN 50.8 MAX 1600 MIN 0 AC-FT 36770

LOS PENASQUITOS CREEK BASIN

11023250 POWAY CREEK NEAR POWAY, CA

LOCATION.--Lat 32°57'13", long 117°00'50", in NE 1/4 SE 1/4 sec.18, T.14 S., R.1 W., San Diego County, Hydrologic Unit 18070304, on right bank 100 ft downstream from unnamed tributary, 1,000 ft upstream from bridge on Standish Drive, and 1.4 mi southeast of Poway Post Office.

DRAINAGE AREA.--7.92 mi².

PERIOD OF RECORD.--October 1969 to September 1977 (gage heights and discharge measurements only), October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow partly regulated by small conservation reservoirs.

AVERAGE DISCHARGE.--9 years, 1.64 ft³/s, 1,190 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 755 ft³/s, Feb. 21, 1980, gage height, 7.26 ft, on basis of rating extended above 40 ft³/s, based on a step-backwater analysis up to gage height 8.3 ft; no flow many months each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 25	0400	14	4.57	Mar. 10	2045	28	4.70
Nov. 29	1430	15	4.58	Mar. 16	1715	*78	*4.99
Feb. 15	0600	63	4.91				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	.01	0	.42				0	0
2		0	.33	0	0	0	.42				0	0
3		0	.86	0	0	0	.39				0	0
4		0	.02	0	0	0	.36				0	0
5		0	0	0	0	0	.29				0	0
6		0	0	0	0	0	.96				0	0
7		0	0	0	.09	0	.52				0	0
8		0	0	0	.57	.48	.43				0	0
9		0	.18	0	.01	.21	.28				0	0
10		0	.39	0	0	3.6	.23				0	0
11		0	.60	0	0	12	.27				0	0
12		0	.03	0	0	8.1	.17				0	0
13		0	0	0	0	5.8	.14				0	0
14		0	0	0	0	5.9	.11				0	0
15		0	0	0	20	4.1	.06				0	0
16		0	0	0	3.4	26	.02				0	0
17		0	0	0	1.6	24	.03				0	0
18		0	0	0	.88	9.4	.02				0	0
19		0	0	0	.82	5.4	0				0	0
20		0	0	0	.61	3.3	0				0	0
21		0	.01	0	.24	2.4	0				0	0
22		0	0	0	.12	1.7	0				0	0
23		0	.15	0	.07	1.2	0				0	0
24		.07	.27	0	.02	1.4	0				.02	.01
25		3.2	.20	0	0	1.2	0				.02	.27
26		.01	.16	0	0	.94	0				0	0
27		0	.10	0	0	.79	0				0	0
28		0	0	0	0	.58	0				0	0
29		2.5	0	0	---	.48	0				0	0
30		.57	0	.27	---	.44	0				0	0
31		---	0	.25	---	.40	---		---		0	---
TOTAL	0	6.35	3.30	.52	28.44	119.82	5.12	0	0	0	.04	.28
MEAN	0	.21	.11	.017	1.02	3.87	.17	0	0	0	.001	.009
MAX	0	3.2	.86	.27	20	26	.96	0	0	0	.02	.27
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	13	6.5	1.0	56	238	10	0	0	0	.08	.6
CAL YR 1985	TOTAL	11.14	MEAN .031	MAX	3.2	MIN 0	AC-FT 22					

LOS PENASQUITOS CREEK BASIN

11023310 RATTLESNAKE CREEK AT POWAY, CA

LOCATION.--Lat 32°57'07", long 117°02'56", in SE 1/4 SE 1/4 sec.14, T.14 S., R.2 W., San Diego County, Hydrologic Unit 18070304, on right bank 400 ft above mouth, and 1.0 mi southwest of Poway Post Office.

DRAINAGE AREA.--8.13 mi².

PERIOD OF RECORD.--October 1969 to September 1977 (gage heights and discharge measurements only), October 1977 to current year.

GAGE.--Water-stage recorder. Concrete control since Aug. 17, 1982. Elevation of gage is 457 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--9 years, 2.81 ft³/s, 2,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,430 ft³/s, Feb. 21, 1980, gage height, 2.88 ft, from rating curve extended above 100 ft³/s on basis of stepback-water computations and slope-conveyence study at gage height 1.20 ft; no flow for much of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0245	*139	*1.28	Mar. 16	1030	108	1.20
Mar. 10	2045	*139	*1.28				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	1.2	.55	1.4	.69	1.2	.32	.12	.12	.08	.05
2	0	0	2.9	.53	.52	.59	1.1	.27	.07	.09	.29	.05
3	0	0	15	.51	.37	.58	1.0	.25	.08	.10	.07	.05
4	0	0	1.4	.50	.36	.60	.98	.29	.08	.11	.07	.07
5	0	0	1.2	.54	.31	.58	.94	.35	.10	.14	.09	.05
6	0	0	.87	.36	.25	.62	8.2	.40	.10	.13	.10	.05
7	.01	0	.82	.46	2.7	.66	1.3	.48	.07	.13	.11	.05
8	.07	0	.69	.36	13	9.6	1.1	.29	.07	.14	.11	.05
9	0	0	2.5	.37	1.2	2.3	1.0	.23	.07	.13	.13	.05
10	0	0	4.1	.36	.68	22	1.1	.21	.07	.12	.11	.05
11	0	23	9.9	.36	.57	22	1.1	.17	.08	.11	.05	.05
12	0	6.9	1.4	.36	.55	8.7	1.0	.17	.07	.13	.06	.05
13	0	.37	1.1	.43	.56	4.2	1.0	.24	.05	.15	.06	.04
14	0	.15	.90	.32	.56	5.5	.96	.27	.05	.15	.06	.05
15	0	.09	.87	.34	48	5.8	.80	.20	.05	.14	.05	.04
16	0	.08	.86	.30	2.5	53	.75	.20	.10	.14	.07	.04
17	0	.08	.69	.36	1.5	16	.75	.20	.10	.13	.05	.04
18	0	.08	.69	.31	1.2	5.8	.75	.19	.15	.16	.67	.04
19	0	.07	.64	.36	1.6	3.7	.72	.14	.14	.11	.05	.04
20	0	.08	.57	.35	1.2	2.8	.67	.20	.22	.09	.05	.04
21	0	.08	.55	.44	1.1	2.4	.70	.20	.13	.10	.05	2.8
22	.31	.08	.55	.35	.89	2.1	.75	.22	.15	.26	.05	.25
23	.02	.08	.55	.36	.86	1.8	.58	.23	.22	.09	.06	.09
24	.01	1.7	.55	.36	.71	1.7	.57	.23	.26	.08	.07	1.1
25	0	38	.55	.29	.70	1.5	.60	.16	.12	.08	.05	7.9
26	.01	1.5	.55	.23	.69	1.4	.63	.20	.11	.09	.05	.25
27	0	.57	.55	.23	.69	1.3	.56	.23	.07	.07	.05	.14
28	0	.36	.36	.25	.69	1.3	.50	.24	.09	.08	.05	.11
29	0	22	.48	.25	---	1.3	.50	.25	.10	.07	.05	.08
30	0	12	.55	7.8	---	1.3	.41	.26	.11	.07	.05	.07
31	0	---	.46	4.6	---	1.2	---	.20	---	.06	.05	---
TOTAL	.43	107.27	54.00	23.19	85.36	183.02	32.22	7.49	3.20	3.57	2.91	13.74
MEAN	.014	3.58	1.74	.75	3.05	5.90	1.07	.24	.11	.12	.094	.46
MAX	.31	38	15	7.8	48	53	8.2	.48	.26	.26	.67	7.9
MIN	0	0	.36	.23	.25	.58	.41	.14	.05	.06	.05	.04
AC-FT	.9	213	107	46	169	363	64	15	6.3	7.1	5.8	27

CAL YR 1985 TOTAL 222.21 MEAN .61 MAX 38 MIN 0 AC-FT 441
WTR YR 1986 TOTAL 516.40 MEAN 1.41 MAX 53 MIN 0 AC-FT 1020

LOS PENASQUITOS CREEK BASIN

11023325 BEELER CREEK AT POMERADO ROAD, NEAR POWAY, CA

LOCATION.--Lat 32°56'23", long 117°03'57", in NW 1/4 SW 1/4 sec.23, T.14 S., R.2 W., San Diego County, Hydrologic Unit 18070304, on right downstream wingwall of bridge on Pomerado Road, 0.8 mi upstream from Poway Creek, and 1.7 mi southwest of Poway Post Office.

DRAINAGE AREA.--5.46 mi².

PERIOD OF RECORD.--November 1969 to September 1977 (gage heights and discharge measurements only), October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 465 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow partially regulated by several conservation reservoirs above station.

AVERAGE DISCHARGE.--10 years, 1.95 ft³/s, 1,410 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s, Jan. 29, 1980, gage height, 9.20 ft, from rating curve extended above 80 ft³/s on basis of slope-area measurement at gage height 8.79 ft; no flow for much of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	1230	118	6.31	Mar. 16	1845	*128	*6.37

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.35	.72	.42	.40	1.7	.23	.05			
2		0	.36	.55	.40	.15	1.6	.24	.04			
3		0	2.1	.77	.37	.13	1.6	.25	.04			
4		0	1.6	.46	.33	.32	1.4	.25	.04			
5		0	1.2	.40	.29	.13	.95	.21	.03			
6		0	.91	.39	.25	.28	1.7	.18	.02			
7		0	.70	.35	.27	.29	1.6	.19	.02			
8		0	.58	.32	.73	.38	1.0	.19	.02			
9		0	.69	.31	.53	.34	.94	.18	.01			
10		0	1.4	.30	.45	2.8	.90	.18	.01			
11		0	5.6	.51	.48	16	.96	.16	.01			
12		0	5.1	.43	.47	15	.95	.18	.01			
13		0	3.5	.39	.44	13	.84	.17	.01			
14		0	2.7	.34	.41	15	.61	.18	.01			
15		0	2.1	.30	59	10	.55	.19	.01			
16		0	1.3	.29	29	53	.50	.18	0			
17		0	1.1	.25	13	58	.43	.15	0			
18		0	.84	.25	6.8	26	.38	.10	0			
19		0	.73	.22	4.5	15	.33	.11	0			
20		0	.89	.21	2.8	9.0	.39	.09	0			
21		0	1.2	.21	1.5	5.1	.37	.10	0			
22		0	1.1	.21	1.1	4.6	.34	.10	0			
23		0	1.1	.21	.66	4.3	.30	.11	0			
24		0	.74	.21	.73	2.6	.23	.10	0			
25		.12	.40	.18	.63	2.1	.22	.11	0			
26		.01	.33	.18	.28	2.5	.21	.11	0			
27		.06	.51	.18	.24	2.1	.28	.08	0			
28		.13	.57	.19	.46	1.2	.31	.07	0			
29		.87	.36	.20	---	2.0	.29	.07	0			
30		.63	.32	.37	---	1.1	.24	.06	0			
31		---	.30	.40	---	.97	---	.05	---			---
TOTAL	0	1.82	40.68	10.30	126.54	263.79	22.12	4.57	.33	0	0	0
MEAN	0	.061	1.31	.33	4.52	8.51	.74	.15	.011	0	0	0
MAX	0	.87	5.6	.77	59	58	1.7	.25	.05	0	0	0
MIN	0	0	.30	.18	.24	.13	.21	.05	0	0	0	0
AC-FT	0	3.6	81	20	251	523	44	9.1	.7	0	0	0
CAL YR 1985	TOTAL	85.68	MEAN	.23	MAX	5.6	MIN	0	AC-FT	170		
WTR YR 1986	TOTAL	470.15	MEAN	1.29	MAX	59	MIN	0	AC-FT	933		

LOS PENASQUITOS CREEK BASIN

11023330 LOS PENASQUITOS CREEK BELOW POWAY CREEK, NEAR POWAY, CA

LOCATION.--Lat 32°56'58", long 117°04'08", in NE 1/4 NE 1/4 sec.22, T.14 S., R.2 W., San Diego County, Hydrologic Unit 18070304, on right bank 10 ft upstream from concrete ford on Cobblestone Creek Road, 0.2 mi downstream from confluence of Poway and Pomerado Creeks, and 2.0 mi southwest of Poway.

DRAINAGE AREA.--31.2 mi².

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 415 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 13-15, Dec. 14-17, Mar. 9-11. Records fair. Flow partly regulated by small conservation reservoirs.

AVERAGE DISCHARGE.--16 years, 6.71 ft³/s, 4,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,990 ft³/s, Feb. 21, 1980, gage height, 11.11 ft, from rating curve extended above 300 ft³/s on basis of slope-area measurements at gage heights 9.58 ft and 11.11 ft; no flow parts of some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 11	1345	319	5.67	Mar. 10	2100	431	5.99
Nov. 25	0445	556	6.30	Mar. 16	1830	560	6.31
Nov. 29	1530	280	5.54	Sept. 25	0615	300	5.61
Feb. 15	0230	*1,410	*7.75				

Minimum daily, 0.05 ft³/s, Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.08	3.7	2.0	9.4	1.7	5.2	1.4	.51	.53	.33	.40
2	.12	.08	8.7	2.2	2.3	1.6	5.0	1.4	.56	.57	.37	.44
3	.10	.07	56	2.3	2.2	1.6	4.4	1.5	.62	.58	.34	.40
4	.09	.07	7.7	2.2	2.0	1.7	4.0	1.2	.61	.51	.35	.35
5	.11	.08	4.5	2.4	1.6	1.6	3.5	1.2	.56	.62	.36	.38
6	.10	.08	3.6	2.4	1.1	1.8	27	1.1	.61	.70	.39	.38
7	.20	.08	3.5	2.3	6.8	1.7	5.4	1.0	.56	.72	.40	.35
8	.14	.08	3.0	2.2	48	28	3.5	.76	.56	.70	.39	.34
9	.10	.13	9.3	2.0	5.5	18	3.1	.77	.59	.67	.36	.31
10	.11	.10	15	2.0	2.6	100	2.8	.68	.62	.68	.31	.26
11	.07	110	49	2.1	2.3	90	3.0	.63	.59	.61	.34	.27
12	.06	32	7.8	2.3	1.9	59	2.9	.67	.53	.61	.37	.33
13	.06	2.6	5.5	2.4	2.0	36	2.6	.75	.48	.59	.35	.27
14	.07	1.6	4.6	2.4	2.0	47	2.5	.78	.41	.63	.28	.22
15	.06	1.3	4.0	2.6	320	29	2.4	.83	.42	.53	.21	.27
16	.05	.57	3.4	2.5	54	259	2.3	.90	.49	.54	.22	.24
17	.06	.48	2.9	2.4	16	143	2.3	.90	.59	.49	.19	.23
18	.06	.81	2.6	2.3	8.2	49	2.4	.85	.48	.49	3.9	.21
19	.06	.54	2.4	2.0	8.1	25	2.3	.85	.50	.52	.21	.23
20	.07	.42	2.5	2.0	5.4	17	2.6	.85	.58	.52	.21	.29
21	.07	.38	2.6	1.9	3.2	14	2.5	.90	.53	.63	.21	1.8
22	.41	.35	2.4	1.8	2.5	12	3.0	.96	.54	1.7	.19	.59
23	.08	.38	2.4	1.7	2.0	11	2.2	.98	.51	.37	.32	.19
24	.08	4.9	2.3	1.7	1.9	9.6	1.9	1.1	.57	.20	.30	2.4
25	.08	149	2.0	1.5	1.9	8.1	1.9	1.1	.56	.19	.23	41
26	.07	8.6	2.0	1.5	1.4	8.2	1.9	1.1	.61	.22	.28	2.6
27	.08	1.7	2.2	1.8	1.5	7.0	1.7	1.0	.58	.27	.33	.76
28	.08	1.4	1.8	1.7	1.7	5.7	1.4	.95	.56	.27	.37	.57
29	.08	74	1.5	1.5	---	5.9	1.6	.71	.59	.26	.34	.55
30	.10	37	1.7	30	---	4.8	1.2	.53	.57	.28	.35	.44
31	.10	---	1.7	11	---	4.5	---	.56	---	.26	.44	---
TOTAL	3.03	428.88	222.3	101.1	517.5	1002.5	108.5	28.91	16.49	16.46	13.24	57.07
MEAN	.098	14.3	7.17	3.26	18.5	32.3	3.62	.93	.55	.53	.43	1.90
MAX	.41	149	56	30	320	259	27	1.5	.62	1.7	3.9	.41
MIN	.05	.07	1.5	1.5	1.1	1.6	1.2	.53	.41	.19	.19	.19
AC-FT	6.0	851	441	201	1030	1990	215	57	33	33	26	113

CAL YR 1985 TOTAL 951.87 MEAN 2.61 MAX 149 MIN .02 AC-FT 1890
WTR YR 1986 TOTAL 2515.98 MEAN 6.89 MAX 320 MIN .05 AC-FT 4990

LOS PENASQUITOS CREEK BASIN

11023340 LOS PENASQUITOS CREEK NEAR POWAY, CA

LOCATION.--Lat 32°56'35", long 117°07'15", in Los Penasquitos Grant, San Diego County, Hydrologic Unit 18070304, on left bank 1.0 mi downstream from Cypress Creek, and 5.5 mi southwest of Poway.

DRAINAGE AREA.--42.1 mi².

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow partly regulated by several conservation reservoirs above station. Pumping from wells along stream for irrigation. Flow augmented by reclaimed water from Poway area.

AVERAGE DISCHARGE.--22 years, 8.51 ft³/s, 6,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft³/s, Feb. 21, 1980, gage height, 10.26 ft, from rating curve extended above 1,400 ft³/s; no flow at times in 1968, 1972, and 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 11	1515	460	4.54	Feb. 15	0315	*1,590	*6.91
Nov. 25	0715	767	5.40	Mar. 10	2300	553	4.83
Nov. 29	1745	479	4.60	Mar. 16	1930	861	5.62

Minimum daily, 0.50 ft³/s, Oct. 2, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	.66	7.6	2.5	16	4.0	6.5	2.7	.98	.86	.61	.87
2	.50	.67	8.2	2.7	3.4	3.7	5.9	2.7	1.0	.86	.61	.92
3	.56	.63	115	2.6	2.5	3.4	5.8	3.1	.85	.74	.64	.99
4	.54	.61	13	2.6	2.3	3.3	5.3	2.4	.90	.63	.64	1.1
5	.53	.69	7.8	2.4	1.9	3.4	5.0	1.8	.86	.64	.65	.96
6	.50	.71	6.1	2.4	1.8	3.3	58	1.8	.86	.65	.63	.91
7	.72	.71	5.1	2.3	3.7	3.6	7.6	1.8	.85	.62	.65	.92
8	.84	.71	4.4	2.3	98	42	5.1	1.8	.82	.69	.69	.87
9	.71	.70	7.7	2.1	13	30	4.7	1.8	.77	.79	.73	.80
10	.71	.67	15	2.0	4.6	118	4.3	1.8	.78	.97	.64	.73
11	.61	205	93	2.0	4.4	165	4.3	1.7	.89	.84	.59	.72
12	.60	93	15	2.2	3.9	91	4.1	1.6	.94	.76	.57	.78
13	.86	10	9.5	2.1	3.7	53	4.0	1.6	.83	1.2	.74	1.1
14	.60	3.7	7.2	2.3	4.2	94	3.9	1.7	.80	.73	.85	1.1
15	.55	2.8	5.7	2.6	609	41	3.8	1.6	.78	.77	.82	1.1
16	.54	2.6	4.7	2.4	77	439	3.7	1.6	.73	.92	.71	.77
17	.55	1.9	4.1	2.3	27	240	3.4	1.5	.78	.79	.68	.65
18	.57	1.5	3.5	2.2	17	68	3.3	1.3	.93	.73	13	.66
19	.58	1.8	3.2	2.1	15	33	3.4	1.1	.74	.68	1.9	.66
20	.60	1.5	3.1	2.1	12	22	3.3	1.0	.64	.61	.77	.69
21	.63	1.3	3.1	2.1	8.6	17	3.4	.95	.84	.66	.70	.83
22	1.6	1.2	3.0	2.0	7.0	14	3.4	1.1	.73	1.1	.71	2.8
23	.82	1.3	2.9	2.0	6.0	12	3.8	1.2	.76	2.8	.66	1.8
24	.66	4.2	2.9	1.9	5.5	9.8	3.5	2.0	.82	1.3	.77	4.4
25	.66	282	2.9	2.0	5.0	8.4	3.4	1.1	.95	.94	.70	84
26	.96	19	2.6	1.8	4.5	7.9	3.3	.95	.88	.80	.73	5.7
27	.98	4.7	2.5	1.8	4.0	7.9	3.2	.92	.73	.72	.73	2.4
28	.92	3.3	2.6	1.9	4.0	6.4	3.1	.95	.77	.65	.75	1.5
29	.67	136	2.6	2.1	---	6.5	3.1	.99	.81	.78	.69	1.2
30	.67	78	2.5	44	---	6.2	2.9	1.1	.81	.64	.76	1.0
31	.68	---	2.6	7.0	---	5.9	---	.99	---	.61	.79	---
TOTAL	21.44	861.56	369.1	114.8	965.0	1562.7	178.5	48.65	24.83	26.48	35.11	122.93
MEAN	.69	28.7	11.9	3.70	34.5	50.4	5.95	1.57	.83	.85	1.13	4.10
MAX	1.6	282	115	44	609	439	58	3.1	1.0	2.8	13	84
MIN	.50	.61	2.5	1.8	1.8	3.3	2.9	.92	.64	.61	.57	.65
AC-FT	43	1710	732	228	1910	3100	354	96	49	53	70	244
CAL YR 1985	TOTAL	1736.58	MEAN	4.76	MAX	282	MIN	.35	AC-FT	3440		
WTR YR 1986	TOTAL	4331.10	MEAN	11.9	MAX	609	MIN	.50	AC-FT	8590		

LOS PENASQUITOS CREEK BASIN

11023400 CARROLL CREEK NEAR LA JOLLA, CA

LOCATION.--Lat 32°53'45", long 117°13'04", in Pueblo Lands, San Diego County, Hydrologic Unit 18070304, on left bank 0.9 mi upstream from Los Penasquitos Creek, 1.7 mi downstream from Soledad Creek, 4.5 mi northeast of La Jolla, and 7.5 mi downstream from Miramar Reservoir.

DRAINAGE AREA.--15.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1985 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow partially regulated by Miramar Reservoir, capacity, 7,180 acre-ft, 7.5 mi upstream since 1960.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft³/s, Feb. 15, 1986, gage height, 3.38 ft; minimum daily, 0.12 ft³/s, Oct. 24, 25, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,360 ft³/s, Feb. 15, gage height, 3.38 ft; minimum daily, 0.12 ft³/s, Oct. 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.27	4.3	.73	16	1.6	1.4	.75	.41	.51	.55	.58
2	.31	.30	21	.63	3.2	1.9	1.3	.79	.41	.56	.67	.91
3	1.3	.30	81	.61	2.4	2.2	1.7	.74	.48	.53	.64	.79
4	.46	.35	7.0	.55	2.2	2.4	2.2	.65	.52	.54	.62	.94
5	.35	.32	3.0	.55	2.1	2.7	2.8	.67	.50	.60	.58	.77
6	.53	.35	1.8	.47	2.0	3.0	89	.50	.45	.54	.55	.63
7	.64	.37	1.0	.42	11	3.3	3.8	.43	.39	.47	.58	.61
8	.55	.41	.85	.38	132	51	2.3	.35	.77	.53	.59	.64
9	.55	.42	.90	.38	12	13	1.8	.37	.86	.58	.54	.71
10	.60	.47	15	.37	3.9	96	1.2	.41	.57	.58	.51	.80
11	.61	207	90	.37	3.8	29	1.4	.39	.52	.56	.58	.80
12	.63	39	7.9	.32	2.6	27	1.6	.55	.56	.61	.60	.83
13	.76	3.9	3.0	.34	2.7	12	2.0	.54	.44	.56	.62	.79
14	.80	1.0	1.4	.37	2.7	54	2.2	.43	.36	.52	.58	.77
15	.55	.80	.95	.34	355	36	2.1	.39	.33	.64	.58	.81
16	.50	.70	.63	.38	18	171	1.9	.42	.37	.67	.51	1.0
17	.51	.61	.55	.32	7.0	51	1.3	.47	.40	.59	.50	.93
18	.49	.53	.52	.38	3.5	11	.78	.46	.42	.56	.59	.92
19	.49	.48	.48	.27	2.8	5.8	.58	.49	.39	.59	.60	.95
20	.59	.45	.47	.24	3.1	3.6	.42	.32	.41	.54	.56	.91
21	.43	.42	.48	.27	1.4	2.4	.52	.44	.43	.60	.51	.93
22	.73	.42	.55	.28	1.2	1.9	.62	.39	.47	.52	.56	.97
23	.15	.42	.49	.29	1.1	1.4	.62	.43	.58	.62	.43	1.2
24	.12	5.4	.52	.32	1.1	1.2	.79	.37	.49	.57	.46	1.5
25	.12	253	.51	.32	1.1	1.0	.87	.35	.43	.51	.56	82
26	.15	16	.55	.35	1.2	1.0	.90	.36	.44	.54	.55	3.2
27	.16	3.2	.64	.40	1.3	1.6	.87	.47	.46	.50	.60	1.3
28	.18	1.0	.63	.40	1.5	1.3	.76	.42	.44	.57	.80	.75
29	.19	128	.70	.43	---	1.0	.88	.40	.49	.58	.60	.89
30	.20	22	.69	61	---	.96	.88	.42	.54	.56	.53	.75
31	.23	---	.76	27	---	.97	---	.43	---	.55	.57	---
TOTAL	14.11	687.89	248.27	99.48	597.9	592.23	129.49	14.60	14.33	17.40	17.72	109.58
MEAN	.46	22.9	8.01	3.21	21.4	19.1	4.32	.47	.48	.56	.57	3.65
MAX	1.3	253	90	61	355	171	89	.79	.86	.67	.80	.82
MIN	.12	.27	.47	.24	1.1	.96	.42	.32	.33	.47	.43	.58
AC-FT	28	1360	492	197	1190	1170	257	29	28	35	35	217

WTR YR 1986 TOTAL 2543.00 MEAN 6.97 MAX 355 MIN .12 AC-FT 5040

LOS PENASQUITOS CREEK BASIN

11023400 CARROLL CREEK NEAR LA JOLLA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SEDIMENT DATA: March 1985 to September 1986 (discontinued).

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
NOV									
04...	0900	0.42	14.0	4	0.00	--	--	--	--
11...	0845	110	14.0	1060	315	56	66	79	89
11...	0930	78	14.0	1010	213	62	73	82	90
11...	1600	384	14.0	2110	2190	51	61	67	81
12...	0845	18	12.5	272	13	--	--	--	--
12...	0900	18	12.5	260	13	--	--	--	--
25...	0830	486	13.5	2660	3490	--	--	--	--
25...	0945	365	14.0	2280	2250	--	--	--	--
25...	1500	62	13.5	861	144	--	--	--	--
26...	1345	13	15.5	159	5.6	--	--	--	--
30...	1130	19	14.0	139	7.1	--	--	--	--
30...	1530	13	15.0	143	5.0	--	--	--	--
DEC									
03...	1200	31	15.5	197	16	--	--	--	--
10...	1030	2.5	13.0	36	0.25	--	--	--	--
JAN									
09...	1000	0.41	10.0	6	0.01	--	--	--	--
30...	0930	130	15.0	2020	709	53	61	77	88
30...	1100	99	15.0	845	226	--	--	--	--
30...	1245	64	16.0	726	125	--	--	--	--
FEB									
08...	0830	205	11.0	1060	587	55	63	73	81
08...	0900	164	11.0	987	437	--	--	--	--
08...	1120	116	11.5	721	226	--	--	--	--
08...	1500	46	13.0	433	54	--	--	--	--
15...	0515	1090	14.0	6200	18200	40	48	50	62
15...	0600	1180	14.5	7640	24300	37	37	42	52
15...	0645	1050	14.5	6980	19700	36	38	45	57
15...	0800	715	14.5	6620	12800	34	41	46	59
15...	0905	568	14.5	5710	8760	--	--	--	--
15...	1345	186	16.0	1690	849	--	--	--	--
16...	0845	20	15.0	301	16	--	--	--	--
MAR									
10...	0930	508	13.5	3310	4540	40	47	51	62
16...	0710	60	12.5	728	118	--	--	--	--
APR									
10...	1000	1.0	17.0	31	0.08	--	--	--	--
MAY									
07...	1230	0.55	19.0	8	0.01	--	--	--	--
JUN									
05...	1300	1.2	22.5	23	0.08	--	--	--	--
JUL									
02...	1245	0.64	19.5	12	0.02	--	--	--	--
AUG									
05...	1245	0.64	23.5	10	0.02	--	--	--	--
SEP									
09...	1400	0.88	23.0	50	0.12	--	--	--	--
25...	0945	114	17.0	10300	3170	--	--	--	--
25...	1045	116	17.5	10200	3190	--	--	--	--

LOS PENASQUITOS CREEK BASIN

11023400 CARROLL CREEK NEAR LA JOLLA, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV								
04...	--	--	--	--	--	--	--	--
11...	97	--	99	--	100	--	--	--
11...	97	--	99	--	100	--	--	--
11...	90	--	95	--	99	100	--	--
12...	--	--	100	--	--	--	--	--
12...	--	--	99	--	--	--	--	--
25...	--	--	90	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
30...	--	--	99	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
DEC								
03...	--	--	98	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
JAN								
09...	--	--	--	--	--	--	--	--
30...	95	--	96	--	98	99	100	--
30...	--	--	97	--	--	--	--	--
30...	--	--	98	--	--	--	--	--
FEB								
08...	87	--	91	--	95	98	100	--
08...	--	--	92	--	--	--	--	--
08...	--	--	94	--	--	--	--	--
08...	--	--	99	--	--	--	--	--
15...	72	--	81	--	89	95	100	--
15...	64	--	74	--	84	93	99	100
15...	69	--	78	--	86	94	99	100
15...	70	--	79	--	86	93	99	100
15...	--	--	77	--	--	--	--	--
15...	--	--	81	--	--	--	--	--
16...	--	--	99	--	--	--	--	--
MAR								
10...	71	--	79	--	88	94	99	100
16...	--	--	96	--	--	--	--	--
APR								
10...	--	--	--	--	--	--	--	--
MAY								
07...	--	--	--	--	--	--	--	--
JUN								
05...	--	--	--	--	--	--	--	--
JUL								
02...	--	--	--	--	--	--	--	--
AUG								
05...	--	--	--	--	--	--	--	--
SEP								
09...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
DEC								
30...	0900	--	3	0.69	1	3	10	32
FEB								
12...	0900	--	1	2.6	--	1	5	19
12...	0905	--	1	--	--	0	1	5
12...	0910	--	1	--	1	2	13	72
JUL								
08...	0830	--	1	0.53	2	6	35	97
08...	0835	--	1	--	3	11	55	96
08...	0845	--	1	--	40	63	77	84

LOS PENASQUITOS CREEK BASIN

11023400 CARROLL CREEK NEAR LA JOLLA, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN
	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	64.0 MM	128 MM
DEC								
30...	39	41	43	45	53	77	100	--
FEB								
12...	30	34	36	38	48	100	--	--
12...	10	12	13	15	22	52	79	100
12...	98	100	--	--	--	--	--	--
JUL								
08...	100	--	--	--	--	--	--	--
08...	98	100	--	--	--	--	--	--
08...	91	95	98	100	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF TOTAL SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY)	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.
					% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN
					.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM
NOV											
11...	1530	14.0	438	2800	87	92	93	96	99	99	100
JAN											
30...	0915	15.0	133	810	87	90	91	95	98	99	100
FEB											
15...	0615	14.5	1180	25000	68	77	87	96	99	100	--

LOS PENASQUITOS CREEK BASIN

11023450 CARMEL CREEK NEAR DEL MAR, CA

LOCATION.--Lat 32°55'48", long 117°14'22", in SE 1/4 NE 1/4 sec.25, T.14 S., R.4 W., San Diego County, Hydrologic Unit 18070304, on right bank 40 ft upstream from box culverts under Interstate 5, 1.2 mi upstream from mouth, and 2.2 mi southeast of Del Mar.

DRAINAGE AREA.--1.11 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1985 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Record fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 487 ft³/s, Feb. 15, 1986, gage height, 4.69 ft; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 487 ft³/s, Feb. 15, gage height, 4.69 ft; no flow many days, October and November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	0	.63	.03	.80	2.0	.70	.27	.11	.13	.07	.20
2	.06	0	8.7	.04	.25	1.9	.27	.25	.11	.07	.06	.15
3	.03	0	20	.03	.26	2.1	.27	.09	.10	.07	.06	.11
4	.02	0	.99	.03	.28	2.2	.42	.07	.11	.08	.06	.12
5	.02	0	.45	.02	.26	2.1	.76	.11	.16	.14	.07	.10
6	.03	0	.52	.03	.21	1.9	57	.12	.12	.06	.08	.24
7	.06	0	.23	.03	1.2	2.2	2.1	.19	.12	.07	.04	.12
8	.02	0	.15	.03	37	19	.73	.08	.10	.06	.09	.10
9	.03	0	.10	.03	1.3	8.1	.86	.17	.13	.07	.08	.14
10	.03	0	.14	.04	.52	32	.59	.09	.14	.07	.07	.13
11	.01	18	14	.05	.68	16	.57	.06	.13	.07	.08	.10
12	.02	3.1	.25	.03	.89	9.4	.40	.10	.10	.06	.07	.11
13	0	.34	.11	.03	1.6	8.9	.36	.09	.08	.09	.06	.14
14	0	.09	.08	.05	1.2	24	.36	.22	.11	.28	.08	.11
15	.01	.07	.05	.10	151	29	.37	.12	.11	.28	.11	.09
16	0	.11	.06	.08	6.4	139	.27	.09	.12	.11	.10	.13
17	.01	.10	.08	.06	2.3	39	.22	.07	.11	.08	.14	.08
18	0	.09	.07	.04	1.8	6.1	.14	.12	.11	.10	.18	.13
19	0	.14	.07	.02	1.5	2.1	.12	.30	.17	.08	.06	.12
20	.01	.15	.34	.03	1.8	1.1	.14	.19	.14	.07	.10	.10
21	0	.13	.44	.03	1.7	.55	.16	.19	.09	.11	.18	.09
22	0	.15	.06	.03	1.5	.39	.18	.26	.10	.33	.11	.10
23	.02	.14	.08	.03	1.5	.36	.16	.18	.15	.12	.09	.11
24	0	2.5	.12	.06	1.7	.40	.20	.10	.14	.10	.14	.26
25	0	61	.04	.05	1.7	.55	.17	.08	.08	.12	.16	27
26	0	1.2	.04	.03	1.6	.45	.19	.08	.30	.09	.13	.15
27	0	.57	.04	4.0	2.0	.34	.11	.15	.12	.08	.78	.09
28	0	.45	.04	.26	1.9	.32	.11	.15	.08	.08	.16	.09
29	0	27	.03	.25	---	.27	.11	.17	.06	.07	.13	.23
30	0	1.7	.04	6.7	---	.29	.25	.12	.24	.07	.11	.10
31	0	---	.03	5.7	---	.54	---	.09	---	.06	.34	---
TOTAL	.39	117.03	47.98	17.94	224.85	352.56	68.29	4.37	3.74	3.27	3.99	30.74
MEAN	.013	3.90	1.55	.58	8.03	11.4	2.28	.14	.12	.11	.13	1.02
MAX	.06	61	20	6.7	151	139	57	.30	.30	.33	.78	27
MIN	0	0	.03	.02	.21	.27	.11	.06	.06	.06	.04	.08
AC-FT	.8	232	95	36	446	699	135	8.7	7.4	6.5	7.9	61

WTR YR 1986 TOTAL 875.15 MEAN 2.40 MAX 151 MIN 0 AC-FT 1740

LOS PENASQUITOS CREEK BASIN

11023450 CARMEL CREEK NEAR DELMAR, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SEDIMENT DATA: May 1985 to September 1986 (discontinued).

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
11...	1045	13	15.0	6170	217	70	77	87
11...	1615	47	14.5	6160	782	73	82	90
11...	1645	37	14.5	5620	561	--	--	--
12...	0950	11	11.0	3380	100	--	--	--
25...	1010	36	14.0	5050	491	--	--	--
25...	1145	17	14.5	6910	317	82	89	93
25...	1530	6.6	15.5	5720	102	--	--	--
26...	1200	1.1	16.5	1160	3.4	--	--	--
30...	1400	1.5	16.5	1740	7.0	--	--	--
DEC								
03...	1100	5.3	15.0	3260	47	--	--	--
10...	1130	0.08	14.0	535	0.12	--	--	--
JAN								
09...	1130	0.05	12.5	58	0.01	--	--	--
30...	0920	8.5	14.0	4800	110	77	87	91
30...	1005	5.3	14.5	3160	45	--	--	--
FEB								
08...	0915	17	11.0	8700	399	73	83	88
08...	1200	26	12.0	4700	330	--	--	--
08...	1645	11	12.0	5100	151	--	--	--
12...	1045	1.3	13.5	10100	35	95	95	97
15...	0745	308	14.0	7780	6470	69	78	84
15...	0930	255	14.0	7710	5310	46	53	56
15...	1200	111	14.5	5410	1620	55	64	66
15...	1600	18	16.5	3140	153	71	79	81
16...	0915	9.7	16.0	1590	42	--	--	--
MAR								
10...	1045	30	15.0	10300	834	74	86	88
16...	0900	60	12.5	2400	389	77	78	80
APR								
10...	1145	1.0	18.0	2040	5.5	--	--	--
MAY								
08...	1145	0.15	22.0	131	0.05	--	--	--
JUN								
06...	1230	0.18	25.5	281	0.14	--	--	--
JUL								
03...	1000	0.08	27.5	76	0.02	--	--	--
AUG								
06...	1230	0.06	21.0	528	0.09	--	--	--
SEP								
04...	1215	0.11	24.0	72	0.02	--	--	--
25...	0930	15	--	5400	219	--	--	--
25...	1115	4.5	19.0	5670	69	--	--	--

LOS PENASQUITOS CREEK BASIN

11023450 CARMEL CREEK NEAR DELMAR, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
NOV								
11...	95	99	100	--	--	--	--	--
11...	95	96	98	100	--	--	--	--
11...	--	--	98	--	--	--	--	--
12...	--	--	99	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
25...	97	97	98	99	100	--	--	--
25...	--	--	97	--	--	--	--	--
26...	--	--	96	--	--	--	--	--
30...	--	--	98	--	--	--	--	--
DEC								
03...	--	--	95	--	--	--	--	--
10...	--	--	95	--	--	--	--	--
JAN								
09...	--	--	96	--	--	--	--	--
30...	95	96	96	97	99	100	--	--
30...	--	--	97	--	--	--	--	--
FEB								
08...	93	96	98	98	99	100	--	--
08...	--	--	93	--	--	--	--	--
08...	--	--	97	--	--	--	--	--
12...	99	99	100	--	--	--	--	--
15...	90	94	96	97	98	99	100	--
15...	61	64	65	66	68	83	98	100
15...	71	75	77	80	91	99	100	--
15...	85	88	89	91	96	100	--	--
16...	--	--	98	--	--	--	--	--
MAR								
10...	97	99	99	100	--	--	--	--
16...	85	88	90	91	97	100	--	--
APR								
10...	--	--	99	--	--	--	--	--
MAY								
08...	--	--	--	--	--	--	--	--
JUN								
06...	--	--	--	--	--	--	--	--
JUL								
03...	--	--	--	--	--	--	--	--
AUG								
06...	--	--	--	--	--	--	--	--
SEP								
04...	--	--	--	--	--	--	--	--
25...	--	--	100	--	--	--	--	--
25...	--	--	100	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
DEC											
30...	1030	--	1	0.04	5	13	43	84	96	100	--
30...	1035	--	1	--	1	7	42	98	100	--	--
30...	1045	--	1	--	2	6	34	88	99	100	--
30...	1050	--	3	--	3	9	40	90	98	100	--
FEB											
12...	1030	13.5	1	1.6	1	12	52	91	99	100	100
12...	1035	--	1	0.0	1	10	51	91	99	100	--
12...	1040	--	2	--	1	11	52	91	99	100	100
JUL											
08...	1030	--	1	0.06	14	40	80	87	94	99	100
08...	1035	--	1	--	10	13	27	50	82	95	100
08...	1040	--	1	--	1	2	10	14	67	98	100
08...	1045	--	--	--	13	18	39	50	81	97	100

LOS PENASQUITOS CREEK BASIN

11023450 CARMEL CREEK NEAR DELMAR, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF TOTAL SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, TOTAL (MG/L)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY)	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .125 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .250 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .500 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN 1.00 MM	SED. TOTAL, SIEVE DIAM. % FINE- R THAN 2.00 MM
FEB											
15...	0745	14.0	308	--	6600	94	95	96	98	100	--
15...	0915	14.0	266	--	6300	58	59	61	78	97	100
15...	1545	16.5	25	--	210	89	91	96	100	--	--
MAR											
16...	0915	12.5	56	2470	373	87	88	94	99	100	--

SAN DIEGUITO RIVER BASIN

11025500 SANTA YSABEL CREEK NEAR RAMONA, CA

LOCATION.--Lat 33°06'25", long 116°51'55", in NW 1/4 NE 1/4 sec.27, T.12 S., R.1 E., San Diego County, Hydrologic Unit 18070304, on left bank 1.6 mi downstream from Temescal Creek, and 4.5 mi north of Ramona.

DRAINAGE AREA.--112 mi².

PERIOD OF RECORD.--February 1912 to February 1923 (monthly discharge only, for February 1912, published in WSP 1315-B), October 1943 to current year.

GAGE.--Water-stage recorder and concrete cutoff wall. Datum of gage is 847.88 ft above National Geodetic Vertical Datum of 1929 (levels by city of San Diego Water Department). See WSP 1315-B for history of changes prior to Feb. 3, 1923.

REMARKS.--Estimated daily discharges: Nov. 11-18, June 5 to Aug. 14. Records fair except for estimated daily discharges, which are poor. Flow regulated by Sutherland Reservoir (station 11024000) 5 mi upstream since July 1954. Some small diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,400 ft³/s, Jan. 27, 1916, gage height, 14.0 ft, datum then in use, from rating curve extended above 1,500 ft³/s on basis of slope-conveyance computation of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft³/s, Feb. 15, gage height, 7.17 ft; minimum daily, 0.01 ft³/s, Aug. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.32	14	2.7	4.0	7.5	14	4.9	2.0	.60	.14	.08
2	.15	.29	8.4	2.8	3.4	7.3	14	4.7	2.0	.56	.11	.09
3	.14	.27	38	2.9	3.2	7.1	13	4.6	1.9	.54	.09	.09
4	.17	.27	17	2.8	3.0	6.5	12	4.6	1.9	.52	.07	.09
5	.17	.30	9.7	2.8	2.9	6.0	12	4.6	2.0	.50	.07	.10
6	.15	.32	7.5	2.8	3.0	5.8	14	4.6	1.8	.47	.07	.09
7	.22	.32	6.3	2.7	3.4	5.8	17	4.6	1.7	.45	.07	.09
8	.27	.34	5.6	2.6	8.6	8.3	12	4.4	1.6	.43	.07	.10
9	.29	.38	5.0	2.4	7.3	25	11	4.0	1.5	.40	.08	.11
10	.36	.40	5.4	2.4	4.9	18	11	3.9	1.4	.37	.08	.13
11	.30	3.0	8.7	2.4	4.1	73	11	3.7	1.3	.34	.08	.16
12	.28	2.4	7.0	2.2	3.8	74	10	3.8	1.2	.38	.06	.17
13	.28	1.8	5.2	2.1	3.8	71	10	3.8	1.2	.30	.04	.17
14	.27	1.5	4.6	2.1	4.1	109	9.2	3.8	1.1	.22	.03	.16
15	.23	1.3	4.3	2.1	654	51	8.4	3.9	1.0	.18	.03	.13
16	.25	1.0	4.1	2.2	136	248	8.1	4.1	.98	.15	.03	.15
17	.26	.65	3.8	2.3	53	177	8.1	3.7	.90	.13	.03	.17
18	.28	.29	3.5	2.2	33	76	7.8	3.2	.85	.11	.02	.15
19	.27	.26	3.3	2.1	25	52	6.9	2.8	.82	.10	.02	.16
20	.29	.24	3.2	2.1	27	40	6.3	2.6	.80	.09	.01	.18
21	.32	.25	3.1	2.1	19	33	6.2	2.6	.80	.08	.01	.20
22	.36	.26	3.0	2.1	15	29	6.1	2.6	.78	.38	.02	.24
23	.33	.29	3.0	2.1	13	25	6.0	2.8	.76	.32	.02	.26
24	.30	.39	3.0	2.1	11	22	5.8	2.7	.74	.30	.05	.36
25	.29	12	2.9	2.1	9.6	20	5.8	2.5	.72	.28	.05	.74
26	.29	9.2	2.8	2.0	8.8	18	5.8	2.3	.70	.26	.05	.49
27	.31	5.5	2.8	2.0	8.4	16	5.7	2.2	.68	.25	.02	.48
28	.32	3.8	2.9	2.0	8.0	16	5.2	2.1	.66	.24	.02	.51
29	.32	23	2.7	2.0	---	16	5.0	2.0	.64	.22	.02	.51
30	.33	68	2.7	3.4	---	15	5.0	2.1	.62	.20	.04	.49
31	.34	---	2.7	5.0	---	15	---	2.1	---	.16	.05	---
TOTAL	8.30	138.34	196.2	75.6	1080.3	1293.3	272.4	106.3	35.05	9.53	1.55	6.85
MEAN	.27	4.61	6.33	2.44	38.6	41.7	9.08	3.43	1.17	.31	.050	.23
MAX	.36	68	38	5.0	654	248	17	4.9	2.0	.60	.14	.74
MIN	.14	.24	2.7	2.0	2.9	5.8	5.0	2.0	.62	.08	.01	.08
AC-FT	16	274	389	150	2140	2570	540	211	70	19	3.1	14

CAL YR 1985 TOTAL 1362.17 MEAN 3.73 MAX 68 MIN .02 AC-FT 2700
WTR YR 1986 TOTAL 3223.72 MEAN 8.83 MAX 654 MIN .01 AC-FT 6390

SAN DIEGUITO RIVER BASIN

11028500 SANTA MARIA CREEK NEAR RAMONA, CA

LOCATION.--Lat 33°03'08", long 116°56'41", in SE 1/4 SE 1/4 sec.11, T.13 S., R.1 W., San Diego County, Hydrologic Unit 18070304, on left bank 3.8 mi northwest of Ramona, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--57.6 mi².

PERIOD OF RECORD.--December 1912 to September 1920, October 1946 to current year.

GAGE.--Water-stage recorder. Concrete control since October 1946. Datum of gage is 1,294.44 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, at same site, but at datum 1.78 ft lower.

REMARKS.--No estimated daily discharges. Records good except those below 2.0 ft³/s, which are fair. No regulation upstream from station.

AVERAGE DISCHARGE.--47 years (water years 1914-20, 1947-86), 6.21 ft³/s, 4,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s, Feb. 21, 1980, gage height, 14.39 ft, from rating curve extended above 130 ft³/s on basis of slope-area measurement at gage height 4.56 ft, and slope-conveyance study at gage height, 14.39 ft; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	2215	283	2.65	Mar. 16	2215	777	3.83
Feb. 15	1130	*867	*4.01				

No flow several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.04	8.8	1.5	5.0	2.9	7.7	.52	.24	.21	.37	.45
2	.12	.03	4.5	1.7	2.0	2.9	8.4	.49	.32	.26	.32	.24
3	.10	.06	44	1.3	1.5	2.7	7.6	.82	.58	.38	.36	.10
4	.14	.11	11	1.4	2.0	2.3	6.0	1.1	.38	.44	.37	.12
5	.18	.13	4.3	2.0	1.7	2.0	5.2	.91	.39	.46	.38	.03
6	.18	.12	2.5	2.0	1.8	1.7	8.9	.96	.50	.51	.41	.01
7	.20	.12	2.1	1.2	2.0	2.5	9.1	1.2	.33	.49	.41	.01
8	.15	.12	1.9	.85	26	6.5	6.7	1.1	.16	.49	.11	0
9	.20	.12	2.4	.70	14	17	5.6	.92	.72	.48	.14	.01
10	.27	.14	5.3	.53	4.5	26	5.8	1.3	.67	.47	.08	.12
11	.22	2.7	31	.48	2.7	101	5.4	.93	.50	.67	.05	.03
12	.15	.96	11	.47	2.3	60	5.2	.91	.66	.71	.05	.03
13	.16	.29	5.7	.57	2.5	69	4.9	.49	.61	.67	.25	.03
14	.15	.17	3.7	2.1	2.2	83	3.8	.43	.58	.37	.05	.03
15	.06	.14	3.2	1.7	418	32	2.5	.34	.50	.17	.04	.03
16	.10	.25	2.9	1.3	62	343	2.3	.71	.43	.36	.04	.02
17	.15	.32	2.6	1.6	18	310	1.7	.41	.43	.35	.04	.04
18	.18	.37	2.0	1.3	13	54	1.6	.23	.45	.16	.04	.22
19	.26	.33	1.6	1.3	11	32	1.4	.23	.37	.17	.02	.28
20	.27	.18	1.5	1.6	9.1	24	1.2	.07	.42	.06	.01	.03
21	.25	.39	1.8	1.6	6.9	17	1.1	.11	.43	.09	.01	.02
22	.26	.56	1.9	1.5	5.4	16	1.2	.26	.43	.24	0	.02
23	.07	.50	1.8	1.4	4.3	16	1.3	.24	.56	.28	.01	.03
24	.04	.94	1.6	1.3	3.5	13	.70	.32	.45	.37	.02	.15
25	.04	29	1.8	1.0	3.0	12	.66	.25	.48	.13	.02	.66
26	.06	13	1.5	1.2	2.9	11	.84	.19	.44	.35	.01	.21
27	.10	1.2	1.8	1.1	2.7	9.0	.65	.05	.38	.31	0	.24
28	.13	.81	1.7	1.4	2.9	9.5	.58	.03	.29	.27	0	.20
29	.15	57	1.8	1.3	---	9.8	.70	.04	.33	.21	0	.19
30	.11	75	1.6	6.0	---	8.7	.70	.17	.36	.18	0	.21
31	.11	---	1.6	4.4	---	7.7	---	.19	---	.20	.05	---
TOTAL	4.78	185.10	170.9	47.80	632.9	1304.2	109.43	15.92	13.39	10.51	3.66	3.76
MEAN	.15	6.17	5.51	1.54	22.6	42.1	3.65	.51	.45	.34	.12	.13
MAX	.27	.75	.44	6.0	418	343	9.1	1.3	.72	.71	.41	.66
MIN	.04	.03	1.5	.47	1.5	1.7	.58	.03	.16	.06	0	0
AC-FT	9.5	367	339	95	1260	2590	217	32	27	21	7.3	7.5

CAL YR 1985 TOTAL 562.24 MEAN 1.54 MAX 75 MIN 0 AC-FT 1120
WTR YR 1986 TOTAL 2502.35 MEAN 6.86 MAX 418 MIN 0 AC-FT 4960

SAN DIEGUITO RIVER BASIN

11030020 LAKE HODGES NEAR ESCONDIDO, CA

LOCATION.--Lat 33°02'46", long 117°07'39", in SE 1/4 NW 1/4 sec.18, T.13 S., R.2 W., San Diego County, Hydrologic Unit 18070304, 300 ft upstream from right upstream end of Hodges Dam on San Dieguito River, 6.4 mi southwest of Escondido, and 20 mi southwest of Sutherland Reservoir.

DRAINAGE AREA.--303 mi².

PERIOD OF RECORD.--October 1945 to September 1968 (published with San Dieguito River at Lake Hodges, station 11030000), October 1972 to current year. Monthend gage heights February 1919 to September 1945, in files of San Diego County Department of Sanitation and Flood Control.

GAGE.--Nonrecording gage. Datum of gage is 200.0 ft above National Geodetic Vertical Datum of 1929 (levels by county of San Diego); gage readings have been reduced to NGVD. Prior to Oct. 1, 1972, nonrecording gage at site 800 ft upstream on right bank at same datum. October 1972 to current year, supplementary water-stage recorder used for flood warning only, on left upstream face of dam at same datum.

REMARKS.--Reservoir is formed by multiple-arch reinforced concrete dam, constructed in 1917-19. Storage began in February 1919. Capacity table based on a 1948 survey; table dated Sept. 18, 1951. Capacity of reservoir at spillway level, 33,550 acre-ft, elevation, 315.0 ft. Dead storage below lowest outlet, 1,160 acre-ft, elevation 254.0 ft included in these records. Reservoir can be drawn down to 207 acre-ft, elevation, 240.0 ft by pumping. Water drawn from Lake Hodges passes through a conduit to San Dieguito re-regulating reservoir, from which it is released as required for municipal use. Flow regulated since July 1954 by Sutherland Reservoir (station 11024000). Diversions for irrigation above Lake Hodges.

COOPERATION.--Gage-heights were provided by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 41,620 acre-ft, spilling, Feb. 21, 1980, elevation, 321.50 ft; minimum observed, 114 acre-ft, Oct. 31, 1965, elevation, 235.80 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 35,060 acre-ft, spilling, Mar. 17, elevation, 316.20 ft; minimum observed, 19,180 acre-ft, Nov. 10, elevation, 300.82 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	303.86	21,750	--
Oct. 31.....	302.30	20,400	-1,350
Nov. 30.....	302.90	20,910	+510
Dec. 31.....	304.33	22,170	+1,260
CAL YR 1985.....	--	--	-5,040
Jan. 31.....	303.89	21,770	-400
Feb. 28.....	310.72	28,560	+6,790
Mar. 31.....	315.30	33,930	+5,370
Apr. 30.....	314.98	33,530	-400
May 31.....	313.95	32,270	-1,260
June 30.....	313.18	31,350	-920
July 31.....	311.88	29,860	-1,490
Aug. 31.....	310.43	28,250	-1,610
Sept. 30.....	309.69	27,450	-800
WTR YR 1986.....	--	--	+5,700

SAN DIEGUITO CREEK BASIN

11030500 SAN DIEGUITO CREEK NEAR DEL MAR, CA

LOCATION.--Lat 32°54'23", long 117°12'45", in SE 1/4 SW 1/4, sec.6, T.14 S., R.3 W., San Diego County, Hydrologic Unit 18070304, on downstream side of second pier from right bank of El Camino Real bridge, 0.3 mi south of El Camino Real and Via Del La Valle intersection, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--338 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Sutherland Reservoir, capacity, 29,680 acre-ft since July 1954 and Lake Hodges (station 11030020), capacity, 33,550 acre-ft since 1919. Diversions and pumping from wells in San Pasqual Valley and lower San Dieguito Valley.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft³/s, Mar. 17, 1986, gage height, 10.69 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft³/s, Mar. 17, gage height, 10.69 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	21	.30	.98	1.3	41	.70	.26	.11	.05	.01
2		0	5.2	.28	.69	1.3	39	.65	.26	.09	.05	.02
3		0	18	.25	.30	1.4	37	.62	.26	.12	.05	.02
4		0	32	.35	.26	1.3	35	.58	.29	.12	.05	.02
5		0	14	.57	.22	1.1	33	.64	.26	.13	.05	.02
6		0	5.4	.45	.19	1.1	73	.64	.21	.14	.06	.03
7		0	1.9	1.2	.19	1.1	99	.43	.18	.08	.06	.03
8		0	.91	.43	8.8	2.5	58	.36	.18	.08	.08	.03
9		0	.56	.52	22	14	41	.42	.18	.07	.08	.03
10		0	.56	.30	16	23	32	.36	.18	.06	.06	.03
11		2.4	8.5	.18	8.3	81	28	.30	.22	.05	.05	.02
12		5.8	28	.14	4.1	51	25	.26	.25	.04	.05	.02
13		1.8	13	.17	3.4	51	23	.29	.22	.06	.07	.03
14		.44	5.9	.35	2.0	45	23	.31	.18	.08	.06	.03
15		.14	3.1	.37	386	38	21	.30	.17	.12	.04	.03
16		.06	1.6	.28	72	225	19	.32	.15	.07	.03	.03
17		.05	.97	.23	33	1010	18	.32	.14	.05	.03	.03
18		.03	.59	.24	22	478	17	.30	.15	.04	.01	.03
19		.02	.46	.21	16	245	18	.29	.15	.02	.02	.03
20		.02	.38	.18	12	165	13	.27	.14	.03	.04	.04
21		.02	.33	.16	13	125	11	.24	.14	.05	.03	.04
22		.02	.29	.13	8.3	100	8.5	.24	.14	.09	.01	.05
23		.02	.30	.13	5.8	86	6.9	.22	.17	.19	0	.05
24		.06	.30	.12	4.6	77	4.2	.23	.22	.16	0	.12
25		26	.30	.11	3.4	66	3.2	.23	.23	.15	0	1.7
26		17	.28	.08	2.9	58	5.6	.23	.19	.06	0	1.0
27		5.7	.28	.08	2.3	54	2.0	.25	.16	.06	0	.59
28		1.2	.26	.07	1.4	49	1.2	.24	.12	.05	0	.51
29		4.7	.29	.06	---	48	.87	.22	.13	.05	.01	.35
30		49	.28	.77	---	46	.72	.22	.14	.05	.02	.51
31		---	.26	.56	---	43	---	.26	---	.05	.02	---
TOTAL	0	114.48	165.20	9.27	650.13	3189.1	737.19	10.94	5.67	2.52	1.08	5.45
MEAN	0	3.82	5.33	.30	23.2	103	24.6	.35	.19	.081	.035	.18
MAX	0	49	32	1.2	386	1010	99	.70	.29	.19	.08	1.7
MIN	0	0	.26	.06	.19	1.1	.72	.22	.12	.02	0	.01
AC-FT	0	227	328	18	1290	6330	1460	22	11	5.0	2.1	11
CAL YR 1985	TOTAL	391.06	MEAN	1.07	MAX	49	MIN	0	AC-FT	776		
WTR YR 1986	TOTAL	4891.03	MEAN	13.4	MAX	1010	MIN	0	AC-FT	9700		

SAN DIEGUITO RIVER BASIN

11030500 SAN DIEGUITO RIVER NEAR DEL MAR, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SEDIMENT DATA: Water years 1982 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: January to September 1984.

SUSPENDED-SEDIMENT DISCHARGE: January to September 1984.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
NOV											
30...	1345	69	17.0	9	1.7	--	--	--	--	--	--
DEC											
03...	1000	6.3	14.5	5	0.09	--	--	--	--	--	--
JAN											
09...	1300	0.83	13.5	50	0.11	--	--	--	--	--	--
FEB											
08...	1115	9.5	11.5	31	0.70	--	--	--	--	--	--
15...	1115	872	16.0	2980	7020	72	82	90	98	99	100
15...	1700	344	16.0	678	630	--	--	--	--	--	94
16...	1140	64	19.0	284	49	--	--	--	--	--	95
MAR											
11...	1345	102	19.0	36	9.9	--	--	--	--	--	--
16...	1130	242	14.5	267	174	--	--	--	--	--	99
APR											
10...	1415	30	24.5	20	1.6	--	--	--	--	--	--
MAY											
08...	1045	0.37	19.5	93	0.09	--	--	--	--	--	--
JUN											
06...	1030	0.24	24.5	121	0.08	--	--	--	--	--	--
JUL											
03...	0915	0.14	23.5	55	0.02	--	--	--	--	--	--
AUG											
06...	1030	0.06	24.5	18	0.00	--	--	--	--	--	--
SEP											
09...	1245	0.03	21.5	10	0.00	--	--	--	--	--	--
25...	1300	2.7	25.0	57	0.42	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
DEC												
30...	1115	--	4	0.33	7	22	61	89	96	99	100	--
FEB												
12...	1130	--	4	3.5	12	21	37	83	96	98	99	100
JUL												
08...	1100	27.0	5	0.08	5	17	56	90	97	99	100	--

PARTICLE-SIZE DISTRIBUTION OF TOTAL SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY)	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM
FEB					
15...	1115	16.0	872	7020	100

ESCONDIDO CREEK BASIN

11030700 LAKE WOHLFORD NEAR ESCONDIDO, CA

LOCATION.--Lat 33°10'00", long 117°00'14", in NW 1/4 NE 1/4 sec.5, T.12 S., R.1 W., San Diego County, Hydrologic Unit 18070303, on face of Lake Wohlford Dam, 330 ft left of spillway, 3.9 mi southeast of Valley Center Post Office, and 5.7 mi northeast of Escondido.

DRAINAGE AREA.--7.96 mi².

PERIOD OF RECORD.--October 1972 to current year. October 1933 to September 1972 in files of San Diego County Department of Sanitation and Flood Control.

GAGE.--Nonrecording gage. Datum of gage is 1,385.0 ft National Geodetic Vertical Datum of 1929 (levels by city of Escondido Engineering Department); gage readings have been reduced to NGVD. Since October 1972, supplementary water-stage recorder for flood warning only, at same site at datum 15.0 ft higher.

REMARKS.--Reservoir is formed by earthfill dam riprapped upstream and downstream, with concrete spillway anchored to natural rock. Dam was completed in 1932. Capacity table dated March 1955. Capacity at spillway level, 6,940 acre-ft, elevation, 1,480.0 ft. Dead storage below lowest outlet, 131 acre-ft, elevation, 1,420 ft. Reservoir storage includes supplemental water diverted from the San Luis Rey River via Escondido Mutual Water Co.'s canal to Lake Wohlford Reservoir. Stored water is released for municipal use by Vista Irrigation District and city of Escondido.

COOPERATION.--Gage heights were furnished by Escondido Mutual Water Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,140 acre-ft, Feb. 21, 1980, elevation, 1,480.9 ft; minimum, 809 acre-ft, Dec. 1, 1953, elevation, 1,437.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 6,380 acre-ft, June 14-18, elevation, 1,477.4 ft; minimum observed, 3,030 acre-ft, Dec. 31, elevation, 1,458.7 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 0700, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,473.4	5,560	--
Oct. 31.....	1,466.3	4,240	-1,320
Nov. 30.....	1,463.6	3,780	-460
Dec. 31.....	1,458.7	3,030	-750
CAL YR 1985.....	--	--	+480
Jan. 31.....	1,464.9	4,000	+970
Feb. 28.....	1,469.6	4,830	+830
Mar. 31.....	1,474.0	5,680	+850
Apr. 30.....	1,476.9	6,270	+590
May 31.....	1,477.2	6,340	+70
June 30.....	1,476.7	6,230	-110
July 31.....	1,474.3	5,740	-490
Aug. 31.....	1,473.3	5,540	-200
Sept. 30.....	1,472.1	5,300	-240
WTR YR 1986.....	--	--	-260

SAN LUIS REY RIVER BASIN

11031500 AGUA CALIENTE CREEK NEAR WARNER SPRINGS, CA

LOCATION.--Lat 33°17'19", long 116°39'11", in San Jose del Valle Grant, San Diego County, Hydrologic Unit 18070303, on left bank 60 ft upstream from bridge on Highway 79, 1.2 mi upstream from Canada Verde Creek, and 1.2 mi northwest of Warner Springs.

DRAINAGE AREA.--19.0 mi².

PERIOD OF RECORD.--February 1961 to current year. Discharge measurements only, published in WSP 447, made about same site from Feb. 5, 1913, to November 1915.

GAGE.--Water-stage recorder. Elevation of gage is 2,950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Jan. 30, 1966, to Nov. 5, 1982, at site 60 ft downstream at datum 2.40 ft lower.

REMARKS.--Estimated daily discharges: Feb. 18 to Mar. 6. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--25 years, 2.80 ft³/s, 2,030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s, Feb. 21, 1980, gage height, 4.80 ft, site and datum then in use, from rating curve extended above 110 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 5.36 ft, Nov. 30, 1982; no flow for many days some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1900	86	3.82	Mar. 16	1630	150	3.48
Feb. 15	0945	*703	*5.10				

Minimum daily, 0.06 ft³/s, Sept. 4-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.14	4.5	.27	.87	1.7	3.8	1.1	.41	.39	.16	.08
2	.16	.13	2.6	.27	.65	1.6	3.8	1.0	.40	.39	.15	.08
3	.15	.14	6.1	.27	.57	1.6	3.6	.98	.40	.38	.14	.07
4	.17	.14	3.6	.27	.57	1.5	3.4	.98	.40	.33	.14	.06
5	.16	.14	2.5	.27	.55	1.4	3.2	1.0	.41	.33	.13	.06
6	.17	.14	1.8	.27	.57	1.3	3.6	1.1	.38	.32	.13	.06
7	.19	.13	1.4	.26	.64	1.4	4.2	1.1	.37	.30	.13	.06
8	.18	.14	1.1	.26	1.3	1.7	3.4	1.1	.37	.28	.12	.06
9	.17	.14	.97	.27	1.2	3.8	3.0	.91	.37	.27	.12	.06
10	.17	.15	1.0	.28	1.2	7.8	2.7	.79	.36	.27	.10	.06
11	.16	.23	1.4	.28	1.2	14	2.6	.74	.36	.23	.10	.06
12	.16	.20	1.1	.28	1.3	7.4	2.5	.74	.38	.22	.10	.06
13	.16	.17	1.0	.29	1.4	7.6	2.4	.73	.35	.21	.10	.06
14	.16	.15	1.0	.29	1.8	10	2.1	.73	.36	.22	.10	.06
15	.16	.14	1.1	.29	208	7.8	2.0	.76	.39	.22	.10	.06
16	.16	.14	1.1	.29	44	67	2.0	.73	.41	.21	.10	.06
17	.17	.14	1.1	.29	21	72	2.0	.53	.40	.21	.10	.06
18	.18	.15	.96	.29	6.5	59	2.0	.49	.40	.19	.09	.06
19	.18	.16	.92	.29	8.0	30	1.7	.48	.42	.18	.09	.07
20	.18	.15	.85	.29	5.0	19	1.6	.48	.40	.19	.09	.07
21	.20	.15	.74	.29	4.2	14	1.5	.49	.40	.28	.09	.07
22	.20	.14	.65	.29	3.0	11	1.5	.49	.40	.26	.09	.07
23	.16	.14	.55	.28	2.8	8.5	1.4	.47	.41	.26	.08	.08
24	.16	.18	.51	.26	2.5	7.1	1.4	.43	.43	.25	.08	.08
25	.15	9.3	.51	.26	2.3	6.4	1.5	.42	.42	.27	.10	.10
26	.15	5.0	.39	.26	2.1	5.7	1.4	.43	.42	.23	.10	.08
27	.15	1.3	.29	.26	1.9	5.1	1.3	.43	.37	.22	.09	.08
28	.13	.54	.28	.28	1.8	4.7	1.2	.43	.38	.20	.09	.08
29	.13	17	.28	.28	---	4.3	1.1	.44	.41	.19	.08	.07
30	.14	16	.27	1.2	---	4.1	1.1	.42	.41	.18	.08	.07
31	.14	---	.27	1.3	---	3.8	---	.40	---	.17	.07	---
TOTAL	5.06	52.77	40.84	10.53	326.92	392.3	69.0	21.32	11.79	7.85	3.24	2.05
MEAN	.16	1.76	1.32	.34	11.7	12.7	2.30	.69	.39	.25	.10	.068
MAX	.20	17	6.1	1.3	208	72	4.2	1.1	.43	.39	.16	.10
MIN	.13	.13	.27	.26	.55	1.3	1.1	.40	.35	.17	.07	.06
AC-FT	10	105	81	21	648	778	137	42	23	16	6.4	4.1
CAL YR 1985	TOTAL	492.87	MEAN 1.35	MAX 18	MIN .13	AC-FT 978						
WTR YR 1986	TOTAL	943.67	MEAN 2.59	MAX 208	MIN .06	AC-FT 1870						

SAN LUIS REY RIVER BASIN

11033000 WEST FORK SAN LUIS REY RIVER NEAR WARNER SPRINGS, CA

LOCATION.--Lat 33°17'48", long 116°45'32", in San Jose del Valle Grant, San Diego County, Hydrologic Unit 18070303, on left bank 0.2 mi upstream from Fink Road, 2.6 mi upstream from mouth, and 7.5 mi west of Warner Springs.

DRAINAGE AREA.--25.5 mi².

PERIOD OF RECORD.--January 1913 to November 1915, October 1956 to September 1986 (discontinued). Low-flow records not equivalent prior to Nov. 5, 1971, because of undetermined channel-flow loss between sites.

REVISED RECORDS.--WDR CA-74-1: 1973(P).

GAGE.--Water-stage recorder. Elevation of gage is 2,800 ft above National Geoditic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1956, at different datum. Prior to Nov. 5, 1971, at site 500 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Mar. 11-20, May 14 to July 13. Records good, except for periods of no gage-height record, Mar. 11-20, and faulty gage-height record May 14 to July 13, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--31 years (water years 1914-15, 1957-86), 10.4 ft³/s, 7,530 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft³/s, Feb. 21, 1980, gage height, 15.60 ft, from high-water marks, from rating curve extended above 130 ft³/s on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1930	377	12.50	Mar. 10	2215	335	12.43
Feb. 15	0700	*2,570	*14.25	Mar. 16	Unknown	602	12.80

Minimum daily, 0.04 ft³/s, Nov. 3, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.05	16	2.3	6.8	8.5	14	3.9	1.3	.34	.09	.10
2	.08	.05	13	2.2	4.4	8.0	14	3.4	1.3	.33	.08	.10
3	.07	.04	69	2.2	3.4	7.6	14	3.4	1.2	.32	.08	.09
4	.10	.05	15	2.0	3.3	7.6	13	3.8	1.2	.30	.07	.08
5	.09	.05	9.3	1.9	3.0	7.5	12	3.9	1.1	.29	.07	.08
6	.08	.05	6.8	1.9	2.6	7.0	21	4.1	1.1	.28	.06	.08
7	.10	.05	5.3	1.9	2.6	6.8	21	4.2	1.0	.27	.06	.08
8	.10	.05	4.6	1.8	5.6	23	15	4.4	.96	.25	.06	.08
9	.10	.04	4.1	1.8	5.7	46	13	4.0	.92	.24	.06	.09
10	.10	.04	4.4	1.8	5.1	99	12	3.3	.88	.23	.07	.08
11	.09	.25	5.3	1.8	5.3	110	11	3.1	.84	.22	.07	.08
12	.09	.24	4.7	1.7	6.6	68	11	3.1	.80	.21	.07	.08
13	.09	.16	4.2	1.7	26	72	10	3.1	.77	.20	.07	.09
14	.08	.13	4.0	1.7	21	80	9.1	3.0	.73	.18	.07	.09
15	.06	.11	3.8	1.7	767	62	8.8	2.9	.70	.18	.07	.09
16	.05	.10	4.5	1.7	117	270	8.8	2.8	.67	.16	.07	.08
17	.07	.09	4.9	1.7	50	170	8.8	2.7	.64	.15	.08	.08
18	.07	.08	4.5	1.7	30	120	8.3	2.5	.61	.14	.09	.08
19	.07	.08	4.0	1.5	40	75	7.4	2.4	.58	.13	.08	.08
20	.06	.08	3.9	1.5	27	56	7.1	2.3	.55	.11	.08	.09
21	.06	.08	3.6	1.5	18	46	6.7	2.2	.53	.15	.08	.09
22	.08	.08	3.3	1.5	15	41	5.7	2.1	.51	.16	.08	.09
23	.07	.08	3.1	1.5	13	34	5.6	2.0	.49	.13	.08	.10
24	.06	.08	3.0	1.5	12	29	5.6	1.9	.47	.14	.08	.11
25	.06	61	2.8	1.4	11	25	5.6	1.8	.45	.12	.12	.49
26	.05	17	2.6	1.4	10	22	4.9	1.7	.43	.11	.13	.22
27	.05	4.7	2.5	1.4	9.3	19	4.4	1.7	.41	.11	.11	.15
28	.05	2.7	2.4	1.4	8.9	18	4.2	1.6	.39	.11	.08	.15
29	.05	109	2.4	1.4	---	16	3.7	1.5	.38	.10	.08	.13
30	.05	89	2.4	17	---	16	3.9	1.5	.36	.09	.08	.12
31	.05	---	2.4	9.2	---	15	---	1.4	---	.09	.09	---
TOTAL	2.27	285.51	221.8	75.7	1229.6	1585.0	289.6	85.7	22.27	5.84	2.46	3.35
MEAN	.073	9.52	7.15	2.44	43.9	51.1	9.65	2.76	.74	.19	.079	.11
MAX	.10	109	69	17	767	270	21	4.4	1.3	.34	.13	.49
MIN	.05	.04	2.4	1.4	2.6	6.8	3.7	1.4	.36	.09	.06	.08
AC-FT	4.5	566	440	150	2440	3140	574	170	44	12	4.9	6.6
CAL YR 1985	TOTAL	2193.70	MEAN	6.01	MAX	186	MIN	.04	AC-FT	4350		

SAN LUIS REY RIVER BASIN

11040000 SAN LUIS REY RIVER AT MONSERATE NARROWS, NEAR PALA, CA

LOCATION.--Lat 33°20'14", long 117°08'07", in SE 1/4 NW 1/4 sec.6, T.10 S., R.2 W., San Diego County, Hydrologic Unit 18070303, on left bank 4 mi southwest of Pala, 6 mi northeast of Bonsall, and 27 mi downstream from Lake Henshaw.

DRAINAGE AREA.--373 mi².

PERIOD OF RECORD.--December 1935 to March 1938 (fragmentary), April 1938 to November 1941, October 1946 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 270.82 ft above National Geodetic Vertical Datum of 1929 (levels by California Department of Transportation). Prior to October 1946, at same site but different datum. Oct. 22, 1946, to Nov. 30, 1954, at datum 1.0 ft higher.

REMARKS.--Estimated daily discharges: Jan. 17-19, 23, Feb. 12-18. Records fair. Flow regulated by Lake Henshaw since 1923, capacity, 194,300 acre-ft. Several diversions above station.

AVERAGE DISCHARGE.--43 years (water years 1939-41, 1947-86), 18.6 ft³/s, 13,480 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge since 1938, 15,500 ft³/s, Feb. 21, 1980, gage height, 9.68 ft, on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,630 ft³/s, Feb. 15, gage height, 5.28 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	23	6.8	7.4	35	41	13	4.2	2.6	2.3	1.3
2		0	15	7.2	7.6	34	39	11	4.2	2.5	1.4	1.3
3		0	16	7.5	7.9	33	34	12	4.0	2.9	1.5	1.1
4		0	18	7.3	7.6	32	33	11	4.3	2.8	1.7	1.2
5		0	14	7.0	7.6	27	33	11	4.5	2.7	1.5	1.2
6		0	12	7.4	7.6	31	41	10	4.0	2.6	1.5	1.2
7		0	11	7.2	7.3	28	37	10	3.5	2.4	1.4	1.2
8		0	10	6.7	15	33	32	9.9	3.3	2.4	1.3	1.2
9		0	9.9	6.4	14	51	28	9.7	3.5	1.9	1.2	1.1
10		0	9.7	5.4	13	54	28	9.4	3.3	2.0	1.2	1.1
11		.18	9.9	5.0	12	84	28	9.6	3.7	2.4	1.2	1.2
12		.66	9.3	4.6	11	78	25	8.9	3.9	2.2	1.2	1.4
13		.23	9.0	4.8	11	117	25	8.3	3.0	2.1	1.3	1.6
14		.13	8.9	4.3	10	157	23	7.8	3.0	1.9	1.4	1.9
15		.12	8.9	3.9	589	106	19	7.3	3.4	1.6	1.3	1.9
16		.14	8.7	3.7	200	439	19	7.7	3.7	1.5	1.2	2.0
17		.15	8.2	3.5	110	383	19	7.3	3.8	1.6	1.1	2.7
18		.19	8.2	3.4	69	175	18	7.2	3.9	1.5	1.2	3.0
19		.16	8.0	3.3	68	131	17	7.0	3.7	1.9	1.2	2.9
20		.15	8.0	8.5	72	110	16	6.7	3.0	1.9	1.1	2.9
21		.15	7.9	8.1	61	98	15	6.3	2.6	1.9	1.2	2.7
22		.15	7.6	7.6	56	83	14	6.1	3.0	1.8	1.2	2.8
23		.16	7.8	6.8	51	73	14	5.6	3.2	2.0	1.2	2.9
24		.19	7.4	6.6	47	66	14	5.4	2.8	2.0	1.3	3.3
25		1.5	7.2	6.4	44	61	13	5.4	3.0	1.9	1.3	5.5
26		.90	7.3	6.2	41	55	13	5.1	2.8	2.1	1.3	3.9
27		.13	7.5	6.1	38	50	14	4.7	2.6	1.9	1.2	3.3
28		.03	7.0	6.0	37	50	14	4.2	2.7	1.7	1.1	2.3
29		20	6.5	6.0	---	47	15	3.9	2.7	1.6	1.2	2.2
30		60	6.8	6.0	---	45	15	3.8	2.4	2.1	1.2	2.0
31		---	6.8	7.2	---	42	---	4.0	---	2.2	1.2	---
TOTAL	0	85.32	305.5	186.9	1622.0	2808	696	239.3	101.7	64.6	40.6	64.3
MEAN	0	2.84	9.85	6.03	57.9	90.6	23.2	7.72	3.39	2.08	1.31	2.14
MAX	0	60	23	8.5	589	439	41	13	4.5	2.9	2.3	5.5
MIN	0	0	6.5	3.3	7.3	27	13	3.8	2.4	1.5	1.1	1.1
AC-FT	0	169	606	371	3220	5570	1380	475	202	128	81	128

CAL YR 1985 TOTAL 2556.40 MEAN 7.00 MAX 60 MIN 0 AC-FT 5070
WTR YR 1986 TOTAL 6214.22 MEAN 17.0 MAX 589 MIN 0 AC-FT 12330

SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA
(National stream-quality accounting network station)

LOCATION.--Lat 33°13'05", long 117°22'34", in SE 1/4 SW 1/4 sec.13, T.11 S., R.5 W., San Diego County, Hydrologic Unit 18070303, on right bank 1.9 mi upstream from bridge on Interstate Highway 5, 2.4 mi upstream from mouth, and 1.9 mi northeast of Oceanside.

DRAINAGE AREA.--557 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1912 to September 1914 (published as "near Oceanside"), January 1916, October 1929 to January 1942, October 1946 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1912 to September 1914, nonrecording gage at site 0.4 mi downstream at different datum. January 1916, nonrecording gage 1.4 mi downstream at different datum. Prior to Oct. 1, 1978, at datum 10.00 ft lower. Prior to Nov. 9, 1981, at site 0.8 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Lake Henshaw, capacity, 194,300 acre-ft since 1923. Several diversions for irrigation and domestic use above station. AVERAGE DISCHARGE represents flow to ocean during period of record regardless of upstream development.

AVERAGE DISCHARGE.--54 years (water years 1913-14, 1930-41, 1947-86), 35.4 ft³/s, 25,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,600 ft³/s, Jan. 27, 1916, from hydrograph based on discharge measurements; no flow for several months in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft³/s, Feb. 15, gage height, 14.99 ft, minimum daily, 1.6 ft³/s, Oct. 2, 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.2	124	37	71	89	102	51	25	14	11	7.8
2	1.6	2.1	96	37	61	87	100	49	25	13	10	7.4
3	1.7	2.1	126	38	50	84	98	48	25	15	10	7.8
4	1.6	2.2	119	37	46	79	96	47	23	13	11	7.8
5	1.6	2.2	93	36	41	77	93	47	23	14	11	7.8
6	1.7	2.4	80	36	42	75	125	46	22	14	11	7.7
7	1.8	2.3	72	37	43	75	128	45	21	13	11	7.7
8	1.9	2.4	67	34	94	84	107	43	21	12	11	8.1
9	2.0	2.6	63	34	133	131	98	43	21	11	12	8.4
10	1.9	2.5	58	35	88	156	98	43	21	11	11	8.2
11	1.8	13	98	36	73	236	98	42	20	12	11	6.8
12	1.7	57	86	36	65	194	97	40	19	12	11	8.7
13	1.7	59	67	36	65	241	95	38	19	12	10	9.1
14	1.9	31	60	37	65	382	92	37	19	12	9.6	9.0
15	1.9	21	58	38	1360	268	88	38	19	11	9.5	8.4
16	1.9	18	56	36	842	869	84	38	18	11	9.5	9.1
17	1.7	16	52	37	323	772	83	38	17	10	9.8	9.2
18	1.8	15	50	37	221	420	81	39	17	9.8	9.8	9.7
19	1.8	14	47	37	182	274	78	38	17	9.7	9.2	9.7
20	1.9	13	47	38	166	221	74	34	16	10	8.4	9.2
21	2.0	13	45	40	146	190	71	33	16	10	8.1	9.6
22	2.4	13	44	40	136	174	68	32	17	10	7.8	11
23	2.2	13	44	40	125	152	65	30	17	11	8.1	12
24	2.0	13	44	48	114	143	62	30	17	10	8.7	34
25	2.0	46	41	43	107	133	60	30	17	11	8.5	48
26	2.1	100	40	39	100	125	59	31	17	12	7.8	42
27	2.1	60	39	38	96	119	59	30	16	12	8.2	36
28	2.2	38	39	39	91	114	57	28	15	12	7.9	29
29	2.1	120	40	39	---	119	54	26	15	12	7.6	26
30	2.3	407	38	56	---	107	51	25	15	12	7.2	24
31	2.3	---	38	72	---	105	---	24	---	11	7.2	---
TOTAL	59.3	1103.0	1971	1223	4946	6295	2521	1163	570	362.5	293.9	439.2
MEAN	1.91	36.8	63.6	39.5	177	203	84.0	37.5	19.0	11.7	9.48	14.6
MAX	2.4	407	126	72	1360	869	128	51	25	15	12	48
MIN	1.6	2.1	38	34	41	75	51	24	15	9.7	7.2	6.8
AC-FT	118	2190	3910	2430	9810	12490	5000	2310	1130	719	583	871

CAL YR 1985 TOTAL 11018.76 MEAN 30.2 MAX 407 MIN .89 AC-FT 21860
WTR YR 1986 TOTAL 20946.90 MEAN 57.4 MAX 1360 MIN 1.6 AC-FT 41550

SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

CHEMICAL DATA: Water years 1978 to current year.

BIOLOGICAL DATA: Water years 1978-81.

SPECIFIC CONDUCTANCE: Water years 1978 to current year.

WATER TEMPERATURE: Water years 1971 to current year.

SUSPENDED-SEDIMENT DISCHARGE: Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

SEDIMENT DATA: October 1968 to September 1978, December 1983 to September 1984.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 5,580 mg/L, Jan. 17, 1978; minimum daily mean, 2 mg/L, several days in 1972 and 1977.

SEDIMENT LOAD: Maximum daily, 59,700 tons, Jan. 17, 1978; minimum daily, 0.01 ton, Nov. 4, 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

						BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)							
NOV 29...	1100	51	1830	7.70	15.0	750	1.5	5.6	57	240	K1400	590
JAN 23...	1200	39	2130	8.10	14.0	765	5.0	9.8	95	230	K67	690
MAR 19...	1030	274	1150	8.00	14.0	765	88	9.5	92	310	730	360
MAY 29...	1030	26	2110	8.10	21.0	755	16	8.8	100	150	390	680
JUL 23...	1130	11	2200	7.90	23.0	760	6.0	8.6	101	K54	370	730
SEP 16...	1130	9.2	2390	8.00	20.0	760	1.2	9.4	104	180	510	660
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 29...	400	130	64	160	37	3	10	229	188	188	330	280
JAN 23...	450	150	76	200	38	3	6.7	289	237	236	400	340
MAR 19...	210	79	40	98	37	2	5.5	181	148	146	230	160
MAY 29...	440	150	73	190	38	3	6.8	290	238	237	390	330
JUL 23...	500	160	80	220	39	4	8.1	273	224	223	420	390
SEP 16...	430	150	70	240	44	4	8.6	283	232	232	420	420
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	
NOV 29...	0.30	23	1180	1100	1.6	0.040	1.30	0.110	0.110	0.80	0.200	
JAN 23...	0.40	24	1400	1400	1.9	0.030	2.60	0.090	0.080	0.50	0.150	
MAR 19...	0.30	29	732	730	1.0	0.030	2.50	0.080	0.080	1.2	0.300	
MAY 29...	0.40	25	1400	1300	1.9	0.030	1.90	0.110	0.110	0.60	0.240	
JUL 23...	0.40	20	1560	1400	2.1	0.040	1.30	0.160	0.160	0.60	0.130	
SEP 16...	0.40	20	1720	1500	2.3	0.020	1.50	0.070	0.060	0.90	0.170	

SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 29...	0.180	0.150	<10	1	68	<0.5	<1	<1	<3	3	18
JAN 23...	0.120	0.100	--	--	--	--	--	--	--	--	--
MAR 19...	0.140	0.120	30	1	56	<0.5	<1	<1	<3	1	34
MAY 29...	0.160	0.120	<10	2	91	<0.5	<1	<1	<1	<1	4
JUL 23...	0.070	0.060	--	--	--	--	--	--	--	--	--
SEP 16...	0.120	0.100	--	--	--	--	--	--	--	--	--

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 29...	2	14	33	<0.1	20	1	1	<1	600	<6	41
JAN 23...	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	<1	13	59	<0.1	10	<1	2	1	380	10	32
MAY 29...	2	16	260	<0.1	<1	2	1	<1	650	12	12
JUL 23...	--	--	--	--	--	--	--	--	--	--	--
SEP 16...	--	--	--	--	--	--	--	--	--	--	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

< Actual value is known to be less than the value shown.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR 19...*	1300	50.0	1170	8.10	18.0	765	9.3	98	261	96	
19...*	1315	100	1170	8.00	18.0	765	9.3	98	262	95	
19...*	1330	150	1170	8.10	18.0	765	9.3	98	256	98	
19...*	1345	200	1160	8.10	18.0	765	9.2	97	237	97	
19...*	1400	250	1160	8.00	18.0	765	9.2	97	218	98	
SEP 16...*	1230	2.00	2390	8.00	21.0	760	9.4	107	28	--	
16...*	1245	4.00	2390	8.00	21.0	760	9.4	107	24	--	
16...*	1300	6.00	2390	8.00	21.0	760	9.4	107	15	--	
16...*	1315	7.50	2390	8.10	22.0	760	10.2	118	8	--	

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 19, 274 ft³/s;
Sept. 16: 9.2 ft³/s.

SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	DIS- CHARGE, SUS- PENDE (T/DAY)	FALL DIAM. % FINER THAN .002 MM	FALL DIAM. % FINER THAN .004 MM	FALL DIAM. % FINER THAN .008 MM
OCT								
03...	0830	1.7	18.5	13	0.06	--	--	--
NOV								
05...	1130	2.2	14.0	30	0.18	--	--	--
12...	1245	58	13.5	23	3.6	--	--	--
26...	1000	116	14.0	17	5.3	--	--	--
29...	1100	51	15.0	4	0.55	--	--	--
30...	1000	356	14.5	552	531	65	81	89
DEC								
12...	1315	125	15.0	20	6.8	--	--	--
JAN								
10...	1330	36	13.0	14	1.4	--	--	--
23...	1200	39	14.0	21	2.2	--	--	--
FEB								
06...	1100	44	16.0	14	1.7	--	--	--
08...	1515	119	12.0	84	27	--	--	--
15...	1300	1900	17.0	3940	20200	52	63	70
16...	1315	717	20.0	816	1580	51	62	73
MAR								
11...	1100	268	16.0	273	198	--	--	--
16...	0820	631	13.5	688	1170	--	--	--
16...	0900	650	13.5	772	1350	--	--	--
18...	1345	382	18.0	321	331	--	--	--
19...	1030	274	14.0	251	186	--	--	--
19...	1335	268	18.0	247	179	--	--	--
APR								
17...	1030	84	18.5	122	28	--	--	--
MAY								
06...	1030	47	17.5	57	7.2	--	--	--
29...	1030	26	21.0	86	6.0	--	--	--
JUL								
02...	1100	14	20.0	27	1.0	--	--	--
23...	1130	11	23.0	50	1.5	--	--	--
AUG								
04...	1000	11	24.0	77	2.3	--	--	--
SEP								
04...	1115	7.8	22.5	34	0.72	--	--	--
16...	1130	9.2	20.0	31	0.77	--	--	--
16...	1305	9.2	21.0	19	0.47	--	--	--

SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED.	SED.	SED.	SED.	SED.	SED.	SED.
	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.
	FALL	FALL	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
	THAN	THAN	THAN	THAN	THAN	THAN	THAN
	.016 MM	.031 MM	.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM
OCT							
03...	--	--	--	--	--	--	--
NOV							
05...	--	--	--	--	--	--	--
12...	--	--	68	--	--	--	--
26...	--	--	89	--	--	--	--
29...	--	--	--	--	--	--	--
30...	92	95	96	99	100	--	--
DEC							
12...	--	--	--	--	--	--	--
JAN							
10...	--	--	--	--	--	--	--
23...	--	--	95	--	--	--	--
FEB							
06...	--	--	--	--	--	--	--
08...	--	--	91	--	--	--	--
15...	81	86	87	91	98	100	--
16...	81	88	91	92	96	99	100
MAR							
11...	--	--	97	--	--	--	--
16...	--	--	95	--	--	--	--
16...	--	--	94	--	--	--	--
18...	--	--	96	--	--	--	--
19...	--	--	94	--	--	--	--
19...	--	--	97	--	--	--	--
APR							
17...	--	--	--	--	--	--	--
MAY							
06...	--	--	--	--	--	--	--
29...	--	--	70	--	--	--	--
JUL							
02...	--	--	--	--	--	--	--
23...	--	--	60	--	--	--	--
AUG							
04...	--	--	--	--	--	--	--
SEP							
04...	--	--	--	--	--	--	--
16...	--	--	38	--	--	--	--
16...	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
					% FINER THAN .062 MM	% FINER THAN .125 MM	% FINER THAN .250 MM
JAN 10...	1300	13.0	5	36	6	14	28
FEB 12...	1100	--	4	61	15	35	69
JUL 08...	1000	26.0	5	13	11	22	55

DATE	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
	THAN	THAN	THAN	THAN	THAN	THAN
	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM
JAN						
10...	58	84	93	96	98	100
FEB						
12...	90	96	100	--	--	--
JUL						

SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF TOTAL SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY)	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .125 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .250 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .500 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN 1.00 MM
NOV 30...	0915	14.0	370	560	95	98	100	--	--
FEB 15...	1300	17.0	1900	22000	80	85	98	100	--
16...	1300	20.0	760	1800	85	86	96	99	100

SANTA MARGARITA RIVER BASIN

11042400 TEMECULA CREEK NEAR AGUANGA, CA

LOCATION.--Lat 33°27'33", long 116°55'22", in SW 1/4 SW 1/4 sec.19, T.8 S., R.1 E., Riverside County, Hydrologic Unit 18070302, on right bank 1.6 mi downstream from Long Canyon, and 3.5 mi northwest of Aguanga.

DRAINAGE AREA.--131 mi².

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,590 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 24 to Mar. 7, Apr. 28 to May 19. Records good except for periods of estimated daily discharge, which are fair. No regulation above station. Pumping for irrigation upstream from station.

AVERAGE DISCHARGE.--29 years, 7.24 ft³/s, 5,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,540 ft³/s, Apr. 3, 1958, gage height, 6.57 ft, from rating curve extended above 1,200 ft³/s; maximum gage height, 12.0 ft, from floodmarks, Feb. 21, 1980; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 11	1115	373	3.45	Mar. 10	2200	105	2.47
Nov. 25	0330	153	2.72	Mar. 16	1615	230	3.02
Nov. 29	2045	281	3.18	July 21	1515	330	3.33
Feb. 15	0730	*1,000	*4.93				

Minimum daily, 1.2 ft³/s, July 3, 20, Aug. 17, 20-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.0	16	4.6	6.4	7.2	9.4	8.4	2.8	1.3	1.6	1.4
2	2.0	1.9	11	4.6	5.2	7.0	9.2	8.4	2.3	1.3	1.6	1.4
3	2.0	1.9	18	4.5	4.8	6.8	9.0	8.4	1.9	1.2	1.5	1.4
4	2.2	2.0	12	4.4	4.8	6.6	8.9	8.3	2.2	1.3	1.4	1.3
5	1.9	2.0	9.5	4.4	4.7	6.5	8.7	8.2	2.5	1.4	1.4	1.3
6	1.9	2.2	7.9	4.4	4.6	6.3	10	8.2	2.5	1.4	1.5	1.3
7	2.6	2.3	6.8	4.2	4.6	6.2	9.9	8.2	2.6	1.3	1.4	1.3
8	2.9	2.0	6.4	4.2	8.3	11	9.8	8.2	2.6	1.3	1.4	1.4
9	3.0	2.1	6.2	4.1	7.1	15	9.7	8.2	2.3	1.3	1.4	1.5
10	3.2	2.2	6.7	4.4	5.9	36	9.5	8.2	2.2	1.3	1.4	1.5
11	2.9	42	7.2	4.2	5.9	45	9.5	8.2	2.2	1.3	1.3	1.5
12	2.3	9.1	6.1	4.1	5.7	31	9.5	8.2	2.1	1.3	1.4	1.5
13	2.3	5.5	5.7	4.2	5.8	31	9.4	8.2	2.0	1.3	1.5	1.6
14	2.1	4.5	5.2	4.3	6.4	36	9.2	8.2	2.0	1.3	1.4	1.6
15	2.1	4.3	5.1	4.4	457	26	9.2	8.2	2.0	1.4	1.4	1.6
16	2.1	4.2	5.1	4.2	89	157	9.0	8.2	2.0	1.4	1.3	1.5
17	2.0	4.2	5.1	4.2	38	89	9.0	8.2	1.9	1.4	1.2	1.6
18	1.7	4.1	5.0	4.2	26	50	9.0	8.2	1.8	1.3	1.3	1.7
19	1.7	4.0	5.0	4.2	21	35	9.0	3.3	1.8	1.3	1.3	1.8
20	1.8	4.0	5.0	4.3	17	27	9.0	3.3	1.8	1.2	1.2	1.8
21	2.1	4.0	4.8	4.2	13	22	8.7	3.5	1.8	28	1.2	1.8
22	2.9	4.0	4.9	4.1	11	19	8.7	3.5	1.8	5.5	1.2	1.9
23	2.9	4.0	4.8	4.0	10	16	8.6	3.6	1.8	3.3	1.2	1.9
24	2.2	4.2	4.8	4.0	9.3	14	8.4	3.6	1.7	2.4	1.2	2.2
25	1.8	49	4.6	4.0	8.7	13	8.4	3.4	1.5	2.2	1.2	2.8
26	1.8	12	4.8	4.0	8.3	12	8.4	3.2	1.4	2.2	1.3	2.1
27	1.8	8.6	4.7	4.1	7.8	11	8.4	3.2	1.3	2.1	1.3	2.0
28	1.9	7.7	4.6	3.9	7.5	11	8.4	2.9	1.3	2.0	1.3	2.0
29	2.0	82	4.6	3.8	---	11	8.4	2.7	1.4	2.0	1.3	2.0
30	2.4	51	4.8	11	---	10	8.4	2.7	1.4	1.9	1.4	1.9
31	2.4	---	4.8	7.6	---	9.6	---	2.7	---	1.9	1.4	---
TOTAL	69.0	333.0	207.2	140.8	803.8	784.2	270.7	189.9	58.9	79.8	41.9	50.6
MEAN	2.23	11.1	6.68	4.54	28.7	25.3	9.02	6.13	1.96	2.57	1.35	1.69
MAX	3.2	82	18	11	457	157	10	8.4	2.8	28	1.6	2.8
MIN	1.7	1.9	4.6	3.8	4.6	6.2	8.4	2.7	1.3	1.2	1.2	1.3
AC-FT	137	661	411	279	1590	1560	537	377	117	158	83	100
CAL YR 1985	TOTAL	1877.6	MEAN	5.14	MAX	82	MIN	1.1	AC-FT	3720		
WTR YR 1986	TOTAL	3029.8	MEAN	8.30	MAX	457	MIN	1.2	AC-FT	6010		

SANTA MARGARITA RIVER BASIN

11043000 MURRIETA CREEK AT TEMECULA, CA

LOCATION.--Lat 33°28'47", long 117°08'35", in Temecula Grant, Riverside County, Hydrologic Unit 18070302, on right bank 0.4 mi upstream from confluence with Temecula Creek, 1.0 mi south of Temecula, and 12 mi downstream from Skinner Reservoir on Tualota Creek.

DRAINAGE AREA.--222 mi².

PERIOD OF RECORD.--October 1924 to current year. Prior to September 1930 monthly discharges only, published in WSP 1315-B.

GAGE.--Water-stage recorder. Concrete control since Aug. 30, 1981. Elevation of gage is 970 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1735 for history of changes prior to Dec. 16, 1938.

REMARKS.--No estimated daily discharges. Records fair. Flow partly regulated since 1974 by Skinner Reservoir. Pumping above station for irrigation of about 2,500 acres. Rancho California Water District can discharge into creek, approximately 0.10 mi upstream, to supplement low flow.

AVERAGE DISCHARGE.--62 years, 11.2 ft³/s, 8,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,800 ft³/s, Feb. 21, 1980, gage height, 13.70 ft on basis of slope-area measurement of peak flow; minimum daily, 0.02 ft³/s at times in 1969, no flow Dec. 11, 1976 (upstream channel work).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1830	264	4.15	Mar. 11	0015	158	3.52
Feb. 15	0800	*534	*5.17	Mar. 16	1115	480	5.00

Minimum daily, 0.12 ft³/s, Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.47	6.7	.74	2.4	.84	.65	.43	.21	2.5	2.3	2.1
2	1.3	.41	3.4	.86	1.5	.80	.63	.47	.20	2.4	2.3	2.1
3	1.2	.37	5.3	.86	1.1	.90	.60	.45	.19	2.4	2.3	2.1
4	1.2	.40	3.1	.66	.98	.97	.57	.50	.22	2.4	2.4	1.9
5	1.1	.42	2.2	.81	.92	.80	.55	.48	.25	2.5	2.4	1.9
6	1.0	.43	1.6	1.0	.89	.74	1.9	.46	.26	2.5	2.4	1.8
7	1.0	.44	1.5	.94	.80	.72	2.9	.38	.25	2.5	2.6	2.1
8	1.0	.45	1.3	1.3	19	3.0	2.1	.35	.27	2.4	2.4	1.9
9	.97	.41	1.4	.84	7.8	11	2.0	.32	.24	2.5	2.4	1.9
10	.94	.41	2.0	.66	.99	52	1.6	.32	.20	2.4	2.3	1.9
11	.79	4.6	2.3	.69	.84	43	.61	.32	.23	2.4	2.2	1.9
12	.92	5.9	2.1	.88	.63	4.4	.54	.32	.23	2.3	2.2	1.9
13	1.0	1.3	1.5	1.0	.61	3.0	.50	.43	.27	2.2	2.2	1.8
14	1.1	.93	1.0	1.0	3.9	6.0	1.7	.47	.26	2.4	2.3	1.8
15	1.1	.89	.87	1.1	227	3.9	2.1	.66	.24	2.4	2.3	1.8
16	.85	.86	.86	.79	30	243	1.0	.69	.74	2.4	2.3	1.8
17	.84	.80	.90	.71	6.6	60	.39	.65	1.6	2.3	2.6	1.7
18	.95	.82	.80	.72	3.8	9.1	.35	1.0	2.2	2.3	2.5	1.8
19	.92	.80	.82	.78	3.1	4.3	.32	.81	2.2	2.4	2.4	1.7
20	.95	.80	.85	.78	2.3	2.5	.32	.51	2.5	2.2	2.4	1.8
21	.94	.80	.92	.75	1.6	1.7	.33	.38	1.9	2.1	2.3	1.7
22	.94	.80	.92	.76	1.3	1.3	.32	.39	2.1	2.1	2.4	1.7
23	.89	.80	.72	1.0	1.1	1.1	.32	.37	2.2	2.2	2.4	1.6
24	.83	.88	.53	.90	1.1	1.0	.32	.33	2.4	2.4	2.2	1.7
25	.80	10	.57	.85	1.0	.95	.32	.33	2.5	2.4	2.2	1.4
26	.77	3.9	.70	.81	.97	.90	.32	.32	2.5	2.3	2.1	.22
27	.74	1.1	.61	.86	.92	.86	.35	.27	2.3	2.3	2.1	.13
28	.71	.88	.60	1.0	.91	.82	.38	.14	2.0	2.3	2.1	.12
29	.68	68	.67	.99	---	.80	.73	.20	2.5	2.3	2.0	.52
30	.66	37	.73	14	---	.77	.47	.21	2.5	2.2	2.1	1.4
31	.59	---	.75	4.2	---	.70	---	.21	---	2.3	2.1	---
TOTAL	29.08	146.07	48.22	43.24	324.06	461.87	25.19	13.17	35.66	72.7	71.2	48.19
MEAN	.94	4.87	1.56	1.39	11.6	14.9	.84	.42	1.19	2.35	2.30	1.61
MAX	1.4	.68	6.7	14	227	243	2.9	1.0	2.5	2.5	2.6	2.1
MIN	.59	.37	.53	.66	.61	.70	.32	.14	.19	2.1	2.0	.12
AC-FT	58	290	96	86	643	916	50	26	71	144	141	96

CAL YR 1985 TOTAL 731.71 MEAN 2.00 MAX 68 MIN .26 AC-FT 1450
 WSP UP 1986 TOTAL 1218.65 MEAN 3.61 MAX 243 MIN .12 AC-FT 2620

SANTA MARGARITA RIVER BASIN

11044000 SANTA MARGARITA RIVER NEAR TEMECULA, CA

LOCATION.--Lat 33°28'26", long 117°08'29", in Temecula Grant, Riverside County, Hydrologic Unit 18070302, on left bank at upper end of Temecula Canyon, 0.1 mi downstream from confluence of Murrieta and Temecula Creeks, 1.4 mi south of Temecula, 10 mi downstream from Vail Dam, and about 12 mi downstream from Skinner Reservoir.

DRAINAGE AREA.--588 mi².

PERIOD OF RECORD.--January 1923 to current year. Prior to October 1952, published as Temecula Creek at Railroad Canyon, near Temecula.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Nov. 3, 1966. Elevation of gage is 950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 3, 1966, at site 100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 30 to Dec. 26, Feb. 1-27. Control buried by sand Nov. 29 to Sept. 30, and was ineffective as the low-water control. Records fair. Flow partly regulated since November 1948 by Vail Dam (station 11042510) on Temecula Creek, and since 1974 by Skinner Reservoir on Tualota Creek which is tributary to Murrieta Creek. Rancho California Water District can discharge into Murrieta Creek, approximately 0.6 mi upstream, to supplement low flow.

AVERAGE DISCHARGE.--25 years (water years 1924-48), unregulated, 28.2 ft³/s, 20,420 acre-ft/yr; 38 years (water years 1949-86), 15.6 ft³/s, 11,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s, Feb. 16, 1927, gage height, 14.6 ft, at site then in use, from rating curve extended above 10,000 ft³/s; minimum daily, 0.30 ft³/s, Aug. 18-22, 1965 (during period of upstream construction).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft³/s, Feb. 15, gage height, 6.22 ft, from rating curve extended above 580 ft³/s; minimum daily, 0.59 ft³/s, Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.1	25	2.8	6.0	2.0	4.0	1.6	1.1	2.8	3.0	2.8
2	1.8	1.0	4.6	2.5	3.5	1.9	4.0	1.7	1.1	2.8	2.9	2.9
3	1.7	.96	7.0	2.6	2.5	1.8	4.0	1.6	1.1	3.0	2.7	2.5
4	1.6	1.0	4.5	3.0	2.1	1.7	4.3	1.6	1.0	3.0	2.7	2.5
5	1.6	.95	3.0	3.6	1.8	1.4	4.1	1.6	1.1	3.0	2.8	2.6
6	1.6	.99	2.3	3.4	1.7	1.1	4.5	1.6	.96	3.0	2.6	2.5
7	1.6	.98	2.1	2.6	1.6	1.2	4.8	1.6	.96	3.2	2.5	2.5
8	1.7	.95	1.9	2.2	42	4.8	4.3	1.5	.96	3.2	2.4	2.5
9	1.6	.97	2.0	1.9	17	20	3.7	1.7	.86	3.5	2.4	2.4
10	1.6	1.0	2.5	1.6	4.0	97	2.9	1.6	.85	3.0	2.4	2.3
11	1.6	61	3.1	1.5	1.7	61	1.8	1.7	.99	2.8	2.5	2.4
12	1.5	21	2.8	1.4	1.5	26	1.4	1.8	.89	3.0	2.2	2.4
13	1.6	4.4	2.4	1.4	1.4	56	1.1	1.9	.88	3.3	2.3	2.3
14	1.6	2.9	2.0	1.4	25	63	2.4	1.7	.86	2.9	2.4	2.4
15	1.8	2.5	1.6	1.4	440	60	2.7	1.8	.80	3.0	2.5	2.5
16	2.2	2.1	1.6	1.4	50	511	2.1	2.1	1.6	2.9	2.8	2.5
17	2.7	2.1	1.6	1.3	14	80	1.2	1.5	3.2	2.9	2.7	2.4
18	3.2	1.9	1.6	1.3	7.0	18	.93	2.6	3.0	2.9	3.7	2.4
19	3.2	1.9	1.6	1.3	5.5	12	.88	1.7	2.9	3.0	2.8	2.3
20	3.2	1.9	1.7	1.2	4.5	8.2	.85	1.0	2.6	3.1	2.5	2.3
21	3.1	2.2	1.8	1.2	3.7	5.2	.80	.96	2.6	3.4	2.5	2.3
22	3.1	2.4	1.8	1.2	3.2	3.4	.80	1.1	2.7	3.6	2.7	2.3
23	3.1	2.5	1.3	1.2	2.9	4.0	.81	1.1	2.8	4.4	2.9	2.3
24	3.1	2.5	1.1	1.2	2.6	4.5	1.9	1.1	2.7	3.5	2.9	2.9
25	3.1	30	1.2	1.1	2.5	3.7	1.8	1.0	2.8	2.7	3.2	11
26	3.1	17	1.4	.99	2.3	3.1	1.5	1.1	2.7	2.6	3.2	.78
27	3.2	11	1.4	.99	2.2	3.0	1.8	.99	2.7	2.7	3.1	.65
28	3.2	8.9	1.4	.99	2.1	3.5	1.7	.92	2.6	2.9	3.1	.59
29	3.2	646	1.4	.99	---	3.8	1.7	.92	2.7	2.9	3.0	.76
30	3.2	150	1.3	33	---	4.0	1.7	1.0	2.6	3.6	2.9	1.4
31	2.6	---	3.2	9.6	---	4.0	---	1.1	---	2.9	2.8	---
TOTAL	73.4	984.10	92.2	92.26	654.3	1070.3	70.47	45.19	54.61	95.5	85.1	74.38
MEAN	2.37	32.8	2.97	2.98	23.4	34.5	2.35	1.46	1.82	3.08	2.75	2.48
MAX	3.2	646	25	33	440	511	4.8	2.6	3.2	4.4	3.7	11
MIN	1.5	.95	1.1	.99	1.4	1.1	.80	.92	.80	2.6	2.2	.59
AC-FT	146	1950	183	183	1300	2120	140	90	108	189	169	148
CAL YR 1985	TOTAL	1878.66	MEAN	5.15	MAX	646	MIN	.55	AC-FT	3730		
WTR YR 1986	TOTAL	3391.81	MEAN	9.29	MAX	646	MIN	.59	AC-FT	6730		

SANTA MARGARITA RIVER BASIN

11046000 SANTA MARGARITA RIVER AT YSIDORA, CA

LOCATION.--Lat 33°18'40", long 117°20'45", in NW 1/4 NW 1/4 sec.18, T.10 S., R.4 W., San Diego County, Hydrologic Unit 18070302, on Camp Joseph H. Pendleton Naval Reservation, on right bank upstream end of Basilone Road Bridge, 7.9 mi upstream from mouth, and 5.2 mi upstream from Ysidora.

DRAINAGE AREA.--740 mi².

PERIOD OF RECORD.--February 1923 to current year. Low-flow records not equivalent prior to Dec. 10, 1980, due to installation of conservation ponds above downstream site.

GAGE.--Water-stage recorder. Elevation of gage is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1735 for history of changes prior to Nov. 27, 1935. Nov. 27, 1935, to Feb. 25, 1970, at site 5.4 mi downstream, at different datum. Feb. 25, 1970, to Dec. 10, 1980, at site 6.2 mi downstream, at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow partly regulated by Vail Lake (station 11042510) since November 1948. Diversions for irrigation on Rancho California (formerly Santa Margarita Ranch and Pauba Ranch).

AVERAGE DISCHARGE.--63 years, 35.0 ft³/s, 25,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,600 ft³/s, Feb. 16, 1927, gage height, 18.00 ft, site and datum then in use, on basis of slope-area measurement of peak flow; maximum gage height, 18.80 ft, Feb. 18, 1980 (possibly affected by tide); no flow for all or part of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft³/s Feb. 15, gage height, 7.63 ft; no flow many months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	63	5.2	9.4	30	63	17	7.4	5.7	.02	0
2		0	46	5.1	7.5	29	52	16	8.6	3.3	.01	0
3		0	52	5.0	9.9	27	52	16	8.9	3.0	0	0
4		0	45	5.2	9.1	28	51	16	9.7	2.6	0	0
5		0	34	5.3	12	27	51	15	9.4	2.3	0	0
6		0	27	5.0	12	25	49	15	9.0	2.0	0	0
7		0	24	4.6	8.9	26	49	13	9.0	1.7	0	0
8		0	22	5.0	11	31	49	14	8.5	1.5	0	0
9		0	22	4.9	32	99	40	13	10	1.3	0	0
10		0	20	4.9	12	214	34	14	11	1.1	0	0
11		0	21	4.7	9.7	508	32	14	15	.95	0	0
12		0	22	4.5	12	230	32	13	15	.80	0	0
13		0	19	4.6	14	239	31	11	14	.65	0	0
14		0	17	4.7	16	282	29	11	12	.55	0	0
15		0	18	4.4	1070	187	28	10	13	.45	0	0
16		0	17	4.2	471	1250	28	12	12	.35	0	0
17		0	15	4.5	233	713	28	13	11	.28	0	0
18		2.3	15	4.6	143	349	30	12	12	.20	0	0
19		28	15	4.4	79	247	25	11	11	.10	0	0
20		32	14	4.5	80	199	25	11	11	0	0	0
21		34	12	4.5	73	151	24	11	10	0	0	0
22		32	11	4.3	62	97	22	11	11	0	0	.86
23		32	11	3.8	57	87	21	9.9	10	0	0	2.9
24		30	10	4.7	49	101	18	9.2	12	.50	0	5.1
25		41	9.9	4.6	44	97	19	8.9	14	.18	0	14
26		49	9.5	4.8	37	103	19	9.1	14	.12	0	52
27		52	9.3	4.6	34	81	18	9.2	13	.08	0	30
28		44	8.5	4.1	31	75	16	8.2	10	.06	0	20
29		291	9.0	6.6	---	56	17	7.4	10	.05	0	14
30		455	7.5	8.6	---	54	16	6.9	9.3	.04	0	11
31		---	5.7	19	---	52	---	6.6	---	.03	0	---
TOTAL	0	1122.3	631.4	164.9	2638.5	5694	968	364.4	330.8	29.89	.03	149.86
MEAN	0	37.4	20.4	5.32	94.2	184	32.3	11.8	11.0	.96	.001	5.00
MAX	0	455	63	19	1070	1250	63	17	15	5.7	.02	52
MIN	0	0	5.7	3.8	7.5	25	16	6.6	7.4	0	0	0
AC-FT	0	2230	1250	327	5230	11290	1920	723	656	59	.06	297
CAL YR 1985	TOTAL	4991.34	MEAN 13.7	MAX 455	MIN 0	AC-FT 9900						
WTR YR 1986	TOTAL	12094.08	MEAN 33.1	MAX 1250	MIN 0	AC-FT 23990						

SAN JUAN CREEK BASIN

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA

LOCATION.--Lat 33°29'31", long 117°39'41", in SE 1/4 NE 1/4 sec.12, T.8 S., R.8 W., Orange County, Hydrologic Unit 18070301, on left bank 300 ft upstream from Camino Capistrano bridge, 0.3 mi upstream from Arroyo Trabuco and 0.6 mi south of San Juan Capistrano.

DRAINAGE AREA.--117 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 67 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 10, 1979, at same site but at datum 10.00 ft higher. Jan. 10, 1979, to Aug. 29, 1979, at site 300 ft downstream, present datum. Temporary site used in 1986 water year 1 mi upstream at La Novia bridge, at different datum.

REMARKS.--Estimated daily discharges: Dec. 1-12. Records fair. No regulation above station. Capistrano Water Co. diverts 3.0 mi upstream. Various amounts of diverted water reach station as irrigation return flow and rising ground water. Data for San Juan Creek near San Juan Capistrano (station 11046500) previously collected at site 2.8 mi upstream was published as creek only and combined.

AVERAGE DISCHARGE.--17 years, 24.7 ft³/s, 17,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s, Mar. 4, 1978, gage height 7.0 ft, from floodmarks; estimated on basis of velocity-area study; maximum gage height, 17.8 ft, Feb. 18, 1980, from floodmarks; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1969, 22,400 ft³/s, at site and datum then in use, 2.8 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0430	668	12.28	Mar. 16	2200	373	11.70
Mar. 10	1445	392	11.70	Apr. 6	0630	*680	*12.30

Minimum daily at upper site, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.24	14	3.3	23	.77	2.5	.66				
2	.14	.24	9.0	3.0	8.3	.90	2.0	.55				
3	.14	.24	12	3.3	7.0	.77	1.6	.77				
4	.24	.24	9.0	3.7	6.6	.65	1.6	2.1				
5	.24	.24	7.6	6.2	4.7	.53	3.3	2.5				
6	.14	.38	6.4	3.0	4.0	.43	144	1.9				
7	.55	.24	5.6	2.8	7.2	.43	29	1.6				
8	.18	.30	4.9	3.3	8.4	15	15	1.4				
9	.14	.30	4.2	4.0	3.0	8.3	9.8	1.0				
10	.14	.30	3.5	3.0	1.8	73	8.8	.64				
11	.14	4.3	3.0	2.8	1.6	102	10	1.7				
12	.14	1.3	2.5	3.3	1.4	64	9.3	.88				
13	.18	.58	1.6	2.5	21	42	10	.45				
14	.14	.24	1.1	2.8	32	50	9.5	.58				
15	.14	.24	.90	2.8	359	53	10	.51				
16	.14	.24	.77	3.0	190	228	8.5	.59				
17	.14	.24	.65	3.0	58	235	6.7	.08				
18	.14	.24	.77	3.3	21	117	5.0	.22				
19	.18	.18	.65	3.0	14	70	4.0	.23				
20	.18	.24	.43	2.3	7.9	43	2.5	0				
21	.24	.24	.35	2.5	6.6	27	1.1	0				
22	.24	.24	.43	1.8	5.8	19	.73	0				
23	.24	.24	.65	1.6	4.3	13	.52	0				
24	.24	.50	.77	1.8	3.0	9.8	.79	0				
25	.24	2.1	1.2	1.6	2.5	7.9	1.0	0				
26	.24	.38	1.2	2.0	1.6	5.8	1.2	0				
27	.24	.30	2.0	1.6	1.2	4.7	1.2	0				
28	.24	.30	1.6	1.6	.90	3.7	.55	0				
29	.24	78	2.2	2.0	---	3.0	.79	0				
30	.24	25	2.0	8.3	---	3.0	.64	0				
31	.38	---	2.8	25	---	3.7	---	0	---			---
TOTAL	6.35	117.82	103.77	114.2	805.80	1205.38	301.62	18.36	0	0	0	0
MEAN	.20	3.92	3.34	3.68	28.7	38.8	10.0	.59	0	0	0	0
MAX	.55	78	14	25	359	235	144	2.5	0	0	0	0
MIN	.14	.18	.35	1.6	.90	.43	.52	0	0	0	0	0
AC-FT	13	234	206	227	1600	2390	598	36				

CAL YR 1985 TOTAL 1215.66 MEAN 3.33 MAX 187 MIN .02 AC-FT 2410

SAN JUAN CREEK BASIN

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

WATER TEMPERATURE: Water years 1971 to current year.

SEDIMENT DATA: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1970 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 22,000 mg/L, Feb. 18, 1980; minimum daily mean, no flow for many days in 1970-72.

SEDIMENT LOAD: Maximum daily, 331,000 tons, Mar. 4, 1978; minimum daily, 0 ton many days during most years.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 2,050 mg/L, Feb. 15; minimum daily mean, no flow for many days.

SEDIMENT LOAD: Maximum daily, 1,990 tons, Feb. 15; minimum daily, 0 ton many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	19.0	---	---	---	---	---	22.5	---	---	---	---
2	21.5	19.0	---	---	---	---	22.0	22.0	---	---	---	---
3	22.0	18.5	---	---	17.0	18.5	21.0	22.5	---	---	---	22.5
4	21.0	19.0	---	---	15.5	18.5	21.5	22.0	---	---	---	---
5	23.5	18.5	---	---	15.0	18.5	---	22.0	---	---	---	---
6	21.5	18.0	---	---	14.5	16.5	18.5	22.0	---	---	---	---
7	22.5	19.0	---	---	13.5	17.0	18.0	22.5	---	---	---	---
8	21.5	19.0	---	---	13.0	16.5	21.0	22.5	---	---	---	---
9	22.0	---	---	---	---	---	---	24.5	---	---	---	---
10	21.0	---	---	14.0	13.0	15.0	---	---	---	---	---	---
11	22.5	13.5	---	12.5	13.0	19.5	19.0	---	---	---	---	---
12	22.0	14.5	11.5	---	14.0	16.5	---	24.5	---	---	---	---
13	21.5	14.5	10.5	12.5	13.0	15.5	---	23.5	---	---	---	---
14	22.0	15.0	12.5	14.5	---	17.0	---	23.0	---	---	---	---
15	22.0	16.5	13.0	15.0	15.0	---	---	23.0	---	---	---	---
16	22.0	16.0	13.5	---	---	15.0	20.0	21.0	---	---	---	---
17	21.5	15.5	12.5	15.0	---	15.0	20.5	23.5	---	---	---	---
18	22.0	16.0	13.0	---	---	17.5	24.5	24.5	---	---	---	---
19	21.5	16.0	13.0	---	15.5	17.5	20.0	24.0	---	---	---	---
20	20.5	15.5	13.0	---	18.0	18.5	20.5	23.5	---	---	---	---
21	21.0	16.5	13.0	---	---	21.5	25.5	21.0	---	---	---	---
22	20.5	17.0	12.5	---	18.5	---	24.0	---	---	---	---	---
23	21.5	15.5	12.5	---	---	21.5	25.0	---	---	---	---	---
24	20.5	---	12.5	---	20.0	22.0	24.5	---	---	---	---	20.5
25	19.5	15.0	12.5	12.0	20.0	22.0	23.0	---	---	---	---	20.0
26	20.5	17.0	13.0	---	19.0	20.5	25.5	---	---	---	---	---
27	20.5	17.5	---	14.5	19.5	19.0	24.0	---	---	---	---	---
28	19.5	---	---	---	17.5	18.0	23.5	---	---	---	---	---
29	19.5	14.5	---	---	---	20.0	22.5	---	---	---	---	---
30	19.5	14.5	---	15.5	---	21.5	20.5	---	---	---	---	---
31	19.5	---	---	16.5	---	21.0	---	---	---	---	---	---

SAN JUAN CREEK BASIN

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA-Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	.14	74	.03	.24	60	.04	14	55	2.1
2	.14	80	.03	.24	100	.06	9.0	30	.73
3	.14	85	.03	.24	100	.06	12	25	.81
4	.24	70	.05	.24	83	.05	9.0	15	.36
5	.24	60	.04	.24	75	.05	7.6	15	.31
6	.14	90	.03	.38	90	.09	6.4	10	.17
7	.55	100	.15	.24	85	.06	5.6	10	.15
8	.18	70	.03	.30	90	.07	4.9	10	.13
9	.14	80	.03	.30	80	.06	4.2	5	.06
10	.14	80	.03	.30	50	.04	3.5	5	.05
11	.14	100	.04	4.3	39	.45	3.0	5	.04
12	.14	90	.03	1.3	16	.06	2.5	5	.03
13	.18	90	.04	.58	20	.03	1.6	5	.02
14	.14	75	.03	.24	50	.03	1.1	6	.02
15	.14	75	.03	.24	40	.03	.90	8	.02
16	.14	80	.03	.24	50	.03	.77	8	.02
17	.14	70	.03	.24	30	.02	.65	7	.01
18	.14	70	.03	.24	55	.04	.77	10	.02
19	.18	60	.03	.18	51	.02	.65	8	.01
20	.18	70	.03	.24	49	.03	.43	10	.01
21	.24	70	.05	.24	45	.03	.35	9	.01
22	.24	50	.03	.24	42	.03	.43	8	.01
23	.24	60	.04	.24	45	.03	.65	8	.01
24	.24	70	.05	.50	43	.06	.77	3	.01
25	.24	40	.03	2.1	18	.10	1.2	3	.01
26	.24	55	.04	.38	23	.02	1.2	2	.01
27	.24	30	.02	.30	16	.01	2.0	3	.02
28	.24	40	.03	.30	15	.01	1.6	3	.01
29	.24	55	.04	.78	171	.36	2.2	3	.02
30	.24	50	.03	.25	174	.12	2.0	3	.02
31	.38	55	.06	---	---	---	2.8	5	.04
TOTAL	6.35	---	1.19	117.82	---	49.61	103.77	---	5.24
JANUARY			FEBRUARY			MARCH			
1	3.3	5	.04	23	22	1.4	.77	7	.01
2	3.0	5	.04	8.3	10	.22	.90	7	.02
3	3.3	5	.04	7.0	6	.11	.77	8	.02
4	3.7	5	.05	6.6	5	.09	.65	12	.02
5	6.2	10	.17	4.7	7	.09	.53	10	.01
6	3.0	7	.06	4.0	7	.08	.43	7	.01
7	2.8	6	.05	7.2	21	.41	.43	8	.01
8	3.3	5	.04	8.4	26	.59	15	102	4.1
9	4.0	5	.05	3.0	5	.04	8.3	95	2.1
10	3.0	3	.02	1.8	6	.03	73	282	56
11	2.8	2	.02	1.6	10	.04	102	209	58
12	3.3	5	.04	1.4	18	.07	64	188	32
13	2.5	3	.02	21	73	4.1	42	102	12
14	2.8	3	.02	32	198	17	50	112	15
15	2.8	6	.05	359	2050	1990	53	170	24
16	3.0	5	.04	190	150	77	228	608	374
17	3.0	4	.03	58	50	7.8	235	258	164
18	3.3	5	.04	21	25	1.4	117	133	42
19	3.0	5	.04	14	46	1.7	70	105	20
20	2.3	10	.06	7.9	21	.45	43	98	11
21	2.5	10	.07	6.6	18	.32	27	65	4.7
22	1.8	9	.04	5.8	14	.22	19	32	1.6
23	1.6	8	.03	4.3	12	.14	13	25	.88
24	1.8	7	.03	3.0	10	.08	9.8	22	.58
25	1.6	7	.03	2.5	10	.07	7.9	18	.38
26	2.0	7	.04	1.6	9	.04	5.8	16	.25
27	1.6	9	.04	1.2	9	.03	4.7	12	.15
28	1.6	8	.03	.90	7	.02	3.7	10	.10
29	2.0	7	.04	---	---	---	3.0	9	.07
30	8.3	16	.36	---	---	---	3.0	10	.08
31	25	49	3.3	---	---	---	3.7	10	.10
TOTAL	114.2	---	4.93	805.80	---	2103.54	1205.38	---	302.10

SAN JUAN CREEK BASIN

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL				MAY			JUNE		
1	2.5	9	.06	.66	4	.01			
2	2.0	8	.04	.55	5	.01			
3	1.6	9	.04	.77	3	.01			
4	1.6	8	.03	2.1	2	.01			
5	3.3	6	.05	2.5	3	.02			
6	144	1100	429	1.9	3	.02			
7	29	210	16	1.6	3	.01			
8	15	100	4.1	1.4	3	.01			
9	9.8	82	2.2	1.0	3	.01			
10	8.8	65	1.5	.64	4	.01			
11	10	38	1.0	1.7	5	.02			
12	9.3	20	.50	.88	6	.01			
13	10	15	.41	.45	3	.00			
14	9.5	10	.26	.58	4	.01			
15	10	20	.54	.51	5	.01			
16	8.5	3	.07	.59	4	.01			
17	6.7	5	.09	.08	2	.00			
18	5.0	7	.09	.22	1	.00			
19	4.0	3	.03	.23	2	.00			
20	2.5	4	.03	.00	3	.00			
21	1.1	4	.01	.00	4	.00			
22	.73	4	.01	.00	5	.00			
23	.52	5	.01	.00	5	.00			
24	.79	3	.01	.00	4	.00			
25	1.0	2	.01	.00	3	.00			
26	1.2	0	.00	.00	4	.00			
27	1.2	2	.01	.00	4	.00			
28	.55	3	.00	.00	0	.00			
29	.79	4	.01	.00	0	.00			
30	.64	4	.01	.00	0	.00			
31	---	---	---	.00	0	.00			
TOTAL	301.62	---	456.12	18.36	---	0.18	0.00	---	0.00

DAY	JULY	AUGUST	SEPTEMBER
-----	------	--------	-----------

1
2
3
4
5
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7
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9
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12
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14
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17
18
19
20

21
22
23
24
25
26
27
28
29
30
31

0.00

0.00

0.00

0.00

0.00

SAN JUAN CREEK BASIN

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
29...	1310	135	14.5	235	86	--	--	--
29...	1425	115	15.0	262	81	--	--	--
30...	1220	16	14.5	164	7.1	--	--	--
FEB								
15...	1350	135	15.0	2160	787	--	--	--
15...	1500	301	15.0	1630	1320	61	74	84
MAR								
08...	1400	6.2	16.5	139	2.3	--	--	--
08...	1615	79	16.0	278	59	--	--	--
10...	1045	21	15.0	199	11	--	--	--
10...	1300	17	16.0	119	5.5	--	--	--
11...	1316	114	19.5	131	40	--	--	--
11...	1500	106	19.5	120	34	--	--	--
11...	1745	94	18.0	192	49	--	--	--
17...	1110	212	15.0	247	141	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV							
29...	--	--	98	--	--	--	--
29...	--	--	99	--	--	--	--
30...	--	--	99	--	--	--	--
FEB							
15...	--	--	99	--	--	--	--
15...	91	91	92	93	96	99	100
MAR							
08...	--	--	97	--	--	--	--
08...	--	--	98	--	--	--	--
10...	--	--	99	--	--	--	--
10...	--	--	97	--	--	--	--
11...	--	--	93	--	--	--	--
11...	--	--	94	--	--	--	--
11...	--	--	97	--	--	--	--
17...	--	--	94	--	--	--	--

SAN JUAN CREEK BASIN

11047300 ARROYO TRABUCO AT SAN JUAN CAPISTRANO, CA

LOCATION.--Lat 33°29'54", long 117°39'54", on line between sec. 1 and 12, T.8 S., R.8 W., Orange County, Hydrologic Unit 18070301, on left bank 30 ft downstream from bridge on Del Obispo Street in San Juan Capistrano.

DRAINAGE AREA.--54.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to September 1977, October 1983 to current year. Records prior to October 1963, in files of Orange County Environmental Management Agency.

GAGE.--Water-stage recorder. Elevation of gage is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 24 to Mar. 8, Apr. 9-15, May 12-22. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--8 years (water years 1973-77, 1984-86), 7.25 ft³/s, 5,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,020 ft³/s, Feb. 15, 1986, gage height, 15.35 ft, from rating curve extended above 220 ft³/s; no flow many days during most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*), from rating curve extended above 220 ft³/s:

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Nov. 11	1215	453	13.34	Mar. 16	1115	1,650	14.94
Nov. 29	1200	1,370	14.62	Apr. 6	0500	1,160	14.31
Feb. 15	0345	*2,020	*15.35	Sept. 25	0145	500	13.42
Mar. 10	1515	1,530	14.78				

No flow March 4-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.3	10	1.7	6.8	.05	19	2.2	.99	2.3	.71	.74
2	.87	1.2	25	3.3	3.3	.05	19	2.1	1.3	2.2	.74	.56
3	.59	1.1	10	3.0	3.0	.04	16	1.6	1.7	1.5	.74	.54
4	.47	1.7	5.5	4.0	2.7	0	16	2.0	1.6	1.2	1.3	.84
5	.48	1.8	4.5	14	2.6	0	22	2.0	1.6	1.1	1.4	.51
6	.86	2.0	4.4	5.2	2.6	0	300	1.8	1.7	.92	2.0	3.8
7	8.4	1.8	3.8	3.2	4.5	0	31	2.1	1.3	1.1	2.1	2.2
8	3.9	1.8	2.2	3.4	19	54	21	2.1	1.3	1.5	3.0	3.5
9	3.3	2.6	2.0	1.9	3.0	23	17	2.0	1.8	1.3	3.2	3.1
10	2.8	2.4	1.5	1.5	2.6	211	15	1.8	1.8	1.4	2.1	3.1
11	3.8	173	3.3	1.5	2.3	76	13	1.3	1.5	1.6	2.7	2.9
12	2.4	39	2.2	1.9	2.0	89	12	1.8	1.5	1.7	3.7	3.4
13	2.2	6.9	2.0	1.6	67	65	10	2.0	1.2	1.6	3.1	2.3
14	1.9	5.6	1.8	3.3	111	62	8.9	2.6	1.	1.7	3.2	1.9
15	1.9	5.1	2.0	4.2	556	115	7.7	3.0	.99	9.4	2.9	3.0
16	1.0	5.1	2.0	3.1	95	478	7.0	2.6	.90	4.1	2.4	4.1
17	.90	5.1	1.8	1.5	34	125	5.3	3.0	1.5	2.9	1.6	6.6
18	.90	5.1	1.8	1.5	16	82	5.1	3.0	1.9	3.0	1.5	3.6
19	.90	5.0	2.2	1.7	34	64	4.4	3.0	2.3	2.2	1.6	2.6
20	.90	3.7	2.0	1.9	21	52	3.9	2.4	2.2	.96	1.4	.83
21	1.1	3.0	1.7	1.8	11	42	3.6	1.8	2.2	1.4	1.5	.22
22	20	3.5	1.5	1.8	5.0	36	3.3	1.1	2.4	1.8	1.5	.16
23	4.6	3.1	1.4	1.8	2.6	29	3.5	1.2	2.6	1.9	1.8	3.1
24	2.1	11	1.3	1.9	1.3	28	3.0	.87	2.2	1.9	1.6	45
25	2.0	60	1.3	2.0	1.0	25	3.0	.76	1.9	1.7	1.1	105
26	1.7	5.1	1.3	2.3	.47	23	3.3	1.0	1.9	1.8	1.4	9.1
27	.96	3.8	1.4	2.5	.15	24	3.1	1.2	1.6	1.5	1.2	7.1
28	.74	4.5	1.3	1.7	.07	25	2.7	1.2	1.5	1.4	.90	6.4
29	1.1	379	2.7	3.2	---	26	2.5	1.5	1.7	1.3	.49	6.7
30	1.3	36	3.0	36	---	25	2.2	1.4	1.5	1.1	.42	6.9
31	1.3	---	1.7	49	---	22	---	1.2	---	1.1	.43	---
TOTAL	76.67	750.3	108.6	167.4	1009.9	1800.14	583.5	57.63	49.58	60.88	53.73	239.80
MEAN	2.47	25.0	3.50	5.40	36.1	58.1	19.5	1.86	1.65	1.96	1.73	7.99
MAX	20	379	25	49	556	478	300	3.0	2.6	9.4	3.7	105
MIN	.47	1.1	1.3	1.5	.07	0	2.2	.76	.90	.92	.42	.16
AC-FT	152	1490	215	332	2000	3570	1160	114	98	121	107	476

SAN JUAN CREEK BASIN

11047300 ARROYO TRABUCCO AT SAN JUAN CAPISTRANO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-78, December 1983 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1970 to September 1977, December 1983 to September 1984.

SEDIMENT DATA: October 1970 to September 1977, December 1983 to September 1984.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 8,900 mg/L, Feb. 11, 1973; minimum daily mean, no flow for many days most years.

SEDIMENT LOAD: Maximum daily, 7,820 tons, Feb. 11, 1973; minimum daily, 0 ton many days most years.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
11...	1645	93	13.5	2930	736	--	--	--
12...	1245	38	12.0	1360	140	--	--	--
25...	1500	15	16.0	661	27	--	--	--
29...	1230	1180	14.5	12800	40800	--	--	--
29...	1500	865	15.0	11200	26200	--	--	--
30...	1045	31	15.0	526	44	--	--	--
JAN								
30...	1330	37	--	1930	193	--	--	--
30...	1500	26	--	1050	74	--	--	--
30...	1700	21	--	449	25	--	--	--
31...	1045	13	--	149	5.2	--	--	--
31...	1630	74	--	6090	1220	--	--	--
31...	1745	349	--	19700	18600	--	--	--
FEB								
08...	1215	17	--	231	11	--	--	--
13...	1000	296	--	7110	5680	--	--	--
13...	1050	250	13.0	6400	4320	26	27	30
13...	1200	123	--	5270	1750	--	--	--
13...	1410	52	13.5	2140	300	--	--	--
15...	1230	368	14.5	3760	3740	29	36	41
15...	1520	302	15.5	3010	2450	--	--	--
19...	1045	17	--	528	24	--	--	--
19...	1120	17	16.0	939	43	--	--	--
19...	1700	19	--	962	49	--	--	--
MAR								
08...	1415	46	16.5	1640	204	--	--	--
08...	1600	202	--	14300	7800	--	--	--
08...	1700	143	--	7710	2980	--	--	--
10...	1030	65	14.0	1950	342	--	--	--
10...	1230	40	15.0	793	86	--	--	--
11...	1535	65	16.0	466	82	--	--	--
11...	1730	37	15.5	496	50	--	--	--
12...	1330	78	16.0	3150	663	--	--	--
12...	1715	54	15.5	1740	254	--	--	--
13...	1230	23	14.5	371	23	--	--	--
16...	1445	725	--	8620	16900	--	--	--
16...	1600	506	--	6350	8680	--	--	--
17...	1050	116	13.0	871	273	--	--	--
17...	1145	86	--	1120	260	--	--	--
17...	1800	76	--	557	114	--	--	--
18...	1545	55	--	436	65	--	--	--
19...	1730	43	--	228	26	--	--	--

SAN JUAN CREEK BASIN

11047300 ARROYO TRABUCCO AT SAN JUAN CAPISTRANO, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
NOV								
11...	--	--	96	--	--	--	--	--
12...	--	--	96	--	--	--	--	--
25...	--	--	74	--	--	--	--	--
29...	--	--	76	--	--	--	--	--
29...	--	--	78	--	--	--	--	--
30...	--	--	81	--	--	--	--	--
JAN								
30...	--	--	92	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
31...	--	--	96	--	--	--	--	--
31...	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--
FEB								
08...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	35	45	57	77	91	99	100	--
13...	--	--	84	--	--	--	--	--
13...	--	--	89	--	--	--	--	--
15...	49	53	60	68	80	94	99	100
15...	--	--	60	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
19...	--	--	53	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
MAR								
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
11...	--	--	73	--	--	--	--	--
11...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--
17...	--	--	56	--	--	--	--	--
17...	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
APR					
06...	1150	241	16.5	2920	1900
06...	1730	57	17.0	940	145
06...	1830	50	17.0	767	104
07...	1100	30	19.0	254	21
08...	1730	22	19.5	107	6.4
SEP					
24...	1000	7.7	20.5	205	4.3
24...	1330	1.2	20.5	158	0.51
25...	0930	22	20.0	3060	182
25...	1050	32	19.5	2090	181
25...	1330	8.9	20.0	1200	29
25...	1615	7.7	20.5	813	17

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
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ALISO CREEK BASIN

11047700 ALISO CREEK AT SOUTH LAGUNA, CA

LOCATION.--Lat 33°30'43", long 117°44'49", in NE1/4 NE1/4 sec.6, T.8 S., R.8 W., Orange County, Hydrologic Unit 18070301, on right bank, 0.35 mi upstream from Pacific Coast Highway.

DRAINAGE AREA.--34.4 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Sept. 26-30. Records poor. Most runoff is storm produced. Low flows affected by sewage treatment plant outfalls 1.0 and 5.0 mi upstream. About half of the drainage area is residential and commercial development.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft³/s, Mar. 1, 1983, gage height, 11.30 ft; minimum daily, 1.5 ft³/s, Nov. 4, 5, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 11	845	883	5.90	Mar. 10	1445	2,500	8.09
Nov. 25	400	541	5.39	Mar. 16	1100	2,310	7.83
Nov. 29	1130	2,510	8.10	Apr. 6	500	2,010	7.40
Jan. 31	1730	839	5.84	Sept. 25	145	1,670	6.95
Feb. 15	345	*2,880	*8.58				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	3.7	34	5.1	8.6	8.7	9.5	5.8	4.3	6.9	5.8	6.9
2	3.6	3.9	50	5.1	3.9	8.8	11	5.8	5.1	6.9	6.1	6.9
3	3.4	3.9	28	5.8	5.1	9.0	11	5.9	5.4	7.3	4.5	7.7
4	3.7	4.2	21	6.5	5.4	9.0	13	5.1	5.1	6.9	4.9	8.1
5	3.5	3.9	20	23	5.4	9.0	13	5.3	5.4	6.9	5.3	9.0
6	3.4	3.9	15	7.8	5.4	9.0	374	5.1	5.1	7.3	4.7	9.0
7	6.1	4.5	12	5.1	7.3	9.0	17	5.3	5.1	7.7	5.1	8.1
8	4.6	4.2	12	3.8	38	109	9.0	4.8	4.9	9.0	4.8	7.7
9	3.7	5.1	11	3.3	9.0	9.0	9.0	5.4	5.1	9.0	4.5	8.1
10	3.7	3.4	9.1	2.8	8.1	263	8.6	5.8	4.6	10	4.5	8.6
11	3.3	277	8.2	3.2	9.5	25	7.3	5.1	4.8	10	4.5	9.0
12	3.2	39	6.6	3.2	9.5	39	6.5	4.9	5.1	11	4.8	8.6
13	3.0	10	7.0	3.2	132	26	6.1	5.4	5.1	10	5.1	8.6
14	3.0	7.3	6.7	3.2	158	14	6.9	4.9	5.1	10	5.8	8.1
15	2.8	5.8	5.6	3.2	790	126	6.5	5.1	5.1	38	5.8	8.6
16	2.1	6.5	5.3	2.6	68	400	7.3	5.0	5.1	11	5.1	9.0
17	3.0	6.9	5.0	2.8	24	34	7.3	5.1	5.1	9.9	4.8	9.5
18	3.2	6.5	4.7	3.4	15	13	6.5	4.8	5.1	9.0	5.1	9.5
19	3.2	6.1	5.1	3.2	9.0	8.6	6.7	4.2	5.1	9.0	5.4	10
20	3.4	6.1	5.4	3.4	8.8	8.6	6.9	4.8	5.4	7.3	4.8	10
21	3.7	6.9	5.4	3.0	8.6	9.5	5.8	4.9	5.8	8.2	5.1	9.5
22	70	6.5	5.8	2.8	8.5	9.5	5.8	5.1	5.4	8.3	5.4	11
23	4.5	7.3	6.5	3.2	8.3	9.0	5.8	5.3	6.5	8.4	6.5	11
24	3.9	9.0	5.8	3.2	8.1	9.5	6.2	4.8	7.3	8.0	6.1	225
25	4.2	154	4.8	3.2	8.0	9.5	6.5	4.1	6.1	7.3	6.1	428
26	3.9	15	4.5	3.4	8.2	9.0	5.9	4.8	6.1	5.8	6.1	30
27	3.9	9.5	4.8	3.4	8.4	8.6	5.8	5.1	6.9	5.5	5.8	15
28	3.7	9.0	4.8	3.4	8.6	11	5.7	6.1	5.8	5.9	6.1	12
29	3.9	791	5.1	3.7	---	12	5.8	5.8	6.1	6.3	6.1	11
30	3.9	57	5.1	52	---	11	5.8	5.9	6.1	5.7	5.8	10
31	3.4	---	4.8	120	---	11	---	5.4	---	5.7	5.8	---
TOTAL	179.1	1477.1	329.1	301.0	1386.7	1247.3	602.2	160.9	163.2	278.2	166.3	933.5
MEAN	5.78	49.2	10.6	9.71	49.5	40.2	20.1	5.19	5.44	8.97	5.36	31.1
MAX	70	791	50	120	790	400	374	6.1	7.3	38	6.5	428
MIN	2.1	3.4	4.5	2.6	3.9	8.6	5.7	4.1	4.3	5.5	4.5	6.9
AC-FT	355	2930	653	597	2750	2470	1190	319	324	552	330	1850

CAL YR 1985 TOTAL 3608.7 MEAN 9.89 MAX 791 MIN 2.1 AC-FT 7160
WTR YR 1986 TOTAL 7224.6 MEAN 19.8 MAX 791 MIN 2.1 AC-FT 14330

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA

LOCATION.--Lat 33°39'20", long 117°50'41", in NE 1/4 SE 1/4 sec.58, T.6 S., R.9 W., in San Joaquin Grant, Orange County, Hydrologic Unit 18070204, on right bank downstream abutment of Campus Drive bridge, 450 ft northwest of University Drive, and 1 mi east of MacArthur Boulevard.

DRAINAGE AREA.--105 mi².

PERIOD OF RECORD.--October 1977 to September 1978 (provided by Orange County Environmental Management Agency), October 1982 to September 1985 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map. Channel reconstruction in 1982 causes the gage-height record for the two periods to be incomparable. Riprap drop structure 90 ft downstream and concrete low-flow channel since October 1982.

REMARKS.--No estimated daily discharges. Records good. Sewage inflow and reservoir release (Sand Canyon Reservoir) cause low-flow fluctuations in discharge. Records unavailable for inclusion in 1985 water year publication are published herein.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s, Mar. 1, 1983, gage height, 16.42 ft; minimum daily, 10 ft³/s, Dec. 31, 1977.

EXTREMES FOR 1985 WATER YEAR (NOT PREVIOUSLY PUBLISHED).--Maximum discharge, 3,040 ft³/s, Nov. 24, 1984, gage height, 11.91 ft; minimum daily, 14 ft³/s, Dec. 6, 1984.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES (NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	21	15	36	27	34	28	29	23	25	25	25
2	26	23	15	34	229	46	33	30	22	29	24	23
3	26	22	31	30	32	39	36	28	22	27	26	24
4	28	22	18	27	41	31	35	30	23	26	24	46
5	26	22	15	32	43	34	32	32	23	29	22	73
6	27	22	14	32	35	37	32	31	24	28	22	27
7	29	32	15	44	29	42	30	30	26	26	22	12
8	28	36	254	95	33	46	38	29	29	24	24	13
9	26	20	25	42	771	43	41	33	28	24	25	13
10	25	19	22	42	46	42	47	23	28	25	25	13
11	27	19	23	40	39	32	43	25	29	25	25	16
12	26	19	19	42	35	27	37	25	28	27	27	15
13	27	161	18	45	30	29	36	26	27	24	27	15
14	28	22	18	46	33	30	35	27	26	25	27	16
15	24	18	21	44	34	37	33	28	26	25	29	17
16	24	19	137	39	35	42	29	26	28	26	29	20
17	44	17	26	37	36	41	26	27	28	26	29	22
18	24	17	371	37	38	89	34	27	27	25	30	25
19	23	16	781	39	40	32	30	26	28	25	28	27
20	25	16	131	39	36	28	31	22	29	24	28	26
21	26	22	42	39	49	30	30	21	28	25	26	29
22	25	16	40	40	52	30	31	23	28	25	25	29
23	24	16	38	37	42	31	32	23	28	26	24	29
24	26	459	37	39	35	32	36	25	26	26	23	30
25	27	100	35	39	39	34	39	25	26	26	22	31
26	26	18	190	39	49	35	38	23	26	27	22	28
27	28	17	883	39	55	114	33	22	26	28	25	24
28	26	17	136	135	52	49	33	22	25	29	25	23
29	24	15	45	58	---	30	33	22	25	29	24	21
30	23	15	41	34	---	26	30	23	25	26	25	19
31	22	---	38	31	---	26	---	23	---	25	27	---
TOTAL	817	1258	3494	1352	2015	1218	1021	806	787	807	786	731
MEAN	26.4	41.9	113	43.6	72.0	39.3	34.0	26.0	26.2	26.0	25.4	24.4
MAX	44	459	883	135	771	114	47	33	29	29	30	73
MIN	22	15	14	27	27	26	26	21	22	24	22	12
AC-FT	1620	2500	6930	2680	4000	2420	2030	1600	1560	1600	1560	1450
CAL YR 1984	TOTAL	13224	MEAN 36.1	MAX 883	MIN 14	AC-FT 26230						
WTR YR 1985	TOTAL	15092	MEAN 41.3	MAX 883	MIN 12	AC-FT 29930						

FIGURE 17. — Schematic diagram showing diversions and storage in Santa Ana River basin.

SANTA ANA RIVER BASIN

11049000 BIG BEAR LAKE NEAR BIG BEAR LAKE, CA

LOCATION.--Lat 34°14'33", long 116°58'33", in SW 1/4 sec.22, T.2 N., R.1 W., San Bernardino County, Hydrologic Unit 18070203, at Big Bear Lake Dam on Bear Creek, 4 mi west of town of Big Bear Lake, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--38.9 mi², excludes Baldwin Lake drainage included in previous reports.

PERIOD OF RECORD.--October 1950 to current year in reports of U.S. Geological Survey. February 1884 to September 1950 in files of Bear Valley Mutual Water Co.

REVISED RECORDS.--WDR CA-83-1: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 6,670.9 ft above National Geodetic Vertical Datum of 1929 (levels by Bear Valley Mutual Water Company). Prior to 1912 at old dam 200 ft upstream at same datum; spillway at gage height 52.4 ft.

REMARKS.--Lake is formed by multiple-arch concrete dam, completed in 1912, replacing existing lower dam built in 1884; storage began in spring of 1884. Capacity (based on July 1977 resurvey, new capacity table put into use August 1977), 73,320 acre-ft at elevation 6,743.3 ft, top of dam. No dead storage. Water used for irrigation only. See schematic diagram of Santa Ana River basin.

COOPERATION.--Record of contents was provided by Big Bear Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents unknown, lake spilled in 1916, 1917, 1922, 1923, 1938, 1939, 1969, 1970, 1980, 1983; lake dry October, November 1898, August to November 1899, October, November 1904.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 66,400 acre-ft, Apr. 30; minimum contents observed, 55,180 acre-ft, Oct. 31.

MONTHEND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	57,040	--
Oct. 31.....	55,180	-1,860
Nov. 30.....	55,740	+560
Dec. 31.....	56,550	-190
CAL YR 1985.....	--	-4,750
Jan. 31.....	57,360	+810
Feb. 28.....	62,870	+5,510
Mar. 31.....	65,980	+3,110
Apr. 30.....	66,400	+420
May 31.....	65,410	-990
June 30.....	63,570	-1,840
July 31.....	61,610	-1,960
Aug. 31.....	60,640	-970
Sept. 30.....	59,540	-1,100
WTR YR 1986.....	--	+2,500

SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA

LOCATION.--Lat 34°06'30", long 117°05'59", in SW 1/4 SW 1/4 sec.4, T.1 S., R.2 W., San Bernardino County, Hydrologic Unit 18070203, on right bank near mouth of canyon, 1.6 mi upstream from Mill Creek, 3.2 mi northeast of Mentone, and 16 mi downstream from Big Bear Lake.

DRAINAGE AREA.--210 mi², including area tributary to Baldwin Lake at head of Bear Valley.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1896 to current year. Prior to October 1914, records for river only not equivalent owing to Greenspot pipeline diversion between sites and exclusion of discharge from Warm Springs Canyon. Monthly discharge only for January 1910, January and February 1916 published in WSP 1315-B.

GAGE.--Three water-stage recorders. Main gage on right bank of river, canal gage on powerhouse diversion, and since 1970 supplementary gage on left bank of river. Elevation of the main and supplementary gages is 1,950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 2, 1917, nonrecording gages at several sites within 1.5 mi upstream at various datums. Sept. 3, 1917, to May 27, 1969, water-stage recorder at site 0.2 mi upstream at different datum. Canal gage at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow partly regulated by Big Bear Lake (station 11049000). For records of combined discharge of Santa Ana River and Southern California Edison Co.'s canal below powerplant No. 2, which diverts above station, see following page. Prior to Oct. 1, 1952, and since Apr. 26, 1976, Bear Valley Mutual Water Co. pumps water into channel above canal gage. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--River only: 72 years (water years 1915-86), 37.0 ft³/s, 26,810 acre-ft/yr.

Combined river and canal: 90 years, 83.9 ft³/s, 60,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 52,300 ft³/s, Mar. 2, 1938, gage height, 14.3 ft, site and datum then in use, on basis of slope-area measurement of peak flow; no flow at times in some years.

Combined river and canal: Maximum discharge, 52,300 ft³/s, Mar. 2, 1938; minimum daily, 7.4 ft³/s, Sept. 21, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Combined river and canal: Flood of Feb. 23, 1891, 53,700 ft³/s, from notes furnished by F. C. Finkle, consulting engineer, Los Angeles.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 1,320 ft³/s, Feb. 15, gage height, 9.15 ft; no flow many days.

Combined river and canal: Maximum discharge, 1,320 ft³/s, Feb. 15; minimum daily, 30 ft³/s, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	64	.01	62	5.8	59	2.8	1.5	.30	.02	0
2		0	62	0	38	5.9	17	2.4	1.6	.27	.02	0
3		0	78	0	15	4.9	13	2.4	1.5	.26	.02	0
4		0	42	0	14	4.2	12	2.4	1.5	.26	.02	0
5		0	9.6	0	5.1	4.1	11	2.5	1.5	.24	.01	0
6		0	2.5	0	3.2	3.9	15	2.5	1.5	.25	.01	0
7		0	2.0	.03	2.7	3.6	12	2.6	1.6	.20	.01	0
8		0	1.1	.02	2.8	68	7.3	2.4	1.5	.19	.01	0
9		0	1.7	.01	2.4	113	6.8	2.3	1.4	.16	.01	0
10		0	1.1	.01	1.9	206	6.0	2.2	1.3	.15	0	0
11		4.0	1.1	0	1.9	228	5.6	2.2	1.5	.13	0	0
12		14	.66	0	1.8	155	5.2	2.3	1.6	.12	0	0
13		1.9	.40	.01	2.4	145	5.0	2.3	1.5	.11	0	0
14		0	.48	0	3.8	135	4.9	2.3	1.3	.10	0	0
15		0	.27	0	665	129	4.6	2.4	1.3	.10	0	0
16		0	.15	0	342	208	4.8	2.4	1.2	.08	0	0
17		0	.12	0	231	179	4.7	2.1	1.2	.09	0	0
18		0	.10	0	193	155	4.5	2.0	1.1	.07	0	0
19		0	.08	0	268	143	4.3	1.8	1.1	.06	7.7	0
20		0	.07	.01	228	114	3.9	1.9	1.1	.05	.50	0
21		0	.06	.01	137	54	3.9	1.9	1.0	.31	.10	0
22		0	.05	.01	55	47	3.8	1.9	.88	.18	.06	0
23		0	.04	.01	38	46	3.4	2.0	.77	.12	.03	0
24		0	.04	.01	49	45	3.6	2.1	.73	.10	.02	0
25		7.3	.03	.01	36	41	3.6	1.7	.62	.08	.01	64
26		2.0	.02	.02	28	36	3.7	1.6	.59	.07	0	30
27		0	.03	.02	13	35	3.4	1.6	.46	.06	0	8.6
28		0	.02	.02	7.6	44	3.2	1.5	.40	.05	0	4.3
29		119	.01	.03	---	97	3.2	1.5	.40	.04	0	2.9
30		126	0	73	---	95	3.3	1.5	.32	.03	0	2.2
31		---	.01	74	---	92	---	1.5	---	.03	0	---
TOTAL	0	274.2	267.74	147.24	2447.6	2642.4	241.7	65.0	33.97	4.26	8.55	112.0
MEAN	0	9.14	8.64	4.75	87.4	85.2	8.06	2.10	1.13	.14	.28	3.73
MAX	0	126	78	74	665	228	59	2.8	1.6	.31	7.7	64
MIN	0	0	0	0	1.8	3.6	3.2	1.5	.32	.03	0	0
AC-FT	0	544	531	292	4850	5240	479	129	67	8.4	17	222

CAL YR 1985 TOTAL 1996.54 MEAN 5.47 MAX 126 MIN 0 AC-FT 3960

SANTA ANA RIVER BASIN

11051501 SANTA ANA RIVER NEAR MENTONE, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SANTA ANA RIVER AND SOUTHERN
CALIFORNIA EDISON CO.'S CANAL NEAR MENTONE, CA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	43	64	36	65	77	143	60	53	49	37	34
2	48	46	64	36	60	74	103	59	53	47	36	34
3	49	47	81	36	64	71	94	59	53	47	36	33
4	50	46	68	38	68	69	90	59	53	48	36	32
5	50	47	62	38	57	67	87	60	53	48	35	32
6	52	47	55	38	53	64	99	60	53	47	35	32
7	55	46	51	36	50	63	91	60	53	47	35	32
8	56	47	49	36	51	115	87	58	51	48	35	32
9	51	47	47	36	47	114	84	56	50	48	36	33
10	52	47	47	35	44	207	80	55	49	48	35	34
11	50	55	43	35	46	228	78	55	48	48	34	33
12	46	42	38	34	46	155	76	55	47	48	34	33
13	45	33	38	34	53	145	74	55	47	47	34	34
14	44	36	40	34	63	137	72	55	46	48	34	34
15	46	36	41	34	666	132	71	56	45	47	33	34
16	46	36	40	34	343	211	71	55	45	44	33	34
17	48	36	39	34	231	182	70	54	44	43	33	36
18	48	35	38	33	193	156	69	53	44	43	34	36
19	48	34	38	33	268	143	67	53	43	42	30	36
20	48	33	37	33	229	146	66	54	43	44	33	36
21	49	33	37	37	175	138	64	55	45	49	33	36
22	50	33	37	38	137	135	64	55	45	49	34	36
23	49	33	36	38	117	132	63	55	45	52	34	39
24	51	34	36	42	116	127	64	54	44	44	33	39
25	51	73	36	42	97	123	63	53	46	40	34	73
26	51	40	36	42	94	122	63	53	48	41	35	44
27	51	44	36	44	87	121	60	53	48	41	39	40
28	49	40	36	40	81	129	59	52	49	40	37	37
29	44	149	36	39	---	182	60	52	49	39	37	34
30	44	127	36	93	---	179	61	52	50	38	35	33
31	43	---	36	76	---	174	---	53	---	37	34	---
TOTAL	1513	1455	1378	1234	3601	4119	2293	1718	1442	1401	1073	1085
MEAN	48.8	48.5	44.5	39.8	129	133	76.4	55.4	48.1	45.2	34.6	36.2
MAX	56	149	81	93	666	228	143	60	53	52	39	73
MIN	43	33	36	33	44	63	59	52	43	37	30	32
AC-FT	3000	2890	2730	2450	7140	8170	4550	3410	2860	2780	2130	2150
CAL YR 1985	TOTAL	15413	MEAN 42.2	MAX 149	MIN 21	AC-FT 30570						
WTR YR 1986	TOTAL	22312	MEAN 61.1	MAX 666	MIN 30	AC-FT 44260						

SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA-Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1			.00	0	.00	64	95	16	
2			.00	0	.00	62	128	24	
3			.00	0	.00	78	119	27	
4			.00	0	.00	42	30	3.4	
5			.00	0	.00	9.6	8	.21	
6			.00	0	.00	2.5	5	.03	
7			.00	0	.00	2.0	5	.03	
8			.00	0	.00	1.1	5	.01	
9			.00	0	.00	1.7	4	.02	
10			.00	0	.00	1.1	3	.01	
11			4.0	42	2.0	1.1	3	.01	
12			14	39	2.0	.66	3	.01	
13			1.9	8	.04	.40	2	.00	
14			.00	0	.00	.48	2	.00	
15			.00	0	.00	.27	2	.00	
16			.00	0	.00	.15	2	.00	
17			.00	0	.00	.12	4	.00	
18			.00	0	.00	.10	4	.00	
19			.00	0	.00	.08	4	.00	
20			.00	0	.00	.07	3	.00	
21			.00	0	.00	.06	3	.00	
22			.00	0	.00	.05	3	.00	
23			.00	0	.00	.04	3	.00	
24			.00	0	.00	.04	3	.00	
25			7.3	86	3.5	.03	4	.00	
26			2.0	11	.06	.02	4	.00	
27			.00	0	.00	.03	4	.00	
28			.00	0	.00	.02	4	.00	
29			119	1030	776	.01	4	.00	
30			126	1	.34	.00	4	.00	
31			---	---	---	.01	4	.00	
TOTAL	0.00	---	0.00	274.20	---	783.94	267.74	---	70.73
JANUARY			FEBRUARY			MARCH			
1	.01	4	.00	62	100	17	5.8	17	.27
2	.00	0	.00	38	50	5.1	5.9	13	.21
3	.00	0	.00	15	22	1.5	4.9	8	.11
4	.00	0	.00	14	20	.76	4.2	2	.02
5	.00	0	.00	5.1	10	.14	4.1	2	.02
6	.00	0	.00	3.2	7	.06	3.9	2	.02
7	.03	5	.00	2.7	2	.01	3.6	2	.02
8	.02	4	.00	2.8	1	.01	.68	407	213
9	.01	3	.00	2.4	1	.01	113	351	119
10	.01	0	.00	1.9	1	.01	206	690	940
11	.00	0	.00	1.9	1	.01	228	1420	1030
12	.00	0	.00	1.8	1	.00	155	490	205
13	.01	1	.00	2.4	2	.01	145	120	47
14	.00	0	.00	3.8	12	.12	135	54	20
15	.00	0	.00	665	5050	11700	129	53	18
16	.00	0	.00	342	1420	1460	208	51	29
17	.00	0	.00	231	580	362	179	47	23
18	.00	0	.00	193	300	156	155	42	18
19	.00	0	.00	268	1050	982	143	38	15
20	.01	1	.00	228	790	486	114	33	10
21	.01	1	.00	137	530	196	54	24	3.5
22	.01	2	.00	55	120	18	47	20	2.5
23	.01	2	.00	38	52	5.3	46	17	2.1
24	.01	3	.00	49	46	6.1	45	14	1.7
25	.01	3	.00	36	25	2.4	41	12	1.3
26	.02	4	.00	28	22	1.7	36	11	1.1
27	.02	4	.00	13	20	.70	35	10	.95
28	.02	2	.00	7.6	18	.37	44	85	10
29	.03	1	.00	---	---	---	97	115	30
30	73	1340	529	---	---	---	95	55	14
31	74	279	64	---	---	---	92	38	9.4
TOTAL	147.24	---	593.00	2447.6	---	15401.31	2642.4	---	2764.22

SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	59	33	5.3	2.8	2	.02	1.5	2	.01
2	17	32	1.5	2.4	1	.01	1.6	2	.01
3	13	22	.77	2.4	1	.01	1.5	2	.01
4	12	5	.16	2.4	1	.01	1.5	2	.01
5	11	3	.09	2.5	1	.01	1.5	2	.01
6	15	6	.24	2.5	1	.01	1.5	2	.01
7	12	6	.19	2.6	1	.01	1.6	2	.01
8	7.3	6	.12	2.4	1	.01	1.5	2	.01
9	6.8	5	.09	2.3	1	.01	1.4	2	.01
10	6.0	5	.08	2.2	1	.01	1.3	2	.01
11	5.6	5	.08	2.2	1	.01	1.5	2	.01
12	5.2	5	.07	2.3	1	.01	1.6	2	.01
13	5.0	5	.07	2.3	1	.01	1.5	2	.01
14	4.9	5	.07	2.3	1	.01	1.3	2	.01
15	4.6	5	.06	2.4	1	.01	1.3	2	.01
16	4.8	5	.06	2.4	1	.01	1.2	2	.01
17	4.7	5	.06	2.1	1	.01	1.2	2	.01
18	4.5	4	.05	2.0	1	.01	1.1	2	.01
19	4.3	2	.02	1.8	1	.00	1.1	2	.01
20	3.9	1	.01	1.9	1	.01	1.1	2	.01
21	3.9	0	.00	1.9	1	.01	1.0	2	.01
22	3.8	0	.00	1.9	1	.01	.88	2	.00
23	3.4	2	.02	2.0	1	.01	.77	2	.00
24	3.6	2	.02	2.1	1	.01	.73	2	.00
25	3.6	2	.02	1.7	1	.00	.62	2	.00
26	3.7	2	.02	1.6	1	.00	.59	2	.00
27	3.4	1	.01	1.6	1	.00	.46	2	.00
28	3.2	1	.01	1.5	1	.00	.40	2	.00
29	3.2	1	.01	1.5	1	.00	.40	2	.00
30	3.3	2	.02	1.5	2	.01	.32	2	.00
31	---	---	---	1.5	2	.01	---	---	---
TOTAL	241.7	---	9.22	65.0	---	0.26	33.97	---	0.21
JULY			AUGUST			SEPTEMBER			
1	.30	2	.00	.02	2	.00	.00	0	.00
2	.27	2	.00	.02	2	.00	.00	0	.00
3	.26	2	.00	.02	2	.00	.00	0	.00
4	.26	2	.00	.02	2	.00	.00	0	.00
5	.24	2	.00	.01	2	.00	.00	0	.00
6	.25	2	.00	.01	2	.00	.00	0	.00
7	.20	2	.00	.01	2	.00	.00	0	.00
8	.19	2	.00	.01	2	.00	.00	0	.00
9	.16	2	.00	.01	2	.00	.00	0	.00
10	.15	2	.00	.00	0	.00	.00	0	.00
11	.13	2	.00	.00	0	.00	.00	0	.00
12	.12	2	.00	.00	0	.00	.00	0	.00
13	.11	2	.00	.00	0	.00	.00	0	.00
14	.10	2	.00	.00	0	.00	.00	0	.00
15	.10	2	.00	.00	0	.00	.00	0	.00
16	.08	2	.00	.00	0	.00	.00	0	.00
17	.09	2	.00	.00	0	.00	.00	0	.00
18	.07	2	.00	.00	0	.00	.00	0	.00
19	.06	2	.00	7.7	7	.20	.00	0	.00
20	.05	2	.00	.50	3	.00	.00	0	.00
21	.31	2	.00	.10	2	.00	.00	0	.00
22	.18	2	.00	.06	2	.00	.00	0	.00
23	.12	2	.00	.03	2	.00	.00	0	.00
24	.10	2	.00	.02	2	.00	.00	0	.00
25	.08	2	.00	.01	0	.00	64	692	150
26	.07	2	.00	.00	0	.00	30	80	6.5
27	.06	2	.00	.00	0	.00	8.6	20	.46
28	.05	2	.00	.00	0	.00	4.3	10	.12
29	.04	2	.00	.00	0	.00	2.9	5	.04
30	.03	2	.00	.00	0	.00	2.2	5	.03
31	.03	2	.00	.00	0	.00	---	---	---
TOTAL	4.26	---	0.00	8.55	---	0.20	112.00	---	157.15
YEAR	6244.66		19780.24						

SANTA ANA RIVER BASIN

11054000 MILL CREEK NEAR YUCAIPA, CA

LOCATION.--Lat 34°05'27", long 117°02'12", in NE 1/4 NE 1/4 sec.13, T.1 S., R.2 W., San Bernardino County, Hydrologic Unit 18070203, on left bank 50 ft downstream from bridge on State Highway 38, 3.9 mi north of Yucaipa, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--42.4 mi².

PERIOD OF RECORD.--January 1919 to September 1938, October 1947 to September 30, 1986 (discontinued). Monthly figures only for April and May 1923, published in WSP 1315-B. Prior to October 1954, published as "near Craftonville."

GAGE.--Water-stage recorder on creek; water-stage recorder and sharp-crested weir on power canal No. 1; water-stage recorder and Parshall flume on power canals Nos. 2 and 3. Elevation of creek gage is 2,916.36 ft, Southern California Edison Co. datum. Canals are all at different datums. See WSP 1735 for history of changes prior to Mar. 2, 1938.

REMARKS.--Estimated daily discharges: Nov. 12 to Dec. 2, Jan. 3 to Feb. 3, Feb. 16 to Mar. 8, Mar. 11-14, June 11-29, and Sept. 27-30. Records poor. No regulation above station. Mill Creek power canals Nos. 1, 2, and 3 divert from points 100 ft, 3 mi, and 6 mi above station, respectively. Combined flow of Mill Creek and Mill Creek power canals Nos. 1, 2, and 3 is given on following page. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--Creek only: 58 years (water years 1920-38, 1948-86), 16.0 ft³/s, 11,590 acre-ft/yr.

Combined creek and canals: 58 years, 38.3 ft³/s, 27,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 35,400 ft³/s, Jan. 25, 1969, gage height, 16.8 ft, from floodmark, from rating curve extended above 1,100 ft/s on basis of two field estimates at gage height 14.5 ft and slope-area measurement of peak flow; no flow at times in some years.

Combined creek and canals: Maximum discharge, 35,400 ft³/s, Jan. 25, 1969; minimum daily, 2.7 ft³/s, Feb. 23, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Creek only Discharge (ft ³ /s)	Gage height (ft)	Combined creek and canals Discharge (ft ³ /s)
Nov. 29	Unknown	388	7.39	416
Dec. 2	2130	236	7.07	237
Jan. 30	0715	440	7.50	444
Feb. 15	0530	*715	*8.09	*719
Feb. 19	1230	289	7.18	293
Mar. 8	1730	295	7.17	295

Creek only: Minimum daily, 0.02 ft³/s, Jan. 22.

Combined creek and canals: Minimum daily, 14 ft³/s, Jan. 26, 27, and Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.05	18	.11	15	.50	14	6.8	.19	2.9	2.4	.13
2	.05	.05	30	.12	3.0	.20	18	.78	.17	.41	.11	.13
3	.05	.05	69	.07	1.7	.15	18	.94	.19	1.1	.10	.11
4	.04	.05	27	.07	6.0	.15	10	1.5	.21	.25	.16	.11
5	.03	.05	2.9	.07	2.7	.15	5.0	1.8	.21	.25	.20	.11
6	.03	.05	1.2	.07	.44	.14	21	5.5	.21	.55	.11	.11
7	.03	.05	.67	.06	.40	.17	26	13	.19	.93	.09	.11
8	.05	.04	18	.05	.40	.65	17	7.3	.24	.16	.09	.11
9	.05	.04	12	.05	.40	118	6.8	.31	.30	.21	.09	.09
10	.05	.04	6.8	.05	.85	60	5.3	.26	.22	.18	.09	.10
11	.05	10	5.3	.05	4.6	16	3.5	.30	.20	.18	.09	.09
12	.04	15	3.7	.05	4.3	16	2.9	.27	.20	3.2	.10	.09
13	.04	.30	1.5	.05	6.9	14	2.7	.26	.20	6.2	.09	.10
14	.03	.20	.07	.05	8.0	14	4.1	.25	.18	.27	.09	.10
15	.04	.15	.22	.05	421	8.5	2.7	.25	.18	.44	.10	.10
16	.04	.10	.74	.05	40	20	13	.45	.18	.23	.09	.10
17	.04	.05	1.3	.05	20	13	20	.38	.18	.26	.10	.10
18	.04	.05	2.4	.04	12	12	16	.29	.16	.94	.12	.10
19	.05	.05	2.2	.03	70	13	12	.28	.16	.15	.81	.10
20	.05	.05	5.6	.04	25	10	12	.93	.16	.12	5.6	.10
21	.05	.05	4.1	.03	17	13	11	1.6	.16	2.1	.35	.10
22	.05	.05	.77	.02	6.0	16	9.4	.29	.14	.20	.21	.10
23	.05	.05	.63	.03	4.6	17	9.9	.27	.14	.19	.18	.12
24	.05	.05	2.8	.03	3.8	10	12	.27	.14	.18	.19	3.5
25	.05	5.0	1.3	.05	3.0	2.3	14	.45	.14	.24	.17	48
26	.05	.10	.37	.05	2.0	4.0	11	.35	.12	.20	.09	3.4
27	.05	.10	.41	.05	2.0	7.6	10	.25	.12	.15	.09	.50
28	.05	.05	.51	.04	1.0	25	9.9	.21	.12	.38	24	.20
29	.05	100	.13	.03	---	36	10	.24	.12	1.0	46	.20
30	.05	30	.09	161	---	36	10	.22	.49	.12	11	.20
31	.05	---	.09	40	---	32	---	.17	---	.52	2.9	---
TOTAL	1.40	161.87	219.80	202.51	682.09	579.86	337.2	46.17	5.62	24.21	95.81	58.41
MEAN	.045	5.40	7.09	6.53	24.4	18.7	11.2	1.49	.19	.78	3.09	1.95
MAX	.05	100	69	161	421	118	26	13	.49	6.2	46	48
MIN	.03	.04	.07	.02	.40	.14	2.7	.17	.12	.12	.09	.09
AC-FT	2.8	321	436	402	1350	1150	669	92	11	48	190	116

SANTA ANA RIVER BASIN

11054001 MILL CREEK NEAR YUCAIPA, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MILL CREEK AND MILL CREEK POWER
CANALS NOS. 1, 2, AND 3 NEAR YUCAIPA, CA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	16	32	17	20	26	37	48	30	29	27	31
2	19	16	43	16	14	25	46	46	31	27	27	30
3	18	16	73	16	20	25	50	45	29	28	27	28
4	16	16	37	17	23	25	46	46	29	27	27	28
5	16	16	19	17	19	26	44	46	30	27	26	29
6	16	16	17	17	16	25	48	49	30	28	24	29
7	17	16	19	16	16	24	51	48	29	24	27	29
8	19	16	32	16	17	85	48	43	29	22	27	29
9	18	16	25	16	16	135	42	43	27	26	27	29
10	20	16	20	16	17	75	41	42	35	27	26	28
11	17	25	18	16	20	33	43	41	28	27	26	27
12	17	28	17	16	19	36	42	41	28	29	26	28
13	17	17	16	16	28	33	43	41	28	31	26	28
14	17	17	15	16	31	34	43	41	28	27	26	28
15	19	18	15	16	425	30	43	42	28	27	26	28
16	18	18	15	16	44	41	54	38	29	27	26	28
17	18	18	15	15	24	33	60	38	29	27	26	27
18	18	16	16	15	17	32	55	37	29	27	27	27
19	17	16	16	15	75	34	49	36	27	26	35	27
20	17	16	22	15	30	33	48	36	26	26	37	26
21	18	16	22	15	30	34	47	37	26	30	31	27
22	18	16	19	15	29	36	49	38	26	28	31	27
23	17	16	19	15	29	39	50	37	27	28	30	28
24	16	16	21	15	29	38	52	36	27	28	30	34
25	17	27	18	15	27	36	54	33	27	27	30	57
26	17	16	17	14	26	37	51	33	27	27	30	17
27	17	17	16	14	25	40	50	34	27	27	30	26
28	17	17	17	15	24	51	51	36	28	26	45	27
29	17	114	17	15	---	58	49	34	27	26	63	27
30	16	44	17	170	---	58	49	31	26	26	40	26
31	16	---	17	44	---	54	---	31	---	27	34	---
TOTAL	539	648	682	667	1110	1291	1435	1227	847	839	940	860
MEAN	17.4	21.6	22.0	21.5	39.6	41.6	47.8	39.6	28.2	27.1	30.3	28.7
MAX	20	114	73	170	425	135	60	49	35	31	63	57
MIN	16	16	15	14	14	24	37	31	26	22	24	17
AC-FT	1070	1290	1350	1320	2200	2560	2850	2430	1680	1660	1860	1710
CAL YR 1985	TOTAL	8568	MEAN 23.5	MAX 114	MIN 15	AC-FT 16990						
WTR YR 1986	TOTAL	11085	MEAN 30.4	MAX 425	MIN 14	AC-FT 21990						

SANTA ANA RIVER BASIN

11055500 PLUNGE CREEK NEAR EAST HIGHLANDS, CA

LOCATION.--Lat 34°07'06", long 117°08'27", in NE 1/4 NE 1/4 sec.1, T.1 S., R.3 W., San Bernardino County, Hydrologic Unit 18070203, on left bank at mouth of canyon at crossing of North Fork ditch siphon, 1.8 mi northeast of East Highlands.

DRAINAGE AREA.--16.9 mi².

PERIOD OF RECORD.--January 1919 to current year; combined records of creek and diversions, March 1951 to current year.

GAGE.--Water-stage recorder on creek. Since March 1951 water-stage recorder and weir on upper diversion; water-stage recorder and concrete-lined canal on middle diversion; crest-stage gage and sharp-crested weir on lower diversion. Elevation of creek gage is 1,590 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1969, creek gage at datum 4.00 ft higher. Diversions are all at different datums.

REMARKS.--Estimated daily discharges: Dec. 1-5, Feb. 1-3, Feb. 19, Feb. 28 to Mar. 5, and Apr. 13 to May 2. Records fair. No regulation above station. Diversion from Alder Creek to Upper Plunge Creek area was active 1904-67. Diversions for irrigation are made at sites 0.5 mi, 1.0 mi, and 2.5 mi above station. Water has been diverted above station for irrigation during entire period of record. Combined discharge of Plunge Creek and upper, middle, and lower diversions is given on following page. No flow in lower diversion since May 29, 1966. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--Creek only: 67 years, 6.87 ft³/s, 4,980 acre-ft/yr.

Combined creek and diversions: 35 years, 9.05 ft³/s, 6,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 5,340 ft³/s, Mar. 2, 1938, on basis of slope-area measurement of peak flow; no flow at times in some years.

Combined creek and diversions: Maximum discharge, 4,770 ft³/s, Dec. 6, 1966; no flow Nov. 12, 1964, Sept. 29, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Creek only		Combined creek and diversions	
		Discharge (ft ³ /s)	Gage height (ft)	Discharge (ft ³ /s)	
Nov. 29	1515	531	4.62	531	
Feb. 15	0845	*614	*4.69	*614	
Mar. 10	2215	205	4.19	205	

Creek only: No flow for many days, July through September.

Combined creek and diversions: Minimum daily, 0.17 ft³/s, July 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.31	11	3.9	11	15	9.0	.54	.65	.09	0	.58
2	.16	.28	10	4.1	10	13	7.8	.50	.67	.03	0	.56
3	.08	.27	8.0	3.6	9.4	12	7.2	.40	.69	.01	0	.36
4	.08	.25	7.2	3.4	8.6	11	6.6	.49	.74	.01	0	.02
5	.13	.27	6.4	3.2	7.2	10	6.5	.69	.75	.73	0	.01
6	.13	.29	5.8	3.0	6.7	7.3	12	.72	.77	.19	0	.01
7	.28	.27	5.3	2.9	4.5	7.0	8.5	.42	.84	.11	0	0
8	.59	.32	5.2	3.0	2.4	44	6.4	.38	.82	.04	0	0
9	.53	.41	5.0	2.9	1.7	30	5.8	.33	.74	.02	0	0
10	.45	.49	5.4	2.0	1.2	68	5.2	.31	.70	.01	0	0
11	.30	1.1	5.4	.74	.66	85	4.8	.30	.69	.02	0	0
12	.28	.85	4.7	.47	.66	41	4.9	.31	.66	.07	0	0
13	.25	.26	4.5	.38	2.6	36	5.2	.37	.64	.57	0	.04
14	.20	.31	4.5	.43	9.1	35	5.2	.36	.64	.09	0	.09
15	.10	.52	4.6	.44	270	35	4.5	.31	.63	.04	0	.13
16	.09	.48	4.3	.40	106	92	3.6	.32	.66	.06	0	.15
17	.10	.48	4.0	.37	38	67	2.2	.26	.65	.04	0	.10
18	.25	.50	3.9	.37	20	44	1.6	.26	.63	.01	0	.09
19	.22	.44	3.8	.38	60	35	1.5	.28	.64	0	0	.14
20	.17	.29	3.9	.39	39	33	1.4	.33	.67	0	0	.25
21	.28	.29	3.9	.41	27	30	1.3	.42	.67	0	0	.26
22	.68	.29	3.7	.41	21	28	1.2	.45	.66	.13	0	.22
23	.54	.26	3.6	.36	17	25	1.1	.47	.70	.15	0	.25
24	.43	.29	3.5	.34	15	23	1.0	.54	.89	.11	0	.82
25	.35	6.9	3.4	.34	13	22	.90	.44	.38	.09	0	3.7
26	.33	2.2	3.4	.33	11	20	.80	.46	.32	.05	0	0
27	.35	1.9	3.4	.39	8.6	18	.72	.57	.25	.03	0	0
28	.82	1.4	3.4	.50	17	16	.66	.59	.22	.02	0	0
29	.44	86	3.4	.42	---	15	.60	.61	.19	.01	0	0
30	.42	14	3.3	19	---	15	.56	.63	.19	.37	.40	0
31	.40	---	3.7	13	---	11	---	.64	---	0	.50	---
TOTAL	9.69	121.92	151.6	71.87	738.32	943.3	118.74	13.70	18.35	3.10	.90	7.78
MEAN	.31	4.06	4.89	2.32	26.4	30.4	3.96	.44	.61	.10	.029	.26
MAX	.82	86	11	19	270	92	12	.72	.89	.73	.50	3.7
MIN	.08	.25	3.3	.33	.66	7.0	.56	.26	.19	0	0	0
AC-FT	19	242	301	143	1460	1870	236	27	36	6.1	1.8	15

SANTA ANA RIVER BASIN

11055501 PLUNGE CREEK NEAR EAST HIGHLANDS, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF PLUNGE CREEK AND
 DIVERSIONS NEAR EAST HIGHLANDS, CA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.2	11	3.9	11	15	12	4.7	2.5	.96	.69	.58
2	.90	1.2	10	4.1	10	13	12	4.5	2.5	.91	.66	.56
3	.80	1.1	8.0	3.6	9.4	12	12	4.4	2.4	.80	.66	.56
4	.83	1.1	7.2	3.4	8.6	11	11	4.5	2.3	.17	.66	.70
5	.86	1.1	6.4	3.2	7.2	10	11	4.3	2.3	1.4	.66	.68
6	.88	1.1	5.8	3.0	6.7	7.3	14	4.4	2.3	1.1	.66	.68
7	1.1	1.1	5.3	2.9	5.9	7.0	12	4.4	2.3	.99	.66	.66
8	1.4	1.1	5.2	3.0	5.6	44	11	4.3	2.3	.92	.69	.64
9	1.4	1.2	5.0	2.9	4.8	30	10	4.0	2.1	.92	.67	.70
10	1.3	1.3	5.4	2.9	4.7	68	9.3	3.7	1.8	.92	.65	.70
11	1.2	1.9	5.4	2.9	4.4	85	8.7	3.7	1.9	.94	.63	.68
12	1.1	1.6	4.7	2.7	4.4	41	8.8	3.7	1.9	.61	.62	.67
13	1.1	1.0	4.5	2.6	7.0	36	9.0	3.8	1.7	1.2	.61	.73
14	1.0	1.1	4.5	2.7	13	35	9.1	4.0	1.6	.97	.59	.80
15	.93	1.3	4.6	2.7	271	35	8.6	4.1	1.6	.98	.58	.85
16	.93	1.2	4.3	2.6	106	92	7.8	3.8	1.6	.95	.57	.84
17	1.0	1.2	4.0	2.7	38	67	6.4	3.2	1.6	.92	.53	.78
18	1.2	1.2	3.9	2.7	20	44	5.6	2.9	1.6	.86	.56	.78
19	1.1	1.5	3.8	2.7	60	35	5.7	2.7	1.5	.81	.54	.84
20	1.1	1.6	3.9	2.6	39	33	5.7	2.6	1.5	.78	.51	.96
21	1.2	1.6	3.9	2.6	27	30	5.3	2.9	1.5	.93	.47	.95
22	1.6	1.7	3.7	2.6	21	28	5.4	3.1	1.4	1.0	.48	.90
23	1.5	1.6	3.6	2.6	17	25	5.6	3.2	1.2	1.1	.47	.95
24	1.4	1.8	3.5	2.5	15	23	5.5	2.9	1.6	1.0	.47	1.5
25	1.3	8.3	3.4	2.4	13	22	5.4	2.5	1.2	.98	.46	3.8
26	1.3	2.2	3.4	2.4	11	20	5.4	2.4	1.1	.94	.46	.42
27	.93	1.9	3.4	2.5	8.6	18	5.1	2.5	1.0	.90	.42	.89
28	1.3	1.4	3.4	2.5	17	16	4.9	2.5	.94	.84	.41	.89
29	1.3	86	3.4	2.4	---	15	4.8	2.4	.91	.41	.19	.82
30	1.3	14	3.3	21	---	15	4.9	2.4	.95	.79	.43	.73
31	1.3	---	3.7	14	---	12	---	2.4	---	.72	.50	---
TOTAL	35.66	145.6	151.6	117.3	766.3	944.3	242.0	106.9	51.10	27.72	17.16	26.24
MEAN	1.15	4.85	4.89	3.78	27.4	30.5	8.07	3.45	1.70	.89	.55	.87
MAX	1.6	86	11	21	271	92	14	4.7	2.5	1.4	.69	3.8
MIN	.80	1.0	3.3	2.4	4.4	7.0	4.8	2.4	.91	.17	.19	.42
AC-FT	71	289	301	233	1520	1870	480	212	101	55	34	52
CAL YR 1985	TOTAL	1301.55	MEAN	3.57	MAX	86	MIN	.61	AC-FT	2580		
WTR YR 1986	TOTAL	2631.88	MEAN	7.21	MAX	271	MIN	.17	AC-FT	5220		

SANTA ANA RIVER BASIN

11055800 CITY CREEK NEAR HIGHLAND, CA

LOCATION.--Lat 34°08'38", long 117°11'16", in SW 1/4 NW 1/4 sec.27, T.1 N., R.3 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 0.6 mi upstream from Highland Avenue, and 1.5 mi northeast of Highland.
DRAINAGE AREA.--19.6 mi².

PERIOD OF RECORD.--October 1919 to current year; combined records of creek and canal, June 1924 to September 1986 (canal gage discontinued).

GAGE.--Water-stage recorder on creek; water-stage recorder on canal. Elevation of creek gage is 1,580 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 1, 1939, at site 0.2 mi downstream at different datum. Canal gage at different datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station. City Creek Water Co.'s canal has diverted from a site 0.5 mi above station for irrigation throughout period of record. See schematic diagram of Santa Ana River basin. Combined discharge of City Creek and canal is given on following page.

AVERAGE DISCHARGE.--Creek only: 67 years, 9.79 ft³/s, 7,090 acre-ft/yr.
Combined creek and canal: 62 years, 11.4 ft³/s, 8,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 7,000 ft³/s, Feb. 25, 1969, gage height, 9.39 ft, from rating curve extended above 580 ft³/s on basis of slope-area measurement at gage height 8.82 ft; no flow for several months in some years.

Combined creek and canal: Maximum discharge, 7,000 ft³/s, Feb. 25, 1969; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Creek only Discharge (ft ³ /s)	Gage height (ft)	Combined creek and canal Discharge (ft ³ /s)
Nov. 29	1500	320	5.48	320
Feb. 15	2030	*530	*5.96	*530
Mar. 10	2245	164	4.88	164

Creek only: Minimum daily, 0.19 ft³/s, Aug. 14, 17.

Combined creek and canal: Minimum daily, 0.26 ft³/s, Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	1.6	12	3.6	17	11	16	7.2	2.9	.38	.26	.39
2	.69	1.6	12	3.6	8.8	11	15	6.8	2.9	.35	.24	.51
3	.54	1.7	13	3.5	9.0	10	14	7.0	2.8	.35	.23	.46
4	.56	1.7	8.7	3.5	12	9.8	13	7.1	2.7	.39	.23	.31
5	.67	1.8	7.3	3.3	8.6	9.1	13	7.2	2.8	.54	.23	.27
6	.63	1.8	6.5	3.2	7.4	8.6	20	7.6	3.0	.58	.22	.26
7	1.1	1.8	5.9	3.0	6.3	8.7	16	7.4	2.9	.51	.23	.25
8	2.4	1.9	5.5	3.1	6.6	36	14	7.0	2.5	.39	.22	.25
9	2.2	2.2	5.4	3.1	5.2	27	13	6.5	2.1	.36	.24	.25
10	2.0	2.4	6.0	3.0	4.6	59	12	6.3	1.8	.36	.24	.37
11	1.7	18	6.0	3.0	4.3	70	12	6.2	1.6	.41	.23	.47
12	1.6	12	5.3	3.0	4.0	42	12	6.0	1.5	.40	.21	.44
13	1.6	5.5	5.1	2.9	8.3	39	11	5.5	1.5	.34	.20	.53
14	1.3	4.7	5.1	3.0	15	42	11	5.9	1.5	.29	.19	.71
15	1.2	4.3	4.8	3.2	250	41	10	6.3	1.4	.42	.20	.83
16	1.1	4.4	4.6	3.2	124	87	11	5.7	1.4	.51	.20	.82
17	1.3	4.5	4.5	3.1	54	65	10	4.4	1.3	.41	.19	.64
18	1.6	4.2	4.4	3.0	35	53	9.6	3.9	1.2	.34	.21	.62
19	1.4	3.9	4.3	2.9	51	46	9.1	3.6	1.3	.30	.22	.76
20	1.3	3.7	4.3	2.9	42	41	8.6	3.5	1.3	.24	.22	.95
21	1.8	3.6	4.3	2.9	32	38	8.4	4.0	1.2	.36	.22	1.0
22	4.0	3.5	4.3	2.8	25	34	8.3	4.2	1.0	.98	.21	.91
23	2.3	3.3	4.3	2.8	20	30	8.1	4.4	.89	.85	.20	.98
24	1.9	3.6	4.1	2.8	17	27	8.3	3.9	.80	.74	.23	2.4
25	1.7	26	4.0	2.7	16	24	8.3	3.1	.72	.62	.25	16
26	1.6	10	4.2	2.6	14	22	8.2	2.9	.62	.55	.29	3.3
27	1.6	6.9	4.2	2.6	13	20	7.5	2.9	.46	.55	.44	2.5
28	1.8	5.9	4.2	2.6	12	19	7.2	2.7	.38	.46	.42	2.4
29	2.0	78	4.4	2.5	---	18	7.2	2.6	.35	.35	.38	2.0
30	1.9	29	4.1	24	---	17	7.3	2.8	.39	.30	.34	1.7
31	1.8	---	3.6	22	---	16	---	2.9	---	.28	.34	---
TOTAL	47.96	253.5	176.4	133.4	822.1	981.2	329.1	157.5	47.21	13.91	7.73	43.28
MEAN	1.55	8.45	5.69	4.30	29.4	31.7	11.0	5.08	1.57	.45	.25	1.44
MAX	4.0	78	13	24	250	87	20	7.6	3.0	.98	.44	16
MIN	.54	1.6	3.6	2.5	4.0	8.6	7.2	2.6	.35	.24	.19	.25
AC-FT	95	503	350	265	1630	1950	653	312	94	28	15	86

SANTA ANA RIVER BASIN

11055801 CITY CREEK NEAR HIGHLAND, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF CITY CREEK AND CITY CREEK
WATER CO.'S CANAL NEAR HIGHLAND, CA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.6	12	4.4	18	11	16	7.2	3.7	1.1	.59	.39
2	.99	1.6	12	4.4	9.5	11	15	6.8	3.7	1.1	.52	.51
3	.81	1.7	13	4.3	9.7	10	14	7.0	3.6	1.1	.48	.69
4	.85	1.7	8.7	4.4	13	9.8	13	7.1	3.4	1.2	.48	.61
5	.95	1.8	7.3	4.2	9.3	9.1	13	7.2	3.6	1.4	.51	.43
6	.92	1.8	6.5	4.2	8.1	8.6	20	7.6	3.8	1.5	.52	.32
7	1.5	1.8	5.9	4.0	7.0	8.7	16	7.4	3.7	1.5	.53	.26
8	2.6	1.9	5.5	4.0	7.3	36	14	7.0	3.3	1.3	.55	.26
9	2.2	2.2	5.4	4.0	5.9	27	13	6.5	2.9	1.2	.60	.36
10	2.0	2.4	6.0	3.8	5.3	59	12	6.3	2.6	1.2	.57	.72
11	1.7	18	6.0	3.8	5.0	70	12	6.2	2.3	1.2	.47	.84
12	1.6	12	5.3	3.8	4.8	42	12	6.2	2.2	1.2	.41	.80
13	1.6	5.5	5.1	3.7	9.1	39	11	6.0	2.2	1.1	.38	.95
14	1.3	4.7	5.1	3.8	16	42	11	6.4	2.2	1.0	.38	1.1
15	1.2	4.3	4.8	4.0	251	41	10	6.9	2.1	1.2	.44	1.3
16	1.1	4.4	4.6	4.0	124	87	11	6.4	2.1	1.3	.43	1.3
17	1.3	4.4	4.5	4.0	54	65	10	5.1	2.0	1.2	.34	1.1
18	1.6	4.2	4.4	3.9	35	53	9.6	4.6	1.9	1.1	.39	1.1
19	1.4	3.9	4.3	3.8	51	46	9.1	4.3	2.0	.98	.67	1.3
20	1.3	3.7	4.3	3.7	42	41	8.6	4.2	2.0	.81	.49	1.5
21	1.8	3.6	4.3	3.8	32	38	8.4	4.7	1.9	.90	.42	1.6
22	4.0	3.5	4.3	3.7	25	34	8.3	4.9	1.7	1.7	.36	1.5
23	2.3	3.3	4.3	3.8	20	30	8.1	5.2	1.7	1.6	.30	1.6
24	1.9	3.6	4.1	3.8	17	27	8.3	4.8	1.6	1.6	.29	3.0
25	1.7	26	4.0	3.7	16	24	8.3	4.0	1.6	1.4	.29	16
26	1.6	10	4.2	3.6	14	22	8.2	3.7	1.4	1.3	.37	3.6
27	1.6	6.9	4.2	3.6	13	20	7.5	3.8	1.3	1.3	.44	2.8
28	1.8	5.9	4.2	3.6	12	19	7.2	3.5	1.1	1.2	.42	2.7
29	2.0	78	4.4	3.5	---	18	7.2	3.4	1.1	.91	.38	2.3
30	1.9	29	4.4	25	---	17	7.3	3.6	1.2	.75	.34	1.9
31	1.8	---	4.3	23	---	16	---	3.7	---	.67	.34	---
TOTAL	50.72	253.5	177.4	161.3	834.0	981.2	329.1	171.7	69.9	37.02	13.67	52.84
MEAN	1.64	8.45	5.72	5.20	29.8	31.7	11.0	5.54	2.33	1.19	.44	1.76
MAX	4.0	78	13	25	251	87	20	7.6	3.8	1.7	.67	16
MIN	.81	1.6	4.0	3.5	4.8	8.6	7.2	3.4	1.1	.67	.29	.26
AC-FT	101	503	352	320	1650	1950	653	341	139	73	27	105
CAL YR 1985	TOTAL	1685.48	MEAN	4.62	MAX	78	MIN	.09	AC-FT	3340		
WTR YR 1986	TOTAL	3132.35	MEAN	8.58	MAX	251	MIN	.26	AC-FT	6210		

SANTA ANA RIVER BASIN

11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CA

LOCATION.--Lat 34°03'46", long 117°16'16", in NE 1/4 NW 1/4 sec.26, T.1 S., R.4 W., San Bernardino County, Hydrologic Unit 18070203, on left bank 200 ft upstream from Redlands Boulevard bridge, and 0.6 mi northwest of Loma Linda.

DRAINAGE AREA.--125 mi².

PERIOD OF RECORD.--October 1954 to September 1965, February 1968 to October 1973, April 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,030 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to April 1979, water-stage recorders at site 0.2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station. Natural flow affected by pumping and return flow from irrigated areas.

AVERAGE DISCHARGE.--23 years (1955-65, 1969-73, 1980-86), 2.82 ft³/s, 2,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s, Feb. 25, 1969, gage height, 8.2 ft from floodmark, from rating curve extended above 2,100 ft³/s on basis of slope-conveyance study of peak flow, at site and datum then in use; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 11	2100	179	3.77	Mar. 8	1445	190	3.68
Nov. 29	1345	175	3.69	Mar. 10	1745	*735	*4.75
Jan. 31	1730	198	3.75	Mar. 16	0245	627	4.57
Feb. 15	0815	206	3.73				

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.11	.33	0	2.5	0	0	.67	.25	0	0	.46
2	.27	.62	2.9	0	.44	.18	.01	1.1	.70	0	.38	.27
3	.31	.30	.53	.02	.32	.53	.13	.21	1.0	.93	.03	0
4	.11	.67	.31	.01	.08	.58	.17	.43	.42	.07	.11	.01
5	.35	.72	.03	0	.47	.69	.63	.98	0	0	0	.07
6	.09	.54	.05	0	1.6	.48	10	1.6	.08	.10	.03	0
7	.02	.66	.09	.17	1.4	1.5	1.7	1.3	.31	.20	.05	0
8	.09	.74	.31	.49	4.0	18	1.4	.20	0	.67	.18	.90
9	.81	1.1	.28	1.4	.72	11	1.1	.01	.05	.15	0	.37
10	.44	.61	.92	1.2	.57	94	.96	.69	.44	0	.04	.01
11	.82	16	.05	1.0	.15	77	2.3	2.2	1.2	0	.52	0
12	1.4	11	.04	.90	.56	5.0	1.8	2.7	1.9	0	.44	0
13	.94	2.3	.01	.56	3.0	4.0	1.9	1.3	2.5	.46	.44	1.5
14	.79	1.7	0	.35	13	3.4	2.5	1.5	2.6	.72	.29	.95
15	.32	1.6	.06	.34	51	28	2.6	.79	1.8	.79	0	.15
16	.07	0	0	.45	.87	168	2.8	.35	1.1	.53	0	0
17	.22	0	0	1.4	.88	2.6	1.4	1.1	.77	.60	.01	.40
18	.27	0	.01	.95	.40	.64	.45	.39	.40	.53	.18	.13
19	.03	0	.06	.61	2.4	.13	0	0	.02	.14	0	.01
20	.10	0	.01	.24	.18	.13	0	.16	0	.07	0	.04
21	.64	0	0	.39	.09	0	0	.50	.24	1.8	.03	.28
22	1.1	0	.01	.16	.13	0	0	.58	.01	.59	.10	1.1
23	1.1	0	0	1.2	1.1	0	.07	.66	0	.02	.10	.44
24	.96	.02	0	4.0	.94	0	0	2.0	0	1.5	0	4.9
25	.48	6.9	0	3.0	.34	0	0	2.2	.29	1.4	0	6.1
26	.65	2.1	0	1.8	.39	0	0	1.3	.09	.77	0	.73
27	.31	1.3	0	.30	0	0	0	.04	.80	.26	0	.04
28	.41	.44	0	.95	0	0	0	0	.67	.40	0	.04
29	.02	26	0	.74	---	0	.23	.08	.85	.80	0	.75
30	.02	1.3	0	6.5	---	0	0	0	.45	.43	0	0
31	.12	---	0	19	---	0	---	.02	---	0	0	---
TOTAL	13.36	76.73	6.00	48.13	87.53	415.86	32.15	25.06	18.94	13.93	2.93	19.65
MEAN	.43	2.56	.19	1.55	3.13	13.4	1.07	.81	.63	.45	.095	.66
MAX	1.4	26	2.9	19	51	168	10	2.7	2.6	1.8	.52	6.1
MIN	.02	0	0	0	0	0	0	0	0	0	0	0
AC-FT	26	152	12	95	174	825	64	50	38	28	5.8	39

CAL YR 1985 TOTAL 275.69 MEAN .76 MAX 26 MIN 0 AC-FT 547

SANTA ANA RIVER BASIN

11058500 EAST TWIN CREEK NEAR ARROWHEAD SPRINGS, CA

LOCATION.--Lat 34°10'45", long 117°15'53", in NE 1/4 NE 1/4 sec.14, T.1 N., R.4 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 1,000 ft upstream from Del Rosa Water Co.'s diversion, 0.5 mi south of Arrowhead Springs, and 1.0 mi downstream from Strawberry Creek.

DRAINAGE AREA.--8.80 mi².

PERIOD OF RECORD.--December 1919 to current year. Prior to October 1952, published as Strawberry Creek near Arrowhead Springs.

GAGE.--Water-stage recorder. Elevation of gage is 1,590 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 2-6, Dec. 11 to Jan. 13, Feb. 1-4, and Feb. 17-19. Records fair except for estimated daily discharges, which are poor. No regulation above station. One small diversion for domestic use above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--66 years (water years 1921-86), 4.96 ft³/s, 3,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,710 ft³/s, Jan. 29, 1980, gage height, 8.35 ft, on basis of slope-area measurement of peak flow; no flow at times in 1929, 1931-35.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*), from rating curve extended above 120 ft³/s on basis of slope-area measurement at gage height 8.35 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1645	156	3.51	Mar. 8	1515	150	3.58
Jan. 31	1830	68	3.12	Mar. 10	2230	162	3.62
Feb. 15	1845	*245	*3.84	Mar. 16	0830	130	3.51
Feb. 19	1200	132	3.52	Sept. 25	0200	50	3.16

Minimum daily, 0.62 ft³/s, Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.5	9.3	2.6	10	5.6	8.4	5.2	2.4	1.2	1.0	.78
2	.90	1.2	10	2.5	4.2	5.8	8.0	5.1	2.4	1.1	1.1	.87
3	.79	1.3	9.0	2.4	3.3	5.9	7.5	5.2	2.4	1.1	1.0	.83
4	.93	1.4	6.2	2.5	3.5	6.6	7.3	5.1	2.2	1.1	1.2	.77
5	.93	1.4	4.7	2.5	4.1	6.2	7.4	4.4	2.3	1.3	1.1	.70
6	.92	1.1	3.8	2.4	3.6	6.2	13	3.9	2.4	1.3	1.1	.68
7	1.5	1.2	3.1	2.4	3.5	6.4	11	3.6	2.4	1.3	.94	.70
8	1.9	1.3	3.0	2.3	3.4	32	7.6	3.4	2.3	1.2	.92	.74
9	1.8	1.5	3.0	2.3	2.7	15	6.7	3.1	2.1	1.2	.88	.84
10	1.7	1.6	4.2	2.4	3.8	57	6.5	3.2	1.9	1.3	.94	.92
11	1.5	13	4.0	2.4	2.9	58	6.2	2.9	1.8	1.4	.95	.90
12	1.4	6.0	3.5	2.3	4.1	26	6.5	2.9	1.7	1.4	.82	.90
13	1.4	4.1	3.3	2.3	6.4	25	6.0	3.2	1.7	1.3	.80	.95
14	1.3	4.2	2.8	2.4	13	25	5.7	3.3	1.7	1.2	.77	1.0
15	1.2	3.9	2.8	2.5	171	25	5.6	3.3	1.7	1.6	.79	1.1
16	1.2	3.4	2.7	2.6	69	80	5.8	3.1	1.8	1.6	.82	1.0
17	1.5	3.5	2.7	2.4	35	43	5.7	2.7	1.7	1.5	.77	1.0
18	1.5	3.6	2.6	2.3	30	25	5.3	2.6	1.8	1.4	.79	.95
19	1.4	3.1	2.6	2.4	50	19	5.0	2.4	1.8	1.3	.82	1.0
20	1.4	2.8	2.6	2.3	21	16	4.8	2.3	1.8	1.2	.66	1.2
21	3.7	2.8	2.6	2.3	16	14	4.9	2.5	1.7	1.5	.68	1.1
22	3.5	2.9	2.6	2.5	14	13	5.1	2.5	1.7	1.7	.74	1.1
23	2.0	2.8	2.7	2.3	10	12	5.1	2.5	1.5	1.6	.71	1.2
24	1.8	3.1	2.5	2.0	8.7	11	5.3	2.4	1.5	1.4	.74	4.3
25	1.5	14	2.4	2.0	7.6	10	5.4	2.1	1.5	1.4	.80	12
26	1.4	3.1	2.4	2.0	6.8	9.2	5.6	2.5	1.3	1.4	.69	1.9
27	1.6	2.5	2.4	2.1	6.7	8.6	5.3	2.4	1.2	1.4	.68	1.5
28	1.7	2.3	2.4	2.2	6.0	8.5	5.2	2.3	1.1	1.3	.63	1.5
29	1.7	54	2.5	2.2	---	8.5	5.1	2.3	1.2	1.2	.70	1.3
30	1.8	24	2.5	14	---	8.4	5.2	2.4	1.1	1.1	.62	1.0
31	1.9	---	2.6	16	---	8.3	---	2.4	---	1.1	.64	---
TOTAL	48.87	172.6	113.5	97.8	520.3	600.2	192.2	97.2	54.1	41.1	25.80	44.73
MEAN	1.58	5.75	3.66	3.15	18.6	19.4	6.41	3.14	1.80	1.33	.83	1.49
MAX	3.7	54	10	16	171	80	13	5.2	2.4	1.7	1.2	12
MIN	.79	1.1	2.4	2.0	2.7	5.6	4.8	2.1	1.1	1.1	.62	.68
AC-FT	97	342	225	194	1030	1190	381	193	107	82	51	89

CAL YR 1985 TOTAL 980.39 MEAN 2.69 MAX 54 MIN 42 AC-FT 1840

SANTA ANA RIVER BASIN

11059300 SANTA ANA RIVER AT E STREET, NEAR SAN BERNARDINO, CA

LOCATION.--Lat 34°03'54", long 117°17'58", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, 0.4 mi downstream from E Street bridge, 1.2 mi downstream from San Timoteo Creek, 0.4 mi upstream from Warm Creek, 2.8 mi south of San Bernardino, and 26 mi downstream from Big Bear Lake.

DRAINAGE AREA.--541 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1939 to September 1954, October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 940 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 10, 1950, water-stage recorder on right bank 0.4 mi upstream at datum 964.50 ft above NGVD. Nov. 11, 1950, to Sept. 30, 1954, water-stage recorder on both banks 0.4 mi upstream at datum 964.50 ft above NGVD. Oct. 1, 1966, to Sept. 30, 1976, water-stage recorder on right bank 0.4 mi upstream at datum 954.50 ft above NGVD. Oct. 1, 1976, to Sept. 30, 1977, gage was removed for channel construction. Oct. 1, 1977, to Jan. 28, 1981, water-stage recorder on right bank 0.5 mi upstream at elevation 950 ft above NGVD, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 30 to Nov. 2, Nov. 14-18, 27, Dec. 3-6, Mar. 29-31, Aug. 27 to Sept. 30. Records fair except for estimated discharges, which are poor. Flow partly regulated by Big Bear Lake (station 11049000). Natural flow of stream affected by ground-water withdrawals and diversion for domestic use and irrigation above station. Effluent from sewage reclamation plant 1.0 mi upstream has caused sustained flow past gage since 1967. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--15 years (water years 1940-54), 12.5 ft³/s, 9,050 acre-ft/yr; 20 years (water years 1967-86), 101 ft³/s, 73,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s, Feb. 25, 1969, gage height, 11.9 ft, site and datum then in use; maximum gage height, 16.50 ft, Jan. 23, 1943, site and datum then in use, discharge uncertain, but was probably less than 8,000 ft³/s; no flow many days prior to 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0930	3,370	6.39	Mar. 15	2345	*5,380	*7.10
Feb. 19	1715	1,140	5.24	Apr. 6	0800	2,260	6.13
Mar. 10	1900	4,740	6.90				

Minimum daily, 29 ft³/s, Oct. 1, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	37	81	42	111	53	59	47	54	39	38	35
2	30	36	77	44	44	53	60	51	51	39	37	35
3	29	35	60	44	40	55	58	51	48	40	36	35
4	30	36	50	44	50	55	56	51	44	38	37	35
5	32	37	45	44	43	52	58	50	42	38	37	35
6	31	41	41	44	44	61	303	55	41	39	38	34
7	32	36	41	42	44	57	80	58	40	40	38	34
8	32	34	42	43	84	248	67	58	40	40	37	34
9	34	37	44	44	46	198	63	51	44	41	36	34
10	43	33	53	43	46	1180	59	51	44	40	35	34
11	36	132	48	44	44	1040	60	50	41	40	36	34
12	44	174	42	43	44	428	58	55	42	39	36	34
13	42	60	43	43	60	430	57	53	41	38	37	34
14	43	60	43	41	144	308	55	52	41	39	37	34
15	42	60	43	42	2500	668	54	52	40	38	37	34
16	43	59	43	43	810	806	55	50	43	42	36	33
17	44	58	43	47	229	339	53	47	43	48	35	33
18	45	58	44	45	124	207	52	49	44	48	41	33
19	43	58	43	43	430	169	51	47	40	46	38	33
20	39	58	42	44	241	133	53	48	41	45	35	33
21	40	56	43	44	135	132	55	48	40	48	36	33
22	70	56	42	42	76	114	50	49	39	47	36	33
23	51	50	42	42	65	98	48	47	40	45	34	33
24	48	57	43	46	57	84	48	47	40	46	34	150
25	46	244	39	44	54	80	48	45	40	44	36	300
26	47	83	41	43	49	72	50	47	40	42	35	60
27	46	70	42	44	48	67	49	47	41	41	35	45
28	47	60	41	44	51	66	50	50	39	42	35	40
29	46	273	40	44	---	64	49	51	39	40	35	40
30	42	172	42	185	---	62	49	50	40	40	35	38
31	39	---	44	233	---	61	---	54	---	38	35	---
TOTAL	1265	2260	1427	1680	5713	7440	1907	1561	1262	1290	1123	1452
MEAN	40.8	75.3	46.0	54.2	204	240	63.6	50.4	42.1	41.6	36.2	48.4
MAX	70	273	81	233	2500	1180	303	58	54	48	41	300
MIN	29	33	39	41	40	52	48	45	39	38	34	33
AC-FT	2510	4480	2830	3330	11330	14760	3780	3100	2500	2560	2230	2880

SANTA ANA RIVER BASIN

11059300 SANTA ANA RIVER AT E STREET, NEAR SAN BERNARDINO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983 to current year.

WATER TEMPERATURE: November 1982 to current year.

SEDIMENT DATA: Water years 1983 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1982 to September 1983.

SUSPENDED-SEDIMENT DISCHARGE: October 1982 to September 1983.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT					
15...	1500	54	24.0	32	4.7
NOV					
12...	0815	236	8.5	613	391
25...	1045	237	14.0	675	432
29...	1530	600	13.0	3280	5310
30...	0900	136	10.0	1500	551
30...	1130	130	11.0	905	318
30...	1610	110	11.0	504	150
DEC					
02...	1030	74	15.5	129	26
04...	1500	50	21.5	16	2.2
JAN					
30...	1500	208	17.0	1090	612
FEB					
03...	1550	53	21.5	81	12
15...	1115	3150	15.0	22700	193000
16...	1015	665	11.5	4270	7670
MAR					
06...	1025	63	22.0	368	63
APR					
02...	0745	39	19.5	101	11
MAY					
06...	1000	70	22.0	58	11
JUL					
09...	1000	46	27.5	35	4.3
AUG					
06...	0825	47	24.0	77	9.8

SANTA ANA RIVER BASIN

11060400 WARM CREEK NEAR SAN BERNARDINO, CA

LOCATION.--Lat 34°04'42", long 117°17'58", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, on left bank 0.2 mi downstream from Interstate 215 bridge, and 2.0 mi southwest of San Bernardino.

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--February 1964 to September 1972, October 1974 to current year.

REVISED RECORDS.--WDR CA-83-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 960 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1974, at site 0.1 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Natural channel prior to September 1972; concrete-lined channel October 1974 to current year. Possible regulation at high flows by flood control gates on Warm Creek Floodway, 3.0 mi upstream. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--8 years (water years 1965-72), 1.61 ft³/s, 1,170 acre-ft/yr; 12 years (water years 1975-86), 20.7 ft³/s, 15,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s, estimated, Mar. 1, 1978, gage height unknown; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 659 ft³/s, Apr. 6, gage height, 2.36 ft; minimum daily, 6.2 ft³/s, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	24	21	29	19	26	36	26	19	19	16	15
2	21	25	42	28	19	26	38	29	19	19	16	15
3	21	25	21	29	21	27	38	28	19	19	16	15
4	20	26	21	30	20	27	38	26	20	19	16	15
5	20	26	22	28	22	28	39	23	20	20	16	15
6	21	26	23	28	25	28	115	23	20	19	16	15
7	21	26	23	27	29	29	39	25	20	19	14	15
8	21	28	24	28	42	132	37	27	20	20	6.2	16
9	25	28	24	28	27	28	40	26	20	19	11	16
10	20	28	28	28	26	112	46	25	20	19	21	16
11	21	109	24	27	26	28	52	24	19	18	18	16
12	23	41	24	27	27	40	58	26	20	18	16	16
13	22	13	25	28	43	61	61	23	20	20	16	17
14	20	13	26	27	85	28	63	23	19	18	18	19
15	16	13	26	26	164	88	62	23	19	18	18	19
16	12	14	27	26	27	113	59	23	19	18	17	18
17	12	15	27	27	24	28	53	23	20	18	16	18
18	12	16	27	27	23	26	46	24	21	17	31	18
19	12	17	27	28	42	27	42	23	20	17	14	19
20	12	18	27	28	22	28	39	23	19	17	15	20
21	28	19	28	28	23	29	37	23	19	17	15	20
22	23	19	28	27	23	29	35	22	19	16	15	19
23	23	21	28	27	24	30	32	20	19	22	15	19
24	23	45	26	26	25	31	35	18	19	17	14	45
25	23	96	27	27	25	31	37	18	19	17	14	74
26	24	27	28	27	26	32	32	17	19	17	13	12
27	25	26	28	28	26	34	31	17	19	17	13	12
28	24	28	28	28	26	34	30	17	19	17	15	13
29	24	158	29	28	---	34	29	17	19	16	15	15
30	25	22	29	79	---	35	27	18	20	16	15	15
31	23	---	29	74	---	36	---	19	---	16	15	---
TOTAL	636	992	817	953	931	1285	1326	699	584	559	486.2	577
MEAN	20.5	33.1	26.4	30.7	33.3	41.5	44.2	22.5	19.5	18.0	15.7	19.2
MAX	28	158	42	79	164	132	115	29	21	22	31	74
MIN	12	13	21	26	19	26	27	17	19	16	6.2	12
AC-FT	1260	1970	1620	1890	1850	2550	2630	1390	1160	1110	964	1140
CAL YR 1985	TOTAL	9657.0	MEAN 26.5	MAX 158	MIN	12	AC-FT	19150				
WTR YR 1986	TOTAL	9845.2	MEAN 27.0	MAX 164	MIN	6.2	AC-FT	19530				

SANTA ANA RIVER BASIN

11062000 LYTLE CREEK NEAR FONTANA, CA

LOCATION.--Lat 34°12'44", long 117°27'26", in NW 1/4 SE 1/4 sec.36, T.2 N., R.6 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 75 ft upstream from highway culvert crossing, 0.7 mi upstream from right tributary, 2.3 mi downstream from Lytle Creek conduit, and 8 mi north of Fontana.

DRAINAGE AREA.--46.6 mi².

PERIOD OF RECORD.--October 1918 to current year. Combined records of Lytle Creek and diversions, October 1898 to December 1899, October 1904 to current year (published as "at mouth of canyon near Rialto" 1898-99, as "near San Bernardino" 1904-18, and as Lytle Creek and Fontana pipeline near Fontana 1919-31). Monthly discharge only for some periods published in WSP 1315-B.

REVISED RECORDS.--WDR CA-83-1: Drainage area.

GAGE.--Water-stage recorder on creek. Dual arch-culvert control since 1964. Water-stage recorders and sharp-crested weirs on conduit since June 3, 1949, and infiltration line since Oct. 1, 1971. Elevation of creek gage is 2,380 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1918 to Mar. 21, 1938, at site 1 mi downstream at different datum. Mar. 22, 1938, to Nov. 20, 1963, at site 75 ft downstream at datum 4.58 ft lower. Sharp-crested weirs at different datum.

REMARKS.--Estimated daily discharges: Nov. 28 to Dec. 2, Dec. 4-5, Jan. 6, 7, 31, Feb. 3, 4, 7-12, Feb. 17 to Mar. Mar. 11-17, and May 24 to June 11. Records: creek only, fair, except for periods of estimated daily discharges, which are poor; combined creek and diversion, fair. No regulation above station. Southern California Edison Co.'s Lytle Creek conduit diverts 2.3 mi upstream for power development, and Fontana Union Water Co. collects water from an infiltration line upstream for irrigation. See schematic diagram of Santa Ana River basin. For records of combined discharge of Lytle Creek and diversions, see following page.

AVERAGE DISCHARGE.--Creek only: 68 years, 18.5 ft³/s, 13,400 acre-ft/yr.

Combined creek and diversions: 83 years (water years 1899, 1905-86), 45.6 ft³/s, 33,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 35,900 ft³/s, Jan. 25, 1969, gage height, 15.0 ft, from floodmark, from rating curve extended above 570 ft³/s on basis of slope-area measurements at gage heights 10.78 ft and 15.0 ft; no flow at times most years.

Combined creek and diversions: Maximum discharge, 35,900 ft³/s, Jan. 25, 1969; minimum daily, 0.12 ft³/s, June 21, 22, 1976.

EXTREMES FOR CURRENT YEAR.--Creek only: Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Creek only Discharge (ft ³ /s)	Gage height (ft)	Combined Creek and Diversions Discharge (ft ³ /s)
Jan. 30	1015	*370	*4.94	*372
Creek only: No flow many days.				
Combined creek and diversions: Minimum daily, 16 ft ³ /s, Oct. 1-6, 16, Nov. 1, 9.				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	12	0	42	26	46	22	8.0	7.9	8.9	7.5
2		0	15	0	35	25	38	20	8.0	12	8.9	7.3
3		0	24	0	32	24	37	19	7.5	11	8.5	7.1
4		0	17	0	30	26	36	17	7.5	12	8.7	7.6
5		0	10	0	27	25	35	17	8.0	11	11	7.4
6		0	6.9	.01	22	24	67	17	8.5	9.6	11	6.9
7		0	4.6	.02	16	22	61	16	8.5	9.1	11	6.9
8		0	2.5	.02	12	46	46	15	8.0	9.5	12	6.6
9		0	1.9	.01	7.0	53	36	14	7.0	9.7	14	8.3
10		0	2.0	.01	8.0	97	33	13	7.0	10	16	7.7
11		73	1.7	0	9.0	62	31	13	7.0	10	21	7.8
12		8.3	1.2	0	6.6	27	30	12	6.9	11	16	8.2
13		0	.86	0	24	24	28	12	7.3	13	15	8.6
14		0	.58	0	39	26	27	12	7.3	12	16	9.1
15		0	.37	0	203	32	26	12	7.3	10	15	9.4
16		0	.23	0	115	120	25	12	6.1	11	13	9.9
17		0	.15	0	69	58	24	10	5.4	10	7.0	9.4
18		0	.10	0	29	51	22	9.0	6.4	11	6.9	8.9
19		0	.04	0	99	46	21	8.4	8.0	11	7.3	9.1
20		0	.01	0	71	43	23	8.3	9.9	9.4	7.5	8.9
21		0	0	0	56	41	27	9.3	8.1	7.7	8.2	8.9
22		0	0	0	46	41	27	8.6	7.2	8.1	8.3	9.3
23		0	0	0	40	39	26	9.2	6.5	9.1	7.9	10
24		.09	0	0	37	36	26	9.0	6.9	9.2	7.7	17
25		50	0	0	35	35	25	9.0	7.5	10	7.5	79
26		4.3	0	0	33	41	23	9.0	8.2	11	7.7	33
27		.72	0	0	30	49	22	8.5	7.6	11	7.9	18
28		.21	0	0	28	46	23	8.0	8.2	10	7.1	16
29		86	0	0	---	46	23	8.5	7.7	10	7.2	14
30		45	0	139	---	44	23	8.5	5.9	9.8	7.7	13
31		---	0	54	---	49	---	8.0	---	9.7	8.2	---
TOTAL	0	267.62	101.14	193.07	1200.6	1324	937	374.3	223.4	315.8	320.1	380.8
MEAN	0	8.92	3.26	6.23	42.9	42.7	31.2	12.1	7.45	10.2	10.3	12.7
MAX	0	86	24	139	203	120	67	22	9.9	13	21	79
MIN	0	0	0	0	6.6	22	21	8.0	5.4	7.7	6.9	6.6
AC-FT	0	531	201	383	2380	2630	1860	742	443	626	635	755

SANTA ANA RIVER BASIN

11062001 LYTLE CREEK NEAR FONTANA, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF LYTLE CREEK,
SOUTHERN CALIFORNIA EDISON CO.'S LYTLE CREEK CONDUIT, AND FONTANA UNION WATER
CO.'S INFILTRATION LINE, NEAR FONTANA, CA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	38	23	42	49	68	46	31	30	32	30
2	16	17	40	23	35	48	60	44	30	34	32	29
3	16	17	47	23	42	47	59	43	30	33	32	29
4	16	17	42	24	41	49	58	41	30	34	32	30
5	16	17	35	23	31	48	57	41	30	33	34	29
6	16	17	32	23	30	47	89	41	31	32	34	29
7	17	17	30	22	28	45	83	40	31	31	29	29
8	17	17	28	22	34	64	68	38	30	33	30	30
9	17	16	27	22	29	58	58	37	29	33	32	31
10	17	17	27	22	31	102	55	36	29	33	34	31
11	17	80	27	22	31	76	53	36	29	33	36	31
12	17	20	26	22	29	50	52	35	29	34	34	31
13	17	25	25	22	34	47	50	35	29	36	34	32
14	17	25	25	22	43	49	49	35	29	35	37	31
15	17	24	24	22	203	55	48	35	29	33	36	32
16	16	23	24	21	117	135	47	36	28	34	34	33
17	17	23	24	21	74	72	47	33	27	33	28	32
18	17	24	24	21	34	74	45	32	28	34	28	32
19	17	23	24	22	101	68	43	31	30	34	28	32
20	17	22	24	21	76	65	45	30	33	32	29	32
21	17	22	24	21	61	63	50	31	31	31	30	32
22	18	21	24	21	54	63	50	32	30	31	30	32
23	17	21	24	21	59	61	49	32	30	32	30	33
24	17	22	24	21	56	58	49	32	30	32	30	40
25	17	72	24	21	55	57	48	32	31	33	30	86
26	17	28	24	21	56	63	46	32	31	34	30	45
27	17	26	24	20	52	71	45	32	31	34	30	41
28	17	25	24	21	51	68	46	31	31	33	29	39
29	17	99	24	21	---	68	46	32	30	33	29	37
30	17	59	24	145	---	66	47	32	28	33	30	36
31	17	---	23	54	---	71	---	31	---	33	30	---
TOTAL	521	852	856	830	1529	1957	1610	1094	895	1023	973	1036
MEAN	16.8	28.4	27.6	26.8	54.6	63.1	53.7	35.3	29.8	33.0	31.4	34.5
MAX	18	99	47	145	203	135	89	46	33	36	37	86
MIN	16	16	23	20	28	45	43	30	27	30	28	29
AC-FT	1030	1690	1700	1650	3030	3880	3190	2170	1780	2030	1930	2050
CAL YR 1985	TOTAL	8162	MEAN 22.4	MAX 99	MIN 15	AC-FT 16190						
WTR YR 1986	TOTAL	13176	MEAN 36.1	MAX 203	MIN 16	AC-FT 26130						

SANTA ANA RIVER BASIN

11063500 LONE PINE CREEK NEAR KEENBROOK, CA

LOCATION.--Lat 34°15'59", long 117°27'47", in SE 1/4 SW 1/4 sec.12, T.2 N., R.6 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 50 ft upstream from the Atchison, Topeka, and Santa Fe Railway Co. bridge, 150 ft upstream from confluence with Cajon Creek, and 1.1 mi north of Keenbrook.

DRAINAGE AREA.--15.1 mi².

PERIOD OF RECORD.--December 1919 to September 1938, June 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,605.92 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 2, 1938, water-stage recorder (destroyed by flood) and Mar. 2 to Sept. 30, 1938, nonrecording gage at same site at datum 0.98 ft higher.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--55 years (water years 1921-38, 1950-86), 1.89 ft³/s, 1,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,180 ft³/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow; no flow Aug. 6-8, Sept. 29, 30, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0200	*84	*2.60				

Minimum daily, 0.83 ft³/s, Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	1.0	1.2	1.3	1.3	1.6	1.9	2.1	1.4	1.2	1.0	1.1
2	.88	1.0	1.3	1.3	1.3	1.7	1.9	2.1	1.5	1.2	1.0	1.1
3	.87	.95	1.2	1.3	1.2	1.6	1.9	2.0	1.5	1.2	1.1	1.2
4	.95	1.0	1.2	1.3	1.2	1.6	1.9	1.9	1.5	1.2	1.0	1.1
5	.91	1.2	1.2	1.3	1.2	1.7	1.9	2.0	1.6	1.3	1.1	.95
6	.89	1.1	1.2	1.2	1.2	1.7	3.5	2.0	1.6	1.2	1.1	.95
7	.93	1.1	1.3	1.2	1.2	1.7	2.1	1.9	1.6	1.2	1.1	.95
8	.93	1.2	1.3	1.3	1.2	1.8	2.0	1.9	1.4	1.2	1.1	.94
9	.95	1.1	1.3	1.3	1.3	1.5	2.1	1.8	1.4	1.2	1.1	.94
10	.93	1.2	1.3	1.3	1.3	6.9	2.1	1.8	1.4	1.2	1.2	.90
11	.95	4.8	1.3	1.3	1.3	2.0	2.1	1.9	1.4	1.2	1.3	.85
12	.95	1.5	1.3	1.3	1.3	1.6	2.1	2.0	1.4	1.3	1.3	.84
13	.95	1.4	1.3	1.3	1.2	1.6	2.2	2.0	1.4	1.2	1.2	.86
14	.94	1.3	1.3	1.3	3.8	1.6	2.1	2.0	1.4	1.2	1.2	.86
15	.95	1.3	1.3	1.3	25	2.0	2.1	2.0	1.4	1.2	1.1	.86
16	.95	1.3	1.3	1.3	3.0	11	2.2	2.0	1.4	1.2	1.1	.86
17	.95	1.3	1.3	1.3	1.5	2.6	2.2	1.9	1.4	1.2	1.1	.87
18	.95	1.3	1.2	1.3	1.5	2.0	2.2	1.9	1.4	1.2	1.1	.86
19	.95	1.3	1.2	1.3	1.7	1.9	2.3	1.8	1.4	1.2	1.2	.86
20	.95	1.3	1.2	1.3	1.7	1.8	2.3	1.9	1.4	1.1	1.2	.83
21	.98	1.3	1.3	1.3	1.7	1.8	2.2	2.0	1.4	1.2	1.2	.87
22	.97	1.3	1.3	1.3	1.7	1.9	2.2	1.9	1.3	1.1	1.2	.84
23	.95	1.4	1.3	1.3	1.6	2.0	2.2	1.9	1.2	1.1	1.1	.86
24	.95	1.7	1.3	1.3	1.5	2.0	2.2	1.9	1.2	1.1	1.1	.92
25	.95	4.1	1.3	1.3	1.6	1.9	2.2	1.8	1.2	.96	1.2	1.1
26	.95	1.6	1.3	1.3	1.5	1.9	2.2	1.6	1.2	1.0	1.2	.98
27	.95	1.5	1.3	1.3	1.5	2.0	2.2	1.5	1.2	.99	1.2	.95
28	.95	1.5	1.3	1.3	1.6	2.0	2.1	1.5	1.2	1.0	1.1	.95
29	.95	8.4	1.3	1.3	---	2.0	2.1	1.5	1.2	1.0	1.1	.92
30	.95	1.3	1.3	12	---	2.2	2.1	1.5	1.2	1.0	1.1	.95
31	1.0	---	1.3	2.0	---	1.9	---	1.5	---	1.0	1.1	---
TOTAL	29.21	51.75	39.5	51.5	67.1	71.5	64.8	57.5	41.2	35.55	35.2	28.02
MEAN	.94	1.73	1.27	1.66	2.40	2.31	2.16	1.85	1.37	1.15	1.14	.93
MAX	1.0	8.4	1.3	12	25	11	3.5	2.1	1.6	1.3	1.3	1.2
MIN	.87	.95	1.2	1.2	1.2	1.5	1.9	1.5	1.2	.96	1.0	.83
AC-FT	58	103	78	102	133	142	129	114	82	71	70	56

CAL YR 1985 TOTAL 534.45 MEAN 1.46 MAX 8.4 MIN .87 AC-FT 1060
WTR YR 1986 TOTAL 572.83 MEAN 1.57 MAX 25 MIN .83 AC-FT 1140

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	6.1	13	7.0	34	12	18	9.6	7.7	6.5	5.8	5.0
2	5.8	5.9	13	7.0	17	12	18	9.7	7.9	6.5	5.8	5.4
3	5.7	5.7	11	6.8	14	13	18	9.8	8.0	6.7	5.8	5.4
4	6.0	5.5	9.5	6.8	11	12	18	10	8.0	6.4	5.7	5.4
5	5.9	5.6	8.8	6.6	10	12	18	9.7	7.8	6.3	5.5	5.2
6	5.4	5.6	8.3	6.8	9.5	11	20	10	7.8	6.3	5.6	5.0
7	5.4	5.8	8.2	7.1	9.7	10	15	9.9	7.8	6.3	5.7	4.9
8	5.7	6.0	8.3	7.2	10	13	15	9.9	7.8	6.3	5.9	4.9
9	6.3	6.2	8.2	7.1	8.1	13	15	9.7	7.4	6.3	5.2	5.3
10	6.1	6.5	8.2	7.2	6.6	43	15	9.8	7.3	6.2	5.2	5.1
11	6.3	26	9.5	7.0	7.2	22	14	9.9	7.3	6.2	5.7	5.2
12	6.0	9.2	9.0	6.9	6.6	21	14	9.8	7.3	6.2	5.7	5.4
13	5.2	6.8	8.2	7.0	16	22	13	9.7	7.4	6.2	5.8	5.6
14	5.0	6.7	8.0	7.2	51	22	13	9.8	7.1	6.2	6.0	5.6
15	5.3	6.6	7.9	7.2	191	23	13	9.7	7.1	6.4	6.0	5.6
16	5.3	6.5	7.6	7.2	50	104	13	9.6	7.1	6.2	5.5	5.5
17	5.5	6.4	7.9	7.2	48	46	12	9.2	7.1	6.2	5.1	5.5
18	5.9	6.3	7.7	7.1	44	33	12	8.3	7.1	6.2	5.2	5.5
19	5.9	6.5	8.1	6.3	36	29	12	8.3	6.9	6.9	5.1	5.5
20	5.8	6.4	7.6	5.7	23	26	11	8.4	7.0	6.4	4.9	5.5
21	6.2	6.4	7.4	5.7	20	24	11	8.7	7.0	6.0	5.1	5.6
22	6.1	6.8	7.1	5.7	18	20	11	8.7	6.9	5.8	5.6	5.5
23	5.8	6.8	6.8	5.7	17	19	11	8.8	6.8	5.7	5.8	5.5
24	5.9	7.7	6.5	5.9	16	18	12	8.4	6.6	5.9	5.8	5.5
25	6.0	24	6.6	6.0	13	17	13	7.6	6.5	5.9	5.8	7.6
26	5.8	11	6.9	5.9	13	16	13	8.3	6.4	5.9	5.6	6.2
27	5.8	12	7.0	5.9	14	17	13	8.0	6.5	5.9	5.6	6.0
28	6.0	7.9	6.9	6.0	14	17	11	7.8	6.6	5.9	5.5	5.8
29	6.0	33	6.7	6.3	---	18	9.8	7.9	6.3	5.8	5.5	5.6
30	6.1	17	6.9	70	---	17	9.1	7.9	6.3	5.8	5.3	5.6
31	6.1	---	6.9	49	---	18	---	7.9	---	5.8	5.3	---
TOTAL	180.3	278.9	253.7	310.5	727.7	700	410.9	280.8	214.8	191.3	172.1	165.4
MEAN	5.82	9.30	8.18	10.0	26.0	22.6	13.7	9.06	7.16	6.17	5.55	5.51
MAX	6.3	33	13	70	191	104	20	10	8.0	6.9	6.0	7.6
MIN	5.0	5.5	6.5	5.7	6.6	10	9.1	7.6	6.3	5.7	4.9	4.9
AC-FT	358	553	503	616	1440	1390	815	557	426	379	341	328
CAL YR 1985	TOTAL	3011.4	MEAN	8.25	MAX	33	MIN	5.0	AC-FT	5970		
WTR YR 1986	TOTAL	3886.4	MEAN	10.6	MAX	191	MIN	4.9	AC-FT	7710		

SANTA ANA RIVER BASIN

11063680 DEVIL CANYON CREEK NEAR SAN BERNARDINO, CA

LOCATION.--Lat 34°12'30", long 117°19'50", in Muscupiabe Grant, San Bernardino County, Hydrologic Unit 18070203, on left bank 0.6 mi downstream from confluence of East and West Forks, and 7.5 mi northwest of San Bernardino. DRAINAGE AREA.--5.49 mi².

PERIOD OF RECORD.--November 1911 to September 1912, October 1913 to September 1914, December 1919 to current year. Monthly figures only for January 1914, published in WSP 1315-B.

GAGE.--Water-stage recorder on creek; flowmeter on diversion. Elevation of gage is 2,080 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to December 1919, nonrecording gage at site 0.5 mi downstream at different datum. December 1919 to July 1969, at site 0.4 mi downstream at different datum. July 1969 to September 1972, present gage used as supplementary gage. Oct. 1, 1973, to Feb. 25, 1974, supplementary gage at site 0.5 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station. City of San Bernardino diverts above station for municipal supply. See schematic diagram of Santa Ana River basin. Records given below are for creek only unless otherwise indicated.

COOPERATION.--Records of diversion were provided by city of San Bernardino.

AVERAGE DISCHARGE.--Creek only: 67 years (water years 1914, 1921-86), 2.32 ft³/s, 1,680 acre-ft/yr.

Combined creek and diversion: 53 years (water years 1914, 1935-86), 4.30 ft³/s, 3,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (1913-14 AND SINCE 1919).--Maximum discharge, 3,720 ft³/s, Jan. 25, 1969, gage height, 5.40 ft, site and datum then in use, on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1330	65	5.76	Feb. 19	1100	53	5.71
Feb. 15	2030	58	5.73	Mar. 10	1345	*72	*5.79

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	3.9	2.0	5.2	5.6	5.8	2.0	.28	.20		0
2	0	0	3.9	1.7	4.1	5.6	5.6	1.9	.27	0		0
3	0	0	4.1	1.7	3.9	5.3	5.6	1.9	.18	0		0
4	0	0	3.4	2.4	3.8	5.0	5.6	1.9	0	0		.06
5	0	0	3.1	1.7	3.6	4.7	5.6	1.9	0	0		.04
6	0	0	2.8	1.8	3.5	4.5	8.9	1.9	0	0		0
7	0	0	2.9	1.9	3.3	4.5	7.8	1.9	0	0		0
8	0	0	2.9	2.4	3.3	12	4.8	1.8	0	0		0
9	0	0	2.9	2.0	3.3	7.4	3.5	1.6	0	.12		0
10	.10	0	2.9	1.8	2.0	19	4.8	1.5	0	0		0
11	0	5.1	2.9	1.7	.12	13	4.8	1.5	0	.02		0
12	0	3.4	2.5	1.7	.10	10	4.8	1.5	0	0		0
13	0	1.1	2.6	1.7	.87	10	4.8	1.5	0	0		0
14	0	0	2.4	1.2	1.5	9.6	4.8	1.6	0	0		0
15	0	0	1.5	1.5	35	10	4.9	1.3	0	0		0
16	0	0	2.5	1.6	37	22	4.8	.62	0	0		0
17	0	0	2.5	1.8	17	17	4.8	.40	0	0		0
18	0	.11	2.0	2.1	11	13	4.6	.28	0	0		0
19	0	.65	2.3	2.1	23	12	4.1	.24	0	0		0
20	0	0	1.8	2.1	15	11	3.6	.20	0	0		0
21	.37	0	2.9	2.1	12	10	4.1	.24	0	.28		0
22	1.0	0	2.2	1.8	10	9.6	4.0	.21	0	.46		0
23	0	.10	1.9	1.6	8.8	8.8	3.9	.27	0	.56		0
24	0	.99	3.2	1.9	7.8	8.1	3.9	.35	0	.16		1.4
25	0	6.5	2.2	1.9	7.1	7.4	3.8	.19	0	0		5.6
26	0	3.7	1.4	1.9	6.6	4.9	3.6	.18	0	0		2.6
27	0	3.1	1.6	1.9	6.2	3.0	3.3	.16	0	0		2.1
28	0	2.9	1.7	1.9	5.8	2.8	2.5	.14	0	0		.88
29	0	18	2.0	2.0	---	2.7	2.0	.12	0	0		0
30	0	5.7	2.5	7.5	---	2.5	2.2	.12	.03	0		.09
31	0	---	2.0	7.3	---	4.6	---	.19	---	0		---
TOTAL	1.47	51.35	79.4	68.7	240.89	265.6	137.3	29.61	.76	1.80	0	12.77
MEAN	.047	1.71	2.56	2.22	8.60	8.57	4.58	.96	.025	.058	0	.43
MAX	1.0	18	4.1	7.5	37	22	8.9	2.0	.28	.56	0	5.6
MIN	0	0	1.4	1.2	.10	2.5	2.0	.12	0	0	0	0
AC-FT	2.9	102	157	136	478	527	272	59	1.5	3.6	0	25
a	144	214	205	205	480	527	333	297	210	173	145	151

CAL YR 1985 TOTAL 395.05 MEAN 1.08 MAX 18 MIN 0 AC-FT 784
WTR YR 1986 TOTAL 889.65 MEAN 2.44 MAX 37 MIN 0 AC-FT 1760

SANTA ANA RIVER BASIN

11065000 LYTLE CREEK AT COLTON, CA

LOCATION.--Lat 34°04'44", long 117°18'17", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, on right bank 400 ft downstream from Colton Avenue, 1,930 ft upstream from outlet end of channel, and 1.3 mi northeast of Colton.

DRAINAGE AREA.--186 mi².

REVISED RECORDS.--WDR CA-83-1: Drainage area.

PERIOD OF RECORD.--October 1957 to September 1983, October 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is 974.67 ft above National Geodetic Vertical Datum of 1929, U.S. Army Corps of Engineers datum.

REMARKS.--Estimated daily discharges: May 7 to June 10. Records poor. Flow partly regulated by Lytle Creek spreading grounds 3.2 mi upstream. Diversions above station for irrigation, power development, domestic use, and ground-water replenishment. See schematic diagram of Santa Ana River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft³/s, Mar. 4, 1978, gage height, 14.8 ft, from rating curve extended above 4,200 ft³/s on basis of discharge for design flood at gage height 21.4 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 908 ft³/s, Jan. 30, gage height, 2.90 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.86	2.2	0	16	0	.15	0	.24	.09	0	0
2	.36	.75	17	0	.49	0	.05	0	.24	.09	0	0
3	.36	.76	2.1	0	.40	0	0	0	.24	.04	0	0
4	.40	.73	.88	0	.34	0	0	0	.24	.04	0	0
5	.37	.74	.33	0	.27	0	0	0	.28	.04	0	0
6	.38	.42	.28	0	.18	0	156	0	.28	0	0	0
7	.40	.72	.24	0	.58	0	24	0	.24	0	0	0
8	.40	.80	.24	0	7.2	108	.39	0	.24	0	.09	0
9	.45	.72	.24	0	.20	44	.44	0	.24	0	.10	0
10	.50	.57	1.1	0	.02	168	.15	.32	.32	0	.11	0
11	.18	135	.67	0	0	35	.02	.47	.18	0	.09	0
12	.31	49	.29	0	0	6.3	0	.48	.18	0	.05	0
13	.31	.35	.21	0	10	23	0	.35	.18	0	.05	0
14	.29	.24	.16	0	47	2.5	0	.24	1.0	0	0	0
15	.28	.24	.10	0	508	55	0	.28	1.0	0	0	0
16	.29	.24	.02	0	209	284	0	.31	1.0	0	0	0
17	.31	.15	0	0	6.6	42	0	.31	1.0	0	0	0
18	.33	.14	0	0	3.4	2.8	0	.28	1.3	0	0	0
19	.28	.17	0	0	83	1.9	0	.27	1.3	0	0	0
20	.32	.16	0	0	37	1.5	0	.29	1.0	0	0	0
21	5.4	.09	0	0	4.0	1.1	0	.31	1.0	0	0	0
22	1.3	.02	0	0	2.1	.92	0	.31	1.0	0	0	0
23	1.0	0	0	0	1.1	.81	0	.31	1.0	3.2	0	0
24	.96	15	0	0	.56	.71	0	.31	1.3	.26	0	5.2
25	1.0	86	0	0	.32	.61	0	.28	.51	.12	0	86
26	.93	4.2	0	0	.19	.51	0	.24	.24	.07	0	.65
27	.82	.45	0	0	.09	.51	0	.26	.14	.05	0	.14
28	.94	.27	0	0	.02	.47	0	.24	.14	.03	0	.09
29	.94	187	0	0	---	.40	0	.24	.09	0	0	.04
30	.85	39	0	161	---	.40	0	.24	.09	0	0	0
31	1.0	---	0	85	---	.27	---	.24	---	0	0	---
TOTAL	21.98	524.79	26.06	246	938.06	780.71	181.20	6.58	16.21	4.03	.49	92.12
MEAN	.71	17.5	.84	7.94	33.5	25.2	6.04	.21	.54	.13	.016	3.07
MAX	5.4	187	17	161	508	284	156	.48	1.3	3.2	.11	86
MIN	.18	0	0	0	0	0	0	0	.09	0	0	0
AC-FT	44	1040	52	488	1860	1550	359	13	32	8.0	1.0	183

CAL YR 1985 TOTAL 701.50 MEAN 1.92 MAX 187 MIN 0 AC-FT 1390
WTR YR 1986 TOTAL 2838.23 MEAN 7.78 MAX 508 MIN 0 AC-FT 5630

SANTA ANA RIVER BASIN

11066460 SANTA ANA RIVER AT MWD CROSSING, NEAR ARLINGTON, CA

LOCATION.--Lat 33°58'07", long 117°26'51", in NE 1/4 SW 1/4 sec.30, T.2 S., R.5 W., Riverside County, Hydrologic Unit 18070203, on right bank at MWD pipeline crossing, 0.8 mi downstream from Union Pacific Railroad bridge, 1.1 mi upstream from bridge on Van Buren Boulevard, and 3.3 mi north of Arlington.

DRAINAGE AREA.--852 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1970 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 685 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 1984 water-stage recorder at site 300 ft upstream on left bank at different datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Jan. 22, Mar. 10 to Apr. 8, and June 19 to Sept. 30. Records poor. Flow partly regulated by Big Bear Lake (station 11049000). Natural streamflow affected by ground-water withdrawals, diversions for irrigation, and return flows from irrigated areas. The records at this station are equivalent to those collected at 11066500 Santa Ana River at Riverside Narrows, near Arlington minus the flow at 11066480 Riverside Water Quality Control Plant at Riverside Narrows, near Arlington. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--16 years (water years 1971-86), 117 ft³/s, 84,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 ft³/s, Mar. 2, 1983, gage height, 15.38 ft, site and datum then in use, from rating curve extended above 5,100 ft³/s on basis of area-velocity study; maximum gage height, 20.23 ft, Mar. 4, 1978; minimum daily, 15 ft³/s, Sept. 7, 8, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1927, 100,000 ft³/s, Mar. 2, 1938, on basis of slope-area measurement at site 1.1 mi downstream. Flood of Jan. 22, 1862, 320,000 ft³/s, by slope-conveyance study at site 8.2 mi upstream. Stage at that site was 5 ft higher than Mar. 2, 1938.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 31	2130	1,550	9.34	Mar. 10	2230	1,660	9.39
Feb. 15	1300	*3,860	*10.24	Mar. 16	2015	2,030	9.56

Minimum daily, 62 ft³/s, July 29-31 and Aug. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	110	185	120	365	88	98	104	88	65	62	67
2	82	106	154	125	152	86	98	128	86	64	62	68
3	83	104	130	125	146	104	98	114	84	64	64	68
4	84	102	120	125	131	114	100	150	82	64	68	67
5	85	100	110	125	109	90	105	83	80	64	68	68
6	87	104	96	125	111	96	300	87	80	65	68	70
7	90	103	88	110	108	97	150	124	78	66	68	72
8	93	101	86	100	279	374	130	124	78	67	66	74
9	99	100	86	96	130	369	114	91	77	67	66	74
10	106	100	88	96	133	671	124	100	77	67	66	74
11	108	450	90	100	126	733	150	83	74	67	66	74
12	107	395	94	110	132	494	114	119	75	67	66	74
13	110	120	98	115	240	642	150	100	74	67	68	74
14	110	115	100	110	321	524	119	104	74	67	70	74
15	108	110	100	100	2820	693	134	91	73	67	70	74
16	108	108	98	100	1250	1370	150	91	73	68	72	74
17	108	108	92	100	397	441	100	109	78	70	70	74
18	107	106	92	96	255	350	139	100	76	72	70	74
19	107	105	92	92	366	280	134	95	74	74	68	74
20	108	104	90	92	370	250	134	90	72	75	66	74
21	134	103	92	100	238	210	91	83	70	74	66	74
22	160	102	96	125	233	190	119	91	68	72	66	74
23	140	100	100	142	180	170	128	79	66	72	66	80
24	132	150	110	108	144	140	139	91	64	70	66	130
25	126	470	120	97	103	130	172	81	64	68	66	460
26	123	195	125	82	90	125	134	76	64	66	66	310
27	121	155	115	80	94	120	100	109	64	64	66	150
28	120	130	115	78	97	115	124	100	64	64	67	130
29	118	600	115	84	---	110	124	91	64	62	67	98
30	116	255	115	193	---	105	104	91	64	62	67	90
31	113	---	115	424	---	100	---	91	---	62	67	---
TOTAL	3374	5011	3307	3675	9120	9381	3876	3070	2205	2083	2074	3038
MEAN	109	167	107	119	326	303	129	99.0	73.5	67.2	66.9	101
MAX	160	600	185	424	2820	1370	300	150	88	75	72	460
MIN	81	100	86	78	90	86	91	76	64	62	62	67
AC-FT	6690	9940	6560	7290	18090	18610	7690	6090	4370	4130	4110	6030

SANTA ANA RIVER BASIN

11066460 SANTA ANA RIVER AT MWD CROSSING, NEAR ARLINGTON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

CHEMICAL DATA: Water years 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to September 1978.

INSTRUMENTATION.--Specific-conductance recorder October 1969 to September 1978.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,320 microsiemens, Nov. 4, 1969; minimum recorded, 95 microsiemens, Nov. 27, 1970.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT					
04...	0945	84	1000	19.5	635
29...	1040	118	943	18.0	578
DEC					
17...	1200	91	1050	17.5	626
JAN					
09...	1330	93	1010	18.0	620
22...	1315	92	990	16.5	622
FEB					
04...	1030	97	990	15.0	624
14...	1030	318	692	15.5	416
MAR					
04...	1330	107	968	25.0	604
APR					
09...	1140	93	957	24.5	624
MAY					
09...	1210	76	980	25.0	626
JUN					
04...	1130	76	1030	22.0	639
16...	1015	61	980	23.0	605
26...	1100	55	980	25.0	614
AUG					
04...	1000	64	970	22.5	596
SEP					
09...	1030	70	970	21.5	--
22...	1030	74	928	18.5	650
23...	1030	66	940	18.0	689

SANTA ANA RIVER BASIN

11069500 SAN JACINTO RIVER NEAR SAN JACINTO, CA

LOCATION.--Lat 33°44'10", Long 116°49'26", in NE 1/4 SE 1/4 sec.13, T.5 S., R.1 E., Riverside County, Hydrologic Unit 18070202, on right bank 350 ft upstream from bridge on State Highway 74, 1 mi downstream from North Fork San Jacinto River, 8.3 mi southeast of San Jacinto, and 9 mi downstream from Lake Hemet.

DRAINAGE AREA.--141 mi².

PERIOD OF RECORD.--October 1920 to February 1927, March 1927 to current year. Records for Oct. 1, 1969, to Sept. 30, 1980, equivalent to prior records if lower diversion is deducted from flow past station. For the 1981 water year records are from the auxiliary gage below the lower diversion and are equivalent to records for March 1927 to Sept. 30, 1969. Combined records of river and diversion, October 1948 to current year. Monthly discharge only for October 1920 and July to September 1926, published in WSP 1315-B.

GAGE.--Water-stage recorder on river; water-stage recorder on upper canal. Datum of river gage is 1,982.75 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). See WSP 1735 for history of changes prior to Jan. 23, 1948. Oct. 1, 1969, to Sept. 30, 1980, at site 350 ft upstream at same datum. Canal gage at different datum.

REMARKS.--Estimated daily discharges: Dec. 27 to Jan. 10, Jan. 29 to Feb. 5. Records fair. Flow partly regulated by Lake Hemet (station 11069000). Lake Hemet Municipal Water District's upper canal diverts 4.0 mi upstream from station. One small diversion for domestic use above station. Diversion above station began prior to 1920. Records of lower diversion are available at Lake Hemet Municipal Water District. See schematic diagram of Santa Ana River basin. Combined records are equivalent for period of record. For records of combined daily discharge of San Jacinto River and diversion, see following page.

AVERAGE DISCHARGE.--River only: 54 years (water years 1921-26, 1928-69, 1981-86), 19.3 ft³/s, 13,980 acre-ft/yr; 11 years (water years 1970-80), 29.0 ft³/s, 21,010 acre-ft/yr.

Combined river and diversion: 37 years (water years 1949-80, 1982-86), 26.4 ft³/s, 19,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 45,000 ft³/s, Feb. 16, 1927, on basis of slope-area measurement of peak flow; no flow for several months in some years.

Combined river and diversion: Maximum discharge, 17,300 ft³/s, Feb. 21, 1980; no flow at times in 1951, 1952, 1957, 1976.

EXTREMES FOR CURRENT YEAR.--Combined river and diversion: Peak discharges greater than base discharge of 500 ft³/s and maximum (*), from rating curve extended above 1,220 ft³/s:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	1415	*1,620	*5.84	July 22	1900	505	4.53

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	1.0	21	5.0	7.5	15	46	12	.49	0	0	0
2	.30	.69	11	4.9	6.5	14	44	12	.42	0	0	0
3	.18	.84	87	4.9	6.0	14	40	12	.29	0	0	0
4	.16	.87	21	4.8	5.5	13	37	12	.21	0	0	0
5	.15	1.3	13	4.8	4.9	12	36	12	.17	0	0	0
6	.16	.87	10	4.7	7.1	11	40	11	.24	0	.38	0
7	.30	.42	8.7	4.6	7.3	11	40	12	.29	0	0	0
8	.80	1.3	7.5	4.5	9.7	18	37	12	.36	0	0	0
9	1.5	1.7	15	4.5	9.5	35	33	12	.36	0	0	0
10	.98	2.2	19	4.4	8.0	55	29	11	0	0	0	0
11	1.2	14	22	4.4	7.4	95	28	11	0	0	0	0
12	1.3	16	21	4.3	7.2	72	28	10	0	0	0	0
13	.86	8.1	19	4.2	11	74	28	10	0	0	0	0
14	1.0	5.3	18	4.3	27	84	26	10	0	0	0	0
15	.97	4.7	18	4.0	688	73	25	10	0	0	0	0
16	.77	4.7	17	3.9	212	167	24	8.4	0	0	0	0
17	.53	4.6	15	3.6	84	140	25	6.7	0	0	0	0
18	.44	5.0	14	3.2	52	145	24	8.7	0	0	0	0
19	.41	4.6	13	3.1	55	164	22	7.2	0	0	0	0
20	.35	3.5	12	3.4	53	161	21	8.8	0	0	0	0
21	.65	3.2	11	3.7	37	151	19	5.4	0	0	0	0
22	1.5	3.3	9.9	3.7	30	140	21	2.1	0	41	0	0
23	1.3	3.3	9.1	3.6	27	121	20	1.8	0	33	0	0
24	.77	3.1	7.7	3.3	23	97	18	1.7	0	7.3	0	0
25	1.0	17	6.4	2.8	22	80	18	1.3	0	2.8	0	4.8
26	1.4	19	5.8	2.6	19	75	18	1.0	0	1.0	0	4.8
27	1.1	12	5.6	2.5	17	73	18	.90	0	.43	0	2.4
28	1.0	8.5	5.5	2.3	16	71	15	.84	0	.08	0	2.0
29	.66	62	5.3	2.2	---	65	13	.46	0	.49	0	1.1
30	.49	76	5.2	11	---	56	13	.43	0	0	0	0
31	.95	---	5.1	9.0	---	48	---	.51	---	0	0	---
TOTAL	23.44	289.09	458.8	132.2	1459.6	2350	806	225.24	2.83	86.10	.38	15.1
MEAN	.76	9.64	14.8	4.26	52.1	75.8	26.9	7.27	.094	2.78	.012	.50
MAX	1.5	76	87	11	688	167	46	12	.49	41	.38	4.8
MIN	.15	.42	5.1	2.2	4.9	11	13	.43	0	0	0	0
AC-FT	46	573	910	262	2900	4660	1600	447	5.6	171	.8	30

SANTA ANA RIVER BASIN

11069501 SAN JACINTO RIVER NEAR SAN JACINTO, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SAN JACINTO AND LAKE HEMET
WATER CO.'S UPPER CANAL, NEAR SAN JACINTO, CA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.9	21	5.0	7.5	15	46	12	6.3	5.6	4.7	4.6
2	3.8	4.9	11	4.9	6.5	14	44	12	5.6	5.3	4.9	4.9
3	3.6	5.0	87	4.9	6.0	14	40	12	4.9	5.4	4.7	4.3
4	4.5	4.7	21	4.8	5.5	13	37	12	4.0	5.4	4.5	4.2
5	4.3	4.8	13	4.8	4.9	12	36	12	3.7	5.4	4.1	4.6
6	4.7	4.8	10	4.7	7.1	11	40	11	7.4	5.5	5.4	4.3
7	3.6	4.4	8.7	4.6	7.3	11	40	12	7.9	4.9	6.3	3.9
8	3.7	4.1	7.5	4.5	9.7	18	37	12	7.7	4.8	5.6	3.7
9	4.9	5.1	15	4.5	9.5	35	37	12	7.4	4.9	5.5	7.0
10	5.0	6.1	19	4.4	8.0	55	34	11	6.6	5.1	5.3	8.2
11	4.8	16	22	4.4	7.4	95	28	11	6.5	5.0	5.5	7.8
12	4.9	16	21	4.3	7.2	72	28	10	6.1	4.8	5.3	8.3
13	5.0	8.2	19	4.2	11	74	28	10	5.7	4.6	4.8	9.2
14	4.4	5.3	18	4.3	27	84	26	10	5.5	4.8	4.0	9.0
15	4.6	4.7	18	4.0	690	73	25	10	5.7	5.0	4.8	6.3
16	4.5	4.7	17	3.9	213	167	24	10	5.6	5.1	5.1	5.0
17	4.3	4.6	15	3.6	84	140	25	9.3	6.3	5.3	5.5	8.1
18	4.4	5.0	14	3.2	52	145	24	9.4	6.3	4.5	5.1	6.6
19	4.6	4.6	13	3.1	55	164	22	10	6.5	4.6	5.1	5.4
20	4.5	3.5	12	3.4	53	161	21	9.8	6.2	5.1	4.6	5.2
21	4.1	3.2	11	3.7	37	151	19	11	5.8	5.9	5.0	5.9
22	5.6	3.3	9.9	3.7	30	140	21	10	5.5	4.8	5.3	5.6
23	5.3	3.3	9.1	3.6	27	121	20	9.7	5.7	3.6	3.2	5.3
24	4.9	3.1	7.7	3.3	23	97	18	9.4	5.7	17	3.5	5.6
25	4.9	17	6.4	2.8	22	80	18	8.9	5.2	11	4.8	12
26	5.1	19	5.8	2.6	19	77	18	8.3	4.7	7.9	5.4	9.3
27	5.1	13	5.6	2.5	17	75	18	7.6	4.7	6.8	4.3	5.6
28	5.0	8.5	5.5	2.3	16	71	15	7.4	5.0	5.5	4.7	5.6
29	4.8	62	5.3	2.2	---	65	13	7.0	5.5	5.8	4.8	5.1
30	4.6	76	5.2	11	---	56	13	6.4	5.6	5.1	4.6	4.4
31	5.2	---	5.1	9.0	---	48	---	6.5	---	4.6	4.7	---
TOTAL	142.7	329.8	458.8	132.2	1462.6	2354	815	309.7	175.3	254.7	151.1	185.0
MEAN	4.60	11.0	14.8	4.26	52.2	75.9	27.2	9.99	5.84	8.22	4.87	6.17
MAX	5.6	76	87	11	690	167	46	12	7.9	48	6.3	12
MIN	3.6	3.1	5.1	2.2	4.9	11	13	6.4	3.7	4.5	3.2	3.7
AC-FT	283	654	910	262	2900	4670	1620	614	348	505	300	367
CAL YR 1985	TOTAL	5393.6	MEAN 14.8	MAX 167	MIN 3.1	AC-FT 10700						
WTR YR 1986	TOTAL	6770.9	MEAN 18.6	MAX 690	MIN 2.2	AC-FT 13430						

SANTA ANA RIVER BASIN

11070050 BAUTISTA CREEK AT VALLE VISTA, CA

LOCATION.--Lat 33°44'04", long 116°53'33", in NE 1/4 SE 1/4 sec.17, T.5 S., R.1 E., Riverside County, Hydrologic Unit 18070202, on left levee of flood channel, 1.0 mi south of Valle Vista.

DRAINAGE AREA.--47.2 mi².

PERIOD OF RECORD.--October 1969 to current year.

REVISED RECORDS.--WDR CA-83-1: 1980(M).

GAGE.--Water-stage recorder. Elevation of gage is 1,835 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. No regulation upstream from station. Detention dam, 2.2 mi upstream, will cause peak attenuation and some infiltration. Diversion for irrigation of about 15 acres upstream from station.

AVERAGE DISCHARGE.--17 years, 2.46 ft³/s, 1,780 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,320 ft³/s, Feb. 21, 1980, gage height, 6.40 ft, from rating curve extended above 80 ft³/s on basis of slope-conveyence study of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	2100	620	3.32	July 22	1930	*1,090	*3.73
Mar. 16	2200	224	2.20				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.13	0	2.6	0	0	3.4	4.1	0	0	.02	0
2	0	0	.32	2.5	0	0	4.9	3.9	.12	0	0	0
3	0	0	0	2.2	0	0	3.0	4.8	.16	0	0	0
4	0	0	0	2.4	0	0	2.2	6.0	.17	.20	0	0
5	.03	0	0	2.5	0	.16	4.2	3.5	.15	.16	0	0
6	.25	0	0	2.3	0	0	4.5	1.5	0	.45	0	0
7	.43	0	0	1.0	.05	.12	2.6	3.7	0	.40	0	0
8	.42	0	0	.52	.92	.35	2.5	5.8	0	0	0	0
9	.28	0	0	0	0	0	1.8	5.3	0	0	0	0
10	0	.03	2.1	0	0	3.2	1.9	3.7	0	0	0	0
11	0	3.0	1.3	.18	0	2.6	2.9	.96	0	0	0	0
12	0	.52	0	.52	0	.96	2.1	.12	0	0	0	0
13	.31	0	0	.54	.23	.82	3.2	0	0	0	0	0
14	.53	0	0	.47	.38	.91	3.1	.14	.03	0	0	.37
15	.46	0	0	.47	160	.32	2.3	1.2	0	0	0	.19
16	.42	.10	0	.47	1.8	14	2.3	1.6	0	0	0	0
17	.42	.64	.77	.50	0	2.6	2.8	.34	.05	0	0	0
18	.42	.58	1.1	.52	0	.63	2.9	.11	.15	.94	.23	0
19	.43	.24	1.0	.91	0	0	2.8	.20	0	1.2	0	0
20	.76	.71	1.4	.91	0	0	2.5	0	0	0	0	0
21	.39	.71	1.1	.95	0	0	2.2	0	0	.39	0	0
22	.21	.84	1.1	.78	0	0	1.8	.24	0	80	0	0
23	0	.71	1.0	.65	0	0	1.9	1.1	0	11	0	0
24	0	.84	1.0	.56	0	0	.69	.69	0	0	0	.22
25	0	.82	1.2	.52	0	0	1.1	.58	0	.26	0	.44
26	0	.48	.98	.52	0	0	1.9	.12	0	0	0	.27
27	0	.81	1.9	.49	0	0	1.8	0	0	0	0	.33
28	.05	.42	1.9	.47	0	.12	1.3	0	0	0	0	.42
29	0	.28	1.1	.61	---	2.5	1.6	0	0	0	0	.26
30	0	.64	1.8	1.6	---	3.6	3.3	0	0	0	0	.25
31	.44	---	2.6	1.1	---	4.2	---	0	---	0	0	---
TOTAL	6.25	12.50	23.67	29.76	163.38	37.09	75.49	49.70	.83	95.00	.25	2.75
MEAN	.20	.42	.76	.96	5.84	1.20	2.52	1.60	.028	3.06	.008	.092
MAX	.76	3.0	2.6	2.6	160	14	4.9	6.0	.17	80	.23	.44
MIN	0	0	0	0	0	0	.69	0	0	0	0	0
AC-FT	12	25	47	59	324	74	150	99	1.6	188	.5	5.5

CAL YR 1985 TOTAL 302.48 MEAN .83 MAX 5.8 MIN 0 AC-FT 600
WTR YR 1986 TOTAL 496.67 MEAN 1.36 MAX 160 MIN 0 AC-FT 985

SANTA ANA RIVER BASIN

11070500 SAN JACINTO RIVER NEAR ELSINORE, CA

LOCATION.--Lat 33°39'51", long 117°17'35", in SE 1/4 NE 1/4 sec.9, T.6 S., R.4 W., Riverside County, Hydrologic Unit 18070203, on right bank 2 mi east of Elsinore, 2.1 mi downstream from Railroad Canyon Dam, and 36 mi downstream from Lake Hemet.

DRAINAGE AREA.--723 mi².

PERIOD OF RECORD.--January 1916 to current year. Monthly figures 1927-50, adjusted for diversion, published in WSP 1315-B.

GAGE.--Water-stage recorder. Elevation of gage is 1,270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 13, 1916, nonrecording gage at site 0.7 mi downstream at different datum. Feb. 13, 1916, to Oct. 27, 1921, nonrecording gage at present site, but at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow partly regulated by Lake Hemet (station 11069000) and regulated since 1928 by Railroad Canyon Reservoir, capacity, 12,000 acre-ft, 2.1 mi upstream from station. Diversions for irrigation and domestic use upstream from Railroad Canyon Reservoir. Temescal Water Co. diverted 721 acre-ft during current year from Railroad Canyon Reservoir for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s, Feb. 17, 1927, gage height, 11.8 ft, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft³/s, Feb. 15, gage height, 3.01 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.26	1.2	1.1	1.8	1.3	.44	.25	.15	0		0
2	.03	.21	1.2	1.0	1.4	1.3	.44	.24	.25	0		0
3	.01	.19	1.6	1.1	1.4	1.3	.44	.23	.21	0		0
4	0	.20	1.3	1.0	1.3	1.3	.44	.23	.18	0		.03
5	.05	.24	1.3	1.1	1.3	1.2	.44	.23	.16	0		.06
6	.06	.26	1.2	1.2	1.2	1.2	.65	.23	.16	0		.05
7	.08	.26	1.0	1.1	1.1	1.2	.57	.25	.15	0		.02
8	.11	.41	.96	1.1	2.1	1.3	.50	.25	.15	0		0
9	.13	.36	1.1	1.0	1.5	1.7	.53	.23	.14	0		.05
10	.15	.33	1.1	.99	1.4	2.0	.57	.22	.13	0		.12
11	.15	.97	1.3	1.0	1.4	2.0	.51	.20	.10	0		.15
12	.16	1.4	1.1	1.0	1.4	.85	.49	.20	.09	0		.17
13	.18	1.0	1.0	1.0	1.9	1.2	.51	.23	.08	0		.19
14	.17	.73	.92	1.1	2.1	1.3	.53	.23	.07	0		.21
15	.12	.73	.87	1.1	6.8	.69	.51	.23	.07	0		.23
16	.10	.73	.98	1.0	2.7	3.4	.45	.23	.06	0		.27
17	.13	.51	.99	1.0	2.1	2.9	.41	.22	.04	0		.26
18	.19	.67	.92	1.0	1.9	1.2	.39	.18	.03	0		.25
19	.21	.51	.93	1.0	1.9	.93	.35	.16	.02	0		.26
20	.22	.51	.94	1.0	1.8	.76	.33	.15	.02	0		.30
21	.23	.51	.86	1.1	1.6	.67	.31	.15	.02	0		.30
22	.28	.57	1.0	1.1	1.5	.53	.32	.16	.04	0		.29
23	.28	.67	1.1	1.0	1.4	.51	.31	.17	.03	0		.33
24	.25	.62	1.1	1.0	1.4	.51	.31	.18	.04	.01		.39
25	.24	1.3	1.1	.99	1.4	.51	.32	.17	.05	0		.64
26	.23	1.2	.99	.97	1.4	.51	.31	.15	.04	.01		.46
27	.23	1.0	.99	1.0	1.3	.49	.27	.14	.01	.01		.42
28	.24	.95	.95	1.1	1.3	.49	.25	.14	0	0		.44
29	.28	1.7	.94	1.1	---	.51	.25	.13	0	0		.43
30	.29	2.2	1.0	1.9	---	.51	.25	.13	0	0		.40
31	.28	---	1.1	1.6	---	.45	---	.13	---	0		---
TOTAL	5.10	21.20	33.14	33.75	49.8	34.72	12.40	6.04	2.49	.03	0	6.72
MEAN	.16	.71	1.07	1.09	1.78	1.12	.41	.19	.083	.001	0	.22
MAX	.29	2.2	1.6	1.9	6.8	3.4	.65	.25	.25	.01	0	.64
MIN	0	.19	.87	.97	1.1	.45	.25	.13	0	0	0	0
AC-FT	10	42	66	67	99	69	25	12	4.9	.06	0	13

CAL YR 1985 TOTAL 195.10 MEAN .53 MAX 2.2 MIN 0 AC-FT 387
WTR YR 1986 TOTAL 205.39 MEAN .56 MAX 6.8 MIN 0 AC-FT 407

SANTA ANA RIVER BASIN

11072100 TEMESCAL CREEK ABOVE MAIN STREET, AT CORONA, CA

LOCATION.--Lat 33°53'21", long 117°33'43", in La Sierra Grant, Riverside County, Hydrologic Unit 18070203, on right bank 500 ft upstream from Main Street bridge, in Corona, 1.5 mi upstream from topographic boundary of Prader Flood control basin.

DRAINAGE AREA.--224 mi², excludes 768 mi² above Lake Elsinore.

PERIOD OF RECORD.--December 1967 to September 1974, December 1980 to July 1983, February 1984 to current year.

GAGE.--Water-stage recorder and concrete-lined flood control channel. Elevation of gage is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map. December 1967 to September 1974, water-stage recorder at site 1.2 mi downstream at different datum. December 1980 to July 1983 at site 500 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 10 to Nov. 13, July 18 to Aug. 7. Records poor. Flow regulated by Lake Elsinore and several storage reservoirs. Many diversions upstream for irrigation. Gage removed July 26, 1983, due to channel construction and reinstalled February 28, 1984.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,850 ft³/s, Feb. 25, 1969, gage height, 8.17 ft, from floodmark, at old site 1.1 mi downstream, on basis of slope-area measurement of peak flow; no flow many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 992 ft³/s, Feb. 14, gage height, 4.55 ft; minimum daily, 2.8 ft³/s, Apr. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	7.2	6.7	7.0	19	7.8	7.1	4.4	4.4	4.5	6.4	5.7
2	7.5	7.2	26	7.2	10	8.2	6.9	3.9	5.9	4.6	7.5	7.4
3	13	7.2	7.7	7.6	8.8	8.4	7.0	3.8	7.1	4.1	12	7.6
4	13	7.2	6.2	8.7	6.9	12	7.0	3.6	7.2	5.0	15	9.7
5	12	8.0	7.6	37	6.4	9.0	8.5	4.7	7.1	5.0	15	5.9
6	14	9.0	7.2	13	6.2	14	170	4.6	7.1	5.1	12	5.2
7	17	8.0	7.3	11	7.6	15	14	4.9	8.3	5.1	10	6.2
8	19	9.0	8.1	11	41	74	7.2	5.5	8.7	5.3	8.3	6.4
9	29	11	8.2	10	6.5	39	7.0	4.9	6.8	5.5	8.5	6.5
10	15	12	8.5	9.6	6.9	103	6.4	6.3	7.3	7.5	8.6	8.4
11	11	170	8.1	8.2	7.0	35	5.6	6.1	9.7	8.1	9.7	8.6
12	9.0	12	7.3	9.1	7.3	38	5.4	5.2	8.2	4.8	8.0	9.0
13	9.0	9.9	7.4	9.6	40	112	5.5	5.8	7.4	5.0	7.5	7.9
14	9.0	9.9	6.8	8.9	103	52	4.8	5.3	7.3	4.1	6.7	9.5
15	9.5	10	7.5	8.6	200	127	4.2	6.5	7.2	4.4	6.5	10
16	9.8	9.6	8.9	8.1	9.2	167	4.2	6.1	6.0	5.0	7.4	12
17	9.8	8.6	9.8	7.8	8.3	41	4.2	4.6	7.0	5.1	6.8	11
18	9.8	12	9.5	8.1	7.0	23	3.3	4.9	6.7	4.1	6.5	9.0
19	10	18	10	9.2	7.0	16	3.8	4.3	6.1	4.4	5.6	8.0
20	40	15	10	9.3	7.0	16	4.0	4.5	6.0	4.4	8.8	6.8
21	110	14	9.8	7.9	7.1	18	3.8	4.3	6.3	4.3	11	8.0
22	15	15	9.5	8.2	6.9	20	3.4	3.1	7.6	4.0	12	9.6
23	11	17	9.7	8.6	6.6	20	2.8	3.8	7.3	5.0	9.6	9.6
24	12	21	9.8	9.3	7.2	21	3.2	3.3	7.9	7.5	8.6	19
25	12	84	9.8	9.3	7.6	26	3.7	3.6	6.9	7.0	8.9	26
26	12	19	9.4	10	7.4	27	4.5	3.9	6.0	6.0	8.3	14
27	11	18	8.8	9.4	7.5	28	4.7	2.9	5.6	9.0	8.2	14
28	10	20	8.0	9.5	7.6	26	4.0	4.4	4.9	8.5	11	15
29	8.0	172	8.1	13	---	19	4.1	3.9	4.5	7.4	8.4	14
30	7.4	10	7.2	46	---	12	4.0	3.4	5.3	6.0	6.0	16
31	7.0	---	6.9	74	---	8.0	---	4.1	---	6.0	5.9	---
TOTAL	499.8	750.8	275.8	414.2	573.0	1142.4	324.3	140.6	203.8	171.8	274.7	306.0
MEAN	16.1	25.0	8.90	13.4	20.5	36.9	10.8	4.54	6.79	5.54	8.86	10.2
MAX	110	172	26	74	200	167	170	6.5	9.7	9.0	15	26
MIN	7.0	7.2	6.2	7.0	6.2	7.8	2.8	2.9	4.4	4.0	5.6	5.2
AC-FT	991	1490	547	822	1140	2270	643	279	404	341	545	607

CAL YR 1985 TOTAL 4616.1 MEAN 12.6 MAX 172 MIN 3.1 AC-FT 9160
WTR YR 1986 TOTAL 5077.2 MEAN 13.9 MAX 200 MIN 2.8 AC-FT 10070

SANTA ANA RIVER BASIN

11073360 CHINO CREEK AT SCHAEFER AVENUE, NEAR CHINO, CA

LOCATION.--Lat 34°00'14", long 117°43'34", in Santa Ana del Chino Grant, San Bernardino County, Hydrologic Unit 18070203, on right bank 300 ft downstream from Schaefer Avenue, 0.8 mi downstream from San Antonio Creek, and 1.5 mi southwest of Chino.

DRAINAGE AREA.--48.9 mi².

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Concrete dikes have formed low-water control since October 1975. Elevation of gage is 685 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 3-14, Mar. 16-31. Records good except for estimated periods, which are fair. Flow mostly regulated by San Antonio flood-control reservoir, capacity, 7,620 acre-ft. Natural streamflow affected by extensive ground-water withdrawals, diversions for power, domestic use, irrigation, and return flow from irrigated areas. California Water Project reported 2,770 acre-ft was released during the year to the basin via San Antonio Creek from Rialto Pipeline below San Antonio Dam (station 11073210) at a site 10 mi upstream. See schematic diagram of Santa Ana River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s, Feb. 27, 1983, gage height, 10.32 ft, from rating curve extended above 1,200 ft³/s on basis of slope-conveyance study; no flow May 21, June 30, July 1, Oct. 30, Nov. 3, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, 9,200 ft³/s, gage height, 9.23 ft, present datum, by contracted-opening measurement at site 6.1 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,150 ft³/s, Mar. 10, gage height, 6.44 ft; minimum daily, 0.48 ft³/s, Nov. 5, 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	.83	1.1	1.1	.96	1.6	2.4	1.2	1.3	1.2	1.2	3.9
2	.96	.62	38	1.6	1.1	1.8	1.5	1.5	1.6	1.3	1.3	3.0
3	1.1	.62	3.0	1.1	1.1	1.9	1.3	1.6	1.2	1.7	3.0	1.1
4	1.6	.55	1.6	1.1	1.1	2.4	1.3	1.3	1.2	1.2	3.3	.87
5	1.6	.48	1.6	1.1	1.6	2.7	1.4	1.3	1.0	1.2	1.7	1.1
6	1.1	.83	1.3	1.0	.99	3.6	140	1.3	1.1	.93	1.9	.96
7	1.9	.48	1.1	8.0	3.4	4.3	7.4	1.4	1.5	1.2	1.8	1.4
8	3.5	.48	1.3	2.5	16	106	1.9	1.5	.85	1.3	1.4	1.1
9	.83	.48	1.3	1.8	1.1	17	1.4	.99	1.2	1.2	1.4	1.8
10	.96	.55	7.2	1.7	1.8	268	1.7	1.1	1.1	1.4	4.6	.73
11	.83	130	.83	1.6	1.1	6.4	1.6	.72	1.5	1.5	2.9	.76
12	1.1	8.1	1.6	1.5	.72	34	1.5	.88	1.2	1.3	1.5	1.7
13	.96	1.1	1.9	1.4	79	140	1.4	1.0	1.2	1.1	1.2	2.1
14	.96	.83	1.1	11	114	9.1	1.4	1.2	1.6	1.5	1.1	1.4
15	.96	.62	.96	1.3	430	91	1.3	.96	1.5	1.8	1.0	1.6
16	1.1	.62	1.1	1.6	23	351	1.3	.88	1.5	1.3	1.2	2.6
17	1.3	.62	1.1	1.3	25	10	1.6	.89	1.2	1.3	.94	1.8
18	1.3	.62	1.3	1.1	3.5	1.6	1.8	.89	1.1	1.3	1.2	1.3
19	1.3	.62	1.6	.96	143	1.5	1.5	.72	1.1	1.4	1.4	1.2
20	1.3	.62	1.6	1.3	4.0	1.3	1.8	.80	1.1	1.1	1.7	.79
21	37	.62	1.3	1.6	3.9	1.2	1.4	.87	1.4	1.2	1.6	.89
22	2.3	.62	1.6	1.3	2.7	1.1	1.9	.89	2.1	2.2	1.4	.96
23	1.3	.72	1.9	1.1	2.2	1.1	1.9	1.0	1.0	2.2	1.8	1.2
24	1.6	16	1.3	1.3	2.7	1.1	1.9	1.2	1.5	1.6	2.0	212
25	1.9	121	.83	2.7	3.3	1.2	2.0	1.0	1.9	1.5	1.7	65
26	1.6	1.3	1.3	1.3	2.4	1.5	1.5	1.1	1.4	1.2	1.5	3.5
27	1.9	.83	.96	1.6	2.0	1.1	1.2	1.2	1.7	2.1	1.5	1.9
28	1.6	.72	.96	2.3	2.1	1.1	1.5	1.2	1.4	2.3	1.1	1.7
29	1.1	260	1.3	12	---	1.1	1.5	.97	1.7	1.9	.97	.70
30	.96	2.7	1.3	260	---	1.2	1.3	1.1	1.3	1.1	2.8	1.6
31	.83	---	1.3	89	---	1.5	---	1.8	---	1.1	5.2	---
TOTAL	77.58	554.18	84.64	418.26	873.77	1068.4	191.6	34.46	40.45	44.63	57.31	320.66
MEAN	2.50	18.5	2.73	13.5	31.2	34.5	6.39	1.11	1.35	1.44	1.85	10.7
MAX	37	260	38	260	430	351	140	1.8	2.1	2.3	5.2	212
MIN	.83	.48	.83	.96	.72	1.1	1.2	.72	.85	.93	.94	.70
AC-FT	154	1100	168	830	1730	2120	380	68	80	89	114	636

CAL YR 1985 TOTAL 1473.41 MEAN 4.04 MAX 260 MIN .48 AC-FT 2920
WTR YR 1986 TOTAL 3765.94 MEAN 10.3 MAX 430 MIN .48 AC-FT 7470

SANTA ANA RIVER BASIN

11073495 CUCAMONGA CREEK NEAR MIRA LOMA, CA

LOCATION.--Lat 33°58'58", long 117°35'55", in SW 1/4 NE 1/4 sec.22, T.2 S., R.7 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 300 ft upstream from Merrill Avenue bridge, 4.6 mi west of Mira Loma.

DRAINAGE AREA.--75.8 mi².

PERIOD OF RECORD.--January 1968 to July 31, 1977, January 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 660 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 1977 at site 100 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-6, Nov. 13, 14, Feb. 21-28, Mar. 1-6, 19-31, Apr. 1-5, 7-16, May 1-12, June 10 to Aug. 18, 24, Sept. 1-11, 23-30. Records poor. Channel is now a trapezoidal concrete floodway, and records for low and medium flows prior to July 31, 1977, are not equivalent. Chino Basin Municipal Water District Tertiary Plant No. 1 began discharging effluent 1.5 mi above station on May 8, 1985. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--8 years (water years 1969-76), 2.74 ft³/s, 1,990 acre-ft/yr; 5 years (water years 1980-84), 19.3 ft³/s, 13,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s, Feb. 27, 1983, gage height, 7.85 ft, from floodmark, on basis of slope-conveyance study of peak flow; no flow most of some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,720 ft³/s, Nov. 29, gage height, 5.39 ft, from rating curve extended above 2,300 ft³/s on basis of slope-conveyance study of peak flow; minimum daily, 9.70 ft³/s, June 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	21	26	26	20	19	22	19	22	23	19	16
2	16	22	72	28	16	19	22	20	18	22	21	19
3	16	20	23	25	14	20	22	20	13	21	21	19
4	16	19	20	28	15	21	22	21	15	21	22	20
5	17	18	19	26	16	20	25	21	9.7	21	21	25
6	17	18	20	22	14	19	423	21	16	22	22	23
7	37	19	18	204	15	20	36	20	19	22	21	23
8	22	19	18	108	18	232	22	20	21	22	20	18
9	14	19	19	77	15	21	21	20	23	22	19	18
10	12	20	20	61	16	404	22	20	25	21	20	20
11	20	299	22	30	16	45	22	21	25	21	19	22
12	29	27	22	50	14	48	22	22	23	21	21	22
13	29	23	19	31	103	95	21	21	23	21	21	21
14	30	22	23	33	249	30	21	21	24	21	20	22
15	31	16	24	31	635	178	21	21	22	21	19	21
16	29	16	20	39	139	674	21	22	23	21	19	21
17	32	16	21	24	44	160	21	21	23	20	20	24
18	29	17	20	31	20	48	21	20	22	21	20	23
19	14	25	20	37	159	46	21	22	22	21	20	22
20	12	36	23	33	21	45	20	22	21	20	19	22
21	39	34	18	40	21	35	20	22	23	21	23	25
22	23	20	19	35	21	29	21	25	24	22	21	30
23	19	21	21	24	21	25	22	24	25	21	22	60
24	15	19	22	31	22	24	24	26	23	20	22	428
25	19	121	27	27	21	24	24	26	22	21	21	479
26	17	19	21	26	21	24	21	23	22	22	20	39
27	20	18	22	26	21	23	22	26	23	21	20	17
28	20	19	23	29	20	23	20	31	23	22	21	18
29	21	625	22	59	---	22	22	28	23	22	22	19
30	20	65	26	517	---	23	19	27	23	20	22	24
31	20	---	27	127	---	23	---	26	---	19	21	---
TOTAL	671	1653	717	1885	1727	2439	1063	699	640.7	656	639	1560
MEAN	21.6	55.1	23.1	60.8	61.7	78.7	35.4	22.5	21.4	21.2	20.6	52.0
MAX	39	625	72	517	635	674	423	31	25	23	23	479
MIN	12	16	18	22	14	19	19	19	9.7	19	19	16
AC-FT	1330	3280	1420	3740	3430	4840	2110	1390	1270	1300	1270	3090
CAL YR 1985	TOTAL	5584.25	MEAN	15.3	MAX	625	MIN	0	AC-FT	11080		
WTR YR 1986	TOTAL	14349.70	MEAN	39.3	MAX	674	MIN	9.7	AC-FT	28460		

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA
(National stream-quality accounting network station)

LOCATION.--Lat 33°53'00", long 117°38'40", in La Sierra Grant, Riverside County, Hydrologic Unit 18070203, on left bank of outlet channel, 2,500 ft downstream from axis of Prado Dam, and 4.5 mi west of Corona.

DRAINAGE AREA.--1,490 mi², excludes 768 mi² above Lake Elsinore.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1930 to November 1939 (irrigation seasons only), March 1940 to current year. Published as "at Santa Fe Railroad Bridge, near Prado" May 1930 to November 1931, as "at Atchison, Topeka, and Santa Fe Railroad Bridge, near Prado" May 1932 to November 1939, and as "below Prado Dam, near Prado" March 1940 to September 1950.

GAGE.--Water-stage recorder and concrete control since August 1944. Datum of gage is approximately 449 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Mar. 18, 1940, at about same site at various datums.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1941 by Prado Reservoir, capacity, 201,200 acre-ft. Natural streamflow affected by extensive ground-water withdrawals, diversion for irrigation, and return flow from irrigated areas. During the year, 2,360 acre-ft of ground water was pumped from the upper basin and released to the Santa Ana River upstream from Prado Dam for delivery to downstream users. No California Water Project releases were made to the basin. See schematic diagram of Santa Ana River basin.

COOPERATION.--Records of ground-water pumpage were provided by San Bernardino Valley Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,440 ft³/s, Feb. 21, 1980, gage height, 6.88 ft; minimum daily, 2.4 ft³/s, July 29 to Aug. 3, Sept. 20, 1978 (result of gate closure).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, reached a discharge of 100,000 ft³/s, by slope-area measurement of peak flow at site 2.5 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,500 ft³/s, Mar. 16, gage height, 5.45 ft; minimum daily, 44 ft³/s, Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	193	173	287	432	155	243	233	219	139	137	122
2	135	180	164	250	406	153	259	231	215	135	135	124
3	137	179	328	244	348	150	258	228	245	137	137	132
4	137	177	403	254	334	181	258	225	248	137	132	131
5	141	181	410	261	329	222	257	222	258	142	122	127
6	139	182	441	265	310	236	267	219	236	139	120	124
7	144	194	460	245	297	235	607	218	200	142	123	125
8	149	200	457	218	296	234	879	217	181	141	121	125
9	157	211	404	230	297	604	513	217	175	124	118	123
10	180	213	372	230	296	850	231	217	176	116	120	120
11	181	251	367	223	294	1290	232	219	166	119	122	124
12	175	154	365	224	373	1330	231	219	165	124	127	118
13	178	330	363	243	553	771	230	231	161	133	126	124
14	179	376	359	230	560	771	229	248	161	137	131	124
15	171	350	357	235	1480	805	229	250	159	139	130	44
16	172	333	352	233	2320	1630	228	250	157	145	132	136
17	175	327	348	225	2320	2170	228	249	161	143	137	193
18	181	323	265	210	1710	1380	226	248	163	143	122	167
19	178	315	262	219	847	710	226	248	164	140	103	139
20	182	321	260	215	844	435	228	245	162	135	101	135
21	183	305	259	225	625	490	231	242	156	137	144	136
22	215	244	256	226	340	555	235	239	155	149	133	142
23	199	217	329	223	336	548	234	237	156	150	123	156
24	190	163	372	227	297	376	236	236	155	151	121	141
25	189	92	366	227	275	228	237	235	150	146	124	160
26	186	278	360	223	274	229	237	234	147	152	125	174
27	188	372	373	223	200	224	237	232	149	152	127	251
28	197	366	375	221	156	223	236	229	144	149	127	249
29	196	184	361	225	---	223	235	227	143	148	126	183
30	197	191	347	240	---	223	234	225	147	144	126	296
31	199	---	323	326	---	223	---	222	---	142	128	---
TOTAL	5367	7402	10631	7327	17149	17854	8411	7192	5274	4330	3900	4445
MEAN	173	247	343	236	612	576	280	232	176	140	126	148
MAX	215	376	460	326	2320	2170	879	250	258	152	144	296
MIN	135	92	164	210	156	150	226	217	143	116	101	44
AC-FT	10650	14680	21090	14530	34020	35410	16680	14270	10460	8590	7740	8820

CAL YR 1985 TOTAL 73673 MEAN 218 MAX 611 MIN 92 AC-FT 158000

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL DATA: Water years 1967 to current year.

BIOLOGICAL DATA: Water years 1975 to current year.

SPECIFIC CONDUCTANCE: Water years 1970 to current year.

WATER TEMPERATURE: Water years 1970 to current year.

SEDIMENT DATA: Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

CHLORIDE: October 1970 to September 1971.

SPECIFIC CONDUCTANCE: October 1969 to current year.

WATER TEMPERATURE: October 1969 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1973 to June 1982.

INSTRUMENTATION.--Water-quality monitor recording specific conductance and water temperature since October 1969.

REMARKS.--Periods of missing conductivity and temperature data due to equipment malfunctions. Portions of the chemical analysis data were omitted in the 1985 report and are published herein.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,830 microsiemens, Apr. 30, 1971; minimum recorded, 220 microsiemens, Feb. 20, 1978.

WATER TEMPERATURE: Maximum recorded, 36.0°C, Sept. 4, 1972, Sept. 8, 1984; minimum recorded, 2.5°C, Dec. 30, 1969.

SEDIMENT CONCENTRATION: Maximum daily mean, 2,870 mg/L, Mar. 5, 1978; minimum daily mean, 3 mg/L, Apr. 2, 1980, and several days during 1982.

SEDIMENT LOAD: Maximum daily, 18,900 tons, Mar. 5, 1978; minimum daily, 0.58 ton, Sept. 20, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,190 microsiemens, Dec. 22; minimum recorded, 450 microsiemens, Feb. 16.

WATER TEMPERATURE: Maximum recorded, 30.5°C, Sept. 12; minimum recorded, 9.0°C, Nov. 11-12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	HARD- NESS (MG/L AS CACO3)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD AS HCO3)	ALKA- LITY, CARBON- ATE IT-FLD (MG/L - CACO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L A CACO3
OCT												
05...	1120	--	--	--	--	--	--	--	--	--	--	--
26...	1125	--	--	--	--	--	--	--	--	--	--	--
NOV												
08...	0940	--	--	--	--	--	--	--	--	--	--	--
21...	0900	--	--	--	--	--	--	--	--	--	--	--
21...	0930	350	120	100	25	100	37	2	9.5	287	235	235
DEC												
07...	0935	--	--	--	--	--	--	--	--	--	--	--
JAN												
08...	1025	--	--	--	--	--	--	--	--	--	--	--
25...	0945	--	--	--	--	--	--	--	--	--	--	--
25...	1145	340	110	98	23	90	36	2	8.7	286	234	234
FEB												
07...	1325	--	--	--	--	--	--	--	--	--	--	--
20...	1215	340	110	97	23	92	36	2	11	278	228	228
MAR												
08...	1215	--	--	--	--	--	--	--	--	--	--	--
26...	1055	--	--	--	--	--	--	--	--	--	--	--
APR												
05...	1340	--	--	--	--	--	--	--	--	--	--	--
11...	0930	--	--	--	--	--	--	--	--	--	--	--
11...	1130	350	110	100	24	93	36	2	8.3	291	239	239
MAY												
09...	1200	--	--	--	--	--	--	--	--	--	--	--
23...	1230	350	120	100	24	93	36	2	7.8	278	228	228
JUN												
07...	0845	--	--	--	--	--	--	--	--	--	--	--
25...	1030	--	--	--	--	--	--	--	--	--	--	--
JUL												
08...	0830	--	--	--	--	--	--	--	--	--	--	--
30...	0930	--	--	--	--	--	--	--	--	--	--	--
30...	1030	340	120	95	24	95	37	2	7.7	267	219	219
AUG												
05...	1230	--	--	--	--	--	--	--	--	--	--	--
29...	0850	--	--	--	--	--	--	--	--	--	--	--
SEP												
03...	1030	--	--	--	--	--	--	--	--	--	--	--
20...	1130	300	79	85	21	87	38	2	8.7	268	220	220

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
(NOT PREVIOUSLY PUBLISHED)

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
05...	--	--	--	--	762	--	--	--	--	--	--	--
26...	--	--	--	--	725	--	--	--	--	--	--	--
NOV												
08...	--	--	--	--	731	--	--	--	--	--	--	--
21...	--	--	--	--	720	--	--	--	--	--	--	--
21...	160	110	0.60	22	705	680	0.96	7.40	7.40	0.330	0.310	1.6
DEC												
07...	--	--	--	--	719	--	--	--	--	--	--	--
JAN												
08...	--	--	--	--	462	--	--	--	--	--	--	--
25...	--	--	--	--	684	--	--	--	--	--	--	--
25...	160	100	0.60	24	677	650	0.92	7.10	7.00	1.90	1.90	1.1
FEB												
07...	--	--	--	--	614	--	--	--	--	--	--	--
20...	150	98	0.60	24	644	640	0.88	6.30	6.10	1.70	1.70	1.7
MAR												
08...	--	--	--	--	698	--	--	--	--	--	--	--
26...	--	--	--	--	697	--	--	--	--	--	--	--
APR												
05...	--	--	--	--	683	--	--	--	--	--	--	--
11...	--	--	--	--	690	--	--	--	--	--	--	--
11...	190	110	0.30	26	701	700	0.95	6.80	6.70	1.30	1.30	2.1
MAY												
09...	--	--	--	--	692	--	--	--	--	--	--	--
23...	--	--	--	--	692	--	--	--	--	--	--	--
23...	170	110	0.60	26	696	680	0.95	7.00	6.90	0.260	0.250	0.74
JUN												
07...	--	--	--	--	698	--	--	--	--	--	--	--
25...	--	--	--	--	696	--	--	--	--	--	--	--
JUL												
08...	--	--	--	--	704	--	--	--	--	--	--	--
30...	--	--	--	--	694	--	--	--	--	--	--	--
30...	170	120	0.50	26	689	680	0.94	7.50	7.50	0.590	0.570	0.91
AUG												
05...	--	--	--	--	701	--	--	--	--	--	--	--
29...	--	--	--	--	684	--	--	--	--	--	--	--
SEP												
03...	--	--	--	--	683	--	--	--	--	--	--	--
20...	150	100	0.60	25	662	620	0.90	7.10	7.30	0.960	0.980	1.1

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN, TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)
JAN											
25...	1145	<0.1	<0.10	<0.010	<0.1	<0.010	<0.010	<0.010	0.05	<0.010	<0.010
APR											
11...	1130	<0.1	<0.10	<0.010	<0.1	<0.010	<0.010	<0.010	0.08	<0.010	<0.010
SEP											
20...	1130	<0.1	<0.10	<0.010	<0.1	<0.010	<0.010	<0.010	0.06	<0.010	<0.010

DATE	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)
JAN									
25...	<0.010	<0.01	<0.010	<0.010	0.010	<0.01	<0.01	<0.01	<0.01
APR									
11...	<0.010	<0.01	<0.010	<0.010	0.010	<0.01	<0.01	<0.01	<0.01
SEP									
20...	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01

See footnote at end of table.

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
(NOT PREVIOUSLY PUBLISHED)

DATE	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JAN 25...	<0.01	<0.01	<0.1	<1	<0.01	0.15	<0.01	<0.01
APR 11...	0.01	<0.01	<0.1	<1	<0.01	0.09	<0.01	<0.01
SEP 20...	<0.01	<0.01	<0.1	<1	<0.01	0.04	<0.01	<0.01

<Actual value is known to be less than the value shown.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 04...	1330	144	1120	--	20.0	--	--	--	--	--	--
25...	1015	194	1130	--	15.5	--	--	--	--	--	--
NOV 01...	1230	201	1120	--	17.0	--	--	--	--	--	--
20...	1245	321	1110	8.00	12.0	745	2.1	9.2	88	K72	610
DEC 06...	1005	408	778	--	14.0	--	--	--	--	--	--
JAN 09...	1030	216	1140	--	11.0	--	--	--	--	--	--
28...	1230	232	1100	8.00	13.0	745	17	9.1	89	2400	720
FEB 05...	1230	326	880	--	14.5	--	--	--	--	--	--
18...	1330	2070	567	--	15.0	--	--	--	--	--	--
MAR 05...	1030	239	1040	--	17.0	--	--	--	--	--	--
27...	1100	230	1070	7.90	17.5	745	10	7.8	84	5000	490
APR 24...	1030	237	1040	7.90	18.5	745	2.0	8.2	90	--	--
MAY 05...	1200	222	1010	--	21.0	--	--	--	--	--	--
13...	1130	215	1090	7.90	20.0	745	3.0	8.7	98	K14	<5
JUN 03...	1345	264	1100	--	22.0	--	--	--	--	--	--
16...	1215	179	1100	--	23.0	--	--	--	--	--	--
23...	1110	161	1100	--	21.5	--	--	--	--	--	--
JUL 30...	1145	161	1040	8.00	20.5	745	43	8.4	96	480	590
AUG 05...	1130	130	1060	--	22.5	--	--	--	--	--	--
SEP 08...	1030	127	1080	--	22.0	--	--	--	--	--	--
24...	1130	4.0	1010	7.80	17.5	745	55	6.8	73	>10000	K33000

See footnotes at end of table.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

[illegible]

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
04...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
NOV											
01...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	6.6	4.9	11	9.7	3.10	2.90	2.70	11
DEC											
06...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	--	--	--	--	--	--	--	--	--	--
28...	2.60	1.2	0.60	3.9	3.2	11	11	2.90	2.50	2.40	5.7
FEB											
05...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
27...	3.20	2.7	2.0	5.9	5.2	10	--	3.20	2.90	2.50	17
APR											
24...	3.40	1.4	1.2	4.9	4.6	8.8	--	2.90	2.90	2.60	10
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	1.90	1.1	1.2	3.0	3.1	7.5	--	3.00	2.90	3.00	10
JUN											
03...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
JUL											
30...	0.190	1.6	0.71	1.8	0.90	9.6	--	3.50	2.50	2.30	8.8
AUG											
05...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	--	--	--	--	--	--	--	--	--	--	--
24...	0.840	2.3	1.6	3.2	2.4	13	--	3.50	2.90	2.60	20

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)
NOV									
20...	--	10	--	5	--	58	--	0.6	--
JAN									
28...	2200	--	4	--	<100	--	<10	--	<1
MAR									
27...	--	10	--	4	--	59	--	<0.5	--
APR									
24...	--	<10	4	4	100	50	--	<0.5	<1
MAY									
13...	--	<10	--	4	--	44	--	<0.5	--
SEP									
24...	6100	--	5	--	100	--	--	--	1

See footnotes at end of table.

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 20...	<1	--	<1	--	<3	--	3	--	18	--	2
JAN 28...	--	10	--	1	--	4	--	3200	--	18	--
MAR 27...	<1	--	<1	--	<3	--	2	--	44	--	<1
APR 24...	<1	<10	<1	1	<3	5	4	150	31	<1	1
MAY 13...	<1	--	<1	--	<3	--	2	--	16	--	2
SEP 24...	--	10	--	4	--	8	--	7400	--	12	--

DATE	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)
NOV 20...	--	13	--	52	--	0.3	--	<10	--	12	--
JAN 28...	10	--	200	--	<0.10	--	5	--	7	--	<1
MAR 27...	--	17	--	210	--	<0.1	--	<10	--	4	--
APR 24...	--	14	210	180	--	<0.1	--	<10	--	5	<1
MAY 13...	--	14	--	150	--	<0.1	--	<10	--	5	--
SEP 24...	--	--	320	--	0.20	--	--	--	19	--	<1

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC, DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC, SUS- PENDED TOTAL (MG/L AS C)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN TOTAL (UG/L)
NOV 20...	<1	<1	<1	630	<6	--	13	--	--				
JAN 28...	--	1	--	--	--	60	--	4.6	1.5				
MAR 27...	<1	1	<1	550	6	--	15	--	--				
APR 24...	<1	<1	<1	540	<6	10	11	10	0.8				
MAY 13...	<1	<1	<1	570	<6	--	12	--	--				
JUL 30...	--	<1	--	--	--	--	--	--	--				
SEP 24...	--	<1	--	--	--	60	--	15	2.3				

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN TOTAL (UG/L)
JAN 28...	1230	<0.1	<0.10	<0.010	<0.1	<0.010	<0.010	<0.010	0.06	<0.010	<0.010	<0.01
APR 24...	1030	<0.1	<0.10	<0.010	<0.1	<0.010	<0.010	<0.010	0.15	<0.010	<0.010	<0.01
SEP 24...	1130	<0.1	<0.10	<0.010	<0.1	<0.010	<0.010	<0.010	0.10	<0.010	<0.010	<0.01

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
JAN 28...	<0.01	<0.010	<0.010	0.020	<0.01	<0.01	<0.01	<0.01	<0.01
APR 24...	<0.01	<0.010	<0.010	0.010	0.01	<0.01	<0.01	<0.01	<0.01
SEP 24...	<0.01	<0.010	<0.010	0.010	0.05	<0.01	<0.01	<0.01	<0.01

DATE	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JAN 28...	<0.01	<0.1	<1	<0.01	0.10	<0.01	<0.01	<0.01
APR 24...	<0.01	<0.1	<1	<0.01	0.11	<0.01	<0.01	<0.01
SEP 24...	<0.01	<0.1	<1	<0.01	0.18	0.06	0.01	<0.01

K Results based on colony count outside the acceptable range (non-ideal colony count).

> Actual value is known to be greater than the value shown.

< Actual value is known to be less than the value shown.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR									
* 27...	1015	5.00	1070	7.90	17.5	745	7.9	84	23
* 27...	1017	10.0	1070	7.90	17.5	745	7.8	83	26
* 27...	1019	15.0	1070	7.90	17.5	745	7.8	83	24
* 27...	1023	20.0	1070	7.90	17.5	745	7.8	83	21
* 27...	1025	25.0	1070	7.90	17.5	745	7.9	84	23
* 27...	1027	30.0	1070	7.80	17.5	745	7.8	83	23
SEP									
* 24...	1120	5.00	1010	7.80	17.5	745	6.8	72	152
* 24...	1132	10.0	1000	7.80	17.5	745	6.8	72	150
* 24...	1134	15.0	1010	7.80	17.5	745	6.9	73	152
* 24...	1138	20.0	1010	7.80	17.5	745	6.8	72	150
* 24...	1145	25.0	1010	7.80	17.5	745	6.8	72	162
* 24...	1149	30.0	1010	7.80	17.5	745	6.9	73	163

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 27, 230 ft³/s;
Sept. 24, 4.0 ft³/s.

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

OCTOBER			NOVEMBER		DECEMBER		JANUARY	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1140	1120	1130	1110	---	---	1160	1130
2	1140	1120	1120	1100	---	---	1140	1110
3	1130	1110	1110	1100	684	642	1130	1100
4	---	---	1110	1100	767	694	1110	1100
5	1120	1100	1110	1090	848	767	1110	1020
6	1110	1100	1110	1090	801	751	1110	1040
7	1110	1090	1100	1070	872	751	1150	1080
8	1120	1080	1080	1060	904	782	1160	1100
9	1100	1080	1070	1050	965	814	1100	1080
10	1120	1100	1060	1040	935	856	1120	1090
11	1100	1090	1070	567	948	857	1140	1100
12	1120	1100	1180	920	980	889	1120	1080
13	1120	1100	901	823	961	921	1110	1080
14	1110	1100	886	824	942	852	1100	1070
15	1120	1100	988	866	964	924	1100	1070
16	1110	1100	1060	958	1060	914	1080	1060
17	1130	1100	1080	1000	1110	987	1080	1070
18	1120	1100	1080	1030	---	---	1110	1080
19	1130	1100	1080	1040	1070	969	1090	1070
20	1130	1110	1120	1070	1040	981	1090	1070
21	1130	1110	1140	1110	1060	992	1080	1050
22	1110	1020	1140	1090	1190	1040	1090	1060
23	1130	1080	1100	1070	1100	1060	1090	1070
24	1140	1120	1090	591	1180	1070	1100	1080
25	1130	1100	1130	792	1150	1060	1100	1090
26	1120	1100	964	786	1120	1080	1110	1090
27	1120	1090	808	747	1120	1090	1120	1090
28	1120	1080	851	779	1140	1090	1110	1090
29	1120	1080	---	---	1140	1120	1100	1080
30	1120	1100	---	---	1170	1140	1090	515
31	1120	1100	---	---	1170	1140	640	562
MONTH	1140	1020	1180	567	1190	642	1160	515
FEBRUARY			MARCH		APRIL		MAY	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	805	602	1080	1040	1070	1040	1080	1040
2	664	620	1080	1070	1070	1040	1080	1030
3	789	655	1080	1060	1080	1030	1060	1030
4	827	721	1090	1060	1080	1050	1060	1020
5	1020	827	1130	1070	1090	1050	1050	1020
6	998	885	1110	1060	1160	904	1080	1020
7	1070	921	1100	1070	964	834	1080	1020
8	1040	929	1100	1070	794	714	1080	1040
9	1020	889	1100	952	925	745	1070	1040
10	987	913	952	792	955	865	1070	1040
11	1030	950	823	653	906	865	1080	1040
12	1060	980	643	573	946	866	1100	1050
13	1100	1010	654	594	966	886	1100	1060
14	1090	968	744	654	996	936	1110	1070
15	968	555	644	595	1010	947	1130	1070
16	545	450	795	545	1030	967	1110	1060
17	509	462	535	496	1040	967	1080	1040
18	616	510	556	526	1040	998	1100	1050
19	704	607	627	546	1070	1010	1120	1060
20	798	704	737	627	1060	1020	1140	1050
21	778	725	808	727	1050	1010	1140	1050
22	825	769	888	808	1040	999	1150	1060
23	862	826	948	878	1030	990	1150	1060
24	906	863	1050	819	1060	990	1150	1060
25	927	900	1050	1020	1070	1030	1140	1060
26	974	927	1070	1030	1070	1040	1150	1060
27	1010	937	1100	1030	1080	1040	1150	1060
28	1070	1000	1080	1040	1070	1040	1150	1080
29	---	---	1090	1040	1070	1030	1160	1080
30	---	---	1110	1060	1070	1040	1140	1080
31	---	---	1080	1050	---	---	1140	1070

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1120	1070	1060	1030	1060	1040	1090	1060
2	1120	1070	1060	1030	1070	1040	1080	1060
3	---	---	---	---	1060	1030	1100	1070
4	1120	1070	1040	1010	1060	1040	1090	1070
5	1130	1100	1030	990	1070	1040	1100	1080
6	1170	1130	1030	1000	1070	1040	1110	1070
7	1160	1120	1030	1000	---	---	1110	1080
8	1140	1100	1030	1010	---	---	1090	1070
9	1130	1100	1040	1000	1080	1040	1100	1060
10	1130	1100	1040	1020	1090	1050	1110	1090
11	1120	1100	1040	1020	1090	1060	1120	1090
12	1130	1090	1040	1020	1070	1040	1120	1090
13	1130	1100	1030	1020	1080	1040	1110	1090
14	1110	1080	1050	1020	1100	1060	1100	1070
15	1110	1090	1040	1030	1080	1060	---	---
16	1120	1090	1060	1040	1090	1060	---	---
17	1110	1080	1060	1040	1100	1060	1110	1080
18	1120	1070	1070	1050	1100	1070	1120	1060
19	1140	1080	1080	1060	1090	1060	1120	1090
20	1120	1080	1080	1060	1110	1050	1100	1080
21	1120	1080	1080	1060	1110	1060	1090	1080
22	1120	1090	1080	1060	1110	1070	1080	1050
23	1120	1020	1080	1070	1120	1070	1060	1040
24	1100	1070	1080	1070	1110	1080	---	---
25	1100	1070	1080	1060	1100	1080	---	---
26	1100	1070	1080	1050	1110	1080	---	---
27	1090	1060	1060	1040	1110	1070	919	747
28	1080	1050	1050	1030	1100	1080	972	820
29	1090	1050	1050	1030	1110	1080	---	---
30	1070	1040	1060	1030	1110	1080	1050	957
31	---	---	1060	1040	1100	1070	---	---
MONTH	1170	1020	1080	990	1120	1030	---	---
YEAR	1190	450						

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.0	18.5	19.5	15.5	---	---	16.0	14.0	15.5	15.0	18.0	17.5
2	22.5	18.0	19.5	15.5	---	---	16.0	14.5	15.0	15.0	18.0	17.5
3	23.0	18.0	19.0	15.5	13.5	13.5	17.0	15.0	15.5	15.0	18.0	17.0
4	---	---	19.0	16.0	14.0	13.5	17.0	15.5	15.5	14.5	17.5	17.0
5	23.5	19.5	18.5	15.5	14.0	14.0	17.5	16.0	15.0	14.5	18.0	17.0
6	23.0	20.0	19.0	15.0	14.0	14.0	18.0	16.0	14.5	14.0	18.0	17.5
7	21.5	20.0	18.5	15.5	14.5	14.0	16.5	12.5	14.0	13.5	18.0	17.5
8	21.0	19.0	18.0	15.5	14.0	14.0	15.0	10.5	13.5	12.5	18.0	17.5
9	20.0	18.0	18.5	16.5	14.0	13.5	15.5	11.0	13.0	12.5	17.5	17.0
10	20.5	17.0	16.5	15.0	13.5	12.5	16.0	11.0	12.5	11.5	17.0	16.0
11	20.0	16.5	15.5	9.0	12.5	11.5	16.5	12.0	12.0	11.5	16.0	15.0
12	20.0	17.0	15.0	9.0	11.5	11.0	17.0	12.0	12.0	11.5	15.0	14.5
13	19.5	16.0	12.5	12.0	11.0	10.5	16.5	12.0	13.0	12.0	14.5	14.5
14	18.5	16.5	12.5	11.5	10.5	10.0	15.5	14.0	13.5	12.5	14.5	14.0
15	19.0	15.0	13.0	11.5	10.5	10.0	16.5	13.0	14.5	13.5	14.5	14.0
16	19.5	15.0	13.0	12.0	11.0	10.0	17.0	13.5	14.5	14.0	14.5	13.0
17	20.0	17.0	14.0	13.0	12.0	10.5	17.0	13.0	14.5	14.0	13.0	13.0
18	20.5	17.5	14.0	13.0	---	---	17.5	12.5	15.5	14.5	13.5	12.5
19	20.0	16.5	13.0	12.5	12.0	11.0	17.5	13.0	16.5	15.0	14.0	12.5
20	20.0	17.0	12.0	11.5	12.0	11.0	16.0	14.5	17.0	16.0	14.5	13.5
21	19.5	18.0	14.5	12.0	12.0	11.5	15.5	13.5	16.5	15.5	15.0	14.0
22	19.5	17.0	16.0	13.0	12.5	11.5	16.5	14.0	16.5	15.5	16.0	15.0
23	19.5	16.0	15.0	13.0	12.0	11.5	16.0	14.0	16.5	15.5	17.0	16.0
24	19.5	15.5	15.0	12.0	12.5	11.5	16.5	13.0	16.5	16.0	17.5	16.0
25	19.5	16.0	18.0	12.0	12.5	11.0	17.0	12.0	17.0	16.0	17.5	16.5
26	19.5	16.0	14.5	12.0	12.0	11.5	17.0	12.0	17.5	16.5	18.0	17.0
27	20.0	17.5	15.0	14.5	12.5	12.0	17.0	11.5	18.0	17.0	18.5	17.0
28	20.0	18.5	15.5	15.0	12.5	12.0	16.5	12.0	18.0	17.0	18.0	17.0
29	19.0	17.0	---	---	13.5	12.5	16.0	11.5	---	---	18.5	18.0
30	19.0	17.0	---	---	15.0	13.5	15.0	13.5	---	---	19.0	18.0
31	20.0	17.5	---	---	15.0	14.0	15.0	14.5	---	---	19.0	18.0
MONTH	23.5	15.0	19.5	9.0	15.0	10.0	18.0	10.5	18.0	11.5	19.0	12.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.5	18.0	20.5	19.5	22.0	21.0	29.0	22.0	27.0	20.5	25.5	20.5
2	19.0	18.0	20.5	19.5	22.0	21.5	28.0	22.0	27.0	20.5	25.0	21.0
3	19.0	17.5	20.5	19.5	---	---	---	---	27.0	21.0	25.0	20.5
4	18.0	17.5	20.5	19.5	24.0	21.5	27.0	22.0	27.0	21.5	25.5	20.0
5	18.0	17.5	20.5	19.0	23.5	22.0	27.5	21.5	28.0	21.5	26.0	20.5
6	18.0	16.5	20.0	19.0	24.5	21.5	26.5	21.5	28.5	20.5	26.5	20.5
7	17.0	16.5	20.0	18.5	24.0	20.5	27.0	20.5	---	---	26.0	21.0
8	17.0	16.5	19.5	18.5	25.5	20.5	27.5	20.5	---	---	25.0	21.0
9	17.5	16.5	19.5	18.5	26.5	20.0	27.5	20.5	28.5	20.0	25.0	20.0
10	17.5	16.5	20.0	18.5	26.5	21.0	26.5	20.0	28.5	20.5	26.0	19.5
11	18.0	17.0	20.0	18.5	27.0	21.0	27.0	20.5	27.5	20.5	24.5	18.0
12	18.0	17.0	20.5	19.0	27.0	20.5	27.0	21.0	27.0	21.5	30.5	19.0
13	18.5	17.0	20.0	19.0	27.0	20.0	27.5	20.5	26.5	20.5	23.0	18.5
14	18.5	17.5	20.5	19.0	27.0	20.5	27.5	22.0	26.5	21.0	23.5	19.0
15	18.5	17.5	20.0	19.0	27.5	20.5	27.5	22.5	26.0	20.5	---	---
16	18.0	17.0	20.0	19.0	27.5	21.0	27.0	21.5	26.0	20.0	---	---
17	18.5	17.5	21.0	19.5	27.5	21.0	26.5	20.0	28.0	20.0	22.0	19.5
18	19.0	17.0	21.0	19.5	27.5	20.0	26.5	19.5	28.0	22.5	22.0	19.5
19	19.0	17.0	21.5	20.0	27.5	20.5	27.0	19.5	---	---	22.0	18.0
20	18.5	17.0	22.0	20.5	27.5	20.5	27.0	19.5	---	---	22.0	17.5
21	18.5	17.5	22.0	20.5	28.0	20.5	25.5	21.5	26.5	22.0	21.5	16.5
22	18.5	17.5	22.0	20.5	27.5	21.5	25.5	21.0	28.0	22.5	21.0	17.0
23	19.0	17.5	21.5	20.0	26.5	21.0	26.5	21.5	27.0	20.0	20.0	17.0
24	19.5	18.0	21.5	20.0	27.0	21.5	26.5	21.0	27.0	21.0	---	---
25	19.5	18.5	21.5	20.5	27.0	20.5	26.0	19.5	27.0	21.0	---	---
26	19.5	18.5	22.0	21.0	28.0	21.0	26.0	19.5	26.5	21.5	---	---
27	20.0	18.5	22.5	21.5	28.5	20.5	25.5	19.5	26.5	21.5	18.0	17.0
28	20.0	19.0	22.5	21.5	28.0	21.5	26.0	19.5	26.5	21.0	18.0	17.5
29	20.0	19.0	22.5	21.5	28.0	21.0	26.5	19.5	27.0	20.5	---	---
30	20.5	19.0	23.0	22.0	29.0	22.0	26.5	19.0	26.5	20.5	---	---
31	---	---	22.0	21.0	---	---	26.5	20.0	25.5	21.0	---	---

SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
04...	1330	144	20.0	151	59	95
25...	1015	194	15.5	87	46	75
NOV						
01...	1230	201	17.0	165	90	67
20...	1245	321	12.0	21	18	52
DEC						
06...	1005	408	14.0	65	72	41
JAN						
09...	1030	216	11.0	75	44	--
28...	1230	232	13.0	82	51	89
MAR						
05...	1030	239	17.0	13	8.4	--
27...	1100	230	17.5	25	16	97
APR						
24...	1030	237	18.5	8	5.1	--
MAY						
13...	1130	215	20.0	13	7.5	100
JUN						
16...	1215	179	23.0	403	195	--
23...	1110	161	21.5	220	96	--
JUL						
30...	1145	161	20.5	187	81	97
SEP						
24...	1130	4.0	17.5	178	1.9	99

SANTA ANA RIVER BASIN

11075620 SANTA ANA RIVER SPREADING DIVERSION BELOW IMPERIAL HIGHWAY, NEAR ANAHEIM, CA

LOCATION.--Lat 33°51'23", long 117°48'00", in Canon De Santa Ana, Orange County, Hydrologic Unit 18070203, on diversion channel, 100 ft downstream from diversion point, 0.1 mi south of La Palma Avenue, 0.6 mi west of Imperial Highway, and 7.8 mi east of Anaheim.

PERIOD OF RECORD.--July 1974 to December 1985 (discontinued). Records prior to Sept. 30, 1976, in files of the U.S. Geological Survey.

GAGE.--Water-stage recorder and concrete Parshall flume control. Elevation of gage is 262 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Water is diverted from Santa Ana River at diversion point 100 ft upstream, for recharging to spreading basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 431 ft³/s, Jan. 14, 1978; no flow for some periods in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 326 ft³/s, Dec. 8; minimum daily discharge, 39 ft³/s, Nov. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	132	67									
2	78	124	111									
3	99	123	220									
4	96	122	284									
5	100	125	296									
6	99	131	305									
7	100	135	325									
8	97	140	326									
9	100	145	310									
10	106	145	277									
11	113	83	270									
12	116	74	267									
13	116	226	266									
14	117	304	264									
15	115	295	262									
16	112	272	256									
17	117	269	249									
18	124	266	208									
19	125	261	181									
20	124	262	172									
21	125	260	170									
22	175	222	168									
23	182	188	200									
24	160	179	253									
25	151	187	253									
26	150	172	250									
27	150	277	258									
28	149	269	268									
29	140	196	262									
30	138	39	253									
31	139	---	234									
TOTAL	3776	5623	7485									
MEAN	122	187	241									
MAX	182	304	326									
MIN	63	39	67									
AC-FT	7490	11150	14850									

CAL YR 1985 TOTAL 47796.10 MEAN 131 MAX 354 MIN 0 AC-FT 94800

SANTA ANA RIVER BASIN

11075720 CARBON CREEK BELOW CARBON CANYON DAM, CA

LOCATION.--Lat 33°54'40", long 117°50'29", in SW 1/4 NE 1/4 sec.17, T.3 S., R.9 W., Orange County, Hydrologic Unit 18070106, on right wall of outlet channel 250 ft downstream from toe of Carbon Canyon Dam, and 2.4 mi northwest of Yorba Linda.

DRAINAGE AREA.--19.5 mi².

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 396.29 ft U.S. Army Corps of Engineers datum. Prior to Dec. 3, 1971, at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 11, Nov. 30 to Dec. 10, Feb. 17 to Mar. 6, Mar. 20 to Apr. 5, Apr. 7. Records fair. Flow regulated by Carbon Canyon flood-control reservoir, capacity, 6,610 acre-ft. No diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--25 years, 1.12 ft³/s, 811 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 554 ft³/s, Mar. 1, 1983, gage height, 5.11 ft, present datum, from rating curve extended above 110 ft³/s on basis of optical current meter measurement at 241 ft³/s and computation of flow in concrete-lined channel at gage heights 6.18 ft and 4.12 ft; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 204 ft³/s, Feb. 15, gage height, 3.44 ft, from rating curve extended as explained above; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	.07	0	0					0
2		0	.21	0	.04	0	0					0
3		0	0	0	.03	0	0					0
4		0	0	0	0	0	0					0
5		0	0	0	0	0	0					0
6		0	0	0	0	0	.77					0
7		0	0	0	0	0	.07					0
8		0	0	0	.12	2.5	0					0
9		0	0	0	0	.39	0					0
10		0	0	0	0	8.9	0					0
11		.08	0	0	0	3.1	0					0
12		.26	0	0	0	.46	0					0
13		.16	0	0	1.3	2.8	0					0
14		.17	0	0	6.2	3.5	0					0
15		.11	0	0	101	2.0	0					0
16		.11	0	0	3.8	20	0					0
17		.11	0	0	.52	15	0					0
18		.11	0	0	0	.82	0					0
19		.11	0	0	1.7	.40	0					0
20		.11	0	0	0	0	0					0
21		.11	0	0	0	0	0					0
22		.11	0	0	0	0	0					0
23		.11	0	0	0	0	0					0
24		.13	0	0	0	0	0					.29
25		.78	0	0	0	0	0					1.8
26		0	0	0	0	0	0					.18
27		0	0	0	0	0	0					.13
28		0	0	0	0	0	0					.11
29		8.2	0	0	---	0	0					.11
30		0	0	2.1	---	0	0					.07
31		---	0	1.9	---	0	---		---			---
TOTAL	0	10.77	.21	4.0	114.78	59.87	.84	0	0	0	0	2.69
MEAN	0	.36	.007	.13	4.10	1.93	.028	0	0	0	0	.090
MAX	0	8.2	.21	2.1	101	20	.77	0	0	0	0	1.8
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	21	.4	7.9	228	119	1.7	0	0	0	0	5.3
CAL YR 1985	TOTAL	30.40	MEAN .083	MAX	8.2	MIN 0	AC-FT 60					
WTR YR 1986	TOTAL	193.16	MEAN .53	MAX	101	MIN 0	AC-FT 383					

SANTA ANA RIVER BASIN

11075755 SANTA ANA RIVER AT BALL ROAD, AT ANAHEIM, CA

LOCATION.--Lat 33°49'00", long 117°52'17", in SE 1/4 SW 1/4 sec.24, T.4 S., R.10 W., Orange County, Hydrologic Unit 18070203, 350 ft south of Ball Road, 0.6 mi west of Batavia Street, 1.0 mi east of State College Boulevard in Anaheim, and 16 mi downstream from Prado Dam.

DRAINAGE AREA.--1,587 mi², excludes 768 mi² above Lake Elsinore.

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder and concrete cut-off wall. Elevation of gage is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 29 to Dec. 6, Feb. 10-12, and Sept. 24-29. Records poor. River flow is regulated by Prado Dam, infiltration ponds and diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,500 ft³/s, Mar. 1, 1983, gage height, 6.17 ft, from rating curve extended above 7,000 ft³/s; no flow for many months each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft³/s, Feb. 14, gage height, 4.95 ft; no flow many days.

REVISIONS.--Mean daily discharge for Dec. 28, 1984, has been revised to 1,030 ft³/s. Monthly total for December 1984 revised to 12,190 ft³/s. These numbers supercede those published in the report for 1985.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	8.3	65	1.6	170	0	0	6.3				0
2	0	1.4	1.5	0	169	0	0	0				0
3	0	0	0	0	156	0	0	0				0
4	0	0	0	0	104	0	4.2	0				0
5	0	0	0	0	65	0	107	0				0
6	0	0	36	0	58	0	331	.08				0
7	0	0	132	22	41	0	183	4.5				0
8	0	0	162	30	115	246	578	9.3				0
9	0	6.6	132	17	61	198	372	12				0
10	0	46	101	13	40	778	57	13				0
11	0	422	97	12	50	949	10	12				0
12	0	106	92	10	65	1200	4.3	11				0
13	0	0	76	9.1	584	654	3.9	3.8				0
14	0	75	72	12	1290	423	1.1	0				0
15	0	72	80	13	2050	647	0	0				0
16	0	83	84	16	2040	1300	0	0				0
17	0	182	80	16	2120	1960	0	0				0
18	0	161	76	16	1810	1270	0	0				0
19	0	93	14	11	625	691	0	0				0
20	0	36	2.7	4.9	554	257	0	0				0
21	0	15	0	1.7	528	301	6.7	0				0
22	0	0	0	3.4	104	402	13	0				0
23	0	0	0	17	110	362	13	0				0
24	0	0	0	24	135	236	16	0				35
25	0	0	0	17	87	60	19	0				500
26	5.9	0	8.0	19	54	47	.21	.76				10
27	0	0	11	16	47	37	0	.34				0
28	0	0	13	0	.03	22	0	6.9				120
29	0	710	22	0	---	22	2.9	0				165
30	.51	44	17	213	---	19	5.8	0				5.4
31	5.5	---	9.1	142	---	7.6	---	0	---	---	---	---
TOTAL	11.91	2061.3	1383.3	656.7	13232.03	12088.6	1728.11	79.98	0	0	0	835.4
MEAN	.38	68.7	44.6	21.2	473	390	57.6	2.58	0	0	0	27.8
MAX	5.9	710	162	213	2120	1960	578	13	0	0	0	500
MIN	0	0	0	0	.03	0	0	0	0	0	0	0
AC-FT	24	4090	2740	1300	26250	23980	3430	159	0	0	0	1660

CAL YR 1985 TOTAL 8894.45 MEAN 24.4 MAX 854 MIN 0 AC-FT 17640
WTR YR 1986 TOTAL 32077.33 MEAN 87.9 MAX 2120 MIN 0 AC-FT 63630

SANTA ANA RIVER BASIN

11075800 SANTIAGO CREEK AT MODJESKA, CA

LOCATION.--Lat 33°42'46", long 117°38'39" (revised), in NE 1/4 NE 1/4 sec.30, T.5 S., R.7 W., Orange County, Hydrologic Unit 18070203, on right bank at Santiago Canyon road bridge, 0.9 mi northwest of Modjeska, 1.0 mi downstream from Harding Creek, and 1.5 mi downstream from Modjeska Reservoir. Prior to Feb. 6, 1985 at site 0.6 mi upstream.

DRAINAGE AREA.--13.0 mi² (revised).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,210.00 ft above National Geodetic Vertical Datum of 1929, from topographic map. Sept. 10, 1969, to Feb. 6, 1985 at site 0.6 mi upstream at datum 44.0 ft higher. Prior to Sept. 10, 1969 at datum 48.0 ft higher.

REMARKS.--Estimated daily discharges: June 20 to Aug. 24. Records good. Slight regulation by Modjeska Reservoir on Harding Creek. No diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--25 years, 8.23 ft³/s, 5,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft³/s, Feb. 25, 1969, gage height, 10.50 ft, at site and datum then in use, from rating curve extended above 840 ft³/s, on basis of slope-area measurement of maximum flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	1430	*396	*6.88	Mar. 16	1545	129	6.51
Feb. 15	0445	335	6.82				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	8.8	.40	3.2	6.2	8.5	2.7	.63			0
2		0	5.4	.40	1.7	6.0	8.3	2.6	.66			0
3		0	6.4	.39	1.6	5.6	8.0	2.4	.63			0
4		0	5.7	.39	1.5	5.0	7.4	2.4	.60			0
5		0	5.1	.45	1.4	4.5	7.1	2.3	.59			0
6		0	4.3	.45	1.3	4.2	18	2.5	.55			0
7		0	3.8	.34	1.3	4.2	9.9	2.3	.52			0
8		0	3.3	.37	2.2	13	8.2	2.1	.47			0
9		0	2.8	.38	1.7	16	7.5	2.0	.42			0
10		0	2.4	.37	1.5	30	7.3	1.9	.29			0
11		.05	2.0	.37	1.5	55	6.9	2.0	.22			0
12		.11	1.7	.38	1.4	34	6.7	2.0	.18			0
13		0	1.6	.37	3.6	34	6.3	1.9	.20			0
14		0	1.4	.38	9.0	45	6.0	2.0	.19			0
15		0	1.3	.38	133	42	5.8	2.0	.17			0
16		0	.99	.39	63	87	5.3	2.0	.16			0
17		0	.92	.40	30	84	5.3	1.9	.16			0
18		0	.88	.38	22	63	4.9	1.5	.12			0
19		0	.83	.35	26	45	4.5	1.5	.10			0
20		0	.78	.35	24	35	3.7	1.4	.09			0
21		.01	.67	.35	19	27	3.5	1.2	.07			0
22		.02	.65	.37	16	23	3.5	1.2	.05			0
23		0	.62	.38	15	20	3.5	1.1	.03			0
24		.10	.58	.37	11	18	3.2	1.0	.02			.08
25		1.3	.50	.33	9.2	16	3.3	.92	.01			2.1
26		2.3	.48	.33	8.1	14	3.3	.89	0			.29
27		1.5	.46	.31	7.2	12	3.1	.80	0			.09
28		1.0	.45	.30	6.6	11	2.9	.73	0			.04
29		89	.42	.30	---	10	2.7	.65	0			.01
30		31	.39	1.2	---	9.6	2.8	.64	0			0
31		---	.39	3.3	---	8.9	---	.65	---			---
TOTAL	0	126.39	66.01	15.23	423.0	788.2	177.4	51.18	7.13	0	0	2.61
MEAN	0	4.21	2.13	.49	15.1	25.4	5.91	1.65	.24	0	0	.087
MAX	0	89	8.8	3.3	133	87	18	2.7	.66	0	0	2.1
MIN	0	0	.39	.30	1.3	4.2	2.7	.64	0	0	0	0
AC-FT	0	251	131	30	839	1560	352	102	14	0	0	5.2

CAL YR 1985 TOTAL 742.76 MEAN 2.04 MAX 89 MIN 0 AC-FT 1470
WTR YR 1986 TOTAL 1657.15 MEAN 4.54 MAX 133 MIN 0 AC-FT 3290

SANTA ANA RIVER BASIN

11077500 SANTIAGO CREEK AT SANTA ANA, CA

LOCATION.--Lat 33°46'13", long 117°53'01", in SW 1/4 NW 1/4 sec.1, T.5 S., R.10 W., Orange County, Hydrologic Unit 18070203, on left bank 127 ft upstream from Bristol Street bridge at Santa Ana, and 1,700 ft upstream from mouth at Santa Ana River.

DRAINAGE AREA.--98.6 mi².

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only October to December 1928, published in WSP 1315-B.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 105.00 ft Orange County Environmental Management Agency datum. Prior to Sept. 8, 1969, at site 0.1 mi upstream at different datum; Sept. 9, 1969, to July 21, 1976, at site 127 ft downstream at datum 2.66 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-9. Records fair. Flow regulated by Santiago Reservoir, capacity, 25,000 acre-ft, since January 1963 by Villa Park flood-control reservoir, capacity, 15,500 acre-ft, and affected by intervening gravel pits. Diversions above station by Irvine Co. and Serrano and Carpenter Irrigation Districts. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--58 years, 4.95 ft³/s, 3,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,600 ft³/s, Feb. 25, 1969, gage height, 9.10 ft, site and datum then in use; maximum gage height, 9.85 ft, Jan. 16, 1952, site and datum then in use; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,420 ft³/s, Feb. 14, gage height, 5.47 ft; no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	0	0	0		0			0
2		0	.32	0	0	0	0		0			0
3		0	0	0	0	0	0		0			0
4		0	0	0	0	0	0		0			0
5		0	0	.01	0	0	0		0			0
6		0	0	0	0	0	20		0			0
7		0	0	0	1.7	0	.05		0			0
8		0	0	0	7.0	8.4	0		0			0
9		0	0	0	0	0	0		0			0
10		0	0	0	0	19	0		0			0
11		13	0	0	0	.01	0		0			0
12		10	0	0	.04	.21	0		0			0
13		0	0	0	39	1.3	0		0			0
14		0	0	0	172	.09	0		0			0
15		0	0	0	122	22	0		0			0
16		0	0	0	1.9	12	0		0			0
17		0	0	0	0	0	0		0			0
18		0	0	0	0	0	0		0			0
19		0	.01	0	0	0	0		0			0
20		0	0	0	0	0	0		0			0
21		0	0	0	0	0	0		0			0
22		0	0	0	0	0	0		0			0
23		0	0	0	0	0	0		.14			0
24		.05	0	0	0	0	0		0			5.7
25		10	0	0	0	0	0		0			14
26		0	0	0	0	0	0		0			0
27		0	0	0	0	0	0		0			0
28		0	0	0	0	0	0		0			0
29		145	0	.01	---	0	0		0			0
30		0	0	6.1	---	0	0		0			0
31		---	0	25	---	0	---		---			---
TOTAL	0	178.05	.33	31.12	343.64	63.01	20.05	0	.14	0	0	19.7
MEAN	0	5.94	.011	1.00	12.3	2.03	.67	0	.005	0	0	.66
MAX	0	145	.32	25	172	22	20	0	.14	0	0	14
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	353	.7	62	682	125	40	0	.3	0	0	39

CAL YR 1985 TOTAL 335.11 MEAN .92 MAX 145 MIN 0 AC-FT 665
WTR YR 1986 TOTAL 656.04 MEAN 1.80 MAX 172 MIN 0 AC-FT 1300

SANTA ANA RIVER BASIN

11078000 SANTA ANA RIVER AT SANTA ANA, CA

LOCATION.--Lat 33°44'46", long 117°54'30", in SW 1/4 SE1/4, sec.10, T.5 S., R.10 W., Orange County, Hydrologic Unit 18070203, on right bank 50 ft downstream from Fifth Street Bridge in Santa Ana and 1.8 mi downstream from Santiago Creek.

DRAINAGE AREA.--1,700 mi², excludes 768 mi above Lake Elsinore.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1923 to current year.

REVISED RECORDS.--WDR CA-74-1: Drainage area, WDR CA-79-1: 1978 (M).

GAGE.--Water-stage recorder. Datum of gage is 61.23 ft Orange County datum. Jan. 3, 1923, to Jan. 24, 1929, at same site at different datum. Jan. 25, 1929, to June 20, 1948, at site 450 ft upstream at different datum. June 21, 1948, to May 2, 1960, at same site at different datum. Feb. 28, 1961, to Oct. 1, 1961, at same site at datum 27.00 ft higher. Oct. 2, 1961, to Nov. 28, 1979, at same site at datum 25.00 ft higher. Nov. 29, 1979 to present, at same site at datum 20.00 ft higher. Apr. 21, 1980, to Aug. 14, 1981, no gage due to rebuilding of channel.

REMARKS.--Estimated daily discharges: Oct. 1-17. Records fair below 1,500 ft³/s, and poor above. Natural flow affected by ground-water withdrawals, diversions, importation by Metropolitan Water District, municipal use, return flow from irrigation. Since 1940, natural flow affected by Prado flood-control reservoir, capacity, 201,200 acre-ft, three small flood-control reservoirs, combined capacity, 31,900 acre-ft, Big Bear Lake (station 11049000), and Santiago Reservoir, capacity, 25,000 acre-ft. Discharge up to 100 ft³/s can be diverted from Carbon Creek to Coyote Creek 1.5 mi upstream from mouth of Carbon Creek. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--17 years (water years 1924-40), 23.4 ft³/s, 16,940 acre-ft/yr; 46 years (water years 1941-86, unadjusted for storage) 55.0 ft³/s, 39,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,300 ft³/s, Mar. 3, 1938, gage height, 10.20 ft, site and datum then in use, on basis of slope-area measurement of maximum flow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,500 ft³/s (estimated), Feb. 14, gage height, 10.80 ft; no flow many days during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	107	0	205	.63	.65	0	.01			0
2		0	46	0	193	.20	.14	0	.01			0
3		0	1.9	0	150	.11	.06	0	.01			0
4		0	.47	0	88	.08	.04	0	.01			0
5		0	.45	1.2	43	.06	19	0	.01			0
6		0	.05	.12	39	.05	484	0	.01			0
7		0	91	.05	43	.06	239	0	.01			0
8		0	160	.02	164	202	595	0	.01			0
9		0	151	.01	39	179	477	0	.01			0
10		0	102	.01	23	781	83	0	0			0
11		993	82	0	29	728	27	0	0			0
12		347	92	0	65	1030	7.4	0	0			0
13		0	49	0	763	706	3.9	0	0			0
14		11	51	0	1860	459	.70	0	0			0
15		59	53	0	2290	689	.08	0	0			0
16		5.6	78	0	1840	1120	.05	.24	0			0
17		105	47	0	1750	1680	.03	.07	0			0
18		129	60	.14	1440	1070	.02	.03	0			0
19		32	17	.28	609	636	.01	.02	0			0
20		5.6	.34	.07	504	229	0	.01	0			0
21		.08	.11	.04	466	224	0	.01	0			0
22		0	.05	.01	104	295	0	0	0			0
23		0	.03	0	90	285	0	0	0			0
24		0	.01	0	101	233	0	0	0			61
25		191	.01	0	78	66	3.2	0	0			836
26		.01	0	.76	48	61	4.2	0	0			3.3
27		0	0	2.4	42	56	.10	0	0			.19
28		0	0	.70	12	38	.04	0	0			133
29		1580	0	.09	---	36	.01	0	0			168
30		76	0	282	---	18	0	0	0			17
31		---	0	355	---	11	---	0	---			---
TOTAL	0	3534.29	1189.42	642.90	13078	10833.19	1944.63	.38	.09	0	0	1218.49
MEAN	0	118	38.4	20.7	467	349	64.8	.012	.003	0	0	40.6
MAX	0	1580	160	355	2290	1680	595	.24	.01	0	0	836
MIN	0	0	0	0	12	.05	0	0	0	0	0	0
AC-FT	0	7010	2360	1280	25940	21490	3860	.8	.2	0	0	2420

CAL YR 1985 TOTAL 10586.77 MEAN 29.0 MAX 1580 MIN 0 AC-FT 21000
WTR YR 1986 TOTAL 32441.39 MEAN 88.9 MAX 2290 MIN 0 AC-FT 64350

SANTA ANA RIVER BASIN

11078000 SANTA ANA RIVER AT SANTA ANA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-71, 1973 to current year.

WATER TEMPERATURE: Water years 1968-71, 1973 to current year.

SEDIMENT DATA: Water years 1968-71, 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1967 to September 1969, October 1970 to September 1971, October 1972 to September 1980, October 1981 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1967 to September 1971, October 1972 to September 1980, October current year.

REMARKS.--Sediment records for water year 1986 were not available at time of publication.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean (water years 1968-71, 1973-80, 1982-85), 78,000 mg/L Feb. 25, 1969; minimum daily mean, no flow for many days each year.

SEDIMENT LOAD: Maximum daily (water years 1968-71, 1973-80, 1982-85), 2,670,000 tons, Feb. 25, 1969; minimum daily, 0 ton on many days each year.

SEDIMENT RECORDS FOR WATER YEAR 1886 WERE NOT AVAILABLE AT TIME OF PUBLICATION

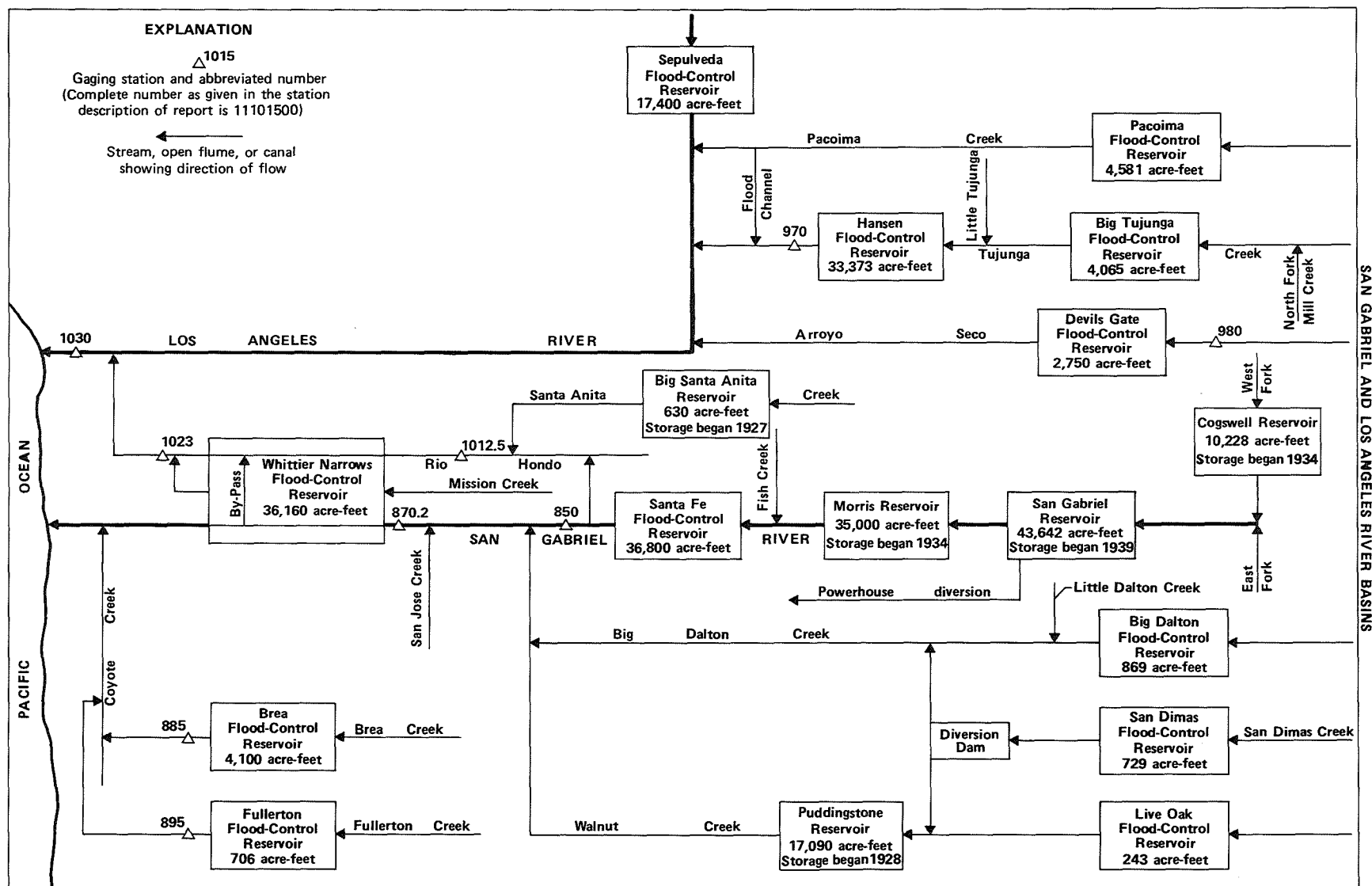


FIGURE 18. — Schematic diagram showing diversions and storage in San Gabriel and Los Angeles River basins.

SAN GABRIEL RIVER BASIN

11085000 SAN GABRIEL RIVER BELOW SANTA FE DAM, NEAR BALDWIN PARK, CA

LOCATION.--Lat 34°06'44", long 117°58'07", NE 1/4 SW 1/4 sec.6, T.1 S., R.10 W., Los Angeles County, Hydrologic Unit 18070106, on left bank at stilling basin of outlet of Santa Fe flood-control dam, 500 ft downstream from axis of dam, and 1.7 mi north of Baldwin Park.

DRAINAGE AREA.--236 mi².

PERIOD OF RECORD.--October 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Cogswell and San Gabriel flood-control reservoirs, combined capacity, 53,870 acre-ft, Morris Reservoir, capacity, 35,000 acre-ft, and Santa Fe flood-control reservoir, capacity, 32,640 acre-ft. Diversions above station for irrigation, power development, and ground-water replenishment. At times water is diverted from side of stilling basin to headwaters of Rio Hondo; 29,100 acre-ft were diverted during the current year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion to Rio Hondo were provided by Los Angeles County Flood Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,900 ft³/s, Jan. 26, 1969, gage height, 22.20 ft; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 407 ft³/s, Mar. 7, gage height, 11.17 ft; no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	0	5.2					
2					0	0	0					
3					0	0	0					
4					0	0	0					
5					0	0	0					
6					0	0	0					
7					0	204	0					
8					0	263	0					
9					0	67	0					
10					0	49	0					
11					0	54	0					
12					0	0	0					
13					0	0	0					
14					0	0	0					
15					89	0	0					
16					116	48	0					
17					109	112	0					
18					49	16	0					
19					43	0	0					
20					66	0	0					
21					39	0	0					
22					3.0	0	0					
23					0	0	0					
24					0	0	0					
25					0	0	0					
26					0	0	0					
27					0	0	0					
28					0	15	0					
29					---	7.5	0					
30					---	0	0					
31		---			---	0	---		---			---
TOTAL	0	0	0	0	514.0	835.5	5.2	0	0	0	0	0
MEAN	0	0	0	0	18.4	27.0	.17	0	0	0	0	0
MAX	0	0	0	0	116	263	5.2	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	1020	1660	10	0	0	0	0	0
CAL YR 1985	TOTAL	0.00	MEAN .000	MAX	.00	MIN 0	AC-FT	0				
WTR YR 1986	TOTAL	1354.70	MEAN 3.71	MAX	263	MIN 0	AC-FT	2690				

SAN GABRIEL RIVER BASIN

11087020 SAN GABRIEL RIVER ABOVE WHITTIER NARROWS DAM, CA

LOCATION.--Lat 34°02'03", long 118°02'14" (revised), in La Puente Grant, Los Angeles County, Hydrologic Unit 18070106, on downstream side of bridge near center on Peck Road, 0.8 mi downstream from San Jose flood channel, 1.2 mi upstream from axis of Whittier Narrows Dam, and 1.8 mi south of El Monte.

DRAINAGE AREA.--442 mi² (revised).

PERIOD OF RECORD.--October 1955 to September 1957, October 1963 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 220 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharge. Flow regulated by San Gabriel, Cogswell, and Santa Fe flood-control reservoirs, combined capacity, 90,670 acre-ft; several small flood-control reservoirs, combined capacity, 19,100 acre-ft, and Morris Reservoir, capacity, 35,000 acre-ft. Many diversions above station for irrigation, power development, and ground-water replenishment. Colorado River water released to the San Gabriel River at a site 14.9 mi upstream from gage, at Metropolitan Water District aqueduct crossing on San Dimas Creek for ground-water replenishment. Los Angeles County Flood Control District diverted 29,100 acre-ft from San Gabriel River below Santa Fe Dam to Rio Hondo during the current year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion to Rio Hondo were provided by Los Angeles County Flood Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,600 ft³/s, Jan. 25, 1969, gage height, 10.90 ft; no flow for part of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,600 ft³/s, Feb. 15, gage height, 7.84 ft; minimum daily, 2.2 ft³/s, Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	6.6	23	9.5	33	17	16	78	61	7.0	8.6	10
2	5.0	6.1	135	13	13	16	17	75	62	5.5	4.7	9.8
3	4.9	6.5	33	9.6	13	15	15	75	59	5.4	2.9	4.7
4	3.1	7.0	19	22	13	16	15	74	58	5.6	2.4	2.2
5	6.7	6.4	17	47	11	16	15	73	60	9.3	2.8	3.2
6	7.2	4.8	15	12	10	15	461	73	60	11	2.8	3.0
7	6.9	5.1	16	44	22	13	93	73	60	7.6	4.6	3.2
8	19	4.7	15	118	101	1320	17	77	59	4.2	8.9	3.2
9	9.0	7.1	13	147	20	38	35	82	62	3.5	5.1	2.6
10	3.9	8.5	14	151	24	2040	82	84	63	3.5	5.9	3.0
11	5.3	706	10	156	24	62	83	82	64	3.9	8.7	7.5
12	8.2	91	9.0	156	28	93	87	77	64	4.4	5.7	11
13	10	14	9.7	35	765	1110	89	66	63	4.2	5.4	12
14	11	11	10	12	1960	1940	87	58	66	4.4	6.0	12
15	10	8.0	9.9	62	3920	2420	60	64	65	5.6	8.4	11
16	9.4	9.4	9.9	171	294	3020	20	129	51	6.4	8.6	5.4
17	5.7	9.2	10	173	68	313	37	166	14	4.0	7.9	5.3
18	7.9	9.2	11	168	27	69	82	169	12	3.9	8.3	5.5
19	5.5	8.1	12	168	1110	51	83	160	12	3.6	3.2	8.2
20	8.3	9.0	8.4	172	44	49	84	197	12	3.8	3.2	11
21	233	7.8	9.4	173	35	48	87	239	11	3.4	3.0	4.0
22	76	8.8	11	174	19	49	86	244	11	4.0	8.9	6.5
23	11	9.1	17	170	22	44	82	145	11	5.6	9.0	5.8
24	10	162	15	173	23	26	46	73	11	6.0	8.3	1120
25	11	991	16	178	18	23	83	67	8.1	8.3	11	843
26	9.3	41	16	185	18	21	83	68	7.0	6.7	9.1	17
27	8.9	14	16	201	17	20	83	63	7.6	9.2	8.7	12
28	9.9	12	12	210	18	18	83	60	8.5	11	7.9	9.8
29	7.4	2550	12	181	---	17	82	58	9.4	7.5	7.6	8.1
30	4.4	41	11	1970	---	16	83	60	8.5	7.8	7.4	6.0
31	7.7	---	11	836	---	16	---	62	---	8.1	9.4	---
TOTAL	542.5	4774.4	546.3	6297.1	8670	12931	2276	3071	1120.1	184.4	204.4	2166.0
MEAN	17.5	159	17.6	203	310	417	75.9	99.1	37.3	5.95	6.59	72.2
MAX	233	2550	135	1970	3920	3020	461	244	66	11	11	1120
MIN	3.1	4.7	8.4	9.5	10	13	15	58	7.0	3.4	2.4	2.2
AC-FT	1080	9470	1080	12490	17200	25650	4510	6090	2220	366	405	4300
CAL YR 1985	TOTAL	23504.5	MEAN	64.4	MAX	2550	MIN	2.4	AC-FT	46620		
WTR YR 1986	TOTAL	42783.2	MEAN	117	MAX	3920	MIN	2.2	AC-FT	84860		

SAN GABRIEL RIVER BASIN

11088500 BREA CREEK BELOW BREA DAM, NEAR FULLERTON, CA

LOCATION.--Lat 33°53'16", long 117°55'32", in NE 1/4 NE 1/4 sec.28, T.3 S., R.10 W., Orange County, Hydrologic Unit 18070106, on right bank 0.2 mi downstream from Brea Dam, and 1 mi north of Fullerton.

DRAINAGE AREA.--21.6 mi².

PERIOD OF RECORD.--January 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 196.67 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Dec. 4, 1964, at datum 1.03 ft higher.

REMARKS.--Estimated daily discharges: Mar. 13-15, Mar. 18 to Apr. 25, July 25, and Sept. 14-23, 26-30. Records fair except those below 10 ft³/s, which are poor. Flow regulated by Brea flood-control reservoir, capacity, 4,100 acre-ft. No diversion above station. Since August 1966 low flow mostly the result of irrigation wastewater from golf course 0.8 mi upstream. See schematic diagram of San Gabriel and Los Angeles River basins.

AVERAGE DISCHARGE.--44 years, 3.11 ft³/s, 2,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,700 ft³/s, Feb. 18, 1980, maximum discharge and gage height unknown, Feb. 18, 1980; no flow for parts of some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s, Feb. 15, gage height, 4.96 ft; minimum daily, 0.59 ft³/s, Dec. 13, 14, 17.

REVISIONS.--Maximum discharges for the 1983-85 water years not previously published are given below:

Water year	Date	Discharge (ft ³ /s)	Gage height (ft)
1983	Feb. 27, 1983	1,220	5.53
1984	Oct. 1, 1983	678	3.86
1985	Dec. 18, 1984	686	3.92

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.2	4.2	1.4	11	2.0	1.1	.92	1.1	.92	1.2	1.1
2	1.4	1.2	17	1.1	5.4	2.0	1.1	.92	1.1	.92	1.2	1.1
3	1.4	1.1	5.5	.74	5.2	2.0	1.1	.92	1.1	.92	1.1	1.1
4	1.4	.96	2.3	1.4	2.8	2.0	1.1	.92	1.1	.92	1.1	1.1
5	1.4	.92	.91	11	1.9	1.9	1.1	.92	.89	.92	1.1	1.1
6	1.4	.92	.74	2.1	1.6	1.2	60	.92	.74	.92	1.1	1.1
7	1.4	1.1	.74	1.9	5.3	2.0	3.5	.92	.74	.92	1.1	1.1
8	1.4	.97	.74	1.4	13	78	2.8	.92	.74	.92	1.1	1.1
9	1.4	.92	.81	1.4	2.0	18	2.2	.92	.74	.92	1.1	1.1
10	1.8	.92	.92	1.4	1.8	245	1.7	.92	.74	.92	1.1	1.1
11	1.4	77	.92	1.4	1.6	81	1.5	.92	.74	.92	1.1	1.1
12	1.4	23	.75	1.4	1.4	18	1.2	.92	.74	1.1	1.1	1.1
13	1.4	1.8	.59	1.5	49	55	1.1	.92	.81	1.4	1.1	1.1
14	1.4	1.3	.59	1.4	132	21	1.1	.92	.92	1.2	1.1	1.1
15	1.4	.92	.65	1.0	411	53	1.1	.92	.92	1.1	1.1	1.1
16	1.4	.92	.70	1.4	67	234	1.0	.92	.92	1.1	1.1	1.1
17	1.4	.92	.59	.92	30	75	1.0	1.1	.92	1.1	1.1	1.1
18	1.4	.93	.79	.97	13	2.0	1.0	1.2	.92	1.1	1.1	1.1
19	1.4	.73	1.3	1.1	46	1.1	1.0	1.4	.92	1.1	1.1	1.1
20	1.4	1.5	1.2	1.1	5.1	1.1	.98	1.4	.92	1.1	1.1	1.1
21	1.4	.71	1.6	1.1	2.0	1.1	.97	1.4	.79	1.1	1.1	1.1
22	2.9	1.4	.74	1.1	2.0	1.1	.97	1.4	.74	1.1	1.1	1.1
23	1.4	1.7	1.3	1.1	2.0	1.1	.97	1.4	.88	1.5	1.1	1.1
24	1.8	7.1	1.4	1.1	2.0	1.1	.96	1.4	1.1	1.5	1.1	70
25	1.6	75	1.4	1.1	2.0	1.1	.96	1.4	1.0	1.1	1.1	108
26	1.2	4.7	1.4	1.1	2.0	1.1	.96	1.4	.92	1.1	1.1	2.0
27	1.1	1.1	1.1	1.1	2.0	1.1	.92	1.4	.92	1.1	1.1	1.6
28	.98	.90	.74	1.1	2.0	1.1	.92	1.4	.92	1.1	1.1	1.2
29	.92	217	.79	2.3	---	1.1	.92	1.4	.92	1.1	1.1	1.2
30	.92	22	1.4	112	---	1.1	.92	1.2	.92	1.1	1.1	1.2
31	.92	---	1.4	72	---	1.1	---	1.1	---	1.1	1.1	---
TOTAL	43.54	450.84	55.21	231.13	822.1	907.4	96.15	34.72	26.83	33.32	34.3	210.5
MEAN	1.40	15.0	1.78	7.46	29.4	29.3	3.21	1.12	.89	1.07	1.11	7.02
MAX	2.9	217	17	112	411	245	60	1.4	1.1	1.5	1.2	108
MIN	.92	.71	.59	.74	1.4	1.1	.92	.92	.74	.92	1.1	1.1
AC-FT	86	894	110	458	1630	1800	191	69	53	66	68	418

CAL YR 1985 TOTAL 1291.44 MEAN 3.54 MAX 217 MIN .35 AC-FT 2560

LOCATION.--Lat 33°53'45", long 117°53'07", in NW 1/4 SW 1/4, sec.24, T.3 S., R.10 W., Orange County, Hydrologic Unit 18070106, on left bank of outlet channel of Fullerton Dam, 1.6 mi southeast of Brea.

REVISID RECORDS.--WDR CA-82-1: 1981.

GAGE.--Water-stage recorder. Elevation of gage is 250 ft above National Geodetic Vertical Datum of 1929, from topographic map. V-notch sharp-crested weir used Oct. 25, 1946, to Feb. 2, 1956. Prior to Dec. 3, 1971, at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Sept. 15, 16. Records good. Flow regulated by Fullerton flood-control reservoir, capacity, 706 acre-ft. Small tributary formerly entering below station diverted into reservoir since December 1954. See schematic diagram of San Gabriel and Los Angeles River basins.

AVERAGE DISCHARGE.--13 years (water years 1942-54), 0.19 ft³/s, 135 acre-ft/yr; 32 years (water years 1955-86), 1.23 ft³/s, 891 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 392 ft³/s, Mar. 1, 1983, gage height, 8.25 ft, present datum;
no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 381 ft³/s, Feb. 15, gage height, 8.17 ft; minimum daily, 0.36 ft³/s, Oct. 15, Dec. 6-11, 17.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.50	.69	.46	4.7	.51	.65	.81	.70	.68	.60	.66
2	.51	.49	8.5	.53	.80	.51	.70	.78	.75	.60	.60	.69
3	.47	.43	.78	.44	.62	.51	.71	.73	.80	.80	.54	.60
4	.43	.48	.49	1.0	.60	.51	.60	.68	.76	.60	.63	.75
5	.48	.51	.43	7.1	.53	.51	.69	.75	.80	.60	.59	.74
6	.51	.51	.36	.77	.48	.51	15	.72	.72	.52	.59	.85
7	.60	.54	.36	.40	3.8	.51	1.5	.79	.60	.60	.73	.73
8	.47	.59	.36	.38	7.8	26	.70	.60	.60	.65	.60	.62
9	.81	.56	.36	.46	.51	4.9	.72	.64	.60	.73	.60	.61
10	1.2	.51	.36	.48	.51	44	.70	.72	.63	.60	.56	.67
11	.49	28	.36	.51	.43	7.9	.75	.68	.64	.64	.58	.59
12	.43	7.8	.63	.50	.43	2.1	.70	.66	.63	.60	.69	.55
13	.43	.59	.43	.43	32	12	.60	.73	.66	.57	.60	.65
14	.40	.49	.42	.48	32	3.1	.60	.78	.60	.59	.60	.64
15	.36	.43	.43	.49	180	16	.60	.81	.60	2.2	.59	.65
16	.43	.43	.41	.50	2.8	49	.63	.72	.68	.77	.60	.65
17	.46	.46	.36	.43	2.1	9.2	.60	.64	.80	1.1	.60	.71
18	.45	.60	.37	.65	1.3	.91	.67	.60	.80	.76	.64	.59
19	.47	.48	.40	.56	14	.64	.77	.68	.72	.69	.56	.57
20	.45	.50	.43	.51	1.2	.59	.69	.68	.77	.56	.59	.58
21	.98	.54	.43	.49	.55	.68	2.1	.60	.70	.59	.83	.53
22	1.7	.44	.45	.43	.60	.60	1.5	.67	.60	.69	.95	.62
23	.50	.43	.51	.48	.54	.60	.80	.60	.60	.59	.81	.62
24	.43	6.5	.51	.48	.51	.60	1.2	.71	.69	.67	.61	26
25	.48	26	.47	.51	.51	.60	.79	.70	.60	.64	.60	32
26	.48	.85	.48	.50	.51	.60	.85	.79	.67	.60	1.3	.83
27	.43	.51	.50	.48	.51	.80	.77	.81	.68	.55	1.3	.57
28	.47	.51	.47	.48	.51	.69	.85	.88	.60	.60	.98	.56
29	.62	89	.51	1.8	---	.65	.83	.78	.60	.70	.73	.56
30	.52	3.1	.51	40	---	.60	.81	.75	.60	.60	.83	.58
31	.57	---	.51	30	---	.60	---	.75	---	.60	.60	---
TOTAL	17.57	172.78	22.28	92.73	290.85	186.93	39.08	22.24	20.20	21.69	21.63	75.97
MEAN	.57	5.76	.72	2.99	10.4	6.03	1.30	.72	.67	.70	.70	2.53
MAX	1.7	89	8.5	40	180	49	15	.88	.80	2.2	1.3	32
MIN	.36	.43	.36	.38	.43	.51	.60	.60	.60	.52	.54	.53
AC-FT	35	343	44	184	577	371	78	44	40	43	43	151

CAL YR 1985	TOTAL 549.01	MEAN 1.50	MAX 89	MIN .36	AC-FT 1090
WTR YR 1986	TOTAL 983.95	MEAN 2.70	MAX 180	MIN .36	AC-FT 1950

LOS ANGELES RIVER BASIN

11097000 BIG TUJUNGA CREEK BELOW HANSEN DAM, CA

LOCATION.--Lat 34°15'13", long 118°23'17", in Ex Mission San Fernando Grant, Los Angeles County, Hydrologic Unit 18070105, in city of Los Angeles, on left bank of outlet channel 0.5 mi downstream of Hansen Dam, 0.1 mi upstream from Glen Oaks Boulevard, and 3 mi southeast of San Fernando.

DRAINAGE AREA.--153 mi².

PERIOD OF RECORD.--May 1932 to February 1938, August 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WDR CA-84-1: 1978 (M).

GAGE.--Water-stage recorder. Datum of gage is 943.32 ft U.S. Army Corps of Engineers datum. See WSP 1735 for history of changes prior to Oct. 1, 1953.

REMARKS.--No estimated daily discharges. Records fair except for those below 50 ft³/s, which are poor. Flow regulated since July 1931 by Big Tujunga flood-control reservoir, capacity, 5,720 acre-ft in 1979 and since September 1940 by Hansen flood-control reservoir, capacity, 29,700 acre-ft. Several small diversions for domestic use and irrigation. Water reported herein is that which passed Hansen Dam. Los Angeles County Flood Control District diverts water 0.3 mi upstream from gage to spreading grounds, as shown in combined table below. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion were provided by Los Angeles County Flood Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s, Feb. 10, 1978, Mar. 2, 1983, maximum gage height, 7.64 ft, Mar. 2, 1983; no flow many days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 54,000 ft³/s, estimated, Mar. 2, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 887 ft³/s, Feb. 25, gage height, 2.22 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		0	1.5	3.1	.68	0		0	0	0
2		0		0	.41	.36	5.1	0		0	0	0
3		0		0	2.2	0	5.4	0		0	0	0
4		0		0	14	0	4.0	0		0	0	0
5		0		0	2.3	0	3.4	0		0	0	0
6		0		0	.33	0	5.9	0		0	0	0
7		0		0	0	0	9.1	0		0	0	0
8		0		0	10	101	7.4	0		0	0	0
9		0		0	58	90	6.1	0		0	0	0
10		0		0	36	65	4.6	0		0	0	0
11		20		0	7.1	2.8	4.3	0		0	0	0
12		13		0	4.7	0	3.4	0		0	0	0
13		3.0		0	4.6	0	3.4	0		0	0	0
14		2.0		0	4.5	0	2.0	0		0	0	0
15		.02		0	20	32	.50	0		0	0	0
16		.67		2.0	6.0	126	.50	.08		0	0	0
17		.05		0	6.9	26	.41	.31		0	0	0
18		0		0	6.9	10	0	0		0	0	0
19		0		0	12	4.2	0	0		0	.29	0
20		0		0	13	1.9	0	0		0	0	.67
21		0		0	50	.50	0	0		0	0	0
22		0		0	17	.50	0	0		0	0	.62
23		0		0	.83	.33	0	.39		0	0	.05
24		.45		0	0	0	0	.37		0	0	5.6
25		19		0	89	0	0	0		0	0	11
26		2.0		0	3.9	0	0	0		0	0	3.8
27		.50		0	1.7	0	0	0		0	0	3.4
28		.27		0	3.9	1.7	0	0		2.4	0	1.1
29		0		0	---	3.4	0	0		1.3	0	.50
30		0		23	---	2.0	0	0		0	0	.39
31		---		43	---	.50	---	0	---	0	0	---
TOTAL	0	60.96	0	68.0	376.77	471.29	66.19	1.15	0	3.7	.29	27.13
MEAN	0	2.03	0	2.19	13.5	15.2	2.21	.037	0	.12	.009	.90
MAX	0	20	0	43	89	126	9.1	.39	0	2.4	.29	11
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	121	0	135	747	935	131	2.3	0	7.3	.6	54
CAL YR 1985 TOTAL	483.11		MEAN 1.32	MAX 29	MIN 0	AC-FT 958						
WTR YR 1986 TOTAL	1075.48		MEAN 2.95	MAX 126	MIN 0	AC-FT 2130						

LOS ANGELES RIVER BASIN

11098000 ARROYO SECO NEAR PASADENA, CA

LOCATION.--Lat 34°13'20", long 118°10'36", in NW 1/4 NE 1/4 sec.31, T.2 N., R.12 W., Los Angeles County, Hydrologic Unit 18070105, on right bank, 0.7 mi east of Angeles Crest Highway, 1.5 mi upstream from Millard Canyon, and 5.5 mi northwest of Pasadena.

DRAINAGE AREA.--16.0 mi².

PERIOD OF RECORD.--December 1910 to current year.

GAGE.--Water-stage recorder. Broad-crested weir since November 1938. Datum of gage is 1,397.88 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1916, nonrecording gage at different datum. Oct. 1, 1916, to Oct. 19, 1945, water-stage recorder at datum 4.00 ft lower.

REMARKS.--No estimated daily discharges. Records good. See schematic diagram of San Gabriel and Los Angeles River basins.

AVERAGE DISCHARGE.--72 years (water years 1914-15, 1917-86), 9.97 ft³/s, 7,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,620 ft³/s, Mar. 2, 1938, gage height, 9.42 ft, present datum, on basis of slope-area measurement of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 30	1100	*213	*3.05				
Minimum daily, 0.13 ft ³ /s, Oct. 3.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.48	8.5	2.2	38	11	14	4.7	3.0	.83	.55	.37
2	.17	.45	7.4	2.2	20	11	13	4.6	2.8	.81	.54	.37
3	.13	.41	7.4	2.2	14	10	12	5.3	2.8	.79	.51	.36
4	.15	.43	5.5	2.3	11	9.5	12	5.7	2.7	.87	.53	.32
5	.17	.49	4.5	2.9	9.1	8.8	12	5.4	2.9	.88	.55	.30
6	.26	.51	4.1	2.7	7.8	8.2	19	5.7	3.0	.70	.55	.26
7	.38	.52	4.0	2.3	6.9	8.1	19	5.5	3.0	.77	.54	.25
8	.47	.60	3.9	2.2	6.5	30	14	5.3	2.8	.82	.53	.31
9	.47	.63	3.7	2.0	5.7	19	12	5.1	2.6	.91	.50	.39
10	.43	.67	3.4	2.0	5.5	31	12	4.7	2.3	.97	.47	.38
11	.53	31	3.0	2.0	5.5	31	11	4.4	2.1	.94	.46	.42
12	.48	8.1	2.9	2.0	5.4	21	11	4.3	2.0	.89	.45	.39
13	.36	3.6	2.8	2.0	15	25	10	4.2	1.9	.80	.44	.40
14	.30	2.6	2.8	2.0	25	26	9.7	4.3	1.8	.73	.45	.42
15	.29	2.2	2.6	2.0	115	31	9.3	4.3	1.8	.76	.44	.40
16	.30	2.0	2.5	2.1	85	89	9.1	4.1	1.8	.75	.43	.37
17	.31	1.9	2.4	2.1	49	64	8.6	4.0	1.8	.72	.38	.36
18	.36	1.7	2.3	2.1	33	48	7.9	3.9	1.7	.67	.33	.37
19	.36	1.6	2.4	2.1	60	39	7.3	3.6	1.6	.63	.32	.46
20	.33	1.6	2.4	2.0	42	33	6.3	3.5	1.6	.58	.33	.44
21	.76	1.6	2.3	2.0	30	29	5.7	3.7	1.6	.64	.31	.37
22	.71	1.5	2.3	2.0	24	26	5.9	3.8	1.5	.69	.31	.40
23	.45	1.5	2.3	2.0	20	23	6.2	3.6	1.5	.74	.34	.51
24	.38	1.9	2.3	2.0	18	21	6.4	3.6	1.5	.69	.38	3.3
25	.37	26	2.2	1.9	16	20	6.5	3.2	1.3	.67	.33	16
26	.37	11	2.2	1.8	14	18	6.1	3.0	1.2	.64	.31	3.5
27	.40	5.3	2.2	1.7	13	17	5.5	3.1	1.1	.65	.29	2.1
28	.47	4.0	2.2	1.7	12	17	5.1	3.1	1.0	.62	.29	1.9
29	.48	22	2.2	2.0	---	16	4.8	3.0	.92	.55	.28	1.6
30	.50	16	2.2	82	---	15	4.7	3.1	.88	.52	.29	1.4
31	.51	---	2.2	60	---	15	---	3.1	---	.55	.33	---
TOTAL	11.89	152.29	103.1	202.5	706.4	770.6	286.1	128.9	58.50	22.78	12.76	38.42
MEAN	.38	5.08	3.33	6.53	25.2	24.9	9.54	4.16	1.95	.73	.41	1.28
MAX	.76	31	8.5	82	115	89	19	5.7	3.0	.97	.55	16
MIN	.13	.41	2.2	1.7	5.4	8.1	4.7	3.0	.88	.52	.28	.25
AC-FT	24	302	204	402	1400	1530	567	256	116	45	25	76

CAL YR 1985	TOTAL	886.54	MEAN 2.43	MAX 31	MIN .12	AC-FT 1760
WTR YR 1986	TOTAL	2494.24	MEAN 6.83	MAX 115	MIN .13	AC-FT 4950

LOS ANGELES RIVER BASIN

11101250 RIO HONDO ABOVE WHITTIER NARROWS DAM, CA

LOCATION.--Lat 34°03'30", long 118°04'15" (revised), in Potrero Grande Grant, Los Angeles County, Hydrologic Unit 18070105, on right bank 0.3 mi downstream from Garvey Avenue, 0.4 mi downstream from Rubio Wash, 2.8 mi upstream from axis of Whittier Narrows Dam, and 2.2 mi west of El Monte.

DRAINAGE AREA.--91.2 mi².

PERIOD OF RECORD.--February 1956 to current year.

GAGE.--Water-stage recorder. Concrete trapezoidal channel. Datum of gage is 217.8 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Big Santa Anita, Sawpit, and Eaton flood-control reservoirs, and Sierra Madre, Las Flores, and Rubio debris basins, combined capacity, 2,195 acre-ft. Many diversions above station for domestic use and irrigation. Los Angeles County Flood Control District diverted 29,100 acre-ft from San Gabriel River below Santa Fe Dam to Rio Hondo during current year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion were provided by the Los Angeles County Flood Control District.

AVERAGE DISCHARGE.--30 years, 43.9 ft³/s, 31,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 ft³/s, Feb. 16, 1980, gage height, 7.35 ft; no flow some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,250 ft³/s, Mar. 8, gage height, 5.43 ft; minimum daily, 0.58 ft³/s, Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.3	.96	1.3	4.9	483	97	350	1.2	2.3	1.9	1.3
2	1.8	1.3	85	1.3	1.2	516	221	350	1.7	1.9	2.5	1.5
3	1.9	1.5	5.0	1.5	1.4	482	248	350	1.6	1.9	1.6	1.4
4	2.2	2.6	1.0	8.4	2.1	464	184	348	1.6	1.8	1.8	1.6
5	1.8	1.6	1.2	28	3.5	450	101	350	1.4	2.2	2.0	1.7
6	2.4	1.5	1.4	1.5	66	402	274	350	1.7	1.3	2.5	1.4
7	17	1.6	.91	2.0	182	212	16	350	1.4	1.6	1.5	1.2
8	3.1	1.5	.68	2.2	250	1240	5.7	350	1.1	1.8	1.8	1.7
9	2.7	1.3	.65	3.6	232	13	164	350	1.3	1.8	1.3	1.6
10	1.4	2.5	1.9	1.6	251	656	289	350	1.5	1.6	1.2	1.4
11	1.5	797	.78	1.3	277	6.6	319	339	1.5	1.7	1.7	1.4
12	1.5	6.6	.58	1.4	201	20	393	326	1.3	1.6	1.3	1.5
13	1.7	.84	.74	1.5	473	543	387	326	1.7	1.3	1.4	1.5
14	1.5	.73	.67	1.1	1070	6.5	376	283	1.4	1.8	1.3	1.8
15	1.7	.75	.78	2.0	955	456	133	156	.95	2.2	1.5	1.2
16	1.7	.88	1.0	1.3	220	1370	2.5	50	1.2	1.7	1.3	1.2
17	2.1	1.1	2.2	1.5	42	8.0	2.2	46	1.4	1.6	1.0	1.2
18	1.8	.94	1.3	1.5	2.9	2.5	2.3	42	1.3	2.1	1.6	1.2
19	1.6	.73	1.2	1.5	720	2.2	2.1	28	1.3	1.6	2.1	1.3
20	1.6	.81	1.2	1.5	2.3	2.3	2.8	2.1	1.3	1.7	1.8	1.1
21	218	.99	1.1	1.3	1.8	2.5	2.6	33	1.6	1.8	1.7	1.3
22	8.3	1.6	1.4	1.2	1.4	2.4	2.9	52	1.3	2.1	2.3	561
23	1.4	1.6	1.3	1.3	1.3	2.3	140	25	1.4	9.6	1.6	4.1
24	1.2	401	1.4	1.2	1.5	2.5	250	1.7	1.4	1.2	1.4	4.0
25	1.7	701	2.1	2.3	129	2.6	264	1.3	1.4	1.4	1.9	3.1
26	1.1	4.5	1.8	2.0	243	2.3	264	1.4	2.1	1.7	1.9	1.3
27	1.3	1.7	1.3	2.2	253	2.3	284	1.5	2.6	1.0	1.7	.88
28	1.7	1.0	1.2	2.1	280	2.5	304	1.6	1.5	1.2	1.7	.82
29	1.4	613	1.5	57	---	2.4	306	1.4	1.2	1.4	1.9	.91
30	1.9	2.0	1.9	1420	---	2.1	337	1.5	2.1	1.6	1.4	1.0
31	1.9	---	1.9	534	---	2.6	---	1.4	---	2.2	1.2	---
TOTAL	292.9	2555.47	126.05	2090.6	5868.3	7361.6	5374.1	5217.9	44.45	60.7	51.8	606.61
MEAN	9.45	85.2	4.07	67.4	210	237	179	168	1.48	1.96	1.67	20.2
MAX	218	797	85	1420	1070	1370	393	350	2.6	9.6	2.5	561
MIN	1.1	.73	.58	1.1	1.2	2.1	2.1	1.3	.95	1.0	1.0	.82
AC-FT	581	5070	250	4150	11640	14600	10660	10350	88	120	103	1200

CAL YR 1985 TOTAL 5364.84 MEAN 14.7 MAX 797 MIN .58 AC-FT 10640
WTR YR 1986 TOTAL 29650.48 MEAN 81.2 MAX 1420 MIN .58 AC-FT 58810

LOS ANGELES RIVER BASIN

11102300 RIO HONDO BELOW WHITTIER NARROWS DAM, CA

LOCATION.--Lat 34°01'00", long 118°05'15", in Paso de Bartolo Grant, Los Angeles County, Hydrologic Unit 18070105, on right levee 0.2 mi upstream from Beverly Boulevard, 0.4 mi downstream from axis of Whittier Narrows Dam, and 1.0 mi northeast of Montebello.

DRAINAGE AREA.--124 mi².

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 175 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair above 100 ft³/s and poor below. Flow regulated by Whittier Narrows flood-control reservoir, capacity, 36,160 acre-ft. There are several small flood-control reservoirs, combined capacities, 1,700 acre-ft and several small debris basins above Whittier Narrows Dam. Many diversions for domestic use and irrigation. At times flow is diverted from San Gabriel River to Rio Hondo from sites below Santa Fe Dam and above Whittier Narrows Dam. See schematic diagram of San Gabriel and Los Angeles River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,800 ft³/s, Jan. 25, 1969, gage height, 13.82 ft, from rating curve extended above 15,000 ft³/s, on basis of gate openings at dam on gage heights 12.32 ft and 13.82 ft; no flow at times in each year.

Note: Records for the 1986 water year not available at the time of this publication.

LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA
(National stream-quality accounting network station)

LOCATION.--Lat 33°49'02", long 118°12'20", in Los Cerritos Grant, Los Angeles County, Hydrologic Unit 18070105, on right bank 5,000 ft upstream from Willow Street, 3.4 mi north of Long Beach, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--827 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1928 to September 1983.

GAGE.--Water-stage recorder. Datum of gage is 11.91 ft National Geodetic Vertical Datum of 1929 (levels by Los Angeles County Flood Control District). See WSP 175 for history of changes prior to Jan. 19, 1956.

REMARKS.--Flow regulated since September 1940 by Hansen flood-control reservoir, since December 1946 by Sepulveda flood-control reservoir, combined capacity, 49,400 acre-ft, and several small flood-control reservoirs City of Los Angeles stores imported Owens River water in San Fernando and Chatsworth reservoirs and at times discharges imported water into Los Angeles River above station. Many diversions above station for domestic use and irrigation. AVERAGE DISCHARGE represents flow to the ocean, regardless of upstream development. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records were provided by Los Angeles County Flood Control District.

AVERAGE DISCHARGE.--54 years (water years 1930-83), 215 ft³/s, 155,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 129,000 ft³/s Feb. 16, 1980, gage height, 17.99 ft; no flow at times in 1929-30, 1934.

LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL DATA: Water years 1973 to current year.

BIOLOGICAL DATA: Water years 1973-81.

SPECIFIC CONDUCTANCE: Water years 1974 to current year.

WATER TEMPERATURE: Water years 1974 to current year.

SEDIMENT DATA: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to September 1975, July 1980 to September 1983.

WATER TEMPERATURE: October 1973 to September 1975, January 1980 to September 1983.

INSTRUMENTATION.--Water-quality monitor from October 1973 to September 1975, January 1980 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,010 microsiemens, June 30, 1975; minimum, 40 microsiemens, Nov. 30, 1982.

WATER TEMPERATURE: Maximum, 38.0°C, June 24, 1981; minimum, 2.0°C, Jan. 31, 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
DEC												
11...	1200	245	395	8.20	13.0	760	12	12.3	117	K7800	8600	12
MAR												
20...	1330	195	1140	8.70	23.5	770	4.0	11.0	129	5500	6600	42
JUN												
19...	1315	102	970	10.00	30.0	760	6.0	>20.0	>266	<10	K30	25
SEP												
18...	1330	96	940	10.10	29.0	760	1.7	>20.0	>256	<1	38	22
DATE		HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
DEC												
11...		56	34	9.4	28	32	1	4.9	83	--	68	68
MAR												
20...		220	110	36	89	31	2	6.7	209	19	202	201
JUN												
19...		120	70	19	110	48	3	8.0	19	68	129	130
SEP												
18...		100	62	17	100	48	3	9.0	19	62	118	120
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC												
11...		75	27	0.20	7.9	237	240	0.32	2.80	1.50	4.1	0.890
MAR												
20...		280	86	0.70	26	792	760	1.1	4.20	0.560	1.6	0.910
JUN												
19...		200	110	0.80	19	588	620	0.80	0.670	0.030	3.1	1.20
SEP												
18...		190	100	0.70	16	600	570	0.82	1.80	0.030	2.8	1.30

See footnotes at end of table.

LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
DEC 11...	0.600	0.550	30	5	30	<0.5	<1	<1	<3	11	89
MAR 20...	0.840	0.750	30	5	71	<0.5	1	5	<3	3	4
JUN 19...	0.250	0.140	10	4	47	<0.5	<1	3	<3	6	6
SEP 18...	0.170	0.100	--	--	--	--	--	--	--	--	--

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 11...	5	18	40	<0.1	<10	6	2	<1	240	<6	49
MAR 20...	2	54	31	<0.1	10	6	4	<1	730	<6	28
JUN 19...	<5	60	3	<0.1	20	5	2	<1	510	<6	9
SEP 18...	--	--	--	--	--	--	--	--	--	--	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

> Actual value is known to be greater than the value shown.

< Actual value is known to be less than the value shown.

CROSS-SECTIONAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	DIS- SOLVED (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR											
* 20...	1226	299	944	9.20	27.0	770	17.7	221	--	--	--
* 20...	1227	258	1050	9.00	27.0	770	15.8	197	--	--	--
* 20...	1228	234	1120	8.80	27.0	770	13.5	168	51	--	--
* 20...	1229	206	1140	8.70	25.5	770	12.3	149	--	--	--
* 20...	1230	185	1140	8.60	25.0	770	11.4	137	55	--	--
* 20...	1232	157	1140	8.60	23.0	770	11.0	127	59	--	--
* 20...	1233	146	1140	8.60	23.5	770	11.0	129	38	--	--
* 20...	1234	100	1100	9.10	24.0	770	11.3	133	--	--	--
* 20...	1235	85.0	--	--	26.5	770	14.8	169	45	--	--
* 20...	1236	70.0	1090	9.20	26.5	770	16.3	201	--	--	--
* 20...	1237	53.0	--	--	26.5	770	16.8	192	--	--	--
SEP											
* 18...	1100	5.00	925	9.80	29.0	760	>20.0	>256	--	--	--
* 18...	1103	10.0	940	10.10	29.0	760	>20.0	>256	--	--	--
* 18...	1106	15.0	940	10.10	29.0	760	>20.0	>256	--	--	--
* 18...	1109	20.0	950	10.10	29.0	760	>20.0	>256	--	--	--
* 18...	1112	25.0	955	10.10	29.0	760	>20.0	>256	--	--	--

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 20, 195 ft³/s;
Sept. 18, 96 ft³/s.

> Actual value is known to be greater than the value shown.

LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC						
11...	1200	245	13.0	125	83	99
MAR						
20...	1330	195	23.5	19	10	92
JUN						
19...	1315	102	30.0	44	12	69
SEP						
18...	1330	96	29.0	29	7.5	79

SANTA CLARA RIVER BASIN

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA
(National stream-quality accounting network station)

LOCATION.--Lat 34°23'59", long 118°42'14", in San Francisco Grant, Ventura County, Hydrologic Unit 18070102, on downstream end of old diversion weir on right bank, on private road 0.2 mi south of Highway 126, 0.8 mi west of Los Angeles-Ventura County line, and 6.4 mi west of intersection of Highway 126 and Interstate 5.

DRAINAGE AREA.--625 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WDR CA-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 794.93 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 21-25, Feb. 15, 16. Records fair except for periods of estimated daily record, which are poor. Base flow affected by pumping from wells along stream for irrigation. Flow partly regulated since January 1972 by Castaic Reservoir, capacity, 324,000 acre-ft. Imported water from California Water Project stored and released at Castaic Dam.

AVERAGE DISCHARGE.--34 years, 49.4 ft³/s, 35,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,800 ft³/s, Jan. 25, 1969, gage height, 19.01 ft, from rating curve extended above 9,200 ft³/s on basis of field estimate of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 30	0930	2,730	7.57	Mar. 10	1815	1,080	6.48
Feb. 15	0030	*12,300	*10.00	Mar. 16	1430	4,160	8.21
Feb. 19	1200	789	6.46				

Minimum daily, 21 ft³/s, July 28, Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	29	0	60	46	62	107	28	25	22	27	
2	25	29	90	40	81	46	72	59	28	25	22	28
3	25	30	56	39	76	43	59	45	27	25	21	29
4	25	30	45	41	63	42	68	42	27	26	22	28
5	26	30	44	50	47	45	68	44	28	25	23	28
6	26	30	44	41	39	42	87	42	28	25	23	28
7	27	29	44	37	34	42	75	39	27	24	23	28
8	31	30	43	37	32	123	53	39	28	24	23	29
9	32	31	43	37	31	103	43	38	28	25	24	29
10	33	33	45	37	31	417	38	47	27	25	24	29
11	32	60	44	35	30	226	37	50	28	25	25	29
12	33	32	43	33	36	178	37	51	27	25	25	29
13	36	27	44	34	197	171	37	53	27	24	25	29
14	36	27	46	32	1260	125	39	57	28	23	25	29
15	31	27	46	32	3080	485	37	63	29	24	25	30
16	28	28	45	30	275	1610	37	59	29	25	24	29
17	32	28	45	30	238	496	36	46	27	24	24	29
18	32	27	45	32	176	189	36	42	27	24	24	29
19	31	26	44	34	366	113	37	38	27	23	24	29
20	32	26	44	34	179	74	41	33	27	23	23	29
21	39	26	45	35	120	75	44	33	28	23	24	28
22	39	26	45	34	103	79	50	33	28	23	24	29
23	39	25	44	34	99	66	53	33	28	23	24	30
24	31	25	44	36	83	65	58	31	27	22	25	38
25	28	86	44	35	56	66	59	28	27	22	25	51
26	28	31	44	36	57	63	67	28	26	22	25	40
27	29	25	44	36	53	68	62	28	26	22	25	41
28	30	29	44	35	52	70	70	27	26	21	26	40
29	29	121	44	40	---	65	94	27	25	22	26	37
30	29	57	43	460	---	59	122	27	25	22	26	35
31	29	---	42	488	---	60	---	28	---	22	26	---
TOTAL	948	1060	1426	1994	7054	5352	1678	1317	818	733	747	943
MEAN	30.6	35.3	46.0	64.3	252	173	55.9	42.5	27.3	23.6	24.1	31.4
MAX	39	121	90	488	3080	1610	122	107	29	26	26	51
MIN	25	25	42	30	30	42	36	27	25	21	21	27
AC-FT	1880	2100	2830	3960	13990	10620	3330	2610	1620	1450	1480	1870

SANTA CLARA RIVER BASIN

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

CHEMICAL DATA: Water years 1969, 1972 to current year.

BIOLOGICAL DATA: Water years 1979-80.

WATER TEMPERATURE: Water years 1969-78 (observed), February to September 1980.

SEDIMENT DATA: Water years 1969-78, October 1978 to current year (periodic record only).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1969 to September 1981.

pH: June to September 1969.

CHLORIDE: June to September 1969.

WATER TEMPERATURE: February 1980 to September 1981.

SEDIMENT DATA: October 1968 to September 1978.

INSTRUMENTATION.--Water-quality monitor from June to September 1969. Specific-conductance recorder from June 1969 to September 1981. Temperature recorder from February 1980 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 3,600 microsiemens, Mar. 31, 1971; minimum recorded, 160 microsiemens, Mar. 17, 1979.

WATER TEMPERATURE: Maximum recorded, 32.0°C, Aug. 9, 1980; minimum recorded, 6.0°C, Feb. 10, 1980.

SEDIMENT CONCENTRATION: Maximum daily mean, 48,500 mg/L, Feb. 10, 1978; minimum daily mean, 4 mg/L, Sept. 9, 1976.

SEDIMENT LOAD: Maximum daily, 3,300,000 tons, estimated, Feb. 25, 1969; minimum daily, 0.03 ton, Sept. 9, 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- DITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
DEC 11...	1020	39	1380	8.10	11.0	770	10	9.9	89	35	96	51
MAR 25...	1215	76	1270	8.20	24.5	780	40	8.1	95	160	65	43
JUN 26...	1130	22	1250	8.20	25.5	742	1.0	7.9	100	K25	29	46
SEP 18...	1120	28	1320	8.10	21.0	740	1.7	9.5	110	72	170	46
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHL- RID DIS- SOL (MG/L AS
DEC 11...	250	130	44	130	36	3	5.6	324	266	259	340	77
MAR 25...	200	110	38	110	35	2	6.0	288	236	231	310	74
JUN 26...	190	120	38	110	34	2	5.6	327	268	266	340	83
SEP 18...	200	120	39	120	36	3	5.8	323	265	263	330	79

See footnote at end of table.

SANTA CLARA RIVER BASIN

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC 11...	0.60	23	964	930	1.3	0.230	3.90	0.480	0.480	1.1	0.820
MAR 25...	0.60	20	859	810	1.2	0.400	3.90	0.580	0.560	1.3	0.820
JUN 26...	0.60	22	910	880	1.2	0.080	4.50	0.090	0.080	0.70	0.930
SEP 18...	0.70	23	1020	880	1.4	0.040	4.30	0.060	0.060	1.0	1.50

DATE	PHOS- PHORUS, DIS-SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM- INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL- LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO- MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
DEC 11...	0.810	0.740	20	2	58	1	<1	--	<3	2	12
MAR 25...	0.710	0.620	30	2	67	<0.5	<1	<1	<3	2	<3
JUN 26...	0.800	0.770	20	2	46	<0.5	<1	<1	<3	1	5
SEP 18...	1.30	1.00	--	--	--	--	--	--	--	--	--

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA- NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE- NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON- TIUM, DIS-SOLVED (UG/L AS SR)	VANA- DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 11...	3	30	78	<0.1	10	1	3	<1	1100	<6	14
MAR 25...	<1	26	22	0.4	<10	1	3	<1	840	<6	17
JUN 26...	<5	28	7	<0.1	<10	1	2	<1	910	<6	13
SEP 18...	--	--	--	--	--	--	--	--	--	--	--

K Results based on colony count outside the acceptable range (non-ideal colony count).
 < Actual value is known to be less than the value shown.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 11...	1015	39	11.0	101	11	34
MAR 25...	1200	74	24.5	497	99	51
SEP 16...	1130	27	21.0	134	9.8	19

SANTA CLARA RIVER BASIN

11109600 PIRU CREEK ABOVE LAKE PIRU, CA

LOCATION.--Lat 34°31'23", long 118°45'22", in NE 1/4 NW 1/4 sec.15, T.5 N., R.18 W., Ventura County, Hydrologic Unit 18070102, on left bank near Blue Point, 1.3 mi downstream from Agua Blanca Creek, 4.3 mi upstream from Santa Felicia Dam, 8.0 mi northeast of Piru, and 15 mi downstream from Pyramid Dam.

DRAINAGE AREA.--372 mi².

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,058.55 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Forest Service). Prior to Dec. 15, 1972, at site 0.3 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Feb. 1-4, 15-17. Records fair except those for periods of estimated daily discharges, which are poor. Flow regulated beginning December 1971 by Pyramid Dam, capacity, 173,500 acre-ft. Imported water from the California Water Project stored and released at Pyramid Dam.

AVERAGE DISCHARGE.--16 years (water years 1956-71), 55.1 ft³/s, 39,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft³/s, Feb. 25, 1969, gage height, 18.6 ft, site and datum then in use, from floodmark, from rating curve extended above 4,000 ft³/s on basis of slope-area measurement at gage height 12.2 ft and inflow-outflow records for Lake Piru; no flow in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, 35,000 ft³/s, is the greatest since that date.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,410 ft³/s, Feb. 15, gage height, 6.89 ft, from floodmarks; minimum daily, 7.6 ft³/s, July 20, and several days in September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	9.3	30	13	450	61	112	105	21	14	12	8.1
2	9.0	9.4	57	13	125	61	109	37	18	14	12	9.7
3	11	9.5	47	13	150	60	103	35	17	14	12	9.9
4	12	9.4	54	13	95	57	68	37	18	13	12	8.0
5	14	9.6	51	14	60	56	65	34	18	12	12	9.3
6	13	9.6	49	13	55	54	139	32	17	11	13	9.6
7	13	9.4	48	12	51	52	133	33	18	10	12	10
8	11	9.4	46	12	34	77	86	59	17	11	12	9.4
9	11	9.0	47	12	32	72	78	61	17	9.9	13	13
10	11	9.5	48	12	31	280	74	63	17	10	14	9.5
11	10	58	52	12	31	130	73	64	19	9.2	12	9.1
12	10	16	49	12	34	108	76	66	19	9.8	12	7.9
13	10	12	48	12	235	163	89	72	19	11	13	7.9
14	9.8	11	48	12	808	164	90	62	18	9.0	11	7.7
15	10	11	47	12	1500	222	98	62	18	8.8	10	7.6
16	10	10	48	12	2000	376	132	61	18	8.7	9.7	7.6
17	10	10	31	12	1210	252	130	60	16	8.2	9.7	7.8
18	10	10	25	12	592	209	126	59	17	8.1	9.7	7.7
19	9.2	10	18	12	657	192	126	57	17	7.9	7.9	7.6
20	9.0	10	15	12	471	181	127	56	16	7.6	9.7	7.6
21	9.5	10	14	12	316	172	127	55	18	12	11	7.6
22	10	10	14	12	299	142	125	55	17	11	11	7.6
23	9.9	10	14	12	278	107	123	51	17	9.2	11	7.6
24	9.7	30	14	12	267	103	125	28	20	9.1	11	8.3
25	9.7	147	14	12	188	97	123	27	16	9.0	11	9.4
26	9.4	40	13	12	70	114	125	27	16	8.9	9.7	9.2
27	9.1	31	13	12	65	114	122	27	16	9.9	9.4	9.2
28	9.0	30	13	12	62	114	120	24	16	8.5	10	9.3
29	9.0	44	13	13	---	114	119	22	16	8.4	9.7	9.3
30	9.0	38	13	680	---	113	117	18	16	11	9.7	9.4
31	9.0	---	13	880	---	112	---	18	---	11	9.4	---
TOTAL	315.5	642.1	1006	1916	10166	4129	3260	1467	523	315.2	341.6	261.9
MEAN	10.2	21.4	32.5	61.8	363	133	109	47.3	17.4	10.2	11.0	8.73
MAX	14	147	57	880	2000	376	139	105	21	14	14	13
MIN	9.0	9.0	13	12	31	52	65	18	16	7.6	7.9	7.6
AC-FT	626	1270	2000	3800	20160	8190	6470	2910	1040	625	678	519
CAL YR 1985	TOTAL	6584.9	MEAN	18.0	MAX	147	MIN	8.0	AC-FT	13060		
WTR YR 1986	TOTAL	24343.3	MEAN	66.7	MAX	2000	MIN	7.6	AC-FT	48280		

SANTA CLARA RIVER BASIN

11109700 LAKE PIRU NEAR PIRU, CA

LOCATION (REVISED).--Lat 34°27'41", long 118°45'02", in Temescal Grant, Ventura County, Hydrologic Unit 18070102, near center of Santa Felicia Dam on Piru Creek, 0.5 mi downstream from Santa Felicia Canyon, 4.2 mi northeast of Piru, and 20 mi downstream from Pyramid Dam.

DRAINAGE AREA.--425 mi².

PERIOD OF RECORD.--May 1955 to current year. Prior to October 1985, monthend elevation, NGVD, and contents only.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by United Water Conservation District). Prior to Jan. 27, 1956, reference point at intake tower at same datum. Jan. 27, 1956, to Dec. 1, 1980, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by earthfill dam. Storage began May 20, 1955. Revised capacity table put into use Oct. 1, 1985. Capacity below spillway level at elevation 1,055.0 ft, 88,340 acre-ft. Flow regulated since December 1971 by Pyramid Lake, capacity, 173,500 acre-ft. Imported water from the California Water Project stored behind and released from Pyramid Lake. Water is released from outlet to Piru Creek for ground-water recharge, domestic use, and irrigation on the Oxnard plain.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 109,400 acre-ft, Feb. 25, 1969, elevation, 1,061.45 ft; lake dry Oct. 25 to Nov. 20, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 64,440 acre-ft, June 17, elevation, 1,033.90 ft; minimum, 18,040 acre-ft, Oct. 9, elevation, 976.13 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

975	17,420	1,000	33,920	1,020	50,830
980	20,270	1,005	37,860	1,025	55,550
985	23,360	1,010	41,980	1,030	60,460
990	26,670	1,015	46,310	1,035	65,590
995	30,190				

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19610	18090	19460	21210	25910	47540	56340	62130	64310	63470	46710	46650
2	19330	18100	19630	21230	26170	47650	56520	62340	64320	62780	46710	46590
3	19040	18100	19720	21240	26410	47800	56710	62340	64330	62100	46710	46590
4	18740	18110	19820	21290	26570	47990	56840	62390	64360	61470	46710	46630
5	18460	18080	19910	21340	26690	48030	56930	62500	64380	60800	46660	46640
6	18190	18080	20020	21350	26820	48120	57230	62540	64400	60130	46660	46660
7	18050	18100	20090	21360	26930	48220	57490	62590	64400	59380	46660	46650
8	18070	18110	20150	21360	27030	48460	57680	62700	64400	58490	46670	46650
9	18040	18120	20260	21370	27100	48610	57830	62810	64400	57460	46660	46650
10	18070	18160	20390	21390	27190	49300	57970	62900	64400	56390	46670	46640
11	18070	18300	20450	21410	27280	49570	58090	62990	64400	55330	46670	46610
12	18080	18330	20520	21420	27420	49770	58210	63080	64400	54310	46660	46590
13	18080	18330	20610	21430	28060	50120	58370	63210	64410	53250	46660	46580
14	18060	18340	20690	21440	30300	50430	58520	63290	64420	52190	46650	46580
15	18070	18350	20750	21470	34750	50890	58700	63410	64420	51760	46640	46580
16	18070	18360	20840	21490	38290	51720	58920	63510	64430	50690	46660	46570
17	18080	18370	20890	21520	40830	52300	59120	63620	64440	49590	46660	46580
18	18080	18380	20930	21540	41960	52700	59360	63710	64430	48550	46680	46570
19	18080	18390	20950	21560	43030	53120	59560	63770	64430	47560	46690	46560
20	18090	18400	20980	21590	44230	53480	59810	63830	64420	46710	46680	46560
21	18110	18410	20990	21590	44900	53850	60010	63930	64420	46580	46680	46560
22	18100	18420	21000	21600	45540	54180	60260	64020	64410	46580	46670	46560
23	18090	18450	21020	21610	46090	54400	60460	64110	64410	46620	46660	46520
24	18080	18580	21050	21640	46530	54610	60720	64140	64410	46660	46660	46590
25	18080	18920	21050	21640	46930	54820	60920	64200	64410	46660	46680	46610
26	18080	19020	21060	21650	47120	55060	61270	64220	64390	46710	46680	46600
27	18080	19090	21100	21670	47270	55290	61370	64240	64290	46710	46680	46610
28	18070	19140	21110	21670	47400	55490	61520	64280	64160	46710	46670	46650
29	18070	19310	21140	21750	---	55710	61730	64290	64010	46710	46670	46650
30	18090	19390	21170	23250	---	55920	61880	64300	63900	46710	46660	46640
31	18090	---	21180	24980	---	56150	---	64310	---	46710	46650	---
MAX	19610	19390	21180	24980	47400	56150	61880	64310	64440	63470	46710	46660
MIN	18040	18080	19460	21210	25910	47540	56340	62130	63900	46580	46640	46520
a	976.22	978.50	981.51	987.50	1016.22	1025.62	1031.40	1033.77	1033.37	1015.45	1015.38	1015.37
b	-1650	+1300	+1790	+3800	+22420	+8750	+5730	+2430	-410	-17190	-60	-10

CAL YR 1985 b -12270

WTR YR 1986 b +27030

a Elevation in feet NGVD at end of month.

SANTA CLARA RIVER BASIN

11109800 PIRU CREEK BELOW SANTA FELICIA DAM, CA

LOCATION.--Lat 34°27'37", Long 118°45'04", in Temescal Grant, Ventura County, Hydrologic Unit 18070102, on right bank 750 ft downstream from Santa Felicia Dam, 1 mi upstream from Lime Canyon, 4 mi northeast of Piru, and 20 mi downstream from Pyramid Dam.

DRAINAGE AREA.--425 mi².

PERIOD OF RECORD.--October 1955 to September 1968, October 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 858.8 ft above National Geodetic Vertical Datum of 1929 (levels by United Water Conservation District).

REMARKS.--No estimated daily discharges. Records good. Since May 1955 flow regulated by Lake Piru (station 11109700) and since December 1971 by Pyramid Lake, capacity, 173,500 acre-ft. Imported water from the California Water Project stored by Pyramid Lake. No diversion above station. Spill from Lake Piru bypasses gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 623 ft³/s, Aug. 2, 1982, gage height, 3.82 ft; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 526 ft³/s, July 14; no flow June 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	5.0	5.0	5.2	3.3	5.0	4.2	4.3	4.3	210	4.8	4.8
2	150	5.0	5.2	5.2	5.0	4.8	4.3	4.3	4.4	315	4.6	4.8
3	150	5.0	5.0	5.2	5.0	5.0	4.3	4.3	4.8	315	4.5	4.8
4	151	6.2	5.0	5.2	5.1	5.0	4.3	4.3	3.5	315	4.6	4.6
5	151	6.9	5.1	5.2	5.0	5.0	4.3	4.3	3.4	317	4.7	4.5
6	150	6.1	5.1	5.2	5.1	5.0	4.3	4.3	4.5	319	4.8	4.5
7	76	5.0	5.2	5.2	5.2	5.0	4.3	4.3	4.6	359	4.8	4.5
8	5.3	5.0	5.2	5.2	5.0	5.1	4.3	4.3	4.8	422	4.8	4.5
9	5.2	5.0	5.2	5.2	5.0	5.0	4.3	4.3	4.8	478	4.8	4.5
10	5.2	5.0	5.3	5.2	5.0	5.2	4.3	4.6	4.8	518	4.8	4.6
11	5.2	5.0	5.2	5.2	5.0	5.0	4.3	4.8	1.4	524	4.8	4.8
12	5.2	5.0	5.2	5.2	5.0	5.0	4.3	4.7	0	521	5.0	4.8
13	5.2	5.0	5.2	5.2	5.1	5.0	4.3	4.8	2.4	522	5.0	4.8
14	6.8	5.0	5.2	5.2	5.9	5.0	1.6	4.8	4.7	526	5.0	4.8
15	7.6	5.0	5.2	5.2	5.2	5.1	2.3	4.8	5.0	522	5.0	4.8
16	7.5	5.0	5.2	5.2	5.0	5.3	4.2	4.8	5.0	520	5.0	4.8
17	7.5	5.0	5.2	5.2	5.0	5.2	4.1	4.8	5.0	520	4.8	4.8
18	7.5	5.0	5.2	5.2	5.0	5.2	4.3	4.8	5.0	480	4.8	5.0
19	7.5	5.0	5.2	5.2	5.3	4.3	4.3	4.6	5.0	435	4.8	4.9
20	7.5	5.0	5.2	5.2	5.2	4.3	4.2	4.5	5.1	216	4.8	4.8
21	9.1	5.0	5.2	5.2	5.2	4.3	4.1	4.5	5.2	4.6	4.8	4.8
22	13	5.0	5.2	5.2	5.2	4.3	4.2	4.5	5.2	3.9	4.8	4.9
23	15	5.0	5.2	5.2	5.0	4.3	4.3	3.7	5.2	3.3	4.8	5.0
24	15	5.0	5.2	5.2	5.0	3.9	4.3	3.9	5.2	4.4	4.8	5.0
25	13	5.0	5.2	5.2	5.0	3.7	4.3	4.2	5.3	4.8	4.7	5.0
26	12	5.0	5.2	5.2	5.0	3.7	4.3	4.1	35	4.8	4.9	5.0
27	12	5.0	5.2	5.2	5.0	3.7	4.3	4.3	60	4.8	4.8	5.0
28	12	5.0	5.2	5.2	5.0	4.0	4.3	4.3	70	4.9	4.8	5.2
29	6.1	5.1	5.2	5.3	---	4.1	4.3	4.3	69	4.7	4.8	5.2
30	4.6	5.0	5.2	5.5	---	4.1	4.3	4.3	70	4.8	4.8	5.4
31	5.0	---	5.2	2.5	---	4.1	---	4.3	---	4.8	4.8	---
TOTAL	1134.0	154.3	160.5	158.9	140.8	143.7	123.5	137.1	412.6	8403.8	149.0	144.9
MEAN	36.6	5.14	5.18	5.13	5.03	4.64	4.12	4.42	13.8	271	4.81	4.83
MAX	151	6.9	5.3	5.5	5.9	5.3	4.3	4.8	70	526	5.0	5.4
MIN	4.6	5.0	5.0	2.5	3.3	3.7	1.6	3.7	0	3.3	4.5	4.5
AC-FT	2250	306	318	315	279	285	245	272	818	16670	296	287

CAL YR 1985	TOTAL	10823.69	MEAN	29.7	MAX	437	MIN	0	AC-FT	21470
WTR YR 1986	TOTAL	11263.1	MEAN	30.9	MAX	526	MIN	0	AC-FT	22340

SANTA CLARA RIVER BASIN

11111500 SESPE CREEK NEAR WHEELER SPRINGS, CA

LOCATION.--Lat 34°34'40", long 119°15'25", in NW 1/4 SW 1/4 sec.30, T.6 N., R.22 W., Ventura County, Hydrologic Unit 18070102, on right bank at Sespe Gorge, 1.6 mi upstream from Tule Creek, and 5 mi northeast of Wheeler Springs.

DRAINAGE AREA.--49.5 mi².

PERIOD OF RECORD.--October 1947 to current year. Daily discharge for period October 1947 to July 1948 estimated on basis of weather records and records for North Fork Matilija Creek.

GAGE.--Water-stage recorder. Datum of gage is 3,500.65 ft above National Geodetic Vertical Datum of 1929 (levels by Ventura County Flood Control District).

REMARKS.--Estimated daily discharges: Feb. 1-4, 15-18, Feb. 22 to Mar. 3, Mar. 27 to Apr. 1, Apr. 20 to May 2, May 15 to June 2, Aug. 8 to Sept. 9. Records fair.

AVERAGE DISCHARGE.--39 years, 14.0 ft³/s, 10,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s, Mar. 1, 1983, gage height, 15.02 ft, from rating curve extended above 3,000 ft³/s on basis of slope-area measurement of maximum flow; no flow many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*), from rating curve extended as explained above:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 30	0330	1,200	6.39	Mar. 8	1515	304	3.46
Feb. 14	2030	*4,220	*9.36	Mar. 17	1715	220	3.12
Feb. 19	0700	545	4.26				

Minimum daily, 0.31 ft³/s, several days in August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.51	3.7	2.0	85	33	35	15	4.6	1.8	.55	.45
2	.32	.55	15	2.0	45	31	33	14	4.4	1.7	.45	.51
3	.32	.55	7.4	2.0	30	29	32	13	3.7	1.5	.31	.50
4	.32	.55	3.5	3.4	22	27	30	13	3.7	1.6	.31	.48
5	.33	.56	2.7	3.1	15	25	32	13	3.8	1.8	.31	.45
6	.34	.58	2.4	2.5	12	24	60	13	3.9	2.0	.31	.44
7	.33	.59	2.2	2.4	9.4	23	52	13	3.6	2.0	.31	.42
8	.33	.59	2.1	2.3	7.9	72	42	12	3.4	1.8	.40	.40
9	.35	.59	2.0	2.2	5.9	39	36	11	3.2	1.6	.38	.38
10	.35	.85	2.0	2.2	4.3	181	33	11	3.1	1.6	.38	.40
11	.36	3.5	2.0	2.1	3.6	121	31	11	3.0	1.3	.35	.41
12	.36	1.7	1.9	2.1	11	89	29	11	3.1	1.2	.35	.42
13	.36	1.3	1.9	2.1	304	74	28	10	3.1	1.3	.33	.43
14	.36	1.2	1.9	2.1	1200	64	27	10	3.1	1.3	.33	.46
15	.38	1.1	1.9	2.1	1030	64	26	9.8	3.2	1.3	.32	.51
16	.38	1.1	1.8	2.0	220	88	25	8.8	3.2	1.7	.32	.54
17	.39	1.0	1.8	2.0	150	137	25	8.4	2.9	1.5	.31	.55
18	.39	1.0	1.8	2.0	100	144	24	8.0	2.8	1.6	.31	.57
19	.43	1.0	1.9	2.0	262	124	22	7.8	2.7	1.4	.31	.59
20	.43	1.0	1.9	2.0	148	108	22	7.4	2.6	1.2	.31	.60
21	.54	1.0	1.9	2.0	103	98	22	7.1	2.6	1.0	.31	.64
22	.46	1.0	1.8	2.0	78	85	21	6.8	2.7	1.0	.31	.66
23	.46	1.0	1.8	2.0	65	72	20	6.6	2.8	1.3	.40	.73
24	.47	7.8	1.8	2.0	55	62	19	6.4	2.7	1.3	.40	.93
25	.47	25	1.8	1.9	49	57	19	6.1	2.6	1.1	.35	.93
26	.49	7.5	1.9	1.9	44	53	18	5.8	2.3	1.2	.31	.85
27	.48	3.9	1.9	1.9	38	48	17	5.6	1.7	1.2	.31	.92
28	.50	3.1	1.9	1.9	35	44	17	5.4	1.7	1.0	.31	.94
29	.50	7.9	2.2	8.7	---	41	16	5.2	1.7	.98	.31	.88
30	.50	5.1	2.3	485	---	38	16	5.0	1.7	.90	.37	.81
31	.50	---	2.0	232	---	36	---	4.8	---	.74	.37	---
TOTAL	12.53	83.12	83.1	785.9	4132.1	2131	829	285.0	89.6	42.92	10.70	17.80
MEAN	.40	2.77	2.68	25.4	148	68.7	27.6	9.19	2.99	1.38	.35	.59
MAX	.54	25	15	485	1200	181	60	15	4.6	2.0	.55	.94
MIN	.32	.51	1.8	1.9	3.6	23	16	4.8	1.7	.74	.31	.38
AC-FT	25	165	165	1560	8200	4230	1640	565	178	85	21	35

CAL YR 1985 TOTAL 672.28 MEAN 1.84 MAX 25 MIN .15 AC-FT 1330

SANTA CLARA RIVER BASIN

11113500 SANTA PAULA CREEK NEAR SANTA PAULA, CA

LOCATION.--Lat 34°24'48", long 119°04'53", in NW 1/4 SE 1/4 sec.21, T.4 N., R.21 W., Ex Mission San Buenaventura Grant, Ventura County, Hydrologic Unit 18070102, on right bank 1.3 mi downstream from Sisar Creek and 4.8 mi north of Santa Paula.

DRAINAGE AREA.--38.4 mi².

PERIOD OF RECORD.--October 1927 to current year. March 1912 to September 1913, at site 1.2 mi upstream; records not equivalent.

GAGE.--Water-stage recorder. Elevation of gage is 790 ft, above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 22, 1980, at various sites and datums 1.3 mi downstream. See U.S. Geological Survey Water-Data Report CA-79-1 for history of changes prior to Oct. 22, 1980.

REMARKS.--Estimated daily discharges: Oct. 5-17, Nov. 10-13, Feb. 13, 14, Mar. 5-7, 11-15, Mar. 18 to Apr. 2, Apr. 10 to June 10. Records fair except for periods of estimated record, which are poor. Natural flow affected by pumping and return flow from irrigated areas.

AVERAGE DISCHARGE.--59 years, 23.8 ft³/s, 17,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft³/s, Feb. 25, 1969, gage height, 18.18 ft, from floodmark, site and datum then in use, from rating curve extended above 2,300 ft³/s on basis of critical-depth measurement at gage height 15.2 ft; no flow at times in 1949, 1951-52, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 30	0500	1,260	5.34	Feb. 19	0745	1,200	5.04
Feb. 14	2230	*3,550	*6.92	Mar. 10	1345	511	4.04

Minimum daily, 0.70 ft³/s, Oct. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	1.5	14	5.1	68	47	46	23	13	8.1	5.4	3.6
2	1.6	1.5	37	4.9	35	42	44	22	13	9.8	5.3	3.9
3	1.3	1.7	33	4.8	23	39	43	22	13	6.8	5.0	4.1
4	1.1	1.8	20	6.0	22	35	41	21	12	6.9	4.9	4.1
5	1.0	1.9	16	8.0	18	33	41	21	12	7.2	4.9	5.2
6	.90	11	13	5.8	16	31	99	20	12	7.5	4.6	3.6
7	.80	6.6	12	5.2	15	30	80	20	12	7.5	4.6	3.5
8	.70	5.3	10	5.0	14	100	61	19	12	7.2	4.5	3.5
9	.70	4.2	9.0	5.0	13	67	58	19	11	7.1	4.6	3.7
10	1.6	3.7	8.8	5.1	12	201	52	19	11	7.1	4.2	3.8
11	1.6	6.2	8.5	5.2	11	150	45	19	10	6.9	4.0	3.7
12	1.6	4.5	8.1	5.1	13	120	43	18	10	6.6	3.8	3.6
13	1.7	4.1	7.9	5.1	125	106	40	18	10	6.5	3.7	3.5
14	1.6	4.0	7.6	5.1	1040	98	38	17	9.9	6.2	3.8	3.5
15	1.6	4.2	7.2	5.1	821	94	36	17	9.5	6.2	3.6	3.4
16	1.6	4.2	6.8	5.1	212	185	34	17	9.4	6.2	3.9	3.1
17	1.6	4.1	6.1	5.1	157	154	33	16	9.1	6.0	3.9	2.9
18	1.6	4.0	6.1	5.0	119	130	32	16	8.6	5.8	3.4	2.9
19	1.4	4.2	6.1	4.8	340	120	30	16	8.8	5.4	3.2	2.9
20	1.6	4.0	6.1	4.8	185	110	29	16	8.1	5.1	3.3	3.2
21	1.6	4.2	5.8	4.8	143	100	28	15	8.0	5.3	3.2	3.2
22	2.4	4.3	5.7	4.8	136	90	28	15	8.0	5.8	3.1	3.3
23	2.1	4.3	5.7	4.8	107	84	27	15	8.3	6.8	3.2	3.5
24	1.5	7.0	5.7	4.8	90	76	27	15	9.0	6.9	3.3	6.3
25	1.4	29	5.4	4.7	77	72	26	14	9.2	6.5	3.2	6.4
26	1.3	16	5.1	4.5	67	66	25	14	8.8	6.6	3.2	5.0
27	1.4	8.0	5.2	4.5	60	62	25	14	8.4	6.7	2.9	5.0
28	1.5	6.5	5.1	4.2	53	58	24	14	8.1	6.6	2.7	4.9
29	1.6	40	5.2	5.4	---	56	24	13	8.1	6.0	2.5	4.4
30	1.6	27	5.3	386	---	52	23	13	8.4	5.5	2.5	3.8
31	1.6	---	5.1	120	---	48	---	13	---	5.4	2.8	---
TOTAL	45.90	229.0	302.6	653.8	3992	2656	1182	531	298.7	204.2	117.2	117.5
MEAN	1.48	7.63	9.76	21.1	143	85.7	39.4	17.1	9.96	6.59	3.78	3.92
MAX	2.4	40	37	386	1040	201	99	23	13	9.8	5.4	6.4
MIN	.70	1.5	5.1	4.2	11	30	23	13	8.0	5.1	2.5	2.9
AC-FT	91	454	600	1300	7920	5270	2340	1050	592	405	232	233

CAL YR 1985 TOTAL 1718.74 MEAN 4.71 MAX 40 MIN .70 AC-FT 3410

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA

LOCATION.--Lat 34°17'35", long 119°06'00", in Santa Paula Y Saticoy Grant, Ventura County, Hydrologic Unit 18070102, on diversion works at Santa Clara River, 1.9 mi east of Saticoy.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1969 to current year. Daily discharge for October 1981 to September 1982, published in WDR CA-83-1. October 1928 to April 1969 in files of United Water Conservation District.

GAGE.--Water-stage recorder. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water is diverted from left bank of Santa Clara River to percolation basin near Los Angeles Avenue (State Highway 118) and for irrigation in Pleasant Valley. Imported water from the California Water Project released to the basin at Castaic Dam and Pyramid Dam since 1972.

COOPERATION.--Records were provided by United Water Conservation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 437 ft³/s, Dec. 10, 1978; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	21	157	67	27	307	323	225	104	59	36	25
2	18	23	51	67	33	310	229	228	111	98	35	23
3	18	21	165	69	24	300	266	252	108	92	39	23
4	18	19	204	82	0	290	259	256	98	94	31	21
5	19	17	154	48	42	284	262	207	99	103	31	22
6	20	18	129	98	235	273	175	191	93	99	29	22
7	16	18	114	92	218	266	187	196	94	100	31	22
8	15	18	103	88	228	138	255	179	94	147	31	25
9	13	20	97	82	187	109	278	166	92	195	32	26
10	9.4	8.8	96	84	178	59	253	163	80	195	31	26
11	6.3	13	112	81	186	0	210	167	79	216	33	24
12	10	53	106	86	152	0	209	164	78	248	30	24
13	15	39	96	80	44	0	223	177	77	229	30	23
14	15	34	89	74	0	0	262	171	76	254	30	24
15	13	32	88	74	0	0	253	158	73	313	30	24
16	11	34	73	74	0	0	219	155	70	342	30	21
17	14	38	77	75	0	0	235	150	73	355	32	20
18	15	35	71	76	0	0	244	179	69	392	32	20
19	13	31	71	75	0	0	258	144	72	333	29	22
20	14	30	72	77	0	238	259	118	75	319	28	21
21	25	30	72	75	0	234	238	111	71	115	28	23
22	21	25	71	68	0	306	222	108	63	83	26	23
23	22	26	76	67	0	297	214	112	63	76	25	20
24	19	46	80	67	0	326	216	111	72	65	25	44
25	18	0	82	67	44	307	213	113	71	58	25	34
26	18	119	74	66	297	294	206	113	68	51	24	30
27	19	137	72	67	300	299	199	119	62	51	22	32
28	19	88	74	64	306	292	204	118	63	54	18	36
29	15	45	73	78	---	300	221	114	59	47	18	29
30	4.2	151	78	48	---	298	235	108	64	41	23	32
31	14	---	70	0	---	302	---	94	---	39	25	---
TOTAL	479.9	1189.8	2947	2216	2501	5829	7027	4867	2371	4863	889	761
MEAN	15.5	39.7	95.1	71.5	89.3	188	234	157	79.0	157	28.7	25.4
MAX	25	151	204	98	306	326	323	256	111	392	39	44
MIN	4.2	0	51	0	0	0	175	94	59	39	18	20
AC-FT	952	2360	5850	4400	4960	11560	13940	9650	4700	9650	1760	1510
CAL YR 1985	TOTAL	21567.9	MEAN	59.1	MAX	204	MIN	0	AC-FT	42780		
WTR YR 1986	TOTAL	35940.7	MEAN	98.5	MAX	392	MIN	0	AC-FT	71290		

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1982 to current year.

SPECIFIC CONDUCTANCE: August 1982 to current year.

pH: April 1982 to current year.

WATER TEMPERATURE: August 1982 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1982 to current year.

pH: April 1982 to current year.

WATER TEMPERATURE: August 1982 to current year.

INSTRUMENTATION.--Water-quality monitor since August 1982.

REMARKS.-- Interruptions in record were due to malfunction of the recording instruments.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,170 microsiemens, Sept. 1, 1985; minimum recorded, 590 microsiemens, Nov. 30, 1982.

pH: Maximum, 8.9 units, Apr. 16, 1984; minimum, 7.0 units, Oct. 3, 5, 1985.

WATER TEMPERATURE: Maximum recorded, 34.0°C, July 3, 1985; minimum recorded, 3.5°C, Dec. 5, 1983.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,010 microsiemens, Nov. 11; minimum recorded, 650 microsiemens, Dec. 3.

pH: Maximum recorded, 8.7 units, Sept. 20; minimum recorded, 7.0 units, Oct. 3, 5.

WATER TEMPERATURE: Maximum recorded, 31.5°C, Aug. 21; minimum recorded, 7.0°C, Dec. 13.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1660	1610	1800	1770	1180	1060	1510	1490
2	1700	1610	1790	1760	1230	860	1520	1490
3	1740	1660	1790	1770	930	650	---	---
4	1700	1650	1770	1740	1040	940	---	---
5	1700	1650	1770	1740	1170	1050	---	---
6	1690	1630	1740	1730	1250	1160	---	---
7	1690	1650	1800	1740	1300	1250	---	---
8	1710	1620	1750	1730	1340	1290	1480	1450
9	1700	1650	1770	1740	1370	1330	1480	1450
10	1700	1650	1760	1540	1390	1350	1490	1460
11	1690	1630	2010	1230	1390	1340	1510	1470
12	1690	1650	1680	1310	1380	1350	1500	1470
13	1690	1650	1700	1640	1400	1370	1500	1470
14	1710	1670	1690	1660	1430	1390	1500	1470
15	1710	1680	1700	1670	1430	1400	1500	1480
16	1690	1660	1680	1660	1450	1410	1500	1480
17	1680	1540	1680	1660	1460	1430	1500	1480
18	1730	1670	1680	1660	1460	1430	1520	1480
19	1720	1690	1670	1650	1470	1430	1510	1480
20	1720	1700	1660	1640	1480	1450	1510	1480
21	1720	1180	1660	1630	1480	1450	1520	1490
22	1780	1670	1660	1630	1470	1450	1510	1500
23	1750	1700	1680	1640	1480	1450	1530	1500
24	1760	1700	---	---	1490	1460	1520	1500
25	1740	1710	---	---	1480	1460	1540	1510
26	1720	1700	---	---	1500	1460	1540	1510
27	1730	1700	1270	1030	1490	1470	1540	1510
28	1760	1720	1410	1280	1510	1480	1540	1520
29	1790	1570	1380	770	1510	1490	---	---
30	1970	1790	1030	830	1520	1490	---	---
31	1880	1770	---	---	1520	1500	---	---
MONTH	1970	1180	---	---	1520	650	---	---

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	FEBRUARY		MARCH		APRIL		MAY	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	1220	1180
2	---	---	---	---	---	---	1210	1170
3	---	---	---	---	---	---	1240	1180
4	---	---	---	---	---	---	1220	1190
5	---	---	---	---	---	---	1220	1180
6	1120	1060	---	---	---	---	1230	1190
7	1140	1110	---	---	---	---	1230	1190
8	1180	1130	---	---	---	---	1240	1200
9	1200	1160	---	---	---	---	1240	1200
10	1230	1180	---	---	---	---	1250	1200
11	1240	1200	---	---	---	---	1250	1210
12	1240	1200	---	---	---	---	1270	1220
13	---	---	---	---	---	---	1270	1230
14	---	---	---	---	---	---	1270	1230
15	---	---	---	---	---	---	1290	1240
16	---	---	---	---	---	---	1300	1250
17	---	---	---	---	---	---	1310	1270
18	---	---	---	---	---	---	1330	1260
19	---	---	---	---	---	---	1330	1270
20	---	---	---	---	---	---	1330	1290
21	---	---	---	---	---	---	1330	1290
22	---	---	---	---	---	---	1330	1290
23	---	---	---	---	---	---	1340	1300
24	---	---	---	---	---	---	1310	1280
25	---	---	---	---	---	---	1320	1270
26	---	---	---	---	---	---	1320	1280
27	---	---	---	---	---	---	1330	1280
28	---	---	---	---	---	---	1350	1300
29	---	---	---	---	1310	1160	1360	1330
30	---	---	---	---	1510	1160	1380	1330
31	---	---	---	---	---	---	1390	1340
MONTH	---	---	---	---	---	---	1390	1160
DAY	JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1380	1330	---	---	1400	1360	1510	1470
2	1380	1340	---	---	1410	1350	1520	1480
3	1380	1340	---	---	1410	1350	1530	1490
4	1390	1360	---	---	1400	1350	1570	1490
5	1390	1370	---	---	1460	1360	1570	1510
6	1390	1350	---	---	1420	1350	1620	1510
7	1390	1350	---	---	1430	1360	1620	1540
8	1380	1350	1230	1130	1430	1350	1600	1550
9	1380	1350	1120	1050	1410	1360	1600	1550
10	1400	1350	1060	1000	1410	1380	1600	1550
11	1410	1370	1030	990	1420	1370	1600	1550
12	1430	1390	1000	960	1460	1410	1600	1540
13	1430	1390	1000	960	1460	1410	1620	1550
14	1430	1400	990	950	1480	1440	1590	1540
15	1430	1400	980	940	1480	1440	1610	1560
16	---	---	980	930	1470	1410	1620	1580
17	---	---	960	920	1460	1400	1640	1580
18	---	---	950	910	1450	1400	1650	1590
19	---	---	970	930	1490	1420	1640	1600
20	---	---	1080	930	1500	1440	1670	1600
21	---	---	1310	1090	1520	1460	1630	1590
22	---	---	1400	1260	1620	1480	1620	1580
23	---	---	1370	1300	1530	1480	1630	1600
24	---	---	1380	1320	1520	1480	1620	1370
25	---	---	1390	1330	1530	1480	1830	1420
26	---	---	1390	1330	1560	1500	1610	1560
27	---	---	1390	1330	1580	1510	1620	1560
28	---	---	1390	1340	1570	1510	1590	1560
29	---	---	1400	1340	1580	1510	1610	1560
30	---	---	1420	1360	1550	1490	1610	1570
31	---	---	1420	1360	1530	1470	---	---
MONTH	---	---	---	---	1620	1350	1830	1370

OCTOBER			NOVEMBER		DECEMBER		JANUARY	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.4	8.2	8.3	8.1	8.1	8.0	8.3	7.9
2	8.3	8.1	8.1	8.0	8.1	7.9	8.2	8.0
3	8.3	7.0	8.0	7.9	8.0	7.8	---	---
4	8.2	7.4	8.3	7.9	8.0	8.0	---	---
5	8.1	7.0	8.3	8.0	8.0	8.0	---	---
6	8.3	7.2	8.3	8.0	8.1	7.7	---	---
7	7.8	7.7	8.3	8.0	8.2	8.1	---	---
8	7.9	7.6	8.3	8.0	8.2	8.1	8.3	8.2
9	7.9	7.6	8.4	8.0	8.2	8.1	8.3	8.2
10	8.0	7.8	8.3	8.0	8.2	8.1	8.3	8.2
11	8.0	7.8	8.1	7.8	8.2	8.1	8.3	8.2
12	8.1	7.8	8.1	8.0	8.2	8.1	8.3	8.2
13	8.1	7.8	8.1	8.0	8.2	8.2	8.4	8.2
14	8.1	7.8	8.1	7.8	8.2	8.1	8.4	8.2
15	8.1	7.8	8.3	8.1	8.2	8.1	8.4	8.2
16	8.0	7.8	8.3	8.1	8.2	8.1	8.5	8.2
17	8.0	7.8	8.4	8.1	8.2	8.1	8.4	8.2
18	8.0	7.8	8.3	8.2	8.2	8.1	8.4	8.2
19	8.0	7.7	8.5	8.2	8.3	8.1	8.4	8.2
20	8.0	7.7	8.4	8.1	8.2	8.0	8.4	8.2
21	8.0	7.6	8.4	8.1	8.2	8.0	8.4	8.2
22	8.0	7.7	8.4	8.2	8.2	8.1	8.4	8.2
23	8.0	7.8	8.4	8.1	8.2	8.1	8.4	8.2
24	8.0	7.8	---	---	8.2	8.0	8.3	8.2
25	8.1	7.8	---	---	8.3	8.1	8.4	8.2
26	8.2	7.9	---	---	8.3	8.1	8.4	8.2
27	8.2	7.9	8.1	8.0	8.3	8.1	8.4	8.2
28	8.2	7.9	8.2	8.0	8.3	8.0	8.4	8.3
29	8.0	7.8	8.1	7.9	8.3	8.0	8.5	8.0
30	8.0	7.8	8.0	7.8	8.2	8.0	---	---
31	8.3	8.1	---	---	8.2	7.9	---	---
MONTH	8.4	7.0	---	---	8.3	7.7	---	---
FEBRUARY			MARCH		APRIL		MAY	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.3	8.2	---	---	8.4	8.1
2	---	---	8.3	8.3	---	---	8.4	8.1
3	---	---	8.3	8.3	---	---	8.4	8.1
4	---	---	8.3	8.2	---	---	8.4	8.1
5	---	---	8.3	8.3	---	---	8.4	8.1
6	8.2	8.2	8.3	8.2	---	---	8.4	8.1
7	8.2	7.9	8.3	8.2	---	---	8.4	8.1
8	8.1	8.1	8.3	8.0	---	---	8.4	8.1
9	8.2	8.1	8.3	8.1	---	---	8.4	8.0
10	8.2	8.1	8.2	8.0	---	---	8.5	8.1
11	8.2	8.1	---	---	---	---	8.5	8.0
12	8.2	8.1	---	---	---	---	8.5	8.1
13	---	---	---	---	---	---	8.5	8.0
14	---	---	---	---	---	---	8.3	8.0
15	---	---	---	---	---	---	8.5	8.0
16	---	---	---	---	---	---	8.5	8.0
17	---	---	---	---	---	---	8.5	8.1
18	---	---	---	---	---	---	8.4	8.1
19	---	---	---	---	---	---	8.5	8.1
20	---	---	---	---	---	---	8.5	8.0
21	---	---	---	---	---	---	8.5	8.0
22	---	---	---	---	---	---	8.4	7.9
23	---	---	---	---	---	---	8.4	7.9
24	---	---	---	---	---	---	8.4	7.9
25	---	---	---	---	---	---	8.5	7.9
26	7.8	7.5	---	---	---	---	8.5	7.9
27	7.7	7.7	---	---	---	---	8.5	8.0
28	8.1	7.7	---	---	---	---	8.4	7.9
29	---	---	---	---	8.4	8.1	8.4	7.8
30	---	---	---	---	8.4	8.1	8.3	7.8
31	---	---	---	---	---	---	8.4	7.8
MONTH	---	---	---	---	---	---	8.5	7.8

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION, CA--Continued

PH (UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.4	7.8	---	---	8.5	8.0	8.3	7.7
2	8.4	7.8	---	---	8.5	8.0	8.2	7.6
3	8.3	7.7	---	---	8.5	8.0	8.3	7.7
4	8.3	7.6	---	---	8.5	8.0	8.4	7.7
5	8.2	7.7	---	---	8.4	8.0	8.5	7.8
6	8.1	7.6	---	---	8.4	8.0	8.5	7.9
7	8.2	7.6	---	---	8.5	8.0	8.6	7.8
8	8.2	7.6	8.2	8.0	8.5	7.9	8.4	7.8
9	8.2	7.6	8.1	8.0	8.5	7.9	8.3	7.8
10	8.2	7.6	8.1	8.0	8.5	7.9	8.4	7.9
11	8.2	7.6	8.1	8.0	8.5	7.9	8.4	7.8
12	8.2	7.5	8.1	8.0	8.5	7.9	8.4	7.9
13	8.3	7.6	8.1	8.0	8.5	7.9	8.4	7.9
14	8.3	7.5	8.2	8.0	8.4	7.9	8.5	7.9
15	8.3	7.5	8.1	8.0	8.4	7.9	8.5	7.9
16	---	---	8.2	8.0	8.4	7.8	8.5	7.9
17	---	---	8.2	8.0	8.3	7.8	8.6	7.9
18	---	---	8.2	8.0	8.2	7.8	8.6	7.9
19	---	---	8.2	8.1	8.3	7.8	8.6	7.9
20	---	---	8.2	8.1	8.3	7.8	8.7	7.9
21	---	---	8.2	8.1	8.4	7.8	8.6	7.9
22	---	---	8.2	8.0	8.3	7.9	8.6	7.9
23	---	---	8.2	8.1	8.4	7.9	8.6	7.9
24	---	---	8.2	8.0	8.4	7.9	8.3	7.8
25	---	---	8.2	8.0	8.4	7.8	8.3	7.8
26	---	---	8.3	8.0	8.4	7.8	8.3	8.0
27	---	---	8.3	8.0	8.3	7.8	8.3	7.9
28	---	---	8.3	8.0	8.4	7.8	8.4	8.0
29	---	---	8.4	8.0	8.4	7.8	8.4	8.0
30	---	---	8.4	8.0	8.4	7.8	8.4	8.0
31	---	---	8.4	7.9	8.4	7.7	---	---
MONTH	---	---	---	---	8.5	7.7	8.7	7.6

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	25.5	15.5	17.5	15.0	14.0	11.0	17.0	14.0	---	---	18.5	16.0
2	26.0	15.5	17.5	15.0	13.5	12.5	16.5	14.0	---	---	17.0	16.0
3	27.5	16.0	17.5	15.0	14.5	11.0	---	---	---	---	21.0	13.5
4	25.0	17.0	19.0	15.5	16.0	11.5	---	---	---	---	22.5	14.0
5	26.0	17.5	20.0	13.0	17.0	12.5	---	---	---	---	22.0	15.5
6	26.5	18.5	20.5	12.5	16.0	11.0	---	---	16.0	10.5	19.0	16.0
7	25.5	19.5	20.5	12.5	16.5	11.0	---	---	13.0	9.5	17.5	16.0
8	24.0	18.0	20.0	15.5	15.5	10.5	15.5	10.0	14.5	10.5	16.5	14.5
9	23.5	15.0	19.5	14.5	14.0	9.0	16.5	10.0	14.5	9.0	17.0	12.0
10	24.0	14.0	16.5	12.0	13.5	8.5	17.5	10.0	14.0	9.0	14.0	11.5
11	24.5	13.0	14.5	13.0	12.5	8.5	18.0	11.0	14.0	11.0	---	---
12	23.0	14.0	15.5	10.5	13.0	7.5	18.0	12.0	13.0	12.5	---	---
13	22.5	13.0	15.5	9.0	13.5	7.0	17.0	12.0	13.0	11.0	---	---
14	22.5	13.0	16.5	9.5	14.5	8.5	16.5	13.0	---	---	---	---
15	23.0	12.0	17.0	10.0	15.5	10.0	17.0	13.0	---	---	---	---
16	21.5	12.0	17.5	10.5	15.5	11.0	17.5	12.5	---	---	---	---
17	22.0	12.5	16.5	12.0	15.5	10.5	18.5	12.0	---	---	---	---
18	23.5	16.0	15.5	9.5	16.0	10.5	19.5	13.0	---	---	---	---
19	23.0	13.5	15.0	9.0	16.5	11.0	18.5	13.0	---	---	---	---
20	21.0	13.0	15.0	8.5	17.0	10.5	18.5	13.5	---	---	---	---
21	19.0	16.0	15.5	9.0	17.0	10.5	17.5	12.0	---	---	---	---
22	21.5	13.5	15.0	10.0	16.0	10.5	17.0	12.5	---	---	---	---
23	22.0	13.0	14.0	10.5	16.0	10.5	17.5	12.0	---	---	---	---
24	22.5	13.5	---	---	15.5	10.0	18.0	11.0	---	---	---	---
25	22.0	13.5	---	---	17.0	11.0	18.0	11.5	---	---	---	---
26	22.0	14.0	---	---	16.5	10.5	18.5	11.0	21.5	14.0	---	---
27	22.0	16.5	16.0	14.0	16.0	11.0	18.5	11.0	20.5	14.5	---	---
28	21.0	17.0	16.0	14.0	15.0	10.5	18.0	10.5	20.5	15.5	---	---
29	17.5	14.0	14.5	13.0	16.5	13.0	14.5	11.0	---	---	---	---
30	18.0	16.5	14.0	10.5	18.0	14.5	13.0	12.0	---	---	---	---
31	18.0	16.0	---	---	16.5	13.5	---	---	---	---	---	---

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR, OCTOBER 1985 TO SEPTEMBER 1986

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	24.5	16.0	27.0	17.5	---	---	30.5	19.0	29.5	19.5
2	---	---	25.5	15.5	26.0	17.5	---	---	31.0	18.5	27.0	19.5
3	---	---	25.0	15.5	28.0	16.5	---	---	30.5	18.5	28.5	19.5
4	---	---	24.5	14.0	26.5	18.0	---	---	30.0	19.5	30.0	18.5
5	---	---	24.0	14.5	23.0	18.0	---	---	30.0	19.0	29.5	20.0
6	---	---	23.5	15.0	27.5	16.0	---	---	30.0	19.5	29.5	19.5
7	---	---	24.5	13.5	27.5	16.5	---	---	30.0	19.5	29.5	19.5
8	---	---	24.5	14.0	28.0	16.5	27.5	17.5	30.0	19.0	29.0	19.0
9	---	---	26.0	14.5	29.0	16.5	26.5	18.5	30.0	18.5	27.0	18.5
10	---	---	26.0	15.0	29.0	18.5	25.5	18.0	30.0	19.0	28.0	17.0
11	---	---	25.5	16.0	28.5	19.0	25.5	18.0	30.0	19.0	27.5	17.0
12	---	---	25.0	15.0	28.0	16.5	26.0	18.0	29.5	18.5	27.0	18.5
13	---	---	25.0	15.0	28.0	17.0	26.5	18.5	30.0	19.0	26.0	17.0
14	---	---	19.0	16.5	28.0	17.5	26.5	18.0	29.5	19.0	26.5	16.5
15	---	---	24.0	14.5	28.5	17.5	24.5	18.0	29.0	18.0	26.5	15.5
16	---	---	26.0	15.0	---	---	25.0	17.0	30.0	18.0	27.0	15.5
17	---	---	28.0	15.0	---	---	25.0	16.5	30.5	17.0	28.0	16.5
18	---	---	28.0	16.0	---	---	25.5	16.0	29.5	18.5	27.5	17.0
19	---	---	27.5	16.5	---	---	26.0	15.5	30.5	20.0	26.5	16.0
20	---	---	26.5	17.0	---	---	26.5	16.5	31.0	20.5	25.5	15.5
21	---	---	25.5	17.0	---	---	29.0	18.5	31.5	18.5	24.5	15.5
22	---	---	24.0	15.0	---	---	29.5	19.5	30.5	17.5	24.0	15.5
23	---	---	24.5	15.0	---	---	29.5	19.0	29.5	17.0	22.5	15.5
24	---	---	27.0	15.0	---	---	30.0	17.5	29.5	18.0	19.5	17.0
25	---	---	28.5	16.0	---	---	30.0	17.5	30.5	17.5	25.0	16.5
26	---	---	27.5	17.0	---	---	29.5	17.5	30.5	17.5	25.0	15.0
27	---	---	27.0	18.0	---	---	30.0	19.0	30.5	18.0	23.0	15.0
28	---	---	27.0	17.5	---	---	29.5	17.0	30.5	17.5	25.5	16.5
29	25.0	15.5	27.5	17.5	---	---	30.5	16.5	31.0	18.0	25.5	15.0
30	24.0	15.5	23.0	18.0	---	---	31.0	18.0	30.0	17.0	25.5	14.5
31	---	---	26.5	17.5	---	---	30.5	19.0	29.5	17.5	---	---
MONTH	---	---	28.5	13.5	---	---	---	---	31.5	17.0	30.0	14.5

SANTA CLARA RIVER BASIN

11114000 SANTA CLARA RIVER AT MONTALVO, CA

LOCATION.--Lat 34°14'31", long 119°11'21", in San Miguel Grant, Ventura County, Hydrologic Unit 18070102, on downstream end of center pier of southbound bridge on U.S. Highway 101, 0.9 mi southeast of Montalvo, and 4.5 mi upstream from mouth.
DRAINAGE AREA.--1,612 mi².

PERIOD OF RECORD.--October 1927 to September 1932, October 1949 to current year. Monthly discharge only for 1950-67, published in WRD 1968 report. October 1949 to September 1969, published as "at Saticoy."

GAGE.--Two water-stage recorders. Datum of main gage is 51.88 ft above National Geodetic Vertical Datum of 1929 (levels by Ventura County Flood Control District). Oct. 1, 1927, to Sept. 30, 1932, and Oct. 1, 1949, to Sept. 30, 1967, at same site at different datums. Oct. 1, 1967, to Feb. 2, 1970, at site 3.9 mi upstream at different datum. Supplementary gage 0.7 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 29 to Dec. 2, Mar. 1-7, 21-24, Apr. 9-18. Records poor. Flow partly regulated by Lake Piru (station 11109500) 33 mi upstream since May 1955; by Pyramid Lake, capacity, 173,500 acre-ft, 42 mi upstream since December 1971; and by Castaic Reservoir, capacity 324,000 acre-ft, 43 mi upstream since January 1972. Natural flow affected by ground-water withdrawals, diversions, municipal use, and ground-water replenishment. Imported water from the California Water Project released to the basin at Castaic Dam and Pyramid Dam. Diversion to spreading grounds and for irrigation in Pleasant Valley, at site 6.0 mi upstream (station 11113900). AVERAGE DISCHARGE represents flow to the ocean regardless of upstream development.

AVERAGE DISCHARGE.--42 years, 157 ft³/s, 113,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 165,000 ft³/s, Jan. 25, 1969, gage height, 17.41 ft, present datum; no flow for long periods in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, 120,000 ft³/s, estimated by Ventura County Flood Control District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43,700 ft³/s, Feb. 15, gage height, 8.64 ft; no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.0	0	1630	17	27					
2		0	1.0	0	572	8.0	61					
3		0	180	0	322	2.0	64					
4		0	13	.14	207	1.6	51					
5		0	.46	38	134	1.6	59					
6		0	.24	1.0	8.5	1.0	291					
7		0	.14	.24	1.4	.80	680					
8		0	0	.19	.82	614	263					
9		0	0	.14	0	713	159					
10		0	0	.14	0	2840	113					
11		0	0	.10	0	3360	97					
12		0	0	.08	0	2070	81					
13		0	0	.10	3040	1640	53					
14		0	0	.08	7400	1240	23					
15		0	0	.07	17300	1120	18					
16		0	0	0	4210	2240	29					
17		0	0	0	1500	1640	16					
18		0	0	0	1140	1080	10					
19		0	0	0	3830	522	0					
20		0	0	0	2170	545	0					
21		0	0	0	1280	440	0					
22		0	0	0	835	365	0					
23		0	0	0	641	310	0					
24		0	0	0	522	270	0					
25		0	0	0	402	263	0					
26		0	0	0	120	190	0					
27		0	0	0	86	131	0					
28		0	0	0	51	106	0					
29		1.0	0	.06	---	81	0					
30		1.0	0	4000	---	57	0					
31		---	0	2320	---	42	---					
TOTAL	0	2.0	195.84	6360.34	47402.72	21911.00	2095	0	0	0	0	0
MEAN	0	.067	6.32	205	1693	707	69.8	0	0	0	0	0
MAX	0	1.0	180	4000	17300	3360	680	0	0	0	0	0
MIN	0	0	0	0	0	.80	0	0	0	0	0	0
AC-FT	0	4.0	388	12620	94020	43460	4160	0	0	0	0	0

CAL YR 1985 TOTAL 520.94 MEAN 1.43 MAX 205 MIN 0 AC-FT 1030

VENTURA RIVER BASIN

11115000 MATILIJA RESERVOIR AT MATILIJA HOT SPRINGS, CA

LOCATION.--Lat 34°29'08", Long 119°18'25", in NW 1/4 SE 1/4 sec.29, T.5 N., R.23 W., Ventura County, Hydrologic Unit 18070101, on left end of dam on Ventura River, 0.2 mi east of Matilija Hot Springs, and 1.8 mi southwest of Wheeler Springs.

DRAINAGE AREA.--54.4 mi².

PERIOD OF RECORD.--March 1948 to September 1965, October 1970 to current year. Prior to October 1985, monthend elevation and contents only. March 1948 to October 1953, published as "at Matilija."

GAGE.--Water-stage recorder. Datum of gage is 0.00 ft Ventura County Department of Public Works datum. Prior to Nov. 12, 1970, at site near right end of dam at same datum.

REMARKS.--Reservoir is formed by concrete-arch dam. Dam was completed in 1948. Storage began Mar. 14, 1948. Structural modifications have resulted in lowering the crest of the dam since March 1964. Capacity table dated August 1983 not valid due to silting of reservoir during the 1986 WY. Lowest sluice gate silted, elevation, 1,000 ft. Lowest usable outlet, elevation 1,064 ft, and crest of spillway, elevation 1,095 ft. Water is released from reservoir to natural stream for recharge of ground-water basin in Ventura River Valley and since May 1959 is at times diverted at Robles diversion dam downstream to Lake Casitas on Coyote Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,399 acre-ft, Apr. 3, 1958, elevation, 1,128.10 ft; minimum, reservoir dry several days in 1979 due to construction.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum contents from October 1965 to September 1970, 3,128 acre-ft, Jan. 25, 1969, elevation, 1,103.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,099.76 ft, Feb. 14; minimum unknown, probably occurred on June 21.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1082.64	1081.83	---	1083.46	1093.24	1082.60	1081.06	1092.34	1094.01	1071.85	1074.12	1073.41
2	1082.62	1081.79	---	1083.70	1088.21	1081.87	1081.09	1091.82	1094.07	1071.96	1074.11	1073.39
3	1082.60	1081.76	---	1083.93	1083.62	1081.51	1081.01	1091.27	1094.11	1072.10	1074.10	1073.40
4	1082.58	1081.75	---	1084.41	---	1081.94	1080.83	1090.73	1094.14	1072.24	1074.09	1073.40
5	1082.52	1081.74	---	1084.91	---	1081.98	1081.00	1090.21	1094.18	1072.42	1074.08	1073.40
6	1082.49	1081.73	---	1085.27	---	1081.91	1083.00	1091.02	1094.21	1072.60	1074.04	1073.39
7	1082.48	1081.71	---	1085.61	---	1081.80	1082.29	1092.57	1094.22	1072.77	1074.03	1073.37
8	1082.42	1081.70	---	1085.90	---	1084.75	1081.50	1094.01	1094.21	1072.91	1074.02	1073.33
9	1082.40	1081.70	---	1086.14	---	1083.80	1080.97	1094.20	1094.18	1073.03	1074.01	1073.33
10	1082.38	1081.82	---	1086.21	---	1092.17	---	1093.81	1094.07	1073.12	1073.99	1073.33
11	1082.32	1082.38	---	---	---	1093.18	---	1093.80	1093.96	1073.20	1073.98	1073.33
12	1082.29	1082.59	---	---	---	1091.88	---	1094.16	1093.89	1073.24	1073.96	1073.33
13	1082.27	1082.71	---	---	1096.33	1090.11	---	1094.24	1094.28	1073.30	1073.95	1073.33
14	1082.24	1082.80	---	---	1098.07	1087.90	1080.81	1094.17	1094.60	1073.30	1073.94	1073.37
15	1082.19	1082.89	---	---	1096.24	1088.64	1084.32	1094.10	1094.80	1073.38	1073.95	1073.41
16	1082.18	1082.97	---	1084.58	1095.86	1093.29	1087.20	1093.95	1094.69	1073.44	1073.97	1073.48
17	1082.14	1083.00	---	1084.11	1095.67	1095.41	1089.77	1093.75	1089.00	1073.51	1073.90	1073.51
18	1082.09	1083.02	---	1083.66	1095.53	1095.59	1091.66	1093.75	1080.43	1073.57	1073.87	1073.54
19	1082.07	1083.05	---	1083.17	1095.92	1095.35	1093.16	1094.33	---	1073.59	1073.83	1073.59
20	1082.05	1083.10	---	1082.70	1095.81	1094.69	1094.54	1094.54	---	1073.62	1073.81	1073.59
21	1082.05	1083.12	---	1082.26	1095.64	1093.37	1095.23	1094.32	---	1073.69	1073.81	1073.58
22	1082.05	1083.17	---	1081.76	1095.52	1091.48	1095.08	1094.13	---	1073.78	1073.80	1073.58
23	1082.04	1083.19	1080.91	1081.27	1094.83	1089.57	1094.94	1094.42	---	1073.87	1073.77	1073.59
24	1082.00	1084.00	1081.23	---	1093.41	1090.67	1094.77	1094.71	1071.08	1073.93	1073.78	1073.76
25	1081.97	1091.37	1081.52	---	1091.14	1087.95	1094.57	1094.74	1071.16	1074.00	1073.75	1073.85
26	1081.96	1085.99	1081.81	---	1088.79	1085.35	1094.30	1094.53	1071.26	1074.07	1073.68	1073.87
27	1081.94	---	1082.09	---	1086.29	1083.20	1093.98	1094.24	1071.36	1074.11	1073.63	1073.88
28	1081.89	---	1082.38	---	1084.00	1082.61	1093.57	1094.04	1071.47	1074.16	1073.58	1073.88
29	1081.88	---	1082.66	---	---	1081.73	1093.19	1093.81	1071.61	1074.16	1073.55	1073.78
30	1081.86	---	1082.94	1095.60	---	1081.49	1092.80	1093.80	1071.73	1074.16	1073.48	1073.70
31	1081.85	---	1083.21	1095.52	---	1081.20	---	1093.81	---	1074.14	1073.45	---
MAX	1082.64	---	---	---	---	1095.59	---	1094.74	---	1074.16	1074.12	1073.88
MIN	1081.85	---	---	---	---	1081.20	---	1090.21	---	1071.85	1073.45	1073.33

VENTURA RIVER BASIN

11115500 MATILIJA CREEK AT MATILIJA HOT SPRINGS, CA

LOCATION.--Lat 34°28'58", long 119°18'03", in NW 1/4 SW 1/4 sec.28, T.5 N., R.23 W., Ventura County, Hydrologic Unit 18070101, on right bank 0.2 mi east of Matilija Hot Springs, 0.2 mi upstream from North Fork, and 0.4 mi downstream from Matilija Dam.

DRAINAGE AREA.--54.6 mi².

PERIOD OF RECORD.--October 1927 to current year. Combined monthly records for creek and diversion, May 1951 to September 1969. Prior to October 1953, published as "at Matilija."

GAGE.--Water-stage recorder. Concrete control since September 1969. Elevation of gage is 900 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 11, 1939, at site 0.6 mi upstream at different datum.

REMARKS.--Estimated daily discharges: July 30 to Aug. 6. Records good except those for period of estimated daily discharges, which are fair. Flow regulated by Matilija Reservoir March 1948 to March 1964, capacity, 7,020 acre-ft. Structural modification of dam and siltation has resulted in only partial regulation since March 1964. Current capacity, 1,480 acre-ft, capacity table dated August 1983.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft³/s, Jan. 25, 1969, gage height, 16.5 ft, from rating curve extended above 4,200 ft³/s, on basis of computation of maximum flow over dam; minimum daily, 0.10 ft³/s, for several days in some years of regulated flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,730 ft³/s, Feb. 14, gage height, 10.59 ft; minimum daily, 2.50 ft³/s, Dec. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.2	72	3.3	221	142	101	61	20	14	11	8.3
2	4.1	4.1	76	3.3	207	121	94	61	24	13	11	8.5
3	4.0	3.9	124	3.3	183	106	92	61	23	13	11	8.5
4	4.0	3.9	89	3.4	120	87	89	61	23	13	11	8.5
5	4.1	4.0	62	3.3	77	88	87	60	24	13	10	8.5
6	4.1	4.0	48	3.3	58	86	109	25	24	13	10	8.5
7	4.1	4.1	40	3.1	50	83	125	3.7	24	13	10	8.5
8	4.2	4.2	31	3.2	44	105	110	3.7	24	13	11	8.2
9	4.2	4.2	13	3.8	39	127	97	34	24	13	10	8.2
10	4.1	4.6	2.5	7.2	35	165	89	50	24	13	10	8.2
11	4.1	4.8	2.5	8.9	35	193	84	39	24	13	9.9	8.2
12	4.2	4.4	2.6	8.8	35	210	81	28	22	13	9.6	8.2
13	4.2	4.4	2.7	14	306	207	77	36	8.9	12	9.3	8.2
14	4.2	4.4	2.7	21	2660	194	62	40	10	12	9.1	8.2
15	4.2	4.4	2.7	22	1800	184	3.8	40	14	12	8.9	8.0
16	4.2	4.4	2.7	22	660	209	3.7	40	24	12	8.9	7.9
17	4.2	4.4	2.6	21	387	221	3.7	40	165	12	8.8	7.8
18	4.2	4.4	2.7	20	291	249	14	33	200	12	8.6	7.9
19	3.9	4.4	2.7	20	850	235	20	14	112	12	8.6	8.0
20	4.0	4.4	2.7	20	432	222	20	28	47	11	8.5	8.2
21	4.1	4.4	2.7	20	315	220	34	40	31	11	8.6	8.2
22	4.2	4.4	2.8	20	252	218	61	34	25	11	8.6	8.2
23	4.2	4.4	2.8	20	222	205	61	22	21	11	8.7	8.2
24	4.2	5.4	2.8	20	218	119	61	22	18	11	8.7	8.8
25	4.2	31	2.8	20	215	201	61	28	17	11	8.5	9.3
26	4.2	209	2.8	20	200	187	61	35	16	11	8.5	9.3
27	4.2	194	2.8	20	189	164	61	35	16	11	8.3	9.3
28	4.2	129	2.8	20	170	136	61	35	15	11	8.2	9.4
29	4.2	88	3.0	20	---	121	61	32	14	11	8.2	9.5
30	4.2	107	3.2	675	---	111	61	28	14	11	8.4	9.0
31	4.2	---	3.2	250	---	105	---	23	---	11	8.5	---
TOTAL	128.4	862.2	615.8	1319.9	10271	5021	1945.2	1092.4	1047.9	373	288.4	253.7
MEAN	4.14	28.7	19.9	42.6	367	162	64.8	35.2	34.9	12.0	9.30	8.46
MAX	4.2	209	124	675	2660	249	125	61	200	14	11	9.5
MIN	3.9	3.9	2.5	3.1	35	83	3.7	3.7	8.9	11	8.2	7.8
AC-FT	255	1710	1220	2620	20370	9960	3860	2170	2080	740	572	503
CAL YR 1985	TOTAL	3397.28	MEAN	9.31	MAX	209	MIN	.54	AC-FT	6740		
WTR YR 1986	TOTAL	23218.9	MEAN	63.6	MAX	2660	MIN	2.5	AC-FT	46050		

VENTURA RIVER BASIN

11116550 VENTURA RIVER NEAR MEINERS OAKS, CA

LOCATION.--Lat 34°27'49", long 119°17'22", in NW 1/4 NE 1/4 sec.4, T.4 N., R.23 W., Ventura County, Hydrologic Unit 18070101, on right bank 500 ft downstream from Robles diversion dam, and 1.2 mi northwest of Meiners Oaks.

DRAINAGE AREA.--76.4 mi².

PERIOD OF RECORD.--May 1959 to September 1978, December 1980 to February 1983, January 1984 to current year. Since October 1985, only discharges below 200 ft³/s published.

GAGE.--Water-stage recorder and concrete control since December 1980. Datum of gage is 745.85 ft above National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Prior to Oct. 30, 1969, at datum 1.25 ft lower. Oct. 30, 1969, to Sept. 30, 1978, at site 500 ft upstream at datum 4.15 ft higher.

REMARKS.--Estimated daily discharges: Feb. 17, 18, Feb. 20 to Mar. 4. Records poor. Flow regulated by Matilija Reservoir, capacity, 1,480 acre-ft. Flow up to 500 ft³/s diverted since May 1959 at Robles diversion dam to Lake Casitas on Coyote Creek. Flow reported herein is discharge less than 200 ft³/s released downstream from Robles diversion dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s, Jan. 25, 1969, estimated on basis of peak flows at stations on nearby streams, gage height, unknown; no flow several months in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	24	4.5	18	.01	0	4.7	12	21	12	9.5
2		0	24	5.9	18	.01	0	4.6	12	18	14	9.3
3		0	24	4.9	18	.01	0	4.5	11	20	12	9.1
4		0	24	4.4	14	.01	0	4.4	12	20	12	9.0
5		0	24	5.2	2.9	0	0	12	13	21	12	8.5
6		0	22	4.3	.01	0	0	19	13	21	12	9.0
7		0	22	4.2	0	0	0	9.8	13	22	12	8.1
8		0	21	3.8	0	0	0	9.3	13	21	12	8.3
9		0	26	3.9	0	0	0	33	13	20	12	8.1
10		.14	9.4	6.8	0	0	0	53	13	21	12	7.6
11		6.2	8.2	8.6	0	0	0	39	13	21	12	7.5
12		5.3	6.6	8.8	0	0	0	28	15	20	12	7.5
13		2.7	5.3	11	149	0	0	39	9.9	19	11	7.3
14		1.8	4.5	19	---	0	0	42	11	17	11	7.3
15		1.8	4.0	19	---	0	0	34	9.4	17	12	8.4
16		1.7	3.6	20	---	0	0	20	11	17	11	9.2
17		.97	3.6	19	.10	0	0	13	17	13	11	9.2
18		1.0	3.6	19	.05	0	0	12	17	15	11	10
19		1.0	3.7	19	---	0	0	11	12	15	10	9.8
20		1.0	3.7	19	10	0	0	12	9.6	15	10	9.1
21		1.0	2.8	19	.05	0	0	11	16	14	10	9.7
22		1.0	2.8	19	.03	0	0	11	17	14	10	9.7
23		1.0	3.0	19	.03	0	0	11	22	14	10	9.8
24		7.4	3.8	19	.02	0	0	11	29	14	10	12
25		39	3.8	19	.02	0	0	12	16	15	9.8	13
26		24	3.8	19	.02	0	0	11	16	15	8.8	12
27		25	3.4	19	.02	0	0	12	45	14	8.9	12
28		25	3.6	20	.01	0	0	12	22	14	8.5	12
29		25	3.6	21	---	0	0	12	19	13	8.5	12
30		24	3.8	---	---	0	1.7	12	22	13	8.9	11
31		---	3.8	17	---	0	---	12	---	12	9.5	---
TOTAL	0	196.01	305.4	---	---	0.04	1.7	531.3	473.9	526	335.9	285.0
MEAN	0	6.53	9.85	---	---	.001	.057	17.1	15.8	17.0	10.8	9.50
MAX	0	39	26	---	---	.01	1.7	53	45	22	14	13
MIN	0	0	2.8	---	---	0	0	4.4	9.4	12	8.5	7.3
AC-FT	0	389	606	---	---	.08	3.4	1050	940	1040	666	565
CAL YR 1985	TOTAL	1215.05	MEAN	3.33	MAX	39	MIN	0	AC-FT	2410		

VENTURA RIVER BASIN

11117600 COYOTE CREEK NEAR OAK VIEW, CA

LOCATION.--Lat 34°25'00", long 119°22'11", in Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on left bank at Los Padres National Forest boundary, 0.8 mi upstream from Poplin Creek, and 4.2 mi northwest of Oak View.

DRAINAGE AREA.--13.2 mi².

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 577.37 ft U.S. Bureau of Reclamation datum. Prior to Oct. 1, 1980, at site 1,000 ft downstream at datum 16.90 ft lower.

REMARKS.--Estimated daily discharges: Nov. 26, 27, Jan. 31 to Feb. 3, Feb. 26, 27, May 9 to June 4. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--28 years, 8.20 ft³/s, 5,940 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft³/s, Jan. 25, 1969, gage height, 12.00 ft, site and datum then in use, from floodmarks, from rating curve extended above 2,100 ft³/s on basis of slope-area measurements at gage heights 9.10 ft and 12.00 ft; maximum gage height, 13.72 ft, Feb. 16, 1980, site and datum then in use, backwater from Casitas Reservoir; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*), from rating curve extended above 82 ft³/s on basis of slope-area measurements at gage heights 7.53 ft and 9.61 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 10	2215	292	3.87	Feb. 14	2145	*4,000	*9.61
Nov. 25	1430	1,400	6.36	Feb. 19	0600	1,050	5.69
Nov. 29	1245	1,200	5.97	Mar. 8	1145	713	4.94
Jan. 30	0145	1,600	6.72	Mar. 15	1600	574	4.61

Minimum daily, 0.27 ft³/s, Oct. 20, 24-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.33	10	.82	20	11	12	3.7	2.9	2.0	1.3	.98
2	.30	.33	49	.73	12	10	12	3.7	2.9	2.0	1.2	1.0
3	.30	.33	17	.52	6.8	9.4	11	3.7	2.9	2.0	1.0	1.0
4	.30	.33	5.2	1.1	4.8	9.4	11	3.7	2.9	2.3	1.2	.92
5	.30	.33	3.5	2.0	3.7	9.2	11	3.7	2.7	2.3	1.2	.60
6	.32	.33	2.5	1.3	3.2	8.9	35	3.7	2.4	2.3	1.2	.60
7	.33	.33	2.0	.97	2.9	8.7	13	3.7	2.5	2.1	1.2	.60
8	.33	.33	2.1	.80	4.8	67	7.0	3.7	2.5	1.8	1.2	.60
9	.35	.33	2.6	.72	4.5	16	6.3	3.7	2.5	1.9	1.3	.59
10	.42	12	2.5	.65	4.8	110	6.0	3.6	2.6	1.7	1.3	.48
11	.33	20	2.5	.62	5.1	36	5.8	3.6	2.7	1.7	1.3	.48
12	.37	1.9	2.3	.56	29	31	5.7	3.5	2.7	1.7	1.3	.68
13	.33	.96	2.3	.56	273	34	5.4	3.5	2.7	1.7	1.2	.72
14	.31	.71	2.1	.56	559	27	5.2	3.4	2.5	1.7	1.2	.71
15	.32	.59	2.1	.56	275	89	5.1	3.4	2.5	1.5	1.2	.60
16	.33	.50	1.8	.56	97	133	4.9	3.4	2.5	1.5	1.2	.60
17	.33	.48	1.8	.56	64	58	4.8	3.4	2.5	1.5	1.2	.78
18	.33	.48	1.6	.54	73	40	4.6	3.4	2.5	1.5	1.1	.86
19	.34	.48	1.5	.48	212	32	4.6	3.3	2.3	1.5	1.2	.85
20	.27	.48	1.4	.48	56	27	4.5	3.3	2.3	1.3	1.3	.72
21	.42	.48	1.3	.45	34	24	4.3	3.3	2.3	1.3	1.1	.72
22	.37	.45	1.2	.43	24	22	4.3	3.2	2.5	1.3	.93	.90
23	.31	.40	1.2	.40	19	20	4.3	3.2	2.5	1.3	1.2	1.0
24	.27	9.3	1.2	.40	14	18	4.3	3.2	2.3	1.4	1.2	3.1
25	.27	179	1.2	.38	13	17	4.3	3.1	2.1	1.5	1.2	3.1
26	.27	12	1.1	.33	12	16	4.4	3.1	2.3	1.5	1.2	1.7
27	.27	2.9	.84	.33	11	15	3.9	3.1	2.3	1.4	1.2	1.4
28	.27	1.9	.84	.33	11	14	3.7	3.1	2.1	1.3	1.0	1.2
29	.27	130	.85	5.2	---	14	3.7	3.0	2.1	1.2	1.0	1.1
30	.31	20	.92	182	---	13	3.7	3.0	2.0	1.3	1.0	.91
31	.33	---	.84	38	---	12	---	3.0	---	1.3	.94	---
TOTAL	9.89	397.98	127.29	243.34	1848.6	951.6	215.8	105.4	74.5	50.8	36.27	29.50
MEAN	.32	13.3	4.11	7.85	66.0	30.7	7.19	3.40	2.48	1.64	1.17	.98
MAX	.42	179	49	182	559	133	35	3.7	2.9	2.3	1.3	3.1
MIN	.27	.33	.84	.33	2.9	8.7	3.7	3.0	2.0	1.2	.93	.48
AC-FT	20	789	252	483	3670	1890	428	209	148	101	72	59

VENTURA RIVER BASIN

11117800 SANTA ANA CREEK NEAR OAK VIEW, CA

LOCATION.--Lat 34°25'25", long 119°20'25", in Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on upstream end of right abutment of bridge on Santa Ana Road, 400 ft upstream from unnamed tributary, and 3.0 mi northwest of Oak View.

DRAINAGE AREA.--9.11 mi².

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 612.43 ft U.S. Bureau of Reclamation datum. Prior to Aug. 17, 1970 on downstream end of right abutment at same datum.

REMARKS.--Estimated daily discharges: Nov. 10, 11, 26, 27, Dec. 3, 4, Feb. 15, 16, Mar. 11-16. Records fair. Low flow slightly regulated by one small reservoir upstream. Some small diversions above station.

AVERAGE DISCHARGE.--28 years, 6.24 ft³/s, 4,520 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,330 ft³/s, Mar. 4, 1978, gage height, 10.01 ft, from rating curve extended above 1,000 ft³/s on basis of slope-area measurement at gage height 8.57 ft, maximum gage height, 10.70 ft, Jan. 25, 1969; no flow at times in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, reached a discharge of 3,780 ft³/s, by slope-area measurement at site 2.0 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 25	1330	987	7.07	Feb. 14	2145	*2,730	*9.89
Nov. 29	1315	926	6.98	Feb. 19	0500	879	7.08
Dec. 2	1130	235	5.43	Mar. 8	1145	308	5.47
Jan. 30	0215	1,970	8.19	Mar. 15	Unknown	Unknown	Unknown

No flow many months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	15	.88	22	15	14	4.0	2.3	1.1	.60	.14
2		0	53	.88	15	13	13	3.8	2.2	.92	.42	.14
3		0	16	.62	11	12	11	3.8	2.1	1.1	.54	.13
4		0	7.2	1.8	9.4	11	10	3.3	1.9	1.2	.54	.12
5		0	5.4	3.3	7.4	10	10	3.2	2.0	1.2	.39	.12
6		0	4.2	1.7	6.3	9.8	22	3.5	1.9	1.3	.31	.11
7		0	3.5	.94	5.5	9.5	12	2.9	1.8	1.0	.38	.11
8		0	3.1	1.1	5.0	46	8.9	3.0	1.6	1.2	.41	.10
9		0	2.9	1.3	4.2	28	8.2	2.8	1.7	1.2	.38	.10
10		8.0	2.4	1.2	3.7	91	7.5	2.8	1.7	1.1	.37	.09
11		12	1.9	1.1	3.4	30	7.3	2.7	1.7	1.1	.37	.09
12		.31	1.7	1.1	21	26	7.3	2.7	1.4	.93	.35	.09
13		.08	1.6	1.1	297	29	7.0	2.6	1.7	1.0	.30	.09
14		.05	1.3	1.0	552	23	6.7	2.7	1.6	.95	.26	.09
15		.04	1.1	1.1	375	95	6.5	2.4	1.6	.93	.23	.09
16		.03	.95	.87	110	130	6.3	2.2	1.5	.92	.24	.09
17		.02	1.1	.85	69	79	6.0	2.6	1.5	.96	.22	.09
18		.02	1.1	.84	63	64	5.7	2.4	1.3	.93	.20	.09
19		.03	1.1	.83	191	55	5.5	2.4	1.3	.89	.20	.09
20		.04	1.0	.82	72	46	5.3	2.4	1.5	.88	.20	.09
21		.03	.98	.71	52	40	5.1	2.4	1.5	.87	.19	.09
22		.03	.84	.93	41	37	5.1	2.2	1.6	.56	.18	.09
23		.03	.70	.98	33	34	5.0	1.7	1.5	.84	.17	.09
24		18	.70	.81	27	31	4.9	2.1	1.4	.88	.16	.35
25		142	.66	.56	24	28	4.8	2.3	1.5	.87	.16	.66
26		15	.67	.90	21	25	4.7	2.3	1.4	.86	.15	.36
27		3.2	.66	.91	19	22	4.3	2.2	1.4	.49	.15	.33
28		1.9	.66	.53	16	20	4.0	2.2	1.3	.78	.14	.33
29		93	.82	7.1	---	18	3.9	2.2	.89	.71	.14	.28
30		20	.95	216	---	17	4.1	2.3	1.1	.65	.13	.27
31		---	.86	40	---	15	---	2.3	---	.63	.13	---
TOTAL	0	313.81	134.05	292.76	2075.9	1109.3	226.1	82.4	47.89	28.95	8.61	4.91
MEAN	0	10.5	4.32	9.44	74.1	35.8	7.54	2.66	1.60	.93	.28	.16
MAX	0	142	53	216	552	130	22	4.0	2.3	1.3	.60	.66
MIN	0	0	.66	.53	3.4	9.5	3.9	1.7	.89	.49	.13	.09
AC-FT	0	622	266	581	4120	2200	448	163	95	57	17	9.7

VENTURA RIVER BASIN

11117900 LAKE CASITAS NEAR CASITAS SPRINGS, CA

LOCATION.--Lat 34°22'24", long 119°19'56", in Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on left end of dam on Coyote Creek, 1.5 mi west of Casitas Springs.

DRAINAGE AREA.--38.6 mi².

PERIOD OF RECORD.--December 1978 to current year. Prior to October 1985, monthend elevation, NGVD, and contents only. Daily readings prior to December 1978 in files of Casitas Municipal Water District.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill dam. Storage began January 1959. Capacity table is dated December 1958. Usable capacity, 250,835 acre-ft between bottom of lowest outlet gate at elevation 350.00 ft and crest of spillway at elevation 567.00 ft. Dead storage, 3,167 acre-ft, included in contents. Flow from Ventura River is diverted at Robles Diversion Dam through concrete canal to Lake Casitas and is included in these records.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 260,100 acre-ft, Feb. 21, 1980, elevation, 569.24 ft; minimum, 196,400 acre-ft, Nov. 24, 1985, elevation, 544.18 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 255,000 acre-ft, May 2, elevation, 567.36 ft; minimum, 196,400 acre-ft, Nov. 24, elevation, 544.18 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

540	186,800	560	235,400
545	198,300	565	248,600
550	210,300	570	262,200
555	222,600		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATION AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200400	197600	200200	200600	203700	230000	249600	255000	253300	251900	248200	244400
2	200300	197500	200700	200600	204200	230300	249900	254800	253200	251700	248200	244300
3	200200	197500	201000	200600	204600	230600	250300	254800	253200	251600	248100	244200
4	200100	197400	201100	200700	205000	231000	250500	254800	253100	251500	247900	244100
5	199900	197300	201200	200700	205000	231300	250800	254900	253100	251400	247800	244000
6	199900	197200	201200	200700	205100	231600	251500	254800	253000	251300	247700	243900
7	199800	197200	201300	200600	205400	231600	251900	254600	252900	251200	247500	243900
8	199700	197100	201300	200600	205600	232500	252300	254500	252900	251100	247400	243800
9	199500	197000	201200	200600	205600	233200	252700	254500	252900	250900	247300	243700
10	199500	197100	201200	200600	205700	234500	252700	254400	252800	250800	247100	243600
11	199300	197100	201200	200500	205800	235300	253100	254300	252700	250700	247000	243500
12	199200	197100	201100	200500	206200	236100	253300	254200	252600	250700	246900	243400
13	199100	197000	201100	200500	209300	236800	253500	254100	252500	250500	246800	243300
14	199000	196900	201100	200500	214100	237600	253700	254000	252400	250400	246700	243200
15	198900	196900	201100	200500	216400	238800	253800	254000	252400	250300	246600	243000
16	198800	196800	201000	200400	217900	240700	253600	253900	252300	250200	246400	243000
17	198600	196800	201000	200400	219100	241600	253700	253900	252400	250000	246400	242800
18	198600	196700	201000	200400	220000	242600	253900	253900	252800	249900	246300	242600
19	198500	196600	201000	200300	222500	243400	253800	253900	252900	249800	246300	242500
20	198300	196600	200900	200300	223600	244100	253900	253800	252900	249700	246100	242400
21	198400	196500	200900	200300	224900	244800	254100	253800	252800	249600	246000	242300
22	198300	196500	200800	200300	225800	245500	254100	253700	252800	249500	245900	242200
23	198300	196400	200800	200200	226600	246100	254100	253700	252700	249300	245700	242100
24	198200	196800	200800	200200	227300	246500	254400	253600	252600	249200	245600	242300
25	198100	197800	200700	200200	227900	247000	254400	253600	252500	249100	245300	242300
26	198100	198200	200700	200200	228400	247600	254500	253600	252400	248900	245200	242200
27	198000	198500	200700	200100	229100	248100	254600	253500	252400	248800	245100	242200
28	197900	198900	200700	200100	229600	248500	254700	253500	252200	248700	245000	242100
29	197900	199800	200700	200200	---	248800	254800	253500	252100	248600	244800	242100
30	197800	200000	200600	200200	---	249100	254800	253400	252100	248500	244700	242100
31	197700	---	200600	203100	---	249300	---	253300	---	248300	244600	---
MAX	200400	200000	201300	203100	229600	249300	254800	255000	253300	251900	248200	244400
MIN	197700	196400	200200	200100	203700	230000	249600	253300	252100	248300	244600	242100
a	544.73	545.72	545.97	547.02	557.73	565.26	567.29	566.75	566.28	564.90	563.48	562.55
b	-2900	+2300	+600	+2500	+26500	+19700	+5500	-1500	-1200	-3800	-3700	-2500

CAL YR 1985 b -22400

WTR YR 1986 b +41700

VENTURA RIVER BASIN

11118500 VENTURA RIVER NEAR VENTURA, CA

LOCATION.--Lat 34°21'08", long 119°18'27", in southeast corner of Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on right bank 50 ft downstream from bridge on Casitas Pass Road at Foster Memorial Park, 0.2 mi downstream from Coyote Creek, and 5 mi north of Ventura.

DRAINAGE AREA.--188 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to January 1914, October 1929 to current year; combined records of river and diversion, October 1932 to current year.

GAGE.--Water-stage recorder on river; water-stage recorder and Parshall flume on diversion. Datum of gage is 205.23 ft Ventura County Flood Control datum. See WSP 1315-B for history of changes prior to Nov. 2, 1949. Nov. 2, 1949, to June 12, 1969, at site 450 ft downstream at datum 4.00 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 24, Dec. 21-24, Jan. 30, 31, Feb. 5-12, 16-28, Mar. 1-9, 12-14, 23-31, Apr. 1-5, 7-25. Records poor. Flow partly regulated since March 1948 by Matilija Reservoir, usable capacity, 1,475 acre-ft, and since October 1959 by Casitas Reservoir, capacity, 267,000 acre-ft. Water diverted to Casitas Reservoir on Coyote Creek since January 1959. Diversion by city of Ventura for municipal supply began prior to 1911. AVERAGE DISCHARGE (river only) represents flow to ocean regardless of upstream development. For records of combined discharge of river and Ventura City diversion, see following page.

AVERAGE DISCHARGE.--River only: 59 years (water years 1912-13, 1930-86), 61.2 ft³/s, 44,340 acre-ft/yr. Combined river and diversion: 54 years, 70.9 ft³/s, 51,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 63,600 ft³/s, Feb. 10, 1978, gage height, 19.14 ft, from rating curve extended above 34,000 ft³/s; maximum gage height, 24.3 ft, Jan. 25, 1969, present datum, from floodmarks; no flow at times in many years. Combined river and diversion: Maximum discharge, 63,600 ft³/s, Feb. 10, 1978; no flow Nov. 28, 29, 1977.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 22,100 ft³/s, Feb. 14, gage height, 13.37 ft; minimum daily, 0.02 ft³/s many days in November. Combined river and diversion: Maximum discharge, 22,100 ft³/s, Feb. 14; minimum daily, 1.0 ft³/s, Oct. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.03	16	.88	44	30	19	23	24	16	4.1	7.6
2	.06	.03	84	.69	35	27	17	24	16	9.7	4.5	4.6
3	.06	.02	23	.74	31	27	16	30	11	8.8	8.5	6.7
4	.06	.02	17	1.4	30	26	15	36	11	12	9.2	2.9
5	.06	.02	13	2.2	21	25	20	38	15	15	5.3	2.7
6	.06	.02	11	1.3	17	25	188	34	12	18	4.7	5.0
7	.06	.02	9.5	.65	13	25	90	31	12	13	4.4	7.5
8	.06	.02	9.2	.63	12	180	46	26	20	9.7	4.4	4.3
9	.06	.02	10	.63	11	70	33	22	13	9.7	5.0	3.0
10	.05	.02	6.7	.60	11	489	25	59	6.1	12	8.0	3.2
11	.05	.02	4.2	.50	10	140	20	67	6.8	13	8.0	3.6
12	.05	.02	3.4	.78	12	110	19	42	7.7	11	5.3	3.9
13	.05	.02	2.2	1.0	1070	70	18	46	8.7	14	4.7	7.8
14	.05	.02	1.7	.50	5420	40	16	59	13	15	4.5	11
15	.05	.02	2.0	.41	5040	208	15	59	16	11	4.7	6.0
16	.04	.02	1.8	.38	700	740	15	47	11	8.4	6.6	13
17	.04	.02	1.3	.41	150	241	13	28	6.4	4.3	9.6	12
18	.04	.02	1.2	.46	145	161	13	32	8.8	3.7	7.8	2.7
19	.04	.02	1.0	1.1	1500	118	16	26	8.6	4.8	7.1	2.9
20	.04	.02	1.0	.44	300	92	17	21	8.6	6.4	5.5	4.8
21	.04	.02	1.1	.48	140	68	17	23	11	4.3	5.0	8.1
22	.04	.02	1.0	.46	105	58	17	24	14	3.5	3.4	6.0
23	.04	.02	.90	.44	70	40	15	20	10	3.3	2.4	3.8
24	.03	.05	.80	.44	50	38	15	23	7.4	3.1	4.1	5.3
25	.03	7.5	.74	.50	45	32	16	25	7.7	3.2	3.9	7.3
26	.03	11	.79	.55	40	30	17	21	10	4.4	2.7	5.8
27	.03	4.4	.86	.49	36	28	18	12	11	8.8	2.7	8.6
28	.03	2.7	.85	.47	33	26	16	15	9.6	14	2.6	11
29	.03	74	.83	.51	---	24	17	16	14	8.2	2.5	9.0
30	.03	25	.83	1200	---	22	20	20	13	6.4	2.8	4.0
31	.03	---	.88	120	---	20	---	23	---	4.4	8.9	---
TOTAL	1.40	125.13	228.78	1340.04	15091	3230	799	972	343.4	279.1	162.9	184.1
MEAN	.045	4.17	7.38	43.2	539	104	26.6	31.4	11.4	9.00	5.25	6.14
MAX	.06	74	84	1200	5420	740	188	67	24	18	9.6	13
MIN	.03	.02	.74	.38	10	20	13	12	6.1	3.1	2.4	2.7
AC-FT	2.8	248	454	2660	29930	6410	1580	1930	681	554	323	365

VENTURA RIVER BASIN

11118500 VENTURA RIVER NEAR VENTURA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1907 to December 1908, water years 1967 to current year.

CHEMICAL DATA: December 1907 to December 1908, water years 1967-79.

WATER TEMPERATURE: Water years 1969, 1971-73, 1975 to current year.

SEDIMENT DATA: Water years 1969-73, 1975 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1968 to September 1969, October 1970 to September 1973, October 1974 to September 1981, October 1985 to September 1986 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: October 1968 to September 1973, October 1974 to September 1981, October 1985 to September 1986 (discontinued).

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling. Surface-bed material particle sizes were determined by particle count and are available in the files of U.S. Geological Survey. Bedload discharge values are based on Helley-Smith bedload samples and Meyer-Peter-Muller bedload computation.

EXTREMES FOR PERIODS OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 32,000 mg/L, estimated, Jan. 25, 1969; minimum daily mean, no flow many days in most years.

SEDIMENT LOAD: Maximum daily, 2,220,000 tons, estimated, Jan. 25, 1969; minimum daily, 0 ton on many days in most years.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 8,420 mg/L, Feb. 14; minimum daily mean, 2 mg/L, Sept. 26, 27.

SEDIMENT LOAD: Maximum daily, 340,000 tons, Feb. 14; minimum daily, 0 ton many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	17.0	15.0	12.5	17.0	16.0	---	---	---	---	---
2	---	16.0	14.0	---	---	17.0	---	---	20.0	20.0	---	---
3	---	18.0	14.0	13.0	13.0	18.0	24.0	---	---	22.0	---	19.5
4	---	---	---	---	---	14.0	17.0	---	19.5	22.0	27.0	---
5	---	18.0	---	17.0	13.0	15.0	18.0	---	22.0	22.0	25.0	---
6	---	17.0	---	15.0	---	15.0	17.0	18.0	---	22.0	---	22.0
7	---	---	---	---	14.0	15.0	15.0	---	---	22.0	26.0	23.0
8	---	16.0	---	---	12.0	15.0	23.0	---	---	21.0	27.0	22.0
9	---	---	14.0	---	---	16.0	---	---	---	22.0	25.0	21.0
10	23.0	19.0	14.0	---	14.0	14.0	---	---	23.0	21.0	25.0	21.0
11	---	20.0	15.0	15.0	13.0	20.0	---	---	24.0	22.0	24.0	22.0
12	---	---	---	17.0	---	18.0	---	---	24.0	22.0	19.5	22.0
13	22.5	17.0	---	---	17.5	16.0	17.0	---	22.0	23.0	23.0	21.0
14	---	---	13.0	12.0	15.0	10.0	17.0	---	23.0	23.0	19.0	21.0
15	18.0	15.0	---	---	15.5	15.0	18.0	---	23.0	23.0	19.0	22.0
16	22.0	---	---	---	15.0	12.5	17.0	---	23.0	23.0	25.0	22.0
17	---	16.0	15.0	14.0	14.0	18.0	17.0	---	25.0	23.0	23.0	22.0
18	21.0	---	14.0	---	16.5	15.0	23.0	---	25.0	23.0	24.0	22.0
19	---	12.0	---	17.0	17.0	18.0	23.0	---	19.0	23.0	25.0	21.0
20	18.0	---	19.0	14.0	18.0	15.0	18.0	---	---	---	22.0	22.0
21	22.0	10.0	---	17.0	17.0	22.0	---	---	---	23.0	24.0	22.0
22	---	---	---	---	18.0	25.0	---	20.0	---	23.0	22.5	22.0
23	---	16.0	14.0	---	18.0	16.0	---	21.0	---	23.0	23.0	21.0
24	20.0	16.0	11.0	---	17.0	16.0	---	23.0	---	23.0	22.0	21.0
25	---	18.0	---	15.0	15.0	19.0	---	---	---	---	---	22.0
26	---	---	11.0	17.0	14.0	20.0	20.0	---	---	24.0	---	19.0
27	---	17.5	---	---	15.0	24.0	23.0	23.0	---	23.0	---	22.0
28	18.0	17.5	12.0	15.0	16.0	15.0	22.0	23.0	---	25.0	---	23.0
29	---	---	---	---	---	20.0	22.0	22.0	---	---	---	---
30	---	17.5	13.0	14.0	---	23.0	22.0	23.0	---	---	---	17.0
31	---	---	---	14.0	---	15.0	---	23.0	---	---	---	---

VENTURA RIVER BASIN

11118500 VENTURA RIVER NEAR VENTURA, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	.06	---	.00	.03	---	.00	16	200	8.6
2	.06	---	.00	.03	36	.00	84	2290	1090
3	.06	---	.00	.02	20	.00	23	424	32
4	.06	---	.00	.02	---	.00	17	220	10
5	.06	---	.00	.02	38	.00	13	220	7.7
6	.06	---	.00	.02	30	.00	11	220	6.5
7	.06	---	.00	.02	---	.00	9.5	220	5.6
8	.06	---	.00	.02	43	.00	9.2	---	5.2
9	.06	---	.00	.02	---	.00	10	230	6.2
10	.05	---	.00	.02	---	.00	6.7	230	4.2
11	.05	---	.00	.02	52	.00	4.2	240	2.7
12	.05	---	.00	.02	---	.00	3.4	---	1.1
13	.05	---	.00	.02	---	.00	2.2	---	.48
14	.05	---	.00	.02	---	.00	1.7	42	.19
15	.05	---	.00	.02	---	.00	2.0	---	.38
16	.04	14	.00	.02	---	.00	1.8	---	.32
17	.04	---	.00	.02	---	.00	1.3	52	.18
18	.04	37	.00	.02	---	.00	1.2	---	.13
19	.04	---	.00	.02	36	.00	1.0	---	.10
20	.04	21	.00	.02	---	.00	1.0	---	.10
21	.04	22	.00	.02	42	.00	1.1	---	.12
22	.04	24	.00	.02	---	.00	1.0	---	.10
23	.04	26	.00	.02	35	.00	.90	25	.06
24	.03	28	.00	.05	---	.01	.80	---	.05
25	.03	30	.00	7.5	361	16	.74	---	.05
26	.03	32	.00	11	---	12	.79	5	.01
27	.03	34	.00	4.4	118	1.4	.86	---	.02
28	.03	36	.00	2.7	---	.70	.85	10	.02
29	.03	38	.00	74	---	800	.83	---	.02
30	.03	40	.00	25	---	25	.83	10	.02
31	.03	45	.00	---	---	---	.88	---	.02
TOTAL	1.40	---	0.00	125.13	---	855.11	228.78	---	1182.17
JANUARY			FEBRUARY			MARCH			
1	.88	12	.03	44	1900	226	30	40	3.2
2	.69	---	.03	35	1200	113	27	---	2.8
3	.74	24	.05	31	425	36	27	37	2.7
4	1.4	---	.11	30	---	32	26	---	2.8
5	2.2	34	.20	21	---	20	25	50	3.4
6	1.3	---	.12	17	---	14	25	---	3.4
7	.65	---	.04	13	---	8.4	25	---	3.4
8	.63	---	.03	12	195	6.3	180	---	400
9	.63	---	.03	11	---	5.9	70	---	60
10	.60	---	.03	11	205	6.1	489	1880	2780
11	.50	20	.03	10	142	3.8	140	---	227
12	.78	17	.04	12	---	6.5	110	---	149
13	1.0	---	.09	1070	3550	14900	70	---	76
14	.50	8	.01	5420	8420	340000	40	---	43
15	.41	7	.01	5040	7970	210000	208	---	520
16	.38	---	.01	700	---	5200	740	4560	9480
17	.41	7	.01	150	940	381	241	---	1500
18	.46	---	.01	145	720	282	161	550	239
19	1.1	5	.01	1500	3260	23600	118	---	180
20	.44	16	.02	300	1200	972	92	---	110
21	.48	12	.02	140	---	250	68	---	50
22	.46	---	.02	105	---	150	58	---	36
23	.44	14	.02	70	---	60	40	---	18
24	.44	10	.01	50	---	20	38	---	16
25	.50	7	.01	45	---	12	32	---	10
26	.55	25	.04	40	35	3.8	30	---	7.0
27	.49	---	.03	36	---	3.7	28	---	5.0
28	.47	12	.02	33	40	3.6	26	---	4.5
29	.51	---	.02	---	---	---	24	---	4.0
30	1200	6870	51100	---	---	---	22	---	3.5
31	120	2880	1550	---	---	---	20	---	3.0
TOTAL	1340.04	---	52651.10	15091	---	596316.1	3230	---	15942.7

VENTURA RIVER BASIN

11118500 VENTURA RIVER NEAR VENTURA, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	19		2.8	23	---	3.8	24	---	7.1
2	17		2.2	24	---	4.0	16	85	3.7
3	16		2.0	30	---	5.6	11	---	1.3
4	15		1.8	36	---	7.0	11	40	1.2
5	20		3.0	38	---	8.0	15	44	1.8
6	188		450	34	67	6.2	12	---	1.2
7	90		100	31	---	6.0	12	---	1.1
8	46		15	26	---	4.4	20	---	3.0
9	33		6.0	22	---	3.5	13	---	1.4
10	25		4.0	59	---	35	6.1	---	.33
11	20		3.0	67	---	50	6.8	15	.28
12	19		2.8	42	16	1.8	7.7	20	.42
13	18		2.5	46	---	2.2	8.7	18	.42
14	16		2.0	59	---	3.2	13	16	.56
15	15		1.8	59	---	3.2	16	29	1.3
16	15		1.8	47	9	1.1	11	29	.86
17	13		1.5	28	---	1.1	6.4	23	.40
18	13		1.5	32	---	2.6	8.8	18	.43
19	16		2.0	26	---	2.5	8.6	27	.63
20	17		2.2	21	---	2.2	8.6	---	.70
21	17		2.2	23	---	2.5	11	---	1.0
22	17		2.2	24	---	2.7	14	---	1.5
23	15		1.8	20	---	2.2	10	---	.95
24	15		1.8	23	---	4.0	7.4	---	.30
25	16		2.0	25	---	5.4	7.7	---	.31
26	17		2.2	21	---	3.1	10	---	.95
27	18		2.5	12	---	2.4	11	---	1.2
28	16		2.0	15	---	4.1	9.6	---	.91
29	17		2.2	16	122	5.3	14	---	1.5
30	20		3.0	20	121	6.5	13	---	1.2
31	---			23	136	8.4	---	---	---
TOTAL	799	---	629.8	972	---	200.0	343.4	---	37.95
JULY			AUGUST			SEPTEMBER			
1	16	---	1.7	4.1	---	.11	7.6	---	.15
2	9.7	23	.60	4.5	---	.12	4.6	---	.12
3	8.8	18	.43	8.5	---	.69	6.7	---	.27
4	12	---	.65	9.2	42	1.0	2.9	---	.04
5	15	21	.85	5.3	35	.50	2.7	---	.04
6	18	19	.92	4.7	---	.32	5.0	---	.14
7	13	15	.53	4.4	22	.26	7.5	4	.08
8	9.7	14	.37	4.4	24	.29	4.3	8	.09
9	9.7	---	.37	5.0	---	.34	3.0	---	.05
10	12	---	1.6	8.0	---	.76	3.2	---	.06
11	13	79	2.8	8.0	---	.76	3.6	---	.08
12	11	76	2.3	5.3	19	.27	3.9	9	.09
13	14	---	2.6	4.7	11	.14	7.8	5	.11
14	15	---	.45	4.5	12	.15	11	6	.18
15	11	---	.30	4.7	13	.16	6.0	7	.11
16	8.4	9	.20	6.6	6	.11	13	5	.18
17	4.3	8	.09	9.6	8	.21	12	4	.13
18	3.7	10	.10	7.8	6	.13	2.7	6	.04
19	4.8	18	.23	7.1	7	.13	2.9	5	.04
20	6.4	---	.52	5.5	---	.10	4.8	4	.05
21	4.3	25	.29	5.0	6	.08	8.1	6	.13
22	3.5	20	.19	3.4	---	.06	6.0	5	.08
23	3.3	15	.13	2.4	7	.05	3.8	4	.04
24	3.1	15	.13	4.1	8	.09	5.3	6	.09
25	3.2	---	.10	3.9	---	.07	7.3	4	.08
26	4.4	16	.19	2.7	---	.04	5.8	2	.03
27	8.8	10	.24	2.7	---	.04	8.6	2	.05
28	14	12	.45	2.6	---	.04	11	---	.18
29	8.2	---	.22	2.5	---	.04	9.0	---	.12
30	6.4	---	.17	2.8	---	.06	4.0	---	.04
31	4.4	---	.12	8.9	---	.22	---	---	---
TOTAL	279.1	---	19.84	162.9	---	7.34	184.1	---	2.89

VENTURA RIVER BASIN

11118500 VENTURA RIVER NEAR VENTURA, CA--Continued

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1985	1.40	0.00	0	0
NOVEMBER ...	125.13	855.11	2	857
DECEMBER ...	228.78	1182.17	4	1190
JANUARY 1986	1340.04	52651.10	167	52800
FEBRUARY ...	15091.00	596316.10	7490	604000
MARCH	3230.00	15942.70	123	16100
APRIL	799.00	629.80	14	644
MAY	972.00	200.00	13	213
JUNE	343.00	37.95	6	44
JULY	279.10	19.84	5	25
AUGUST	162.90	7.34	3	10
SEPTEMBER ..	184.10	2.89	3	6
TOTAL	22756.85	667845.00	7830	675889

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
DEC							
02...	1230	151	14.0	2010	819	29	44
02...	1250	198	14.0	2600	1390	26	40
JAN							
30...	1715	723	14.0	22200	43300	36	48
FEB							
13...	1100	905	17.5	3050	7450	32	45
15...	1040	2860	--	5480	42300	25	36
DATE	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
DEC							
02...	74	91	96	98	99	100	--
02...	68	92	100	--	--	100	--
JAN							
30...	67	85	97	--	--	100	--
FEB							
13	57	71	84	94	97	99	100
15	46	65	80	88	92	96	98

VENTURA RIVER BASIN

11118501 VENTURA RIVER NEAR VENTURA, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF VENTURA RIVER AND VENTURA
CITY DIVERSION NEAR VENTURA, WATER YEAR OCTOBER 1985 to SEPTEMBER 1986

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	4.5	24	7.7	50	37	33	39	34	27	19	22
2	4.8	4.5	92	9.6	41	33	28	41	32	24	17	16
3	4.8	4.5	31	9.8	37	35	30	42	27	25	18	21
4	4.9	4.4	25	8.8	36	41	29	49	27	25	23	17
5	4.9	4.4	21	10	26	38	30	49	30	27	21	17
6	4.5	5.7	18	11	23	36	194	57	30	26	21	15
7	4.9	6.5	17	10	19	37	100	46	25	29	19	17
8	4.8	6.2	16	10	17	190	63	43	28	27	19	18
9	4.8	6.1	17	10	17	78	50	39	29	25	16	16
10	4.8	5.9	14	10	16	498	38	71	23	27	19	15
11	4.8	5.8	11	10	15	152	32	76	23	29	22	16
12	4.8	6.0	11	9.4	17	122	30	59	24	24	20	17
13	4.8	6.3	11	9.2	1080	81	29	64	24	24	20	16
14	4.7	6.3	11	9.9	5430	51	29	78	25	30	20	19
15	6.4	6.2	10	9.8	5050	215	31	76	25	27	20	17
16	7.2	6.1	9.9	9.7	710	744	29	64	28	24	16	18
17	6.8	6.1	9.9	9.7	151	242	26	39	21	20	19	24
18	5.5	6.0	10	8.6	156	162	30	41	25	19	22	19
19	4.3	5.9	10	9.0	1510	124	29	43	24	16	23	14
20	4.3	5.8	10	4.6	312	102	27	37	24	16	22	15
21	4.3	5.8	9.6	9.9	152	76	31	40	22	19	20	17
22	4.7	5.7	8.9	9.0	116	66	33	39	25	20	18	19
23	4.2	5.7	9.6	8.7	81	50	30	36	26	19	13	16
24	4.2	5.8	9.6	8.4	58	51	31	34	23	18	14	19
25	4.2	14	8.2	8.3	55	45	29	35	24	18	18	21
26	2.0	19	7.3	8.6	50	42	25	37	25	14	17	19
27	1.0	12	9.8	8.4	50	42	29	30	26	18	18	18
28	3.1	11	11	8.3	42	35	35	30	22	29	17	20
29	4.5	81	10	9.7	---	34	34	33	22	24	18	23
30	4.5	33	9.8	1210	---	31	36	33	25	21	14	18
31	4.6	---	9.0	126	---	32	---	36	---	21	16	---
TOTAL	143.0	306.2	481.6	1602.1	15317	3522	1200	1436	768	712	579	539
MEAN	4.61	10.2	15.5	51.7	547	114	40.0	46.3	25.6	23.0	18.7	18.0
MAX	7.2	81	92	1210	5430	744	194	78	34	30	23	24
MIN	1.0	4.4	7.3	4.6	15	31	25	30	21	14	13	14
AC-FT	284	607	955	3180	30380	6990	2380	2850	1520	1410	1150	1070
CAL YR 1985	TOTAL	4283.8	MEAN	11.7	MAX	92	MIN	1.0	AC-FT	8500		
WTR YR 1986	TOTAL	26605.9	MEAN	72.9	MAX	5430	MIN	1.0	AC-FT	52770		

CARPINTERIA CREEK BASIN

11119500 CARPINTERIA CREEK NEAR CARPINTERIA, CA

LOCATION.--Lat 34°24'05", long 119°29'08", in El Rincon Grant, Santa Barbara County, Hydrologic Unit 18060013, on right bank 100 ft upstream from bridge on State Highway 192, 165 ft downstream from Gobernador Creek, and 1.8 mi northeast of Carpinteria.

DRAINAGE AREA.--13.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1941 to September 1977, October 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 130 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 1, 1958, at site 100 ft downstream, at datum 6.00 ft higher. July 2, 1958, to Aug. 27, 1970, at site 65 ft downstream at datum 4.00 ft higher. Aug. 28, 1970, to Sept. 30, 1977, at site 100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 11, Feb. 17-19. Records fair. No regulation above station. Gobernador Land and Water Co. diverts from Gobernador Creek 1.8 mi above station. Small lake 0.8 mi southeast of station and outside the drainage area stores storm runoff and surplus water diverted by Gobernador Land and Water Co. from Gobernador Creek. At times this lake is drained by pumping water back into Gobernador Creek 1,000 ft above station.

AVERAGE DISCHARGE.--44 years (water years 1942-77, 1979-86), 3.11 ft³/s, 2,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 ft³/s, Dec. 27, 1971, gage height, 14.10 ft, from floodmark, from rating curve extended above 130 ft³/s on basis of slope-area measurement of maximum flow; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 125 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	2230	*1,180	*6.50	Feb. 19	Unknown	411	5.27

No flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	1.2	0	2.7	21	3.3	1.3	.30			0
2	0	0	4.0	0	.57	23	3.1	1.1	.29			0
3	0	0	1.7	0	.38	8.5	2.8	1.0	.23			0
4	0	0	.71	.06	.25	5.7	2.7	1.1	.14			0
5	0	0	.47	.17	.18	1.7	2.9	.97	.16			0
6	0	0	.33	.08	.14	2.9	8.5	1.0	.19			0
7	0	0	.24	.01	.13	3.8	4.5	.82	.13			0
8	0	0	.14	0	.14	30	3.2	.80	.06			0
9	0	0	.14	0	.12	7.2	2.8	.74	.02			0
10	0	.09	.14	0	.12	42	2.5	.67	.02			0
11	0	7.7	.14	0	.11	19	2.5	.69	0			0
12	0	.85	.13	0	.42	12	2.5	.73	0			0
13	0	.28	.14	0	52	17	2.2	.77	0			0
14	0	.15	.13	0	141	14	2.0	.81	0			0
15	0	.11	.11	0	80	34	2.0	.78	0			0
16	0	.01	.08	0	13	81	2.0	.71	0			0
17	0	0	.06	0	8.0	40	1.9	.57	0			0
18	0	0	.03	0	5.0	24	1.8	.42	0			0
19	0	0	.03	0	80	17	1.8	.37	0			0
20	0	0	0	0	33	12	1.6	.38	0			0
21	0	0	0	0	16	9.7	1.5	.46	0			0
22	0	0	0	0	11	7.3	1.5	.49	0			0
23	0	0	0	0	10	6.8	1.6	.45	0			0
24	0	.03	0	0	6.3	6.2	1.6	.40	0			.65
25	0	12	0	0	5.6	5.9	1.6	.24	0			.34
26	0	2.3	0	0	4.9	5.2	1.5	.20	0			0
27	.08	.38	0	0	9.1	4.4	1.4	.24	0			0
28	1.2	.14	0	0	23	4.0	1.3	.23	0			0
29	0	17	0	0	---	4.0	1.3	.17	0			0
30	0	3.7	.03	10	---	3.9	1.3	.18	0			0
31	0	---	0	3.3	---	3.5	---	.26	---			---
TOTAL	1.28	44.74	9.95	13.62	503.16	476.7	71.2	19.05	1.54	0	0	0.99
MEAN	.041	1.49	.32	.44	18.0	15.4	2.37	.61	.051	0	0	.033
MAX	1.2	17	4.0	10	141	81	8.5	1.3	.30	0	0	.65
MIN	0	0	0	0	.11	1.7	1.3	.17	0	0	0	0
AC-FT	2.5	89	20	27	998	946	141	38	3.1	0	0	2.0

CARPINTERIA CREEK BASIN

11119500 CARPINTERIA CREEK NEAR CARPINTERIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: October 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DEC 1985									
05...	1245	0.45	825	8.10	13.5	380	120	100	31
FEB 1986									
19...	1000	270	203	7.50	13.0	--	--	--	--
APR									
30...	1110	1.3	642	8.40	20.0	--	--	--	--
MAY									
09...	1230	0.88	585	8.40	21.0	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
DEC 1985								
05...	34	16	0.8	4.1	254	160	19	0.30
FEB 1986								
19...	--	--	--	--	--	--	--	--
APR								
30...	--	--	--	--	194	--	--	--
MAY								
09...	--	--	--	--	179	--	--	--

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 1985								
05...	18	--	520	0.380	0.090	60	17	84
FEB 1986								
19...	--	135	--	--	--	--	--	--
APR								
30...	--	404	--	--	--	--	--	--
MAY								
09...	--	418	--	--	--	--	--	--

MISSION CREEK BASIN

11119745 MISSION CREEK AT ROCKY NOOK PARK, AT SANTA BARBARA, CA

LOCATION.--Lat 34°26'26", long 119°42'39", Santa Barbara County, Hydrologic Unit 18060013, on right bank, 50 ft southeast of entrance to Rocky Nook Park, and 75 ft upstream from bridge on Los Olivos Street in Santa Barbara.

DRAINAGE AREA.--6.60 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 335 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 492 ft³/s, Feb. 14, 1986, gage height, 6.43 ft, from rating curve extended above 167 ft³/s on basis of culvert computation at gage height 6.20 ft; no flow several days in 1984, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 492 ft³/s, Feb. 14, gage height, 6.43 ft; minimum daily, 0.01 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.47	.13	1.0	1.1	1.6	.44	.45	.08	.02	.01
2	.01	.01	2.7	.13	.31	1.0	1.4	.42	.45	.08	.02	.01
3	.03	.01	1.2	.13	.23	.92	1.3	.41	.40	.08	.02	.01
4	.01	.01	.54	.26	.17	.82	1.3	.39	.42	.09	.02	.01
5	.01	.01	.40	.43	.15	.77	1.6	.45	.42	.10	.02	.01
6	.01	.01	1.1	.26	.15	.70	1.9	.48	.37	.11	.02	.01
7	.01	.01	.35	.17	.15	.70	2.9	.42	.32	.13	.02	.01
8	.01	.01	.52	.14	.10	15	2.0	.41	.29	.08	.02	.01
9	.01	.01	.45	.12	.09	4.3	1.5	.39	.27	.04	.02	.01
10	.02	.01	.50	.11	.07	35	1.3	.42	.25	.04	.01	.01
11	.02	.07	.50	.11	.04	16	1.2	.41	.27	.03	.01	.01
12	.01	.38	.35	.09	2.0	7.4	1.2	.42	.26	.02	.01	.01
13	.02	.60	.18	.10	47	6.1	1.1	.45	.22	.02	.01	.01
14	.02	.11	.19	.08	116	4.9	1.1	.49	.22	.02	.01	.01
15	.01	.03	.19	.08	64	36	1.0	.49	.21	.02	.01	.01
16	.02	.02	.18	.07	18	71	.96	.46	.20	.02	.01	.01
17	.04	.02	.16	.07	8.5	33	1.1	.44	.20	.02	.01	.01
18	.02	.02	.15	.07	8.2	16	1.1	.43	.19	.02	.01	.01
19	.02	.02	.15	.07	80	9.0	.92	.39	.18	.02	.01	.01
20	.02	.02	.14	.07	18	6.1	.83	.39	.15	.02	.01	.01
21	.06	.02	.12	.08	7.4	4.7	.85	.42	.17	.02	.01	.01
22	.04	.02	.13	.06	4.5	3.9	.83	.44	.19	.02	.01	.01
23	.03	.02	.14	.06	3.2	3.3	.66	.40	.22	.02	.01	.01
24	.03	1.3	.14	.07	2.5	3.3	.78	.40	.26	.02	.01	.32
25	.02	4.8	.14	.06	2.0	2.9	.71	.37	.27	.02	.01	.22
26	.02	.82	.14	.06	1.7	2.4	.53	.39	.20	.02	.01	.03
27	.02	.31	.14	.07	1.4	2.1	.46	.43	.18	.02	.01	.02
28	.02	.28	.17	.06	1.3	2.0	.46	.44	.13	.02	.01	.02
29	.02	4.8	.18	.07	---	2.0	.43	.38	.12	.02	.01	.02
30	.02	1.3	.19	1.7	---	1.9	.44	.48	.10	.02	.01	.02
31	.01	---	.16	1.2	---	1.7	---	.45	---	.02	.01	---
TOTAL	0.62	15.06	12.07	6.18	388.16	296.01	33.46	13.20	7.58	1.26	0.40	0.88
MEAN	.020	.50	.39	.20	13.9	9.55	1.12	.43	.25	.041	.013	.029
MAX	.06	4.8	2.7	1.7	116	71	2.9	.49	.45	.13	.02	.32
MIN	.01	.01	.12	.06	.04	.70	.43	.37	.10	.02	.01	.01
AC-FT	1.2	30	24	12	770	587	66	26	15	2.5	.8	1.7
CAL YR 1985	TOTAL	147.88	MEAN	.41	MAX	16	MIN	.01	AC-FT	293		
WTR YR 1986	TOTAL	774.88	MEAN	2.12	MAX	116	MIN	.01	AC-FT	1540		

MISSION CREEK BASIN

11119745 MISSION CREEK AT ROCKY NOOK PARK, AT SANTA BARBARA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1983 to September 1986 (discontinued).

WATER TEMPERATURE: December 1983 to September 1986 (storm season only), discontinued.

SEDIMENT DATA: December 1983 to September 1986 (storm season only), discontinued.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: December 1983 to September 1986 (storm season only), discontinued.

SEDIMENT DISCHARGE: December 1983 to September 1986 (storm season only), discontinued.

REMARKS.--Sediment discharge values were estimated for those days that have no daily concentration values.

EXTREMES FOR PERIODS OF DAILY RECORD (storm season only).--

WATER TEMPERATURE: Maximum observed, 20.0°C, Apr. 14, 23, 1984; minimum observed, 7.5°C, Dec. 17, 1984.

SEDIMENT CONCENTRATION: Maximum daily mean, 1,530 mg/L, Feb. 14, 1986; minimum daily mean, 0 mg/L, Dec. 19, 1983, Jan. 5, 15, 16, 1984.

SEDIMENT LOAD: Maximum daily, 1,300 tons, Feb. 14, 1986; minimum daily, 0 ton many days during most years.

EXTREMES FOR CURRENT YEAR (storm season only).--

WATER TEMPERATURE: Maximum observed, 19.0°C, Apr. 29, minimum observed, 10.0°C, Dec. 16, Mar. 16.

SEDIMENT CONCENTRATION: Maximum daily mean, 1,530 mg/L, Feb. 14; minimum daily mean, 1 mg/L, Dec. 17.

SEDIMENT LOAD: Maximum daily, 1,300 tons, Feb. 14; minimum daily, 0 ton many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR DECEMBER 1985 TO APRIL 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			13.0	14.0	---	14.0	---					
2			13.0	14.0	13.0	15.0	---					
3			13.5	14.0	---	---	---					
4			---	13.0	12.5	---	---					
5			13.5	13.5	12.0	16.5	---					
6			13.5	14.0	12.5	14.5	---					
7			11.0	13.0	11.0	14.5	14.5					
8			13.0	12.0	9.0	13.0	---					
9			13.0	12.0	11.5	---	14.0					
10			12.0	12.5	11.0	---	---					
11			12.5	12.0	11.0	---	---					
12			11.0	12.5	11.0	13.5	15.0					
13			11.5	12.0	11.0	11.5	16.0					
14			11.5	12.5	12.5	12.0	12.5					
15			11.5	11.5	13.5	10.5	---					
16			10.0	13.0	14.0	10.0	15.0					
17			11.5	11.0	14.0	10.5	16.0					
18			---	---	14.0	13.0	15.5					
19			14.0	13.5	13.5	14.0	---					
20			12.0	13.0	14.0	14.0	18.5					
21			---	13.5	13.5	15.5	14.0					
22			---	13.0	---	16.0	14.5					
23			10.5	12.5	15.5	17.0	---					
24			---	11.5	13.5	16.0	---					
25			---	12.5	---	---	16.0					
26			---	12.0	---	---	16.0					
27			13.0	12.5	---	16.0	17.5					
28			12.0	12.5	---	14.0	13.5					
29			13.5	11.5	---	15.0	19.0					
30			13.0	12.0	---	15.5	16.0					
31			13.0	13.5	---	13.5	---					
MONTH			---	---	---	---	---					

MISSION CREEK BASIN

11119745 MISSION CREEK AT ROCKY NOOK PARK, AT SANTA BARBARA, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR DECEMBER 1985 TO APRIL 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1						.47	---		.00
2						2.7	---		.10
3						1.2	---		.02
4						.54	---		.01
5						.40	---		.00
6						1.1	---		.02
7						.35	---		.00
8						.52	---		.01
9						.45	---		.00
10						.50	---		.01
11						.50	---		.01
12						.35	---		.00
13						.18	---		.00
14						.19	4		.00
15						.19	3		.00
16						.18	---		.00
17						.16	1		.00
18						.15	---		.00
19						.15	---		.00
20						.14	---		.00
21						.12	---		.00
22						.13	---		.00
23						.14	---		.00
24						.14	---		.00
25						.14	---		.00
26						.14	---		.00
27						.14	---		.00
28						.17	---		.00
29						.18	2		.00
30						.19	3		.00
31						.16	---		.00
TOTAL						12.07	---		0.18
DAY	JANUARY			FEBRUARY			MARCH		
1	.13	4	.00	1.0	14	.04	1.1	13	.04
2	.13	---	.00	.31	---	.76	1.0	13	.04
3	.13	---	.00	.23	---	.01	.92	---	.03
4	.26	3	.00	.17	---	.01	.82	---	.02
5	.43	---	.01	.15	---	.00	.77	9	.02
6	.26	4	.00	.15	10	.00	.70	---	.02
7	.17	---	.00	.15	---	.00	.70	---	.02
8	.14	---	.00	.10	---	.00	15	284	41
9	.12	---	.00	.09	---	.00	4.3	38	.44
10	.11	---	.00	.07	---	.00	35	555	60
11	.11	5	.00	.04	---	.00	16	50	2.9
12	.09	---	.00	2.0	26	.76	7.4	15	.30
13	.10	---	.00	.47	350	58	6.1	18	.30
14	.08	---	.00	116	1530	1300	4.9	19	.25
15	.08	---	.00	64	444	129	36	473	121
16	.07	---	.00	18	37	1.8	71	273	64
17	.07	---	.00	8.5	12	.28	33	60	5.3
18	.07	---	.00	8.2	8	.18	16	20	.86
19	.07	10	.00	80	608	197	9.0	12	.29
20	.07	---	.00	18	70	3.4	6.1	9	.15
21	.08	---	.00	7.4	14	.28	4.7	21	.27
22	.06	6	.00	4.5	---	.13	3.9	34	.36
23	.06	---	.00	3.2	---	.10	3.3	22	.20
24	.07	---	.00	2.5	11	.07	3.3	26	.23
25	.06	---	.00	2.0	---	.06	2.9	---	.21
26	.06	---	.00	1.7	---	.05	2.4	---	.18
27	.07	---	.00	1.4	---	.04	2.1	29	.16
28	.06	---	.00	1.3	---	.04	2.0	27	.15
29	.07	12	.00	---	---	---	2.0	18	.10
30	1.7	17	.08	---	---	---	1.9	---	.06
31	1.2	15	.05	---	---	---	1.7	10	.05
TOTAL	6.18	---	0.14	388.16	---	1692.01	296.01	---	298.95

MISSION CREEK BASIN

11119745 MISSION CREEK AT ROCKY NOOK PARK, AT SANTA BARBARA, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR DECEMBER 1985 TO APRIL 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	1.6	---	.04						
2	1.4	---	.04						
3	1.3	---	.04						
4	1.3	---	.04						
5	1.6	---	.05						
6	1.9	---	.06						
7	2.9	---	.11						
8	2.0	---	.06						
9	1.5	8	.03						
10	1.3	---	.03						
11	1.2	---	.03						
12	1.2	---	.03						
13	1.1	8	.02						
14	1.1	7	.02						
15	1.0	---	.03						
16	.96	12	.03						
17	1.1	---	.04						
18	1.1	---	.04						
19	.92	---	.03						
20	.83	13	.03						
21	.85	---	.03						
22	.83	---	.03						
23	.66	---	.02						
24	.78	---	.03						
25	.71	9	.02						
26	.53	9	.01						
27	.46	---	.01						
28	.46	---	.01						
29	.43	---	.00						
30	.44	3	.00						
31	---	---	---						
TOTAL	33.46	---	0.96						
PERIOD	735.88		1992.24						

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR DECEMBER 1985 TO APRIL 1986

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
DECEMBER ...	12.07	0.18	0	0
JANUARY 1986	6.18	0.14	0	0
FEBRUARY ...	388.16	1692.01	80	1770
MARCH	296.01	298.95	21	320
APRIL	33.46	0.96	0	1
PERIOD	735.88	1992.24	101	2091

MISSION CREEK BASIN

11119745 MISSION CREEK AT ROCKY NOOK PARK, AT SANTA BARBARA, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR DECEMBER 1985 TO APRIL 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
FEB									
14...	1625	40	13.0	288	31	--	--	--	--
14...	1720	108	13.0	2210	644	--	--	--	--
14...	1725	144	13.0	2520	980	--	--	--	--
14...	1820	236	13.0	4410	2810	22	29	34	45
15...	0540	98	13.5	707	187	--	--	--	--
15...	0820	76	13.5	354	73	--	--	--	--
19...	0745	189	13.5	1520	776	--	--	--	--
19...	0845	153	13.5	1310	541	--	--	--	--
MAR									
08...	1230	49	13.0	976	129	--	--	--	--
08...	1535	19	13.0	280	14	--	--	--	--
DATE		SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 4.00 MM
FEB									
14...	--	88	94	98	100	--	--	--	--
14...	--	63	72	84	94	99	100	--	--
14...	--	64	72	83	94	99	100	--	--
14...	55	66	77	87	96	99	100	--	--
15...	--	64	70	76	81	86	87	100	--
15...	--	88	94	97	99	99	100	--	--
19...	--	67	76	83	91	96	100	--	--
19...	--	66	75	82	88	92	95	100	--
MAR									
08...	--	95	96	98	99	100	--	--	--
08...	--	96	97	98	99	100	--	--	--

MISSION CREEK BASIN

11119750 MISSION CREEK NEAR MISSION STREET, AT SANTA BARBARA, CA

LOCATION.--Lat 34°25'35", long 119°43'20", in Pueblo Lands of Santa Barbara, Santa Barbara County, Hydrologic Unit 18060013, on left bank, 200 ft downstream from Los Olivos Street in Santa Barbara.

DRAINAGE AREA.--8.38 mi².

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Concrete-lined channel. Elevation of gage is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 21, Nov. 11, 12, Dec. 30, Jan. 23. Records fair. No regulation or diversion above station. Water at times released to creek for ground-water recharge from Gibraltar tunnel several miles upstream. Control installed Nov. 26, 1979.

AVERAGE DISCHARGE.--16 years, 3.19 ft³/s, 2,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,580 ft³/s, Jan. 18, 1973, gage height, 4.97 ft, from rating curve extended above 41 ft³/s on basis of computation of flow in concrete-lined channel; maximum gage height, 5.45 ft, Feb. 16, 1980; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	2100	*626	*3.63	Mar. 15	1445	216	2.80

No flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	.37	.34	1.1					0
2	0	0	7.5	0	0	.47	.94					0
3	0	0	.56	0	0	.43	.61					0
4	0	0	.01	.55	0	.19	.57					0
5	0	0	0	.27	0	.06	2.1					0
6	0	0	.34	0	0	.01	2.2					0
7	0	0	0	0	0	0	4.3					0
8	0	0	0	0	0	24	1.6					0
9	0	0	0	0	0	6.0	.89					0
10	0	0	0	0	0	39	.58					0
11	0	.18	0	0	0	13	.44					0
12	0	.10	0	0	11	9.0	.39					0
13	0	0	0	0	65	8.6	.27					0
14	0	0	0	0	122	5.4	.24					0
15	0	0	0	0	61	43	.17					0
16	0	0	0	0	15	79	.13					0
17	0	0	0	0	8.2	30	.13					0
18	0	0	0	0	11	14	.16					0
19	0	0	0	0	72	9.7	.07					0
20	0	0	0	0	16	7.1	.02					0
21	.25	0	0	0	8.3	5.1	0					0
22	0	0	0	0	4.8	3.9	.15					0
23	0	0	0	.03	2.9	3.1	.09					0
24	0	7.9	0	0	7.1	2.9	.13					4.3
25	0	13	0	0	16	2.6	.14					.19
26	0	.26	0	0	17	1.9	.08					0
27	0	0	0	0	10	1.5	.02					0
28	0	.83	0	0	.61	1.4	0					0
29	0	12	0	1.6	---	1.4	0					0
30	0	.86	.07	5.8	---	1.3	0					0
31	0	---	0	4.1	---	1.3	---					---
TOTAL	0.25	35.13	8.48	12.35	448.28	315.70	17.52	0	0	0	0	4.49
MEAN	.008	1.17	.27	.40	16.0	10.2	.58	0	0	0	0	.15
MAX	.25	13	7.5	5.8	122	79	4.3	0	0	0	0	4.3
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.5	70	17	24	889	626	35	0	0	0	0	8.9
CAL YR 1985	TOTAL	136.15	MEAN	.37	MAX	26	MIN	0	AC-FT	270		
WTR YR 1986	TOTAL	842.20	MEAN	2.31	MAX	122	MIN	0	AC-FT	1670		

ARROYO BURRO CREEK BASIN

11119780 ARROYO BURRO CREEK AT SANTA BARBARA, CA

LOCATION.--Lat 34°26'13", long 119°44'44", in Pueblo Lands of Santa Barbara, Santa Barbara County, Hydrologic Unit 18060013, on right bank 0.2 mi south of State Street on Hope Avenue in Santa Barbara.

DRAINAGE AREA.--6.65 mi².

PERIOD OF RECORD.--October 1970 to current year.

REVISED RECORDS.--WDR CA-76-1: 1974(M), 1975(P).

GAGE.--Water-stage recorder. Concrete-lined channel with a low-water control. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Small amount of inflow occurs at times from large shopping center that empties water directly into the stream. Partial regulation by Lauro Canyon Reservoir on San Roque Creek.

AVERAGE DISCHARGE.--16 years, 2.53 ft³/s, 1,830 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft³/s, Mar. 4, 1978, Feb. 16, 1980, from rating curve extended above 50 ft³/s on basis of computation of flow in trapezoidal section; maximum gage height, 5.67 ft, Mar. 4, 1978; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	1900	413	3.46	Mar. 15	1445	338	3.27
Mar. 8	1030	*430	*3.50				

Minimum daily, 0.01 ft³/s, several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.04	.03	.04	.13	.67	1.1	.15	.04	.03	.09	.02
2	.01	.02	7.7	.05	.18	.62	.93	.17	.04	.10	.11	.02
3	.01	.01	.07	.11	.06	.88	.73	.17	.03	.04	.02	.03
4	.01	.04	.03	2.5	.08	.63	.67	.16	.03	.03	.03	.03
5	.05	.03	.03	.61	.15	.46	2.4	.15	.03	.07	.03	.02
6	.02	.02	.03	.05	.10	.46	3.1	.12	.03	.03	.10	.03
7	.01	.02	.03	.04	.13	.46	4.3	.11	.02	.04	.16	.03
8	.02	.02	.03	.03	.08	27	.96	.09	.02	.04	.13	.04
9	.16	.02	.04	.03	.20	4.9	.53	.09	.03	.03	.07	.04
10	.03	1.4	.04	.05	.16	28	.44	.09	.03	.04	.05	.03
11	.01	.96	.05	.05	.37	5.9	.46	.08	.03	.04	.04	.05
12	.01	.02	.03	.06	16	5.0	.42	.08	.06	.04	.10	.05
13	.01	.02	.03	.09	37	6.8	.40	.05	.03	.05	.03	.04
14	.01	.01	.03	.07	82	2.6	.40	.05	.03	.05	.03	.03
15	.01	.02	.03	.07	25	35	.38	.05	.04	.04	.04	.04
16	.01	.04	.03	.08	9.0	57	.40	.07	.03	.04	.04	.03
17	.02	.08	.04	.08	5.2	17	.34	.04	.04	.04	.03	.03
18	.01	.10	.03	.07	6.7	9.5	.29	.05	.03	.05	.04	.04
19	.01	.11	.04	.05	41	6.9	.27	.05	.04	.06	.03	.04
20	.01	.11	.06	.03	8.0	5.3	.27	.05	.04	.03	.05	.04
21	1.8	.03	.03	.03	4.2	4.0	.26	.06	.03	.04	.04	.05
22	.02	.02	.03	.03	2.7	2.9	.28	.03	.04	.04	.03	.06
23	.02	.02	.04	.03	2.0	2.4	.29	.04	.04	.05	.02	.06
24	.03	11	.04	.03	1.6	2.1	.31	.04	.05	.05	.01	9.5
25	.03	12	.05	.02	1.2	1.7	.29	.03	.04	.08	.02	.12
26	.02	.06	.08	.02	1.1	1.5	.16	.03	.03	.04	.02	.05
27	.01	.03	.12	.03	.97	1.4	.11	.03	.04	.06	.02	.05
28	.02	2.4	.05	.03	.85	1.3	.11	.03	.04	.06	.02	.06
29	.01	9.1	.21	4.6	---	1.2	.11	.03	.04	.04	.02	.05
30	.02	.07	.11	6.0	---	1.1	.13	.03	.04	.05	.02	.05
31	.02	---	.03	6.6	---	1.1	---	.03	---	.08	.02	---
TOTAL	2.46	37.82	9.19	21.58	246.16	235.78	20.84	2.25	1.06	1.48	1.46	10.73
MEAN	.079	1.26	.30	.70	8.79	7.61	.69	.073	.035	.048	.047	.36
MAX	1.8	12	7.7	6.6	82	57	4.3	.17	.06	.10	.16	9.5
MIN	.01	.01	.03	.02	.06	.46	.11	.03	.02	.03	.01	.02
AC-FT	4.9	75	18	43	488	468	41	4.5	2.1	2.9	2.9	21
CAL YR 1985	TOTAL	116.01	MEAN	.32	MAX	27	MIN	0	AC-FT	230		
WTR YR 1986	TOTAL	528.91	MEAN	1.62	MAX	82	MIN	.01	AC-FT	1150		

ATASCADERO CREEK BASIN

11119940 MARIA YGNACIO CREEK AT UNIVERSITY DRIVE, NEAR GOLETA, CA

LOCATION.--Lat 34°26'42", long 119°48'10", in Goleta Grant, Santa Barbara County, Hydrologic Unit 18060013, on right bank at University Drive, 0.2 mi east of Patterson Avenue, and 1.5 mi northeast of Goleta.

DRAINAGE AREA.--6.35 mi².

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 16-18, 21-28, Mar. 15-17. Records fair. No regulation above station. Some pumping for irrigation.

AVERAGE DISCHARGE.--16 years, 1.90 ft³/s, 1,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft³/s, Jan. 16, 1978, gage height, 5.87 ft, from rating curve extended above 290 ft³/s on basis of slope-area measurement of maximum flow; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	2100	*830	*3.80	Mar. 8	1030	266	2.53
Feb. 18	0530	478	3.08	Mar. 15	Unknown	750	3.65

No flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.02	0	.26	.39	.67	.26				0
2	0	0	4.4	0	.15	.37	.61	.19				0
3	0	0	.65	0	.08	.32	.59	.09				0
4	0	0	.10	.11	0	.26	.58	0				0
5	0	0	0	.20	0	.21	.77	0				0
6	0	0	0	0	0	.19	.67	0				0
7	0	0	0	0	0	.18	.94	0				0
8	0	0	0	0	0	22	.62	0				0
9	0	0	0	0	0	1.9	.53	0				0
10	0	.07	0	0	0	17	.49	0				0
11	0	.01	0	0	0	2.7	.48	0				0
12	0	0	0	0	9.2	1.1	.48	0				0
13	0	0	0	0	17	1.1	.38	.02				0
14	0	0	0	0	137	.57	.36	.07				0
15	0	0	0	0	43	105	.35	.15				0
16	0	0	0	0	18	35	.33	.05				0
17	0	0	0	0	9.0	14	.37	0				0
18	0	0	0	0	3.9	5.9	.34	0				0
19	0	0	0	0	65	3.4	.31	0				0
20	0	0	0	0	5.1	2.3	.31	0				0
21	.10	0	0	0	2.7	1.8	.29	0				0
22	0	0	0	0	1.8	1.5	.31	0				0
23	0	0	0	0	1.4	1.3	.30	0				0
24	0	1.6	0	0	1.1	1.1	.26	0				2.0
25	0	4.0	0	0	.88	.98	.25	0				.06
26	0	.16	0	0	.70	.89	.24	0				0
27	0	0	0	0	.54	.83	.17	0				0
28	0	.27	0	0	.45	.80	.13	0				0
29	0	5.2	0	.47	---	.77	.14	0				0
30	0	.51	0	2.2	---	.74	.26	0				0
31	0	---	0	3.5	---	.70	---	0				---
TOTAL	0.10	11.82	5.17	6.48	317.26	225.30	12.53	0.83	0	0	0	2.06
MEAN	.003	.39	.17	.21	11.3	7.27	.42	.027	0	0	0	.069
MAX	.10	5.2	4.4	3.5	137	105	.94	.26	0	0	0	2.0
MIN	0	0	0	0	0	.18	.13	0	0	0	0	0
AC-FT	.2	23	10	13	629	447	25	1.6	0	0	0	4.1
CAL YR 1985	TOTAL	58.20	MEAN	.16	MAX	19	MIN	0	AC-FT	115		
WTR YR 1986	TOTAL	581.55	MEAN	1.59	MAX	137	MIN	0	AC-FT	1150		

ATASCADERO CREEK BASIN

11120000 ATASCADERO CREEK NEAR GOLETA, CA

LOCATION.--Lat 34°25'29", long 119°48'39", in La Goleta Grant, Santa Barbara County, Hydrologic Unit 18060013, on downstream side of center pier of county road bridge 100 ft downstream from Maria Ygnacio Creek, 1.3 mi upstream from mouth, and 1.3 mi southeast of Goleta.

DRAINAGE AREA.--18.9 mi².

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1947, published as "Alascadero Creek near Goleta."

GAGE.--Water-stage recorder. Datum of gage is 8.59' ft Santa Barbara County benchmark. Prior to Dec. 14, 1967, at site 275 ft downstream, datum 4.00 ft higher. Dec. 14, 1967, to Sept. 30, 1976, at datum 4.00 ft higher and Oct. 1, 1976, to Sept. 30, 1978, at datum 2.00 ft higher, both at present site.

REMARKS.--Estimated daily discharges: Dec. 10-22, Feb. 24-27. Records fair except those below 1.0 ft³/s, which are poor. No regulation above station. Small diversions for irrigation above station. Some low flow results from return irrigation wastewater.

AVERAGE DISCHARGE.--45 years, 4.88 ft³/s, 3,540 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,380 ft³/s, Jan. 18, 1973, gage height, 17.1 ft, present datum, from rating curve extended above 2,300 ft³/s; maximum gage height, 17.3 ft, from floodmark, Dec. 3, 1974, present datum; no flow some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 225 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	2100	*979	*5.32	Mar. 8	1045	624	4.58
Feb. 19	0615	506	4.29	Mar. 16	0530	574	4.46

No flow several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.07	.20	.19	.49	1.1	2.0	.34	.35	.11	.03	.0
3	0	.07	.86	.17	.31	.87	1.3	.31	.33	.41	.03	.15
4	0	.06	.23	2.7	.29	.59	1.2	.22	.27	.20	.04	.12
5	.05	.20	.30	1.6	.26	.51	2.9	.40	.24	.16	.02	.11
6	0	.23	.16	.36	.25	.48	2.4	.36	.40	.16	.03	.11
7	0	.20	.15	.28	.24	.68	7.8	.20	.23	.15	.03	.11
8	.29	.20	.12	.21	.29	.84	2.2	.20	.24	.13	.13	.14
9	.15	.15	.10	.15	.23	.13	1.3	.30	.30	.11	.18	.17
10	.01	.66	.11	.14	.21	102	1.2	.25	.33	.11	.23	.16
11	.01	4.1	.13	.14	.30	22	.97	.21	.33	.11	.21	.16
12	0	.19	.08	.14	31	17	.81	.27	.23	.09	.18	.17
13	0	.05	.08	.17	187	27	.63	.28	.18	.09	.16	.21
14	0	.03	.08	.28	254	11	.61	.26	.18	.09	.14	.17
15	0	.05	.08	.23	90	98	.55	.39	.18	.29	.17	.15
16	.13	.06	.08	.16	34	212	.49	.39	.26	.16	.21	.16
17	.04	.05	.11	.14	17	49	.46	.33	.50	.12	.29	.25
18	.02	.03	.08	.20	22	20	.43	.29	.32	.10	.19	.16
19	.02	.01	.15	.16	142	12	.38	.29	.15	.09	.15	.09
20	.02	.03	.08	.15	26	8.4	.29	.18	.15	.09	.08	.11
21	3.7	.09	.08	.14	13	6.4	.28	.14	.16	.05	.09	.11
22	.82	.20	.11	.15	7.7	5.0	.32	.20	.17	.05	.09	.12
23	.16	.08	.10	.16	5.5	3.9	.36	.19	.18	.07	.14	.10
24	.10	25	.10	.16	3.1	3.2	.37	.22	.22	.09	.18	22
25	.07	35	.10	.16	1.6	2.7	.38	.21	.49	.08	.17	3.1
26	.06	.80	.11	.15	1.4	2.3	.32	.20	.71	.03	.12	.31
27	.05	.17	.16	.14	1.3	2.1	.29	.19	.29	.04	.10	.18
28	.04	2.1	.17	.14	1.8	1.9	.31	.23	.15	.06	.09	.17
29	.04	40	.23	5.1	---	1.9	.32	.27	.14	.08	.13	.17
30	.15	.92	.26	20	---	1.4	.36	.21	.11	.06	.10	.14
31	.10	---	.24	21	---	1.4	---	.29	---	.03	.09	---
TOTAL	6.03	110.91	37.84	55.03	841.65	712.57	32.83	8.13	8.14	3.49	3.83	29.32
MEAN	.19	3.70	1.22	1.78	30.1	23.0	1.09	.26	.27	.11	.12	.98
MAX	3.7	40	33	21	254	212	7.8	.40	.71	.41	.29	22
MIN	0	.01	.08	.14	.21	.48	.28	.14	.11	.03	.02	.09
AC-FT	12	220	75	109	1670	1410	65	16	16	6.9	7.6	58
CAL YR 1985	TOTAL	378.83	MEAN	1.04	MAX	108	MIN	0	AC-FT	751		
WTR YR 1986	TOTAL	1849.77	MEAN	5.07	MAX	254	MIN	0	AC-FT	3670		

SAN JOSE CREEK BASIN

11120500 SAN JOSE CREEK NEAR GOLETA, CA

LOCATION.--Lat 34°27'33", long 119°48'29", in La Goleta Grant, Santa Barbara County, Hydrologic Unit 18060013, on right bank, 1.1 mi downstream from unnamed tributary, and 1.7 mi northeast of Goleta.

DRAINAGE AREA.--5.51 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1941 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 95.61 ft, Santa Barbara County Road Department datum. Prior to Dec. 24, 1955, at datum 5.50 ft higher. Dec. 24, 1955, to Jan. 10, 1960, at datum 1.5 ft higher. Prior to Oct. 1, 1971, at site 75 ft downstream.

REMARKS.--Estimated daily discharges: Dec. 12-19, Dec. 30 to Jan. 6, Feb. 21-28, May 5 to June 3. Records fair except for periods of estimated daily discharges, which are poor. No regulation above station. Many small diversions above station for irrigation.

AVERAGE DISCHARGE.--45 years, 2.14 ft³/s, 1,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s, Jan. 25, 1969, gage height, 10.10 ft, from rating curve extended above 400 ft³/s on basis of slope-area measurement at gage height 9.32 ft; maximum gage height, 12.74 ft, present datum, Jan. 21, 1943; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	2045	*570	*6.28	Mar. 10	1245	112	4.28
Feb. 19	0615	370	5.61	Mar. 15	1600	155	4.61

Minimum daily, 0.03 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.04	.48	.35	4.1	1.6	2.4	1.2	.68	.22	.18	.06
2	.06	.03	6.8	.30	1.9	2.0	2.2	1.1	.68	.22	.26	.06
3	.06	.03	2.1	.30	1.3	1.9	2.2	.99	.65	.19	.29	.06
4	.04	.03	.60	.45	1.1	1.8	1.8	.99	.63	.17	.36	.06
5	.04	.04	.44	.74	.98	1.7	1.9	.90	.43	.21	.23	.08
6	.04	.03	.40	.74	.98	1.4	2.2	.86	.48	.25	.19	.10
7	.04	.03	.36	.44	.98	1.4	2.0	.78	.40	.25	.19	.06
8	.06	.03	.36	.35	.91	20	2.0	.80	.46	.25	.13	.09
9	.04	.03	.40	.55	.83	14	1.9	.84	.48	.31	.13	.06
10	.03	.06	.40	.45	.86	45	1.7	.80	.48	.31	.12	.06
11	.03	.71	.38	.35	.86	25	1.7	.80	.48	.32	.22	.08
12	.03	.48	.36	.32	4.0	19	1.7	1.0	.48	.31	.13	.11
13	.03	.46	.33	.34	94	17	1.6	.99	.48	.32	.22	.23
14	.03	.40	.32	.30	157	12	1.5	.98	.48	.29	.20	.08
15	.03	.40	.30	.25	57	35	1.5	1.2	.48	.31	.14	.12
16	.03	.38	.28	.25	28	69	1.5	1.0	.40	.25	.19	.12
17	.04	.32	.33	.32	14	27	1.4	1.0	.40	.36	.10	.06
18	.03	.32	.38	.36	25	13	1.4	.99	.34	.19	.11	.09
19	.03	.13	.44	.23	108	8.2	1.4	.98	.25	.21	.10	.10
20	.03	.10	.44	.31	38	5.7	1.3	.90	.34	.19	.08	.10
21	.10	.10	.48	.18	10	4.6	1.2	.98	.31	.21	.06	.10
22	.31	.10	.44	.44	6.4	4.0	1.2	.98	.28	.26	.04	.10
23	.05	.06	.40	.45	4.5	3.5	1.2	.98	.39	.29	.04	.10
24	.04	.52	.40	.40	3.2	3.0	1.2	.86	.38	.11	.04	.79
25	.03	5.9	.34	.37	2.6	2.9	1.2	.90	.35	.07	.08	.77
26	.03	1.8	.32	.32	2.3	3.0	1.2	.78	.32	.17	.04	.45
27	.03	.47	.32	.39	2.0	2.7	1.1	.74	.29	.34	.04	.40
28	.03	.18	.27	.37	1.7	2.6	1.0	.70	.30	.34	.04	.40
29	.03	5.7	.27	.50	---	2.5	1.1	.72	.25	.30	.04	.38
30	.06	1.9	.30	4.6	---	2.5	1.2	.74	.23	.27	.05	.27
31	.06	---	.34	7.7	---	2.4	---	.68	---	.24	.04	---
TOTAL	1.53	20.78	19.78	23.42	572.50	355.4	46.9	28.16	12.60	7.73	4.08	5.54
MEAN	.049	.69	.64	.76	20.4	11.5	1.56	.91	.42	.25	.13	.18
MAX	.31	5.9	6.8	7.7	157	69	2.4	1.2	.68	.36	.36	.79
MIN	.03	.03	.27	.18	.83	1.4	1.0	.68	.23	.07	.04	.06
AC-FT	3.0	41	39	46	1140	705	93	56	25	15	8.1	11

CAL YR 1985 TOTAL 185.02 MEAN .51 MAX 20 MIN .02 AC-FT 367

SAN JOSE CREEK BASIN

11120500 SAN JOSE CREEK NEAR GOLETA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 1985									
24...	0945	0.04	2010	7.70	11.5	--	--	--	--
NOV									
22...	1245	0.10	1640	8.00	12.5	--	--	--	--
DEC									
19...	1400	0.47	1150	7.70	11.5	--	--	--	--
JAN 1986									
23...	1050	0.46	1010	8.10	11.0	490	220	130	41
FEB									
28...	1155	1.7	848	7.90	15.0	--	--	--	--
MAR									
31...	1500	2.3	1020	8.00	16.5	--	--	--	--
APR									
21...	1000	1.2	1220	7.80	16.5	--	--	--	--
JUN									
04...	1300	0.73	1270	7.80	18.0	--	--	--	--
30...	1105	0.25	1520	7.60	18.0	--	--	--	--
AUG									
04...	1040	0.30	1570	7.70	17.5	--	--	--	--
SEP									
08...	1000	0.14	2000	7.90	16.5	--	--	--	--
25...	1220	0.66	1290	7.60	15.5	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 1985								
24...	--	--	--	--	--	--	--	--
NOV								
22...	--	--	--	--	--	--	--	--
DEC								
19...	--	--	--	--	--	--	--	--
JAN 1986								
23...	74	25	2	1.7	277	320	51	0.40
FEB								
28...	--	--	--	--	--	--	--	--
MAR								
31...	--	--	--	--	--	--	--	--
APR								
21...	--	--	--	--	--	--	--	--
JUN								
04...	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
AUG								
04...	--	--	--	--	--	--	--	--
SEP								
08...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--

SAN JOSE CREEK BASIN

11120500 SAN JOSE CREEK NEAR GOLETA, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1985								
24...	--	--	--	--	--	--	--	--
NOV								
22...	--	1240	--	--	--	--	--	--
DEC								
19...	--	824	--	--	--	--	--	--
JAN 1986								
23...	16	--	800	0.250	0.010	90	15	29
FEB								
28...	--	631	--	--	--	--	--	--
MAR								
31...	--	719	--	--	--	--	--	--
APR								
21...	--	896	--	--	--	--	--	--
JUN								
04...	--	945	--	--	--	--	--	--
30...	--	1240	--	--	--	--	--	--
AUG								
04...	--	1130	--	--	--	--	--	--
SEP								
08...	--	1660	--	--	--	--	--	--
25...	--	1040	--	--	--	--	--	--

SAN JOSE CREEK BASIN

11120510 SAN JOSE CREEK AT GOLETA, CA

LOCATION.--Lat 34°25'49", long 119°49'16", in La Goleta Grant, Santa Barbara County, Hydrologic Unit 18060013, on right bank south of Hollister Avenue on Kellogg Avenue and 0.5 mi southeast of Goleta.

DRAINAGE AREA.--9.42 mi².

PERIOD OF RECORD.--October 1970 to current year.

REVISED RECORDS.--WDR CA-75-1: 1973(M).

GAGE.--Water-stage recorder and concrete channel. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 16-21. Records fair. No regulation above station. Diversions for irrigation and domestic use above station.

AVERAGE DISCHARGE.--16 years, 3.36 ft³/s, 2,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,330 ft³/s, Mar. 4, 1978, gage height, 5.65 ft, from rating curve extended above 400 ft³/s on basis of slope-conveyance computation of flow in concrete channel at gage height 8.00 ft; no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*), from rating curve extended as explained above:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	2045	*774	*3.47	Mar. 8	1045	487	2.94
Feb. 19	0615	558	3.08	Mar. 16	0445	502	2.97

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.98	.27	3.8	2.1	2.7	.68	.24	.10	.01	.01
2	0	0	14	.20	1.5	1.9	2.4	.45	.26	.09	0	0
3	0	0	3.3	.28	1.1	2.0	2.3	.53	.17	.03	0	.02
4	0	0	1.1	1.3	.81	1.8	2.3	.48	.22	.05	.05	0
5	0	0	.70	1.3	.67	1.6	3.0	.55	.11	.06	.10	.02
6	0	0	.56	.31	.58	1.5	2.7	.32	.20	.12	.02	.01
7	0	0	.46	.30	.60	1.4	3.7	.40	.12	.18	.01	0
8	0	0	.49	.31	.59	39	2.3	.33	.14	.15	.01	.02
9	.07	0	.43	.35	.53	9.5	1.9	.37	.16	.10	0	0
10	0	.17	.44	.49	.49	29	1.9	.29	.16	.06	0	.01
11	0	.68	.40	.28	.46	15	1.8	.30	.19	.08	.03	0
12	0	.02	.35	.25	18	11	1.8	.49	.13	.07	.06	0
13	0	0	.34	.26	128	13	1.6	.46	.24	.15	.02	0
14	0	0	.30	.23	181	9.4	2.1	.41	.18	.18	.03	0
15	0	0	.28	.26	42	44	1.4	.60	.26	.09	.03	0
16	0	0	.26	.15	27	71	1.3	.38	.30	.13	.02	0
17	0	0	.24	.14	12	32	1.2	.39	.16	.27	.01	.01
18	0	0	.29	.21	27	15	1.1	.32	.18	.06	.02	0
19	0	0	.36	.23	114	10	1.1	.32	.11	.03	.01	.01
20	0	0	.35	.23	22	7.8	1.0	.20	.11	.03	.05	0
21	.92	0	.32	.18	10	6.7	.99	.19	.13	.05	.01	0
22	0	0	.35	.20	7.2	6.1	1.0	.44	.09	.04	.02	.01
23	0	0	.35	.28	6.2	5.5	.99	.25	.28	.07	.04	0
24	0	7.9	.34	.17	5.6	4.9	.97	.19	.21	.03	.12	8.8
25	0	14	.28	.12	4.0	4.1	.83	.21	.21	.02	.06	.90
26	0	2.4	.40	.20	3.0	4.1	.71	.26	.18	.01	.01	.18
27	0	.80	.28	.25	3.7	3.4	.64	.20	.29	.01	.03	.15
28	0	1.5	.21	.21	2.3	3.1	.61	.24	.10	.04	0	.15
29	0	17	.31	2.3	---	3.0	.55	.16	.13	.04	.02	.11
30	0	3.1	.30	7.5	---	2.9	.55	.23	.10	.04	0	.10
31	0	---	.18	11	---	2.9	---	.27	---	.01	0	---
TOTAL	0.99	47.57	28.95	29.76	624.13	364.7	47.44	10.91	5.36	2.39	0.79	10.51
MEAN	.032	1.59	.93	.96	22.3	11.8	1.58	.35	.18	.077	.025	.35
MAX	.92	17	14	11	181	71	3.7	.68	.30	.27	.12	8.8
MIN	0	0	.18	.12	.46	1.4	.55	.16	.09	.01	0	0
AC-FT	2.0	94	57	59	1240	723	94	22	11	4.7	1.6	21

CAL YR 1985 TOTAL 244.32 MEAN 0.67 MAX 44 MIN 0 AC-FT 485
WTR YR 1986 TOTAL 1173.50 MEAN 3.22 MAX 181 MIN 0 AC-FT 2330

GAVIOTA CREEK BASIN

11120550 GAVIOTA CREEK NEAR GAVIOTA, CA

LOCATION.--Lat 34°29'16", long 120°13'34", in Nuestra Senora Del Refugio Grant, Santa Barbara County, Hydrologic Unit 18060013, on left bank 1.3 mi northwest of Gaviota and 1.6 mi upstream from mouth.

DRAINAGE AREA.--18.8 mi².

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 16 to Mar. 4, May 23 to June 4. Records fair except for periods of estimated daily discharges, which are poor. No regulation. Small pumping for domestic use.

AVERAGE DISCHARGE.--20 years, 6.42 ft³/s, 4,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,270 ft³/s, Jan. 28, 1983, gage height, 9.44 ft, from rating curve extended above 250 ft³/s on basis of slope-conveyance measurement of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	1645	*2,560	*7.82	Mar. 15	1400	1,540	7.10
Mar. 10	0915	600	6.03				

Minimum daily, 0.04 ft³/s, Oct. 3, 4, 7, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.11	.55	.51	1.0	3.2	4.2	2.2	1.1	.86	.31	.19
2	.05	.13	14	.51	.72	2.8	3.6	2.1	1.1	.77	.30	.23
3	.04	.12	2.5	.52	.64	2.6	3.2	2.1	1.1	.74	.29	.22
4	.04	.14	1.1	.88	.60	2.4	3.2	2.1	1.1	.75	.29	.20
5	.05	.15	.86	.63	.57	2.2	3.4	2.1	1.1	.79	.29	.18
6	.05	.15	.74	.51	.56	2.1	4.1	2.1	1.0	.80	.30	.18
7	.04	.15	.66	.47	.53	2.0	3.6	2.0	1.0	.82	.25	.18
8	.05	.17	.64	.46	.53	2.5	3.2	2.0	1.0	.81	.24	.18
9	.06	.15	.59	.47	.52	9.9	3.1	1.9	.99	.75	.23	.17
10	.06	.18	.58	.47	.48	173	3.0	1.8	1.0	.70	.23	.15
11	.05	.38	.59	.47	.48	32	3.0	1.7	1.0	.69	.26	.17
12	.06	.32	.57	.47	8.9	19	3.0	1.8	.97	.71	.24	.18
13	.07	.23	.58	.49	75	24	2.7	1.8	.99	.68	.24	.18
14	.06	.22	.58	.50	496	17	2.7	1.9	1.0	.65	.25	.16
15	.05	.21	.57	.52	74	160	2.7	1.8	.99	.63	.25	.16
16	.04	.20	.57	.50	15	157	2.6	1.7	.97	.58	.24	.15
17	.05	.20	.54	.49	15	47	2.5	1.6	.94	.58	.22	.15
18	.08	.21	.53	.48	35	25	2.4	1.5	.91	.53	.21	.16
19	.09	.19	.53	.49	68	18	2.3	1.4	.86	.51	.20	.16
20	.11	.20	.53	.48	30	14	2.2	1.4	.83	.49	.18	.17
21	.61	.19	.53	.47	12	12	2.2	1.5	.88	.53	.18	.17
22	.21	.20	.53	.47	9.0	10	2.4	1.4	.93	.51	.18	.19
23	.12	.22	.53	.48	7.4	8.8	2.5	1.4	.99	.45	.19	.19
24	.12	4.6	.53	.49	6.0	7.9	2.3	1.3	1.0	.43	.19	2.0
25	.11	9.4	.53	.49	5.0	7.2	2.3	1.3	.97	.42	.19	.48
26	.12	.92	.50	.47	4.4	6.6	2.2	1.3	.93	.44	.17	.27
27	.14	.53	.50	.47	4.0	6.0	2.1	1.2	.85	.42	.16	.24
28	.15	.51	.52	.48	3.5	5.7	2.0	1.2	.81	.37	.15	.23
29	.15	4.4	.52	.68	---	5.3	2.0	1.2	.80	.36	.14	.22
30	.14	.93	.48	1.1	---	4.9	2.1	1.2	.80	.31	.15	.22
31	.13	---	.50	4.4	---	4.6	---	1.2	---	.30	.17	---
TOTAL	3.16	25.71	33.48	20.32	874.83	817.2	82.8	51.2	28.91	18.38	6.89	7.73
MEAN	.10	.86	1.08	.66	31.2	26.4	2.76	1.65	.96	.59	.22	.26
MAX	.61	9.4	14	4.4	496	173	4.2	2.2	1.1	.86	.31	2.0
MIN	.04	.11	.48	.46	.48	2.0	2.0	1.2	.80	.30	.14	.15
AC-FT	6.3	51	66	40	1740	1620	164	102	57	36	14	15

CAL YR 1985	TOTAL	234.66	MEAN	.64	MAX	14	MIN	0	AC-FT	465
WTR YR 1986	TOTAL	1970.61	MEAN	5.40	MAX	496	MIN	.04	AC-FT	3910

SANTA YNEZ RIVER BASIN

11121000 SANTA YNEZ RIVER AT JAMESON LAKE, NEAR MONTECITO, CA

LOCATION.--Lat 34°29'32", long 119°30'25", in NE 1/4 NW 1/4 sec.28, T.5 N., R.25 W., Santa Barbara County, Hydrologic Unit 18060010, on upstream face of Juncal Dam, 6.5 mi north of Carpinteria, and 8 mi northeast of Montecito.

DRAINAGE AREA.--13.9 mi², excludes that of Alder Creek.

PERIOD OF RECORD.--December 1930 to current year. Prior to October 1938, published as "at Juncal Reservoir, near Montecito."

GAGE.--Two water-stage recorders. Datum of lake gage is 2,021.6 ft above National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Supplementary gage and sharp-crested weir on outlet conduit of lake release, at different datum.

REMARKS.--Records of total inflow represent all water reaching Jameson Lake, including precipitation on the lake. Total inflow computed on basis of records of storage, diversion (draft) to city of Montecito, spill and release to river, evaporation, and seepage. Records of net inflow exclude precipitation on lake surface. Monthly evaporation from lake surface computed on basis of evaporation from U.S. Weather Bureau Class A land pan. Area and capacity tables are based on survey made in 1980. Lake capacity at spillway level, gage height, 223.82 ft, 5,725 acre-ft. Dead storage, 32 acre-ft, below lowest outlet at gage height 139.0 ft included in these records. There is no regulation or diversion above station. At times flow of Alder Creek, which enters Santa Ynez River 2 mi downstream from Juncal Dam, is diverted at elevation 2,250 ft through a tunnel to Jameson Lake and is included in these records.

COOPERATION.--Reservoir-operation records and related data were provided by Montecito Water District.

AVERAGE DISCHARGE.--55 years (water years 1932-86), 7.20 ft³/s, 5,220 acre-ft/yr.

MONTHLY NET DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Gage height (feet) ^a	Contents (acre-feet)	Change in contents (acre-feet)	Draft (acre-feet)	Spill and release (acre-feet)	Evaporation and seepage (acre-feet)	Total inflow (acre-feet)	Rain on reservoir (acre-feet)	Net inflow (acre-feet)
Sept. 30.....	197.14	2,790	--	--	--	--	--	--	--
Oct. 31.....	195.06	2,600	-190	164	0	36	10	2	8
Nov. 30.....	196.83	2,760	+160	100	10	16	286	50	236
Dec. 31.....	198.11	2,880	+120	26	37	13	196	10	186
CAL YR 1985.....			-1,090	1,554	47	545	1,056	96	960
Jan. 31.....	203.39	3,380	+500	57	31	13	601	34	567
Feb. 28.....	224.07	5,760	+2,380	0	990	11	3,381	110	3,271
Mar. 31.....	224.04	5,750	-10	0	2,390	25	2,405	71	2,334
Apr. 30.....	223.94	5,740	-10	6	1,320	30	1,346	21	1,325
May 31.....	223.88	5,730	-10	74	815	41	920	0	920
June 30.....	223.10	5,630	-100	135	28	61	124	0	124
July 31.....	221.54	5,430	-200	190	0	68	58	0	58
Aug. 31.....	219.40	5,160	-270	234	0	72	36	0	36
Sept. 30.....	217.81	4,970	-190	174	0	47	31	6	25
WTR YR 1986.....			+2,180	1,160	5,621	433	9,394	304	9,090

^a Elevation at 0800.

NOTE.--For months when inflow to the lake was small and other quantities were large, preliminary computations may indicate negative net inflow. This arises primarily from the difficulty of computing net inflow as the residual of several large quantities, which are not conducive to precise measurement. When this occurs, evaporation and seepage is adjusted to produce non-negative inflows.

SANTA YNEZ RIVER BASIN

11122000 SANTA YNEZ RIVER ABOVE GIBRALTAR DAM, NEAR SANTA BARBARA, CA

LOCATION.--Lat 34°31'34", long 119°41'08", in NW 1/4 SW 1/4 sec.11, T.5 N., R.27 W., Santa Barbara County, Hydrologic Unit 18060010, on upstream face of Gibraltar Dam, 7 mi north of Santa Barbara.

DRAINAGE AREA.--216 mi².

PERIOD OF RECORD.--April 1920 to current year. November 1903 to November 1918 (fragmentary) at river station at damsite; records not equivalent because records since April 1920 are based on operation of Gibraltar Reservoir, and since December 1930, Jameson Lake. Prior to October 1945, published as "Santa Ynez River near Santa Barbara."

GAGE.--Two water-stage recorders. Datum of gage is National Geodetic Vertical Datum of 1929. Supplementary gage and sharp-crested weir on diversion from reservoir at different datum. See WSP 1735 for history of changes on both gages prior to Oct. 1, 1955. Spill and release measured by stream gaging station below dam (station 11123000).

REMARKS.--Records of total inflow represent all water reaching Gibraltar Reservoir, including precipitation on reservoir. Total inflow computed on basis of records of storage, diversion (draft) to city of Santa Barbara, spill and release to river, evaporation, and seepage. Records of net inflow exclude precipitation on reservoir surface. Monthly evaporation from reservoir surface computed on basis of evaporation from U.S. Weather Bureau Class A land pan. Area and capacity tables are based on survey made in October 1979. Reservoir capacity at spillway level, elevation, 1,399.82 ft, 8,940 acre-ft. Lowest outlet at elevation 1,333.86 ft. Flow regulated by Jameson Lake (station 11121000) since December 1930.

COOPERATION.--Reservoir-operation records and related data were provided by city of Santa Barbara.

REVISIONS.--Revised monthly and yearly discharges, in acre-feet, for water years 1934 through 1943, are tabulated below. These figures supersede those shown in WSP 1315-B and other previous Water-Supply Papers.

MONTHLY AND YEARLY DISCHARGE, IN ACRE-FEET

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	YEARLY TOTAL
1934	-37	-36	1160	*10530	*3130	*1790	272	52	79	.3	0	0	*16940
1935	370	692	1690	*9750	*2350	*4290	*9380	*2230	296	35	-22	-36	*31660
1936	-37	-36	-37	-32	*12130	*3960	*3150	433	61	2.6	1.8	-1.1	*19630
1937	16	0.4	2980	*2650	*27800	*27680	*8840	*2320	*828	41	-0.8	-0.5	*73150
1938	-0.4	0.1	674	385	*30650	*95190	*7730	*3420	*1410	386	40	0.2	*139900
1939	16	80	1340	*1820	*1710	*4510	*980	*487	111	6.3	-0.5	507	*11570
1940	0	-0.1	0.2	1010	*3490	*1590	*816	309	47	0	-1.4	0.5	*7260
1941	14	-1.5	*4310	*11520	*43030	*88730	*58800	*9920	*3270	*1460	*667	262	*222000
1942	343	462	*3060	*2310	*1650	*2030	*4260	*1720	*437	21	-8.6	3.7	*16290
1943	-50	-40	-31	*39480	*16740	*35050	*5510	*2010	*780	35	-2.0	-23	*99460

* Revised.

MONTHLY NET INFLOW, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet) ^a	Contents (acre-feet)	Change in contents (acre-feet)	Draft (acre-feet)	Spill and release (acre-feet)	Evaporation and seepage (acre-feet)	Total inflow (acre-feet)	Rain on reservoir (acre-feet)	Net inflow (acre-feet)
Sept. 30.....	1,375.99	3,550	--	--	--	--	--	--	--
Oct. 31.....	1,372.10	2,920	-630	564	27	47	8	6	2
Nov. 30.....	1,370.96	2,740	-180	298	3	22	143	92	51
Dec. 31.....	1,368.81	2,410	-330	480	0	16	166	14	152
CAL YR 1985.....	--	--	-1,950	4,535	54	773	3,412	180	3,232
Jan. 31.....	1,373.09	3,080	+670	69	0	20	759	41	718
Feb. 28.....	1,399.28	8,410	+5,330	32	27,400	27	32,789	208	32,581
Mar. 31.....	1,399.61	8,490	+80	435	23,300	52	23,867	150	23,717
Apr. 30.....	1,399.84	8,550	+60	518	4,930	85	5,593	33	5,560
May 31.....	1,400.17	8,630	+80	676	405	126	1,287	0	1,287
June 30.....	1,399.52	8,470	-160	242	31	139	252	0	252
July 31.....	1,397.51	7,960	-510	311	128	150	79	0	79
Aug. 31.....	1,395.24	7,390	-570	414	0	156	0	0	0
Sept. 30.....	1,393.31	6,940	-450	348	0	118	16	16	0
WTR YR 1986.....	--	--	+3,390	4,387	56,224	958	64,959	560	64,399

^a Elevation at 0800.

NOTE.--For months when inflow to the reservoir was small and other quantities were large, negative figures of inflow may appear. This arises primarily from the difficulty of computing inflow as the residual of several larger quantities, which are not conducive to precise measurement. When this occurs, evaporation and seepage is adjusted to produce non-negative inflows.

SANTA YNEZ RIVER BASIN

11123000 SANTA YNEZ RIVER BELOW GIBRALTAR DAM, NEAR SANTA BARBARA, CA

LOCATION.--Lat 34°31'28", long 119°41'11", in SW 1/4 SW 1/4 sec.11, T.5 N., R.27 W., Santa Barbara County, Hydrologic Unit 18060010, on left bank 700 ft downstream from Gibraltar Dam and 7 mi north of Santa Barbara.

DRAINAGE AREA.--216 mi².

PERIOD OF RECORD.--April 1920 to current year (monthly discharge only prior to October 1941).

GAGE.--Two water-stage recorders. Datum of gage on main channel is 1,227 ft above National Geodetic Vertical Datum of 1929. Supplementary gage and sharp-crested weir on the release channel from Gibraltar Dam to river at different datum. See WSP 1735 for history of changes on both gages prior to May 20, 1958.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Jameson Lake (station 11121000) and Gibraltar Reservoir (station 11122000). City of Santa Barbara diverted 4,380 acre-ft during current year from Gibraltar Reservoir; Montecito Water District diverted 1,160 acre-ft during current year from Jameson Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,200 ft³/s, Jan. 25, 1969, gage height, 25.8 ft, from rating curve extended above 2,100 ft³/s on basis of computations of flow from gate openings and flow over dam at gage heights 17.5 ft and 25.8 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,900 ft³/s, Feb. 15 (manipulation of spill gates), gage height, 15.89 ft; no flow several months.

REVISIONS.--Revised monthly and yearly discharges, in acre-feet, for water years 1934 to 1943, are tabulated below. These figures supersede those shown in WSP 1315-B and other previous Water-Supply Papers.

MONTHLY AND YEARLY DISCHARGE, IN ACRE-FEET

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	YEARLY TOTAL
1934	30	30	14	*8500	*3060	*1590	5.6	42	52	31	*31	30	*13410
1935	43	82	53	*8760	*2220	*4500	*9040	*1830	338	53	31	30	*26980
1936	31	30	*64	31	*9000	*3720	*2870	93	120	31	31	30	*16040
1937	31	30	27	*1800	*27900	*27730	*8770	*1820	*377	39	31	30	*68560
1938	31	30	12	0	*28910	*95510	*7650	*3110	*791	73	31	30	*136200
1939	31	30	14	*1250	*1620	*4550	*705	*135	32	31	30	29	*8360
1940	30	30	30	3.7	*1260	*1370	*488	0	10	31	31	29	*3310
1941	31	28	*743	*11530	*42630	*89530	*58990	*9900	*2610	*1000	*287	108	*217400
1942	109	101	*2840	*2310	*1530	*1870	*4140	*1180	*100	35	31	25	*14280
1943	27	26	3.2	*36750	*16850	*35150	*5470	*1660	*432	31	31	30	*96460

* Revised.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0			0	96	113	25	0	3.6		
2	0	0			0	83	113	23	0	3.8		
3	0	0			0	35	136	22	0	3.6		
4	1.1	0			0	69	78	15	0	3.4		
5	1.7	0			0	109	91	22	0	3.5		
6	1.7	0			0	84	154	20	0	3.6		
7	1.7	0			0	71	608	19	0	3.6		
8	1.7	0			0	207	678	18	0	3.6		
9	1.7	0			0	414	.50	18	0	3.2		
10	1.7	0			0	841	.23	17	0	2.9		
11	1.7	0			0	720	.17	5.3	0	2.9		
12	.80	0			0	461	.15	0	0	2.9		
13	0	0			1.9	489	.15	0	0	2.9		
14	0	0			1130	348	.18	0	0	.76		
15	0	0			4500	524	4.2	0	0	1.2		
16	0	0			1380	1350	14	0	.04	2.6		
17	0	.12			641	1110	25	0	0	2.4		
18	0	.32			494	872	79	0	0	1.9		
19	0	.39			2090	529	56	0	0	1.8		
20	0	.38			1170	578	40	0	0	1.7		
21	0	.32			644	445	39	0	0	1.7		
22	0	.19			453	409	28	0	0	1.8		
23	0	0			356	289	25	0	0	1.9		
24	0	0			289	255	29	0	0	2.1		
25	0	0			87	341	31	0	0	1.0		
26	0	0			283	133	32	0	1.8	0		
27	0	0			174	373	30	0	3.5	0		
28	0	0			106	178	30	0	3.5	0		
29	0	0			---	125	23	0	3.4	0		
30	0	0			---	92	27	0	3.6	0		
31	0	---			---	100	---	0	---	0		
TOTAL	13.80	1.72	0	0	13798.9	11730	2484.58	204.3	15.84	64.36	0	0
MEAN	.45	.057	0	0	493	378	82.8	6.59	.53	2.08	0	0
MAX	1.7	.39	0	0	4500	1350	678	25	3.6	3.8	0	0
MIN	0	0	0	0	0	35	.15	0	0	0	0	0
AC-FT	27	3.4	0	0	27370	23270	4930	405	31	128	0	0

SANTA YNEZ RIVER BASIN

11123500 SANTA YNEZ RIVER BELOW LOS LAURELES CANYON, NEAR SANTA YNEZ, CA

LOCATION.--Lat 34°32'37", long 119°51'50", in San Marcos Grant, Santa Barbara County, Hydrologic Unit 18060010, on left bank 0.3 mi downstream from Los Laureles Canyon Creek, 10 mi downstream from Gibraltar Reservoir, and 13.3 mi east of Santa Ynez.

DRAINAGE AREA.--277 mi².

PERIOD OF RECORD.--April 1947 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 787.8 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Jameson Lake and Gibraltar Reservoir (stations 11121000 and 11122000). Water diverted out of basin from these reservoirs to cities of Montecito and Santa Barbara for municipal supply. Low flow affected by intermittent pumping for irrigation from infiltration gallery in riverbed at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 67,500 ft³/s, Jan. 25, 1969, gage height, 18.88 ft, from rating curve extended above 11,600 ft³/s on basis of maximum flow for station below Gibraltar Dam plus tributary inflow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,010 ft³/s, Feb. 15, gage height, 9.05 ft; no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	4.8	115	102	46	.59	.02		
2				0	2.0	102	104	42	.50	.01		
3				0	1.0	87	102	37	.44	.01		
4				0	.33	35	126	34	.35	.01		
5				0	.11	60	37	26	.34	.01		
6				0	.11	96	114	33	.22	.01		
7				0	.48	63	375	30	.17	.01		
8				0	2.8	149	512	26	.13	0		
9				0	4.3	249	67	23	.11	0		
10				0	6.5	527	16	23	.11	0		
11				0	9.8	669	11	21	.10	0		
12				0	17	390	9.5	16	.10	0		
13				0	337	354	8.6	9.1	.09	0		
14				0	912	301	8.0	7.0	.09	0		
15				0	4790	437	7.9	5.5	.08	0		
16				0	1750	1080	7.9	4.8	.08	0		
17				0	804	973	17	4.0	.07	0		
18				0	543	736	48	3.4	.07	0		
19				0	1870	521	101	2.8	.06	0		
20				0	1190	443	59	2.7	.06	0		
21				0	638	349	58	2.3	.05	0		
22				0	424	325	58	2.4	.05	0		
23				0	324	274	38	2.1	.04	0		
24				0	281	210	40	1.9	.04	0		
25				0	194	243	45	1.7	.04	0		
26				0	105	197	51	1.4	.03	0		
27				0	238	174	52	1.2	.03	0		
28				0	114	216	50	1.0	.03	0		
29				0	---	109	55	.90	.02	0		
30				0	---	112	39	.66	.02	0		
31				4.8	---	85	---	.65	---	0		
TOTAL	0	0	0	4.8	14563.23	9681	2318.9	412.51	4.11	0.08	0	0
MEAN	0	0	0	.15	520	312	77.3	13.3	.14	.003	0	0
MAX	0	0	0	4.8	4790	1080	512	46	.59	.02	0	0
MIN	0	0	0	0	.11	35	7.9	.65	.02	0	0	0
AC-FT	0	0	0	9.5	28890	19200	4600	818	8.2	.2	0	0
CAL YR 1985	TOTAL	278.59	MEAN	.76	MAX	12	MIN	0	AC-FT	553		
WTR YR 1986	TOTAL	26984.63	MEAN	73.9	MAX	4790	MIN	0	AC-FT	53520		

SANTA YNEZ RIVER BASIN

11124500 SANTA CRUZ CREEK NEAR SANTA YNEZ, CA

LOCATION.--Lat 34°35'48", long 119°54'28", in San Marcos Grant, Santa Barbara County, Hydrologic Unit 18060010, on right bank 0.6 mi downstream from Pine Canyon, and 9.9 mi east of Santa Ynez.

DRAINAGE AREA.--74.0 mi².

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 783.38 ft above National Geodetic Vertical Datum of 1929. See WSP 1735 for history of changes prior to Sept. 27, 1952. Sept. 27, 1952, to June 24, 1969, at datum 3.25 ft higher.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--45 years, 18.0 ft³/s, 13,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft³/s, Feb. 24, 1969, gage height, 14.45 ft, from floodmark, present datum, from rating curve extended above 2,500 ft³/s on basis of slope-area measurement at gage height 14.16 ft; no flow at times since 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*), from rating curve extended above 160 ft³/s on basis of slope-area measurement at gage height 12.10 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	2045	111	7.93	Feb. 19	0815	731	9.54
Jan. 31	2145	147	8.10	Mar. 10	2015	263	8.52
Feb. 14	2330	*1,650	*10.73	Mar. 15	1600	321	8.69

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	6.0	1.2	60	33	42	15	6.2	.54	.03	
2		0	11	1.2	23	30	40	14	5.9	.46	.02	
3		0	28	1.2	16	29	38	14	6.1	.49	.02	
4		0	7.4	2.6	12	27	37	15	5.7	.42	.02	
5		0	3.3	14	9.9	25	37	15	5.7	.46	.01	
6		0	1.8	9.4	8.4	24	37	14	5.7	.46	.01	
7		0	1.2	6.2	7.2	23	35	14	5.6	.47	.01	
8		0	.91	4.6	6.6	66	33	14	5.6	.57	0	
9		0	.72	4.0	5.9	64	31	13	4.7	.54	0	
10		0	.75	3.4	5.4	163	30	13	4.0	.43	0	
11		0	.77	3.1	5.1	151	28	13	3.8	.34	0	
12		0	.73	2.6	6.3	125	27	13	3.5	.24	0	
13		0	.82	2.5	363	106	27	12	3.4	.19	0	
14		0	.86	2.4	493	95	26	12	3.4	.14	0	
15		0	.87	2.2	611	120	25	12	3.3	.11	0	
16		0	.84	2.2	244	181	24	12	3.4	.08	0	
17		0	.75	2.3	133	146	23	11	3.3	.06	0	
18		0	.75	2.3	144	132	23	10	3.1	.05	0	
19		0	.73	2.1	329	112	22	9.9	3.1	.05	0	
20		0	.73	1.8	163	99	21	9.7	2.7	.05	0	
21		0	.72	1.7	108	92	20	9.8	2.4	.05	0	
22		0	.70	1.7	81	86	19	10	2.2	.04	0	
23		0	.74	1.7	65	78	19	9.9	1.9	.04	0	
24		0	.75	1.7	56	72	19	10	1.7	.04	0	
25		0	.72	1.7	47	66	19	9.5	1.5	.04	0	
26		.30	.70	1.6	42	61	18	8.8	1.2	.04	0	
27		0	.72	1.5	38	54	17	8.6	1.1	.04	0	
28		0	.76	1.4	35	51	16	8.0	.93	.04	0	
29		25	.96	1.9	---	49	16	7.2	.77	.03	0	
30		29	1.3	53	---	47	15	6.6	.71	.03	0	
31		---	1.3	63	---	45	---	6.6	---	.03	0	
TOTAL	0	54.30	78.30	202.2	3117.8	2452	784	350.6	102.61	6.57	0.12	0
MEAN	0	1.81	2.53	6.52	111	79.1	26.1	11.3	3.42	.21	.004	0
MAX	0	29	28	63	611	181	42	15	6.2	.57	.03	0
MIN	0	0	.70	1.2	5.1	23	15	6.6	.71	.03	0	0
AC-FT	0	108	155	401	6180	4860	1560	695	204	13	.2	0
CAL YR 1985	TOTAL	1314.74	MEAN	3.60	MAX	115	MIN	0	AC-FT	2610		
WTR YR 1986	TOTAL	7148.50	MEAN	19.6	MAX	611	MIN	0	AC-FT	14180		

SANTA YNEZ RIVER BASIN

11125500 LAKE CACHUMA NEAR SANTA YNEZ, CA

LOCATION.--Lat 34°34'57", long 119°58'47", in Lomas de la Purification Grant, Santa Barbara County, Hydrologic Unit 18060010, at Bradbury Dam on Santa Ynez River, on upstream face near left end of dam, and 6.1 mi east of Santa Ynez.

DRAINAGE AREA.--417 mi².

PERIOD OF RECORD.--November 1952 to current year. Prior to October 1985, only monthend elevations and contents, and total diversions published. November 1952 to October 1960, published as "Cachuma Reservoir near Santa Ynez."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Prior to Oct. 1, 1965, nonrecording gage.

REMARKS.--Reservoir is formed by earthfill dam. Storage began November 1952. Capacity table is based on surveys made in January 1953. Dead storage below outlet gage to river, elevation, 600 ft, 3,114 acre-ft, included in contents. Capacity below sill of inlet to Tecolote tunnel, elevation, 660 ft, 32,514 acre-ft, below spillway level, elevation, 720 ft, 125,292 acre-ft, below top of 4 radial gates, elevation, 750 ft, 204,874 acre-ft. Water is released from outlet to Santa Ynez River to satisfy downstream water rights. Water diverted to Tecolote tunnel for use by city of Santa Barbara, nearby communities, Santa Ynez River Water Conservation District, and to Cachuma recreation area.

COOPERATION.--Reservoir elevation, contents, and diversion figures were provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 221,100 acre-ft, Feb. 24, 1969, elevation, 755.11 ft; minimum since initial filling in April 1958, 105,300 acre-ft, Dec. 24, 25, 1977, elevation 710.56 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 200,397 acre-ft, Apr. 22-24, elevation, 748.54 ft; minimum, 130,232 acre-ft, Jan. 29, elevation, 722.17 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

720	125,292	735	162,004	750	204,874
725	136,861	740	175,569	755	220,694
730	149,099	745	189,827	760	237,200

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135511	132832	132014	130996	130788	168519	196467	200215	196919	192535	185850	176156
2	135274	132761	132153	130996	130857	168790	196678	200184	196858	192358	185447	175904
3	135203	132691	132176	130973	130857	169061	197009	200093	196768	192211	185072	175653
4	135109	132644	132153	130996	130834	169251	197310	199971	196648	192005	184698	175403
5	135014	132551	132130	131019	130834	169387	197580	199880	196527	191858	184323	175182
6	134872	132481	132107	130996	130811	169631	197821	199728	196407	191681	183921	174961
7	134730	132364	132084	130996	130788	169794	198122	199606	196287	191505	183550	174740
8	134588	132270	132037	130973	130765	170038	198967	199515	196166	191328	183151	174518
9	134517	132176	132014	130950	130741	170996	199880	199454	196046	191122	182781	174297
10	134470	132060	131922	130927	130718	172119	199971	199332	195956	190945	182410	174048
11	134376	132176	131875	130903	130695	174048	200032	199210	195865	190769	182039	173799
12	134306	132153	131806	130880	130718	175514	200062	199119	195686	190592	181754	173689
13	134236	132107	131736	130857	131574	176574	200093	199028	195507	190416	181498	173578
14	134165	132060	131690	130834	130788	177775	200093	198906	195358	190268	181213	173495
15	134072	131991	131621	130811	142336	178672	200123	198784	195180	190121	180958	173385
16	133978	131945	131574	130788	149402	180930	200093	198694	195061	189945	180704	173274
17	133885	131875	131528	130765	152393	184006	200062	198604	194882	189769	180450	173163
18	133791	131783	131505	130765	154002	186253	200093	198543	194704	189565	180196	173053
19	133674	131760	131482	130741	155962	188022	200184	198453	194555	189390	179914	172915
20	133557	131667	131459	130672	160871	189157	200336	198363	194347	189245	179604	172777
21	133487	131574	131413	130649	163042	190327	200367	198212	194168	189041	179265	172667
22	133417	131528	131389	130579	164399	191328	200397	198092	193960	188895	178898	172557
23	133346	131459	131343	130533	165417	192181	200397	197972	193811	188779	178560	172421
24	133300	131436	131320	130487	166250	192859	200397	197851	193633	188633	178222	172311
25	133229	131736	131274	130441	166922	193454	200367	197731	193484	188459	177915	172311
26	133183	131806	131227	130394	167298	194406	200336	197611	193306	188080	177692	172229
27	133112	131806	131181	130348	167813	194555	200336	197490	193157	187702	177440	172119
28	133066	131736	131135	130302	168220	195150	200306	197340	193008	187324	177189	171982
29	133019	131922	131112	130232	---	195596	200276	197219	192830	186945	176938	171928
30	132949	132014	131089	130394	---	195926	200276	197069	192682	186599	176658	171873
31	132878	---	131042	130603	---	196196	---	196979	---	186225	176407	---
MAX	135511	132832	132176	131019	168220	196196	200397	200215	196919	192535	185850	176156
MIN	132878	131436	131042	130232	130695	168519	196467	196979	192682	186225	176407	171873
a	723.31	722.94	722.52	722.33	737.32	747.15	748.50	747.41	745.97	743.76	740.30	738.66
b	-2870	-864	-972	-439	+37617	+27976	+4080	-3297	-4297	-6457	-9818	-4534
c	1757	1283	1008	1029	990	1267	1774	3456	3082	3476	3256	2106

CAL YR 1985 b -37585

WTR YR 1986 b +36125

a Elevation in feet NGVD at end of month.

SANTA YNEZ RIVER BASIN

11128300 ALISAL RESERVOIR NEAR SOLVANG, CA

LOCATION.--Lat 34°32'56", long 120°07'45", in NE 1/4 NW 1/4 sec.4, T.5 N., R.31 W., Santa Barbara County, Hydrologic Unit 18060010, in cove, on right bank 0.4 mi upstream from reservoir spillway and 3 mi south of Solvang.

DRAINAGE AREA.--7.83 mi².

PERIOD OF RECORD.--December 1971 to current year. Prior to October 1985, only monthend elevations and contents published.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by earthfill dam. Storage began Dec. 19, 1970. Usable capacity, 2,260 acre-ft between bottom of outlet gate at elevation 555.70 ft, and crest of spillway, at elevation 599.88 ft. Dead storage, 110 acre-ft. Inflow must total 150 acre-ft during any 1 month between November and June in order to store flows for that water year.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,770 acre-ft, Mar. 4, 1978, elevation, 604.31 ft; minimum, 748 acre-ft, Nov. 8-10, 1972, elevation, 577.15 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,680 acre-ft, Feb. 14, elevation, 603.38 ft; minimum, 2,030 acre-ft, Nov. 10, elevation, 596.41 ft.

Capacity table (elevation in feet NGVD, and contents, in acre-feet)

595	1,940
600	2,380
605	2,840

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 1800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2090	2060	2090	2130	2160	2380	2380	2370	2360	2330	2280	2230
2	2090	2060	2110	2130	2160	2380	2380	2370	2360	2330	2280	2230
3	2080	2060	2120	2130	2160	2380	2380	2370	2360	2330	2280	2230
4	2080	2060	2120	2130	2160	2380	2380	2370	2360	2330	2280	2230
5	2080	2060	2120	2130	2160	2380	2380	2370	2360	2320	2270	2220
6	2080	2060	2120	2130	2160	2380	2380	2370	2360	2320	2270	2220
7	2080	2060	2120	2130	2170	2380	2380	2370	2360	2320	2270	2220
8	2080	2060	2120	2130	2170	2390	2380	2370	2360	2320	2270	2220
9	2080	2060	2120	2130	2170	2380	2380	2370	2360	2320	2270	2220
10	2080	2060	2120	2130	2170	2420	2380	2370	2350	2320	2270	2220
11	2070	2070	2120	2130	2170	2370	2380	2370	2350	2320	2260	2210
12	2070	2070	2120	2130	2170	2330	2380	2370	2350	2310	2260	2210
13	2070	2070	2120	2130	2420	2310	2380	2370	2350	2310	2260	2210
14	2070	2070	2120	2130	2510	2360	2380	2370	2350	2310	2260	2210
15	2070	2060	2120	2130	2430	2440	2380	2370	2350	2310	2260	2210
16	2070	2060	2120	2130	2420	2440	2370	2370	2350	2310	2250	2210
17	2070	2060	2120	2130	2420	2390	2370	2370	2350	2310	2250	2200
18	2070	2060	2120	2130	2460	2360	2370	2370	2350	2300	2250	2200
19	2070	2060	2120	2130	2440	2350	2370	2370	2350	2300	2250	2200
20	2070	2060	2120	2130	2400	2380	2370	2370	2340	2300	2250	2200
21	2070	2060	2120	2130	2390	2390	2370	2370	2340	2300	2250	2190
22	2070	2060	2120	2130	2390	2390	2370	2370	2340	2300	2250	2190
23	2070	2060	2120	2130	2380	2380	2370	2370	2340	2290	2240	2190
24	2070	2070	2120	2130	2380	2380	2370	2370	2340	2290	2240	2190
25	2070	2080	2120	2130	2380	2380	2370	2370	2340	2290	2240	2190
26	2070	2080	2120	2130	2380	2380	2370	2370	2340	2290	2240	2190
27	2070	2080	2120	2130	2380	2380	2370	2360	2340	2290	2240	2190
28	2070	2080	2120	2130	2380	2380	2370	2360	2330	2290	2230	2190
29	2070	2090	2120	2130	---	2380	2370	2360	2330	2290	2230	2190
30	2070	2090	2130	2140	---	2380	2370	2360	2330	2290	2230	2180
31	2060	---	2130	2150	---	2380	---	2360	---	2280	2230	---
MAX	2090	2090	2130	2150	2510	2440	2380	2370	2360	2330	2280	2230
MIN	2060	2060	2090	2130	2160	2300	2370	2360	2330	2280	2230	2180
a	596.48	596.82	597.17	597.47	600.03	599.98	599.90	599.81	599.46	598.92	599.33	597.83
b	-30	+30	+40	+20	+230	0	-10	-10	-30	-50	-50	-50

CAL YR 1985 b -90

WTR YR 1986 b +90

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

SANTA YNEZ RIVER BASIN

11128500 SANTA YNEZ RIVER AT SOLVANG, CA

LOCATION.--Lat 34°35'08", long 120°08'37", in San Carlos de Jonata Grant, Santa Barbara County, Hydrologic Unit 18060010, near left bank on downstream end of pier of Alisal Road bridge, 25 ft downstream from Alisal Creek, 0.8 mi southwest of Solvang, and 10 mi downstream from Lake Cachuma.

DRAINAGE AREA.--579 mi².

PERIOD OF RECORD.--October 1928 to November 1936, June 1937 to November 1940 (irrigation seasons only), October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 362.43 ft above National Geodetic Vertical Datum of 1929. Various datums used during period of record. July 29 to Sept. 30, 1953, auxiliary water-stage recorder 750 ft upstream at different datum. Oct. 1, 1953, to Sept. 30, 1968, water-stage recorder at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Sept. 27-30. Records poor. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952 by Lake Cachuma (stations 11121000, 11122000 and 11125500). Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water for irrigation pumped from wells along banks of river in valley upstream.

EXTREMES FOR PERIOD OF RECORD (1928-36 and since 1946).--Maximum discharge, 82,000 ft³/s, estimated on basis of discharge measurements up to 81,000 ft³/s for Santa Ynez River near Buelton, gage height, 17.1 ft, from flood mark; no flow for several months in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,420 ft³/s, Feb. 14, gage height, 2.68 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	0	4.2	.88	1.0	9.6	13	.48	0	0	57	56
2	46	0	7.2	.77	1.6	8.1	12	.24	.17	0	63	60
3	6.6	0	5.7	.79	2.0	5.5	8.7	0	.27	0	68	46
4	.37	0	4.4	1.2	2.0	3.4	6.0	.03	.27	0	72	43
5	0	0	3.2	1.3	2.0	2.1	7.7	.59	.13	0	66	43
6	0	0	2.8	1.1	1.8	1.7	9.4	1.1	.02	0	65	43
7	0	0	2.2	1.1	1.9	1.6	8.8	1.0	.04	0	67	40
8	0	0	2.1	1.2	2.0	22	8.1	.92	.01	0	69	40
9	0	0	1.9	1.1	2.8	29	7.3	.77	0	0	70	41
10	0	.05	1.8	1.2	3.3	205	6.4	.58	0	0	68	44
11	0	2.5	1.8	1.6	2.8	161	5.2	.51	0	0	68	43
12	0	2.2	2.2	1.6	3.8	103	4.7	.44	0	0	29	21
13	0	1.7	2.4	1.9	52	68	5.1	.54	0	0	23	1.6
14	0	1.6	1.8	2.0	243	43	5.2	.62	0	0	23	.67
15	0	1.9	1.7	1.1	378	165	7.3	.53	0	0	21	.24
16	0	1.9	1.6	.56	126	347	8.3	.46	0	0	21	0
17	0	1.6	1.7	.35	59	259	7.8	.48	0	0	22	0
18	0	1.3	1.4	.18	69	168	8.2	.42	0	0	25	0
19	0	1.3	1.2	.19	285	95	7.8	.52	0	0	52	0
20	0	.97	1.2	.17	130	47	7.8	.66	0	0	59	0
21	0	.27	1.2	.13	69	49	8.3	.77	0	0	62	0
22	0	.16	1.2	.13	42	44	4.9	.87	0	0	61	0
23	0	.69	1.1	.10	30	37	3.2	.77	0	0	60	0
24	0	4.0	1.1	.06	23	32	2.7	.76	0	0	42	.05
25	0	7.5	1.1	.03	19	28	2.2	.54	0	0	39	.17
26	0	5.1	1.1	.04	16	24	2.0	.43	0	0	36	.20
27	0	3.2	.86	.02	14	21	1.5	.43	0	0	37	.40
28	0	2.9	.66	.02	12	18	.97	.39	0	0	38	.90
29	0	8.5	.79	.04	---	17	.69	.25	0	0	40	1.0
30	0	5.9	.73	.14	---	15	.58	.03	0	22	46	1.1
31	0	---	.81	.92	---	15	---	.02	---	54	51	---
TOTAL	99.97	55.24	63.15	21.92	1594.0	2044.0	181.84	16.15	0.91	76	1520	526.33
MEAN	3.22	1.84	2.04	.71	56.9	65.9	6.06	.52	.030	2.45	49.0	17.5
MAX	47	8.5	7.2	2.0	378	347	13	1.1	.27	54	72	60
MIN	0	0	.66	.02	1.0	1.6	.58	0	0	0	21	0
AC-FT	198	110	125	43	3160	4050	361	32	1.8	151	3010	1040
CAL YR 1985	TOTAL	1354.15	MEAN	3.71	MAX	76	MIN	0	AC-FT	2690		
WTR YR 1986	TOTAL	6199.51	MEAN	17.0	MAX	378	MIN	0	AC-FT	12300		

SANTA YNEZ RIVER BASIN

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA

LOCATION.--Lat 34°35'19", long 120°24'27", in W 1/2 sec.24, T.6 N., R.34 W., Santa Barbara County, Hydrologic Unit 18060010, on right bank at bridge on Jalama Road, 0.4 mi downstream from El Jaro Creek, and 4.4 mi southeast of Lompoc.

DRAINAGE AREA.--47.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1941 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Elevation of gage is 220 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 28 to Mar. 4, June 8 to July 1. Records fair except for periods of estimated daily discharges, which are poor. No regulation above station. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--45 years, 10.3 ft³/s, 7,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s, Mar. 15, 1952, gage height, 20.8 ft; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	1800	*6,270	*9.76	Mar. 15	1445	3,320	7.32
Mar. 10	0800	1,020	4.45				

Minimum daily, 0.09 ft³/s, Oct. 2-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.13	1.5	.81	5.4	7.5	12	4.6	4.0	1.5	.88	.95
2	.09	.12	40	.73	2.5	6.5	11	4.6	4.2	1.3	.88	.62
3	.09	.12	6.5	.75	2.1	6.0	11	4.6	3.6	1.4	1.0	.68
4	.09	.12	2.6	1.3	1.8	5.8	10	4.3	3.2	1.0	.98	.75
5	.09	.13	1.7	1.5	1.4	5.7	10	4.2	3.3	.88	.84	.70
6	.09	.13	1.4	1.2	1.4	5.4	10	4.3	3.3	.88	.78	.71
7	.10	.13	1.2	1.0	1.3	5.3	9.8	4.2	3.1	.88	.73	.84
8	.10	.13	.98	.88	1.3	45	9.6	3.9	2.9	.98	1.0	.75
9	.10	.13	.88	.88	1.2	17	9.2	3.9	2.7	1.0	.99	.69
10	.10	.13	.88	.74	1.2	410	8.7	3.9	2.5	1.0	1.0	.60
11	.10	.20	.88	.73	1.1	71	8.3	3.9	2.3	1.0	1.0	.60
12	.10	.17	.75	.73	17	39	8.2	3.8	2.2	1.0	.98	.60
13	.10	.15	.73	.73	394	108	7.8	3.6	2.0	1.1	1.1	.65
14	.10	.15	.73	.73	1140	55	7.4	4.4	1.9	1.2	1.0	.73
15	.10	.15	.80	.73	153	538	7.4	4.7	1.7	.90	1.0	.76
16	.10	.15	.81	.73	40	452	7.2	4.8	1.6	.88	1.0	.71
17	.11	.15	.88	.73	37	116	6.9	4.5	1.6	.83	1.0	.63
18	.11	.15	.85	.85	108	80	6.5	4.5	1.5	.79	1.0	.60
19	.11	.14	.88	.88	163	58	5.8	4.9	1.5	.88	1.0	.60
20	.11	.14	.81	.88	35	41	5.4	5.1	1.4	.88	1.0	.60
21	.12	.15	.73	.88	24	33	5.2	5.3	1.4	.84	1.1	.52
22	.13	.15	.73	.88	20	29	5.0	3.5	1.4	.75	1.2	.48
23	.12	.14	.73	.88	17	25	5.1	3.8	1.3	.96	1.3	.59
24	.11	1.2	.73	.88	13	22	5.0	3.9	1.3	.97	1.4	2.4
25	.12	20	.73	.88	11	21	5.0	3.4	1.3	.87	1.2	6.4
26	.12	4.5	.73	.88	11	19	5.0	3.8	1.3	.73	1.0	1.9
27	.12	1.2	.73	.88	10	16	5.0	3.8	1.3	.79	1.1	1.3
28	.12	.69	.73	.88	8.5	15	4.9	4.1	1.3	.96	1.2	1.1
29	.12	13	.85	1.0	---	15	4.6	4.0	1.4	1.0	1.2	.99
30	.13	4.5	.88	5.0	---	14	4.6	3.3	1.5	.88	1.0	.87
31	.13	---	.88	8.8	---	13	---	3.1	---	.91	1.0	---
TOTAL	3.33	48.35	74.21	39.35	2222.2	2294.2	221.6	128.7	64.0	29.94	31.86	30.32
MEAN	.11	1.61	2.39	1.27	79.4	74.0	7.39	4.15	2.13	.97	1.03	1.01
MAX	.13	20	40	8.8	1140	538	12	5.3	4.2	1.5	1.4	6.4
MIN	.09	.12	.73	.73	1.1	5.3	4.6	3.1	1.3	.73	.73	.48
AC-FT	6.6	96	147	78	4410	4550	440	255	127	59	63	60

CAL YR 1985 TOTAL 458.37 MEAN 1.26 MAX 40 MIN .09 AC-FT 909
WTR YR 1986 TOTAL 5188.06 MEAN 14.2 MAX 1140 MIN .09 AC-FT 10290

SANTA YNEZ RIVER BASIN

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL DATA: Water years 1978 to current year.

pH: Water years 1982-83.

WATER TEMPERATURE: Water years 1982-83.

PERIOD OF DAILY RECORD.--

pH: October 1981 to September 1983.

WATER TEMPERATURE: October 1981 to September 1983.

INSTRUMENTATION.--Water-quality monitor from October 1981 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

pH: Maximum, 8.8 units, July 30, Sept. 16, 1983; minimum, 7.2 units, June 6, 16, 1983.

WATER TEMPERATURE: Maximum recorded, 26.0°C, July 13, 14, 1983; minimum recorded, 3.5°C, Jan. 8, 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 1985									
01...	1025	0.10	1690	7.60	14.5	--	--	--	--
NOV									
05...	1230	0.13	1780	7.80	16.0	--	--	--	--
DEC									
02...	1335	88	445	7.80	11.0	--	--	--	--
JAN 1986									
07...	1225	1.0	1550	8.00	11.0	590	220	140	59
FEB									
05...	1200	1.6	1340	8.10	10.5	--	--	--	--
MAR									
04...	1300	5.7	1260	8.30	18.5	--	--	--	--
APR									
02...	1405	11	1400	8.40	16.5	--	--	--	--
MAY									
05...	1300	4.2	1300	8.20	19.0	--	--	--	--
JUN									
03...	1600	3.2	1290	8.20	22.0	--	--	--	--
30...	1440	1.5	1300	8.30	23.5	--	--	--	--
AUG									
05...	1435	0.88	1450	8.20	26.5	--	--	--	--
SEP									
08...	1530	0.93	1450	7.90	22.0	--	--	--	--

SANTA YNEZ RIVER BASIN

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD (MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 1985								
01...	--	--	--	--	--	--	--	--
NOV								
05...	--	--	--	--	--	--	--	--
DEC								
02...	--	--	--	--	--	--	--	--
JAN 1986								
07...	110	29	2	3.4	377	290	150	0.50
FEB								
05...	--	--	--	--	--	--	--	--
MAR								
04...	--	--	--	--	--	--	--	--
APR								
02...	--	--	--	--	--	--	--	--
MAY								
05...	--	--	--	--	--	--	--	--
JUN								
03...	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
AUG								
05...	--	--	--	--	--	--	--	--
SEP								
08...	--	--	--	--	--	--	--	--

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1985								
01...	--	1130	--	--	--	--	--	--
NOV								
05...	--	1160	--	--	--	--	--	--
DEC								
02...	--	270	--	--	--	--	--	--
JAN 1986								
07...	27	--	1000	<0.100	0.150	770	20	83
FEB								
05...	--	949	--	--	--	--	--	--
MAR								
04...	--	925	--	--	--	--	--	--
APR								
02...	--	948	--	--	--	--	--	--
MAY								
05...	--	942	--	--	--	--	--	--
JUN								
03...	--	845	--	--	--	--	--	--
30...	--	892	--	--	--	--	--	--
AUG								
05...	--	962	--	--	--	--	--	--
SEP								
08...	--	960	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

SANTA YNEZ RIVER BASIN

11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA

LOCATION.--Lat 34°38'14", long 120°25'28", in Canada de Salsipuedes Grant, Santa Barbara County, Hydrologic Unit 18060010 on left bank 0.6 mi upstream from State Highway 246, 1.9 mi east of Lompoc, 1.8 mi downstream from Salsipuedes Creek, and 12.4 mi downstream from Lake Cachuma.

DRAINAGE AREA.--789 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1947 to November 1951 (irrigation seasons only). May 1952 to September 1963, October 1964 to September 1978, October 1980 to current year. Records equivalent, except for low-flow periods, to those published as "near Lompoc" (station 11133500), November to December 1906, October 1907 to September 1918, May 1925 to September 1960, October 1978 to September 1980.

GAGE.--Two water-stage recorders. Elevation of main gage is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1715 for history of changes prior to Oct. 1, 1961. Since Oct. 1, 1961, at various sites and datums within 0.1 mi of present site. Supplementary gage, used for high-water periods, at site 0.6 mi downstream at datum 79.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Mar. 24-31, Apr. 4 to May 6. Records fair. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952 by Lake Cachuma (stations 11121000, 11122000 and 11125500). Water diverted out of Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water pumped from wells along banks of river for irrigation in valley upstream.

EXTREMES FOR PERIOD OF RECORD (1952-63 and since 1964).--Maximum discharge, 80,000 ft³/s, Jan. 25, 1969, gage height, 24.20 ft, from supplementary gage; no flow at times in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 9, 1907, 120,000 ft³/s, gage height, 22.0 ft, site and datum then in use, from mean-depth study.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,760 ft³/s, Feb. 14, gage height, 5.99 ft, from rating curve extended above 360 ft³/s on basis on velocity-area study at gage height of 5.99 ft; no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	4.0	44	77	12	3.1	1.3	.06	33
2			19	0	2.0	41	73	12	3.3	1.2	.03	36
3			10	0	1.8	38	69	11	3.4	1.2	.02	38
4			2.3	.10	1.8	35	62	11	3.7	1.1	.01	34
5			1.1	.28	1.6	37	70	10	3.4	.99	0	25
6		.01		.30	1.6	34	90	9.5	3.1	.95	0	22
7		0		.31	1.3	32	60	8.9	2.8	.98	0	22
8		0		.27	1.2	103	50	8.5	2.7	.95	0	21
9		0		.29	1.2	81	45	8.0	2.9	.95	0	21
10		0		.26	1.2	625	42	7.7	2.6	1.0	.04	21
11		0		.26	1.2	388	38	7.3	2.4	1.2	21	23
12		0		.26	1.6	243	36	7.0	2.5	1.1	38	28
13		0		.31	439	350	33	6.7	2.4	1.0	19	28
14		0		.37	1020	228	31	6.5	2.2	.85	9.4	21
15		0		.37	1500	637	29	6.4	2.4	.80	7.3	15
16		0		.37	339	1300	28	5.8	2.2	.71	6.8	9.4
17		0		.37	186	844	26	5.1	2.0	.65	8.0	6.6
18		0		.40	275	444	25	4.5	2.1	.61	8.7	5.4
19		0		.43	471	300	23	4.3	2.0	.61	7.9	4.4
20		0		.46	350	218	22	4.2	1.8	.61	13	3.5
21		0		.50	173	198	21	4.1	1.7	.59	32	3.1
22		0		.50	123	179	20	4.0	1.8	.53	45	2.8
23		0		.50	97	164	19	3.9	1.7	.50	50	2.8
24		0		.57	76	150	18	3.7	1.6	.48	55	3.9
25		0		.57	64	140	17	3.4	1.8	.44	42	5.8
26		0		.57	56	130	16	3.3	1.8	.41	30	4.9
27		0		.63	50	120	15	3.2	1.6	.41	26	4.3
28		0		.66	46	110	14	3.4	1.4	.36	24	3.8
29		0		.74	---	100	14	3.2	1.3	.25	26	3.3
30		0		2.1	---	90	13	3.1	1.3	.16	26	3.1
31		0		3.5	---	80	---	3.0	---	.11	29	---
TOTAL	0	0	32.41	16.25	5285.5	7483	1096	194.7	69.0	23.00	524.26	455.1
MEAN	0	0	1.05	.52	189	241	36.5	6.28	2.30	.74	16.9	15.2
MAX	0	0	19	3.5	1500	1300	90	12	3.7	1.3	55	38
MIN	0	0	0	0	1.2	32	13	3.0	1.3	.11	0	2.8
AC-FT	0	0	64	32	10480	14840	2170	386	137	46	1040	903

CAL YR 1985 TOTAL 1104.53 MEAN 3.03 MAX 62 MIN 0 AC-FT 2100

SANTA YNEZ RIVER BASIN

11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DEC 1985									
03...	1415	6.2	1040	7.90	17.0	--	--	--	--
JAN 1986									
10...	1050	0.28	1680	8.10	12.5	720	390	150	83
FEB									
06...	1335	1.5	1480	8.20	17.0	--	--	--	--
MAR									
05...	1135	37	1310	8.20	20.0	--	--	--	--
APR									
03...	1140	69	1340	8.20	19.0	--	--	--	--
MAY									
06...	1100	9.8	1590	8.20	21.0	--	--	--	--
JUN									
03...	1045	3.6	1630	7.90	21.0	--	--	--	--
JUL									
01...	1310	1.4	1580	7.90	30.5	--	--	--	--
AUG									
12...	1035	31	1280	7.90	21.0	--	--	--	--
SEP									
08...	1035	21	1280	7.90	18.5	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
DEC 1985								
03...	--	--	--	--	--	--	--	--
JAN 1986								
10...	100	23	2	3.7	325	440	140	0.40
FEB								
06...	--	--	--	--	--	--	--	--
MAR								
05...	--	--	--	--	--	--	--	--
APR								
03...	--	--	--	--	--	--	--	--
MAY								
06...	--	--	--	--	--	--	--	--
JUN								
03...	--	--	--	--	--	--	--	--
JUL								
01...	--	--	--	--	--	--	--	--
AUG								
12...	--	--	--	--	--	--	--	--
SEP								
08...	--	--	--	--	--	--	--	--

SANTA YNEZ RIVER BASIN

11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 1985								
03...	--	656	--	--	--	--	--	--
JAN 1986								
10...	25	--	1100	<0.100	0.090	540	12	120
FEB								
06...	--	1170	--	--	--	--	--	--
MAR								
05...	--	959	--	--	--	--	--	--
APR								
03...	--	912	--	--	--	--	--	--
MAY								
06...	--	1130	--	--	--	--	--	--
JUN								
03...	--	1170	--	--	--	--	--	--
JUL								
01...	--	1210	--	--	--	--	--	--
AUG								
12...	--	885	--	--	--	--	--	--
SEP								
08...	--	940	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

SANTA YNEZ RIVER BASIN

11134800 MIGUELITO CREEK AT LOMPOC, CA

LOCATION.--Lat 34°37'57", long 120°27'51", in Lompoc Grant, Santa Barbara County, Hydrologic Unit 18060010, on right bank at upstream end of debris dam and 1,500 ft south of Lompoc Union High School.

DRAINAGE AREA.--11.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to May 6, 1986 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 97.94 ft Santa Barbara County Flood Control District datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 9, Nov. 26, 27, Nov. 30 to Dec. 1, Dec. 6-8, Feb. 1-5, 15, 19, Mar. 17. Records poor. No regulation or diversion above station; some pumping from wells along stream for irrigation.

AVERAGE DISCHARGE.--15 years (water years 1971-85), 1.89 ft³/s, 1,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,210 ft³/s, Jan. 26, 1983, gage height, 7.63 ft, from rating curve extended above 380 ft³/s on basis of slope-area measurements at gage heights 4.34 ft and 7.63 ft; no flow many days in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, reached a stage of 5.83 ft, from floodmark, discharge, 680 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges, during period, greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 30	0945	108	2.87	Mar. 8	1015	161	3.25
Feb. 14	1900	*527	*5.14	Mar. 16	0015	497	5.01

Minimum daily, 0.17 ft³/s, Nov. 3-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.18	.25	.40	.45	.68	2.1	1.6				
2	.24	.18	11	.36	.40	.63	2.0	1.6				
3	.23	.17	.34	.40	.38	.68	2.1	1.6				
4	.23	.17	.28	.83	.34	.73	2.0	1.6				
5	.23	.17	.25	.38	.33	.77	2.1	1.7				
6	.23	.17	.25	.35	.28	.90	2.0	1.7				
7	.22	.17	.25	.33	.28	1.1	2.1	---				
8	.22	.17	.25	.29	.28	15	2.1	---				
9	.22	.17	.31	.31	.28	3.8	1.9	---				
10	.22	.63	.30	.33	.30	41	2.0	---				
11	.22	1.4	.49	.32	.32	7.7	2.0	---				
12	.22	.35	.49	.30	12	4.3	1.9	---				
13	.21	.29	.50	.29	48	25	1.9	---				
14	.21	.26	.47	.31	90	8.0	1.9	---				
15	.21	.26	.48	.32	7.3	57	1.9	---				
16	.20	.24	.44	.30	1.3	88	1.8	---				
17	.20	.22	.43	.32	5.7	25	1.8	---				
18	.20	.22	.40	.31	6.5	7.9	1.7	---				
19	.20	.22	.36	.30	2.9	5.0	1.7	---				
20	.24	.25	.35	.30	1.8	4.2	1.7	---				
21	.96	.26	.35	.31	1.4	3.5	1.7	---				
22	.26	.24	.35	.33	1.2	3.0	1.6	---				
23	.22	.23	.35	.35	1.1	2.6	1.7	---				
24	.20	5.7	.33	.35	.96	2.4	1.7	---				
25	.19	12	.33	.36	.90	2.4	1.7	---				
26	.19	.23	.33	.39	.72	2.3	1.7	---				
27	.18	.23	.33	.45	.69	2.1	1.6	---				
28	.18	.31	.36	.50	.68	2.0	1.7	---				
29	.18	9.8	.34	.69	---	2.1	1.6	---				
30	.18	.25	.41	7.2	---	2.1	1.6	---				
31	.18	---	.49	8.3	---	2.2	---	---				
TOTAL	7.31	35.14	21.86	26.28	186.79	324.09	55.3	---				
MEAN	.24	1.17	.71	.85	6.67	10.5	1.84	---				
MAX	.96	12	11	8.3	90	88	2.1	---				
MIN	.18	.17	.25	.29	.28	.63	1.6	---				
AC-FT	14	70	43	52	370	643	110	---				

SANTA YNEZ RIVER BASIN

11134800 MIGUELITO CREEK AT LOMPOC, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: June 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 1985									
01...	1240	0.24	1550	8.50	20.0	--	--	--	--
NOV									
05...	1045	0.17	1410	8.40	15.0	--	--	--	--
DEC									
02...	1045	8.7	560	7.30	11.0	--	--	--	--
JAN 1986									
07...	0940	0.34	1280	8.30	11.0	600	240	130	67
FEB									
05...	1000	0.35	1250	8.30	12.0	--	--	--	--
MAR									
04...	0930	0.66	1310	8.20	14.0	--	--	--	--
APR									
02...	1110	2.2	1430	8.20	15.5	--	--	--	--
MAY									
05...	1015	1.7	1360	8.20	15.0	--	--	--	--
JUN									
03...	1320	0.94	1480	8.20	19.5	--	--	--	--
30...	1125	0.78	1450	8.30	18.0	--	--	--	--
AUG									
05...	0930	0.42	1430	8.30	16.0	--	--	--	--
SEP									
08...	1300	0.30	1370	8.30	18.0	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 1985								
01...	--	--	--	--	--	--	--	--
NOV								
05...	--	--	--	--	--	--	--	--
DEC								
02...	--	--	--	--	--	--	--	--
JAN 1986								
07...	64	19	1	2.4	361	220	110	0.40
FEB								
05...	--	--	--	--	--	--	--	--
MAR								
04...	--	--	--	--	--	--	--	--
APR								
02...	--	--	--	--	--	--	--	--
MAY								
05...	--	--	--	--	--	--	--	--
JUN								
03...	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
AUG								
05...	--	--	--	--	--	--	--	--
SEP								
08...	--	--	--	--	--	--	--	--

SANTA YNEZ RIVER BASIN

11134800 MIGUELITO CREEK AT LOMPOC, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1985								
01...	--	1100	--	--	--	--	--	--
NOV								
05...	--	928	--	--	--	--	--	--
DEC								
02...	--	321	--	--	--	--	--	--
JAN 1986								
07...	39	--	850	<0.100	0.340	120	30	19
FEB								
05...	--	890	--	--	--	--	--	--
MAR								
04...	--	972	--	--	--	--	--	--
APR								
02...	--	1000	--	--	--	--	--	--
MAY								
05...	--	1020	--	--	--	--	--	--
JUN								
03...	--	1030	--	--	--	--	--	--
30...	--	1090	--	--	--	--	--	--
AUG								
05...	--	986	--	--	--	--	--	--
SEP								
08...	--	947	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

SAN ANTONIO CREEK BASIN

11135800 SAN ANTONIO CREEK AT LOS ALAMOS, CA

LOCATION.--Lat 34°44'36", long 120°16'12", in Los Alamos Grant, Santa Barbara County, Hydrologic Unit 18060009, on left bank 100 ft upstream from bridge on northbound lane of Highway 101 at Los Alamos.

DRAINAGE AREA.--34.9 mi².

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 580 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station. Pumping for irrigation of about 1,000 acres above station.

AVERAGE DISCHARGE.--16 years, 2.00 ft³/s, 1,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,230 ft³/s, Mar. 1, 1983, gage height, 11.6 ft, from floodmarks, from rating curve extended above 150 ft³/s on basis of computation of peak flow through culverts; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 16	2145	*50	*2.06				

No flow most of the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	0						
2					0	0						
3					0	0						
4					0	0						
5					0	0						
6					0	0						
7					0	0						
8					0	.10						
9					0	.09						
10					0	.32						
11					0	.25						
12					0	.20						
13					.05	.53						
14					.94	.49						
15					1.1	4.8						
16					.30	33						
17					.13	12						
18					.04	.39						
19					.18	.20						
20					.11	.10						
21					.02	.02						
22					0	0						
23					0	0						
24					0	0						
25					0	0						
26					0	0						
27					0	0						
28					0	0						
29					---	0						
30					---	0						
31					---	0						
TOTAL	0	0	0	0	2.87	52.49	0	0	0	0	0	0
MEAN	0	0	0	0	.10	1.69	0	0	0	0	0	0
MAX	0	0	0	0	1.1	33	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	5.7	104	0	0	0	0	0	0

CAL YR 1985	TOTAL	.66	MEAN	.002	MAX	.34	MIN	0	AC-FT	1.3
WTR YR 1986	TOTAL	55.36	MEAN	.15	MAX	33	MIN	0	AC-FT	110

SAN ANTONIO CREEK BASIN

11136050 SAN ANTONIO CREEK ABOVE BARKA SLOUGH, NEAR ORCUTT, CA

LOCATION.--Lat 34°46'03", long 120°26'00", unsurveyed, Santa Barbara County, Hydrologic Unit 18060009, on left bank 150 ft downstream from Harris Canyon tributary, 200 ft downstream from bridge on San Antonio Road, 0.4 mi west of State Highway 1, 7.0 mi south of Orcutt, and 8.7 mi west of Los Alamos.

DRAINAGE AREA.--114 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1985 to current year (irrigation season only).

GAGE.--Water-stage recorder. Elevation of gage is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 30 to June 17. Records poor. No regulation upstream from station. Flow affected by pumping from wells and irrigation runoff upstream from station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	0	0	.02	0	
2							0	0	.40	0	0	
3							0	.23	.25	.02	0	
4							0	.13	.70	.36	0	
5							0	.61	.15	.09	0	
6							0	.27	.40	0	0	
7							0	.40	0	0	0	
8							0	.60	0	0	0	
9							0	.40	.45	.04	0	
10							.04	.24	.58	0	0	
11							.07	.91	.35	0	0	
12							.05	.57	.06	0	0	
13							0	0	0	0	.02	
14							0	.18	0	0	0	
15							0	.71	0	0	0	
16							.02	.83	.09	0	0	
17							.28	1.3	.74	0	0	
18							.18	.74	.16	0	0	
19							.34	.17	.12	0	0	
20							.03	.19	.31	0	0	
21							0	0	.13	0	0	
22							.05	0	.02	0	0	
23							.03	.05	.07	0	0	
24							.17	.20	.18	0	0	
25							.19	.98	.01	0	0	
26							0	0	.07	0	0	
27							0	0	.02	0	0	
28							.14	.49	.08	0	0	
29							.05	.36	0	0	.07	
30							0	.80	0	0	0	
31							---	.30	---	0	0	
TOTAL	0						1.64	11.66	5.34	0.53	0.09	0
MEAN	0						.055	.38	.18	.017	.003	0
MAX	0						.34	1.3	.74	.36	.07	0
MIN	0						0	0	0	0	0	0
AC-FT	0						3.3	23	11	1.1	.2	0

SAN ANTONIO CREEK BASIN

11136050 SAN ANTONIO CREEK ABOVE BARKA SLOUGH, NEAR ORCUTT, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	
MAR 1986												
12...	1015	6.9	*1120	7.20	15.0	210	140	43	25	130	57	
JUN 17...	1030	0.74	919	8.00	19.0	230	58	58	20	96	47	
DATE		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)
MAR 1986												
12...	4	5.1	*49	210	170	0.40	21	¹ 650	1.90	0.910	340	
JUN 17...	3	5.1	169	93	130	0.40	46	550	1.60	0.890	200	
DATE		IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)
MAR 1986												
12...	460	42	--	--	--	--	--	--	--	--	--	--
JUN 17...	43	3	<0.1	<1	<0.10	<1.0	<0.010	<0.1	<0.10	<0.10	<0.1	<0.1

See footnotes at end of table.

SAN ANTONIO CREEK BASIN

11136050 SAN ANTONIO CREEK ABOVE BARKA SLOUGH, NEAR ORCUTT, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CYAN- AZINE TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)
MAR 1986 12...	--	--	--	--	--	--	--	--	--	--
JUN 17...	<1.0	<0.10	<0.010	200	<0.010	110	<0.010	150	<0.01	<0.010

DATE	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL (UG/L)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
MAR 1986 12...	--	--	--	--	--	--	--	--	--
JUN 17...	6.6	<0.010	<0.1	<0.010	<0.1	<0.01	<0.010	<0.1	<0.010

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL (UG/L)
MAR 1986 12...	--	--	--	--	--	--	--	--	--	--
JUN 17...	<0.010	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.1	<0.01

DATE	PER- THANE TOTAL (UG/L)	PER- THANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)
MAR 1986 12...	--	--	--	--	--	--	--	--	--	--
JUN 17...	<0.1	<1.00	<0.1	<0.1	<0.10	<0.1	<0.10	<1	440	<0.01

* Laboratory value.

1 Results based on Laboratory Alkalinity value.

< Actual value is known to be less than the value shown.

SAN ANTONIO CREEK BASIN

11136100 SAN ANTONIO CREEK NEAR CASMALIA, CA

LOCATION.--Lat 34°46'56", long 120°31'47", in Jesus Maria Grant, Santa Barbara County, Hydrologic Unit 18060009, on Vandenberg Military Reservation on downstream side of San Antonio Road bridge, 0.7 mi east of junction of San Antonio Road and Lompoc-Casmalia Road, and 3.8 mi south of Casmalia.

DRAINAGE AREA.--135 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 27, 1958, at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station. Flow affected by pumping from wells along stream for irrigation upstream from station. At times water released to creek from Vandenberg Air Force Base water-treatment plant.

AVERAGE DISCHARGE.--31 years, 6.23 ft³/s, 4,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,680 ft³/s, Mar. 1, 1983, gage height, 14.32 ft, from rating curve extended above 1,100 ft³/s on basis of slope-area measurement at gage height 12.93 ft; minimum daily, 0.10 ft³/s, June 19, 20, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	2330	141	3.41	Mar. 18	2215	*230	*3.85

Minimum daily, 0.18 ft³/s, Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	.72	1.6	.86	1.1	1.0	1.3	.73	1.0	.31	.64	.38
2	.70	.40	11	.87	1.0	1.0	1.2	.73	.66	.29	.71	2.1
3	.65	.44	7.5	.91	1.0	.97	1.3	.73	.43	.24	.80	.20
4	.58	.48	1.3	1.2	.98	1.0	1.3	.73	.44	.32	.48	.21
5	.61	.52	.77	1.1	.89	.98	1.3	.73	.44	.32	.43	.31
6	.60	.58	.76	.92	.90	.98	1.3	.73	.44	.53	.68	.34
7	.59	.51	.76	.92	.90	.97	1.2	.73	.49	.40	.61	.40
8	.53	.46	.77	.88	.90	11	1.1	.73	.44	.47	.57	.42
9	.56	.50	.84	.86	.94	12	1.1	.73	.42	.53	.55	.54
10	.52	.60	.85	.90	.95	22	1.1	.73	.44	.60	.28	.49
11	.44	1.3	.83	.96	1.0	20	1.1	.73	.44	2.8	.38	.40
12	.49	.75	.77	.98	1.9	12	1.2	.73	.44	.49	.37	.29
13	.52	.56	.74	.96	28	34	1.1	.92	.51	.64	.29	.26
14	.58	.58	.75	.98	33	36	1.1	.85	.49	.66	.30	.26
15	.62	.61	.80	1.0	38	38	1.2	.73	.50	.54	.27	.26
16	.63	.65	.80	1.0	8.8	124	1.1	.73	.53	.61	.25	.26
17	.65	.62	.73	1.0	3.8	57	.92	.86	.51	.76	.19	.25
18	.73	.62	.62	1.0	3.2	12	.92	2.0	.41	.67	.18	.26
19	.75	.59	.65	.90	4.4	5.4	.81	1.3	.36	.51	.21	.26
20	.80	.65	.65	.90	3.3	3.1	.73	.77	.33	.48	.23	.22
21	1.2	.67	.65	.82	1.6	2.1	.73	.73	.34	.56	.21	.21
22	.92	.66	.67	.86	1.3	1.9	.73	.73	.39	.63	.25	.20
23	.74	.63	.73	.87	1.1	1.7	.73	.73	.43	.73	.30	.20
24	.71	1.1	.75	.88	1.1	1.5	.73	.73	.32	.67	.32	.20
25	.70	1.5	.77	.90	1.0	1.4	.73	.73	.34	.66	.32	.73
26	.71	1.0	1.2	.92	1.0	1.5	.73	.73	.37	.62	.25	1.1
27	.71	.90	.55	.91	1.0	1.4	.73	.67	.32	.56	.24	1.1
28	.71	1.2	.86	.86	1.0	1.4	.73	.71	.38	.68	.25	1.1
29	.70	5.8	1.1	.84	---	1.4	.73	.67	.35	.98	.26	1.0
30	.64	10	1.1	1.3	---	1.5	.70	.70	.30	.69	.38	1.1
31	1.3	---	1.1	1.2	---	1.4	---	.59	---	.74	.35	---
TOTAL	21.30	35.60	42.97	29.46	144.06	410.60	29.65	24.64	13.26	19.69	11.55	15.05
MEAN	.69	1.19	1.39	.95	5.14	13.2	.99	.79	.44	.64	.37	.50
MAX	1.3	10	11	1.3	38	124	1.3	2.0	1.0	2.8	.80	2.1
MIN	.44	.40	.55	.82	.89	.97	.70	.59	.30	.24	.18	.20
AC-FT	42	71	85	58	286	814	59	49	26	39	23	30

CAL YR 1985 TOTAL 360.51 MEAN .99 MAX 14 MIN .36 AC-FT 715
WTR YR 1986 TOTAL 797.83 MEAN 2.19 MAX 124 MIN .18 AC-FT 1580

SAN ANTONIO CREEK BASIN

11136100 SAN ANTONIO CREEK NEAR CASMALIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL DATA: Water years 1978 to current year.

pH: December 1981 to September 1983.

WATER TEMPERATURE: December 1981 to September 1983.

PERIOD OF DAILY RECORD.--

pH: December 1981 to September 1983.

WATER TEMPERATURE: December 1981 to September 1983.

INSTRUMENTATION.--Water-quality monitor from December 1981 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

pH: Maximum, 8.8 units, Feb. 5, 1983; minimum, 7.2 units, Jan. 27, Feb. 25, 26, 1983.

WATER TEMPERATURE: Maximum recorded, 31.0°C, Aug. 7, 1983; minimum recorded, 4.0°C, Jan. 8, 9, 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 1985									
10...	1045	0.52	2400	7.80	13.5	540	140	150	41
NOV									
18...	1000	0.72	2280	8.00	8.0	--	--	--	--
DEC									
17...	1115	0.72	2430	7.90	6.5	--	--	--	--
JAN 1986									
08...	1200	0.92	2280	7.90	10.0	520	170	140	42
FEB									
14...	1125	17	820	7.20	13.5	--	--	--	--
MAR									
12...	1445	17	1890	7.80	15.5	650	460	170	55
APR									
17...	1015	0.92	2930	7.60	15.0	--	--	--	--
MAY									
13...	1125	0.95	2710	7.80	17.0	--	--	--	--
JUN									
17...	1215	0.58	2430	8.00	20.5	540	150	140	47
JUL									
15...	1115	0.54	2590	7.60	19.0	--	--	--	--
AUG									
12...	1230	1.0	2400	7.90	18.5	--	--	--	--
SEP									
25...	1050	1.1	2390	7.90	15.5	460	89	120	38

SAN ANTONIO CREEK BASIN

11136100 SAN ANTONIO CREEK NEAR CASMALIA, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 1985								
10...	310	54	6	18	400	260	400	0.40
NOV								
18...	--	--	--	--	--	--	--	--
DEC								
17...	--	--	--	--	--	--	--	--
JAN 1986								
08...	300	55	6	15	348	350	360	0.30
FEB								
14...	--	--	--	--	--	--	--	--
MAR								
12...	200	40	4	9.2	189	580	230	0.60
APR								
17...	--	--	--	--	--	--	--	--
MAY								
13...	--	--	--	--	--	--	--	--
JUN								
17...	360	58	7	16	389	300	430	0.40
JUL								
15...	--	--	--	--	--	--	--	--
AUG								
12...	--	--	--	--	--	--	--	--
SEP								
25...	320	59	7	19	367	280	400	0.30

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1985								
10...	46	--	1500	3.50	1.10	1900	40	30
NOV								
18...	--	1410	--	--	--	--	--	--
DEC								
17...	--	1530	--	--	--	--	--	--
JAN 1986								
08...	42	--	1500	5.10	0.890	1600	90	50
FEB								
14...	--	551	--	--	--	--	--	--
MAR								
12...	34	--	1400	4.00	0.520	1000	38	340
APR								
17...	--	2190	--	--	--	--	--	--
MAY								
13...	--	1820	--	--	--	--	--	--
JUN								
17...	28	--	1600	3.70	0.990	2000	30	100
JUL								
15...	--	1610	--	--	--	--	--	--
AUG								
12...	--	1520	--	--	--	--	--	--
SEP								
25...	42	--	1400	5.80	0.900	1900	30	50

SANTA MARIA RIVER BASIN

11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA

LOCATION.--Lat 35°01'19", long 120°13'39", in SW 1/4 sec.14, T.11 N., R.32 W., San Luis Obispo-Santa Barbara County line, Hydrologic Unit 18060007, on downstream side of bridge on State Highway 166, 0.7 mi downstream from Buckhorn Canyon, and 13 mi northeast of Santa Maria.

DRAINAGE AREA.--886 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1903 to December 1905 (published as Santa Maria River near Santa Maria), October 1959 to current year. Monthly discharge only for October 1903 and July 1904 and yearly estimate for water year 1941 (incomplete), published in WSP 1315-B.

REVISED RECORDS.--WDR-CA-77-1: 1976.

GAGE.--Water-stage recorder. Elevation of gage is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 1959, nonrecording gage at different site and datum.

REMARKS.--Estimated daily discharges: Dec. 10-19, Feb. 1-4, 16-19, Mar. 21-31. Records fair. No regulation above station. Pumping from wells along stream for irrigation of several thousand acres in Upper Cuyama Valley.

AVERAGE DISCHARGE.--29 years (water years 1904, 1905, 1960-86), 23.6 ft³/s, 17,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,800 ft³/s, Feb. 25, 1969, gage height, 13.70 ft, from rating curve extended above 4,900 ft³/s on basis of slope-area measurement at gage height 10.85 ft; maximum gage height, 14.74 ft, Mar. 4, 1978; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 31	0200	1,290	8.06	Mar. 16	1930	548	7.51
Feb. 15	1230	*3,010	*8.98				

Minimum daily, 0.08 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	.23	2.9	.33	50	4.2	8.2	2.3	1.0	.44	.31	.13
2	.30	.21	8.0	.33	18	3.7	7.4	2.2	1.2	.43	.29	.13
3	.28	.21	5.0	.36	9.2	3.4	6.9	2.4	1.1	.37	.28	.12
4	.28	.21	3.6	.93	5.0	3.1	6.9	2.3	1.1	.40	.27	.12
5	.29	.22	2.9	2.2	3.2	2.8	7.3	2.3	1.1	.35	.28	.12
6	.29	.20	1.7	1.2	3.6	2.6	32	2.3	1.1	.40	.28	.12
7	.31	.20	1.2	.54	3.2	2.3	15	2.3	1.1	.36	.28	.11
8	.30	.21	.92	.38	2.5	34	14	2.2	1.0	.34	.29	.11
9	.31	.21	.79	.34	1.5	21	8.9	2.2	.89	.33	.30	.11
10	.30	.42	.71	.32	1.1	37	7.7	2.1	.79	.33	.29	.11
11	.29	1.0	.64	.30	.89	66	6.6	2.0	.78	.34	.27	.10
12	.30	.43	.59	.29	3.1	82	6.1	1.9	.72	.34	.26	.11
13	.29	.37	.54	.29	17	110	5.4	2.1	.78	.40	.27	.12
14	.28	.34	.51	.28	118	130	5.0	2.3	.85	.34	.27	.18
15	.27	.31	.48	.28	733	129	5.0	2.2	.90	.31	.27	.17
16	.27	.28	.46	.26	203	377	5.2	2.1	.84	.33	.24	.18
17	.27	.27	.44	.26	130	345	4.9	1.7	.78	.37	.25	.18
18	.28	.27	.42	.25	118	189	4.7	1.6	.77	.49	.25	.16
19	.27	.28	.41	.25	131	110	4.2	1.6	.67	.46	.19	.16
20	.28	.28	.39	.24	69	70	3.7	1.6	.60	.52	.21	.16
21	.38	.27	.38	.23	33	54	3.5	1.7	.56	.45	.18	.15
22	.29	.27	.37	.23	19	43	3.5	1.8	.58	.56	.16	.14
23	.26	.28	.36	.23	13	33	3.3	1.9	.54	.47	.19	.15
24	.24	.41	.35	.22	8.3	27	3.3	1.7	.54	.42	.17	.74
25	.23	.36	.35	.21	6.5	22	3.1	1.4	.56	.44	.18	.66
26	.23	.28	.35	.21	5.6	18	2.8	1.3	.59	.47	.18	.20
27	.22	2.5	.35	.20	5.2	15	2.3	1.3	.60	.48	.15	.15
28	.22	2.5	.35	.20	4.8	13	2.3	1.2	.59	.47	.13	.12
29	.23	9.3	.36	.21	---	12	2.3	1.2	.53	.45	.12	.10
30	.24	7.7	.35	.78	---	10	2.3	.92	.47	.44	.12	.08
31	.24	---	.34	206	---	9.2	---	1.0	---	.43	.12	---
TOTAL	8.55	30.02	36.51	218.35	1715.69	1978.3	193.8	57.12	23.63	12.73	7.05	5.19
MEAN	.28	1.00	1.18	7.04	61.3	63.8	6.46	1.84	.79	.41	.23	.17
MAX	.38	9.3	8.0	206	733	377	32	2.4	1.2	.56	.31	.74
MIN	.22	.20	.34	.20	.89	2.3	2.3	.92	.47	.31	.12	.08
AC-FT	17	60	72	433	3400	3920	384	113	47	25	14	10

SANTA MARIA RIVER BASIN

11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 1985									
17...	0830	0.28	1610	8.10	8.0	--	--	--	--
NOV									
19...	1315	0.29	1700	8.20	14.5	--	--	--	--
DEC									
19...	1430	0.42	1760	8.20	17.0	--	--	--	--
JAN 1986									
15...	1350	0.29	1640	8.30	16.0	--	--	--	--
FEB									
14...	1400	62	*2630	7.50	16.0	--	--	--	--
MAR									
13...	0945	48	1260	8.10	11.5	520	200	130	47
APR									
15...	1615	5.5	2000	8.10	20.5	--	--	--	--
MAY									
15...	1045	2.6	1630	8.10	21.0	--	--	--	--
JUN									
19...	1255	0.68	1560	8.10	29.5	--	--	--	--
JUL									
17...	1345	0.30	1590	8.10	29.0	--	--	--	--
AUG									
15...	1315	0.24	1560	8.20	29.5	--	--	--	--
SEP									
23...	1315	0.15	1540	7.90	21.5	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL LAB MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 1985								
17...	--	--	--	--	--	--	--	--
NOV								
19...	--	--	--	--	--	--	--	--
DEC								
19...	--	--	--	--	--	--	--	--
JAN 1986								
15...	--	--	--	--	--	--	--	--
FEB								
14...	--	--	--	--	--	--	--	--
MAR								
13...	88	27	2	3.4	194	460	57	0.70
APR								
15...	--	--	--	--	--	--	--	--
MAY								
15...	--	--	--	--	--	--	--	--
JUN								
19...	--	--	--	--	--	--	--	--
JUL								
17...	--	--	--	--	--	--	--	--
AUG								
15...	--	--	--	--	--	--	--	--
SEP								
23...	--	--	--	--	--	--	--	--

See footnote at end of table.

SANTA MARIA RIVER BASIN

11136800 CUYAMA RIVER BELOW BUCHKORN CANYON, NEAR SANTA MARIA, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1985								
17...	--	1260	--	--	--	--	--	--
NOV								
19...	--	1220	--	--	--	--	--	--
DEC								
19...	--	1290	--	--	--	--	--	--
JAN 1986								
15...	--	1200	--	--	--	--	--	--
FEB								
14...	--	2100	--	--	--	--	--	--
MAR								
13...	11	--	¹ 990	0.660	0.030	230	18	5
APR								
15...	--	1670	--	--	--	--	--	--
MAY								
15...	--	1300	--	--	--	--	--	--
JUN								
19...	--	1230	--	--	--	--	--	--
JUL								
17...	--	1190	--	--	--	--	--	--
AUG								
15...	--	1130	--	--	--	--	--	--
SEP								
23...	--	1100	--	--	--	--	--	--

* Laboratory value.

¹ Results based on Laboratory Alkalinity value.

SANTA MARIA RIVER BASIN

11137900 HUASNA RIVER NEAR ARROYO GRANDE, CA

LOCATION.--Lat 35°04'40", long 120°22'15", in Huasna Grant, San Luis Obispo County, Hydrologic Unit 18060007, on right bank 300 ft downstream from Huasna Creek, and 12 mi southeast of Arroyo Grande.

DRAINAGE AREA.--103 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1959 to September 1986 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 640 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 30 to Dec. 1, June 30 to July 22, and Aug. 23 to Sept. 3. Records fair except for daily discharges less than 5.0 ft³/s and for periods of estimated discharges, which are poor. No regulation upstream from station; extensive diversions by three ranches for irrigation and for cattle ponds.

AVERAGE DISCHARGE.--27 years, 20.2 ft³/s, 14,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft³/s, Jan. 25, 1969, gage height, 15.90 ft, from rating curve extended above 1,300 ft³/s on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*), from rating curve extended above 280 ft³/s on basis of slope-area measurement at gage height 15.90 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0145	593	5.79	Mar. 8	1545	715	6.05
Feb. 19	1030	*1,290	*7.00	Mar. 16	2015	1,010	6.59

Minimum daily, 0.07 ft³/s, Oct. 14, 20, and Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.14	.30	.79	.78	51	25	5.1	1.1	2.7	.36	.43
2	.19	.12	.84	.72	1.1	46	23	4.8	.88	2.2	.43	.35
3	.16	.09	.36	.88	.66	43	21	2.6	1.4	1.7	.65	.30
4	.19	.08	.29	1.4	.62	40	20	2.3	1.0	1.3	.28	.18
5	.22	.08	.31	1.5	.59	38	19	2.1	1.1	1.4	.60	.50
6	.30	.08	.37	.42	.64	36	20	2.2	1.3	1.2	1.4	.44
7	.30	.07	.37	.31	.70	35	25	1.9	1.4	.93	1.3	.19
8	.26	.08	.32	.23	.40	269	21	2.4	2.3	1.3	.29	.15
9	.19	.08	.32	.23	.23	217	19	2.3	2.7	1.5	.21	.11
10	.11	.20	.41	.22	.23	306	18	2.3	2.8	1.6	.25	.09
11	.09	.45	.38	.23	.42	305	18	2.5	2.8	1.4	.16	.09
12	.08	.38	.44	.25	5.1	262	17	3.5	1.6	1.7	.10	.11
13	.54	.44	.50	.27	143	243	17	3.7	1.5	1.5	.18	.14
14	.07	.57	.47	.31	209	267	14	3.8	2.3	1.6	.35	.15
15	.21	.64	.49	.32	348	259	11	3.7	1.2	1.8	.91	.20
16	1.2	.68	.60	.44	233	737	11	3.4	1.5	1.6	1.1	.29
17	.07	.67	.46	.37	149	467	11	3.9	1.0	1.4	1.1	.59
18	.08	.59	.44	.26	489	268	9.8	4.8	.99	1.4	.85	2.0
19	.11	.51	.56	.31	581	185	9.4	4.4	1.0	1.2	.96	.31
20	.07	.55	.52	.36	281	141	8.9	5.5	1.0	.90	.88	.09
21	.18	.52	.34	.48	187	111	8.3	5.3	1.2	1.0	1.7	.09
22	.14	.42	.42	.62	144	91	7.8	4.7	1.8	.90	1.6	.25
23	.19	.45	.47	.70	116	76	7.3	4.1	2.5	.40	2.4	.32
24	.22	.58	.54	1.1	95	66	6.7	4.7	2.1	.85	1.3	.83
25	.24	.56	.49	1.1	80	59	6.3	4.5	2.1	1.3	1.0	.32
26	.29	.47	.61	1.8	69	52	6.0	4.0	1.7	.71	.90	.45
27	.34	.44	.68	2.7	61	41	5.5	3.8	1.9	3.4	.80	.21
28	.43	.51	.69	2.6	56	34	4.4	3.7	2.1	.82	.76	.18
29	.42	1.3	.75	2.7	---	31	3.7	3.0	2.1	.45	.70	.31
30	.41	.35	.85	2.7	---	29	4.7	1.4	3.4	1.2	.68	.20
31	.22	---	.78	1.7	---	27	---	1.2	---	.93	.50	---
TOTAL	7.66	12.10	15.37	28.02	3252.47	4832	398.8	107.6	51.77	42.29	24.70	9.87
MEAN	.25	.40	.50	.90	116	156	13.3	3.47	1.73	1.36	.80	.33
MAX	1.2	1.3	.85	2.7	581	737	25	5.5	3.4	3.4	2.4	2.0
MIN	.07	.07	.29	.22	.23	27	3.7	1.2	.88	.40	.10	.09
AC-FT	15	24	30	56	6450	9580	791	213	103	84	49	20

DAY OF YEAR TOTAL 322.22 MEAN 1.72 MAX 170 MIN .07 AC-FT 1250

SANTA MARIA RIVER BASIN

11137900 HUASNA RIVER NEAR ARROYO GRANDE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to October 1986 (discontinued).

CHEMICAL DATA: Water years 1979 to October 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

								HARD-			
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)		
OCT											
08...	1045	0.26	1010	7.90	16.5	--	--	--	--		
NOV											
06...	0845	0.08	893	7.80	12.0	--	--	--	--		
DEC											
04...	0900	0.37	1000	8.20	13.0	--	--	--	--		
JAN											
07...	0845	0.30	962	7.60	11.5	--	--	--	--		
FEB											
11...	1200	0.27	955	7.60	10.5	--	--	--	--		
MAR											
11...	1142	280	388	8.10	13.5	--	--	--	--		
APR											
09...	1130	18	778	8.20	20.0	--	--	--	--		
MAY											
08...	1100	3.1	863	8.10	18.5	--	--	--	--		
JUN											
03...	1210	1.4	911	7.90	22.0	--	--	--	--		
JUL											
22...	1330	0.63	925	7.90	23.0	--	--	--	--		
AUG											
01...	0850	0.44	951	7.80	19.0	--	--	--	--		
SEP											
03...	1300	0.28	963	*7.80	23.0	330	63	85	28		
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT											
08...	--	--	--	--	--	--	--	--	--	--	--
NOV											
06...	--	--	--	--	--	--	--	--	--	--	--
DEC											
04...	--	--	--	--	--	--	--	--	--	--	--
JAN											
07...	--	--	--	--	--	--	--	--	--	--	--
FEB											
11...	--	--	--	--	--	--	--	--	--	--	--
MAR											
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
08...	--	--	--	--	--	--	--	--	--	--	--
JUN											
03...	--	--	--	--	--	--	--	--	--	--	--
JUL											
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
01...	--	--	--	--	--	--	--	--	--	--	--
SEP											
03...	54	26	1	1.2	323	265	264	170	49	0.60	

See footnote at end of table

SANTA MARIA RIVER BASIN

11137900 HUASNA RIVER NEAR ARROYO GRANDE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 08...	--	688	--	--	--	--	--	--	--
NOV...	--	548	--	--	--	--	--	--	--
DEC 04...	--	666	--	--	--	--	--	--	--
JAN 07...	--	606	--	--	--	--	--	--	--
FEB 11...	--	630	--	--	--	--	--	--	--
MAR 11...	--	249	--	--	--	--	--	--	--
APR 09...	--	493	--	--	--	--	--	--	--
MAY 08...	--	573	--	--	--	--	--	--	--
JUN 03...	--	592	--	--	--	--	--	--	--
JUL 22...	--	597	--	--	--	--	--	--	--
AUG 01...	--	625	--	--	--	--	--	--	--
SEP 03...	39	--	590	0.80	0.100	0.600	180	30	<10

* Field pH value.

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 02...	1400	0.56	1010	7.80	19.0	790

SANTA MARIA RIVER BASIN

11138500 SISQUOC RIVER NEAR SISQUOC, CA

LOCATION.--Lat 34°50'23", long 120°10'02", in Sisquoc Grant, Santa Barbara County, Hydrologic Unit 18060008, on left bank 2.6 mi upstream from La Brea Creek and 7 mi east of Sisquoc.

DRAINAGE AREA.--281 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year. October 1929 to September 1933, at site 0.2 mi downstream; low-flow records not equivalent owing to diversion immediately upstream. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 624.30 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). See WSP 1735 for history of changes prior to Aug. 24, 1951.

REMARKS.--Estimated daily discharges: Feb. 23-27. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--43 years, 45.8 ft³/s, 33,180 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,200 ft³/s, Dec. 6, 1966, gage height, 15.75 ft, from rating curve extended above 1,700 ft³/s on basis of slope-area measurements at gage heights 10.08 ft and 15.75 ft; no flow Nov. 11-18, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, 11,000 ft³/s, gage height, 8.1 ft, from high-water mark in gage well, at site in use 1929-33, from rating curve extended above 2,800 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0215	*3,490	*6.74	Mar. 16	2015	471	3.31
Feb. 19	1115	888	4.09				

Minimum daily, 0.80 ft³/s, Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.98	2.0	1.3	152	62	75	25	8.4	2.3	1.7	1.7
2	.91	.93	2.5	1.4	77	58	72	25	8.4	2.2	1.7	1.8
3	.86	.91	2.2	1.4	51	53	68	24	7.5	2.2	1.7	1.7
4	.85	.93	2.0	1.7	38	50	64	24	7.8	2.1	1.8	1.6
5	.85	1.0	2.1	1.6	30	48	62	24	7.8	2.1	1.8	1.6
6	.86	.91	2.0	1.7	25	46	62	23	7.0	2.1	1.6	1.6
7	.88	.90	2.1	1.6	22	44	60	22	6.9	2.1	1.7	1.6
8	.89	.95	2.0	1.6	19	79	60	22	6.8	2.0	1.7	1.6
9	.88	.98	2.0	1.6	17	155	56	21	6.3	2.0	1.7	1.6
10	.85	1.1	2.0	1.5	15	170	52	20	6.2	1.9	1.8	1.6
11	.83	2.1	2.0	1.5	14	280	50	20	5.8	1.9	1.8	1.6
12	.85	1.4	2.0	1.5	15	215	48	20	5.3	1.9	1.8	1.6
13	.87	1.2	2.0	1.5	448	188	47	19	5.2	1.9	1.8	1.7
14	.86	1.2	2.0	1.6	371	210	44	18	5.1	1.9	1.8	1.6
15	.82	1.2	2.0	1.7	1130	181	43	18	4.7	1.9	1.8	1.6
16	.80	1.2	1.9	1.7	479	368	42	17	4.5	1.9	1.8	1.6
17	.81	1.2	1.8	1.6	256	331	40	16	4.2	1.9	1.8	1.5
18	.82	1.2	1.8	1.5	197	250	38	15	4.2	1.9	1.8	1.5
19	.81	1.2	1.7	1.7	434	212	37	13	3.8	1.9	1.7	1.5
20	.82	1.2	1.7	1.6	297	196	35	13	3.3	1.9	1.6	1.4
21	1.1	1.3	1.6	1.6	201	182	33	13	3.2	1.9	1.7	1.4
22	.92	1.3	1.7	1.5	156	169	32	12	3.0	1.9	1.6	1.4
23	.87	1.5	1.6	1.3	126	153	32	13	2.9	1.8	1.6	1.4
24	.85	1.6	1.5	1.3	120	138	31	12	2.8	1.8	1.6	2.0
25	.86	1.8	1.5	1.3	120	123	30	12	2.7	1.8	1.6	1.7
26	.87	1.6	1.5	1.3	120	113	30	11	2.7	1.8	1.6	1.5
27	.87	1.6	1.5	1.3	98	102	29	10	2.6	1.8	1.6	1.5
28	.94	1.9	1.5	1.3	68	95	28	9.9	2.6	1.8	1.6	1.7
29	1.0	3.3	1.5	1.3	---	87	27	9.4	2.5	1.7	1.7	1.7
30	1.0	2.4	1.4	13	---	83	26	9.2	2.4	1.7	1.7	1.7
31	1.0	---	1.3	138	---	77	---	8.4	---	1.7	1.7	---
TOTAL	27.40	40.99	56.4	194.5	5096	4518	1353	518.9	146.6	59.7	52.9	48.0
MEAN	.88	1.37	1.82	6.27	182	146	45.1	16.7	4.89	1.93	1.71	1.60
MAX	1.1	3.3	2.5	138	1130	368	75	25	8.4	2.3	1.8	2.0
MIN	.80	.90	1.3	1.3	14	44	26	8.4	2.4	1.7	1.6	1.4
AC-FT	54	81	112	386	10110	8960	2680	1030	291	118	105	95

SANTA MARIA RIVER BASIN

11138500 SISQUOC RIVER NEAR SISQUOC, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 1985									
17...	1245	0.84	1110	7.90	20.0	--	--	--	--
NOV									
19...	1000	1.3	1200	7.70	11.0	--	--	--	--
DEC									
19...	0945	1.8	1210	7.60	11.0	--	--	--	--
JAN 1986									
15...	1000	1.7	1200	7.80	13.5	--	--	--	--
APR									
15...	1150	46	970	7.90	16.0	450	250	93	54
MAY									
15...	1400	19	955	8.20	23.0	--	--	--	--
JUN									
19...	0950	4.1	1010	8.10	19.0	--	--	--	--
JUL									
17...	1035	2.2	1060	7.80	19.5	--	--	--	--
AUG									
15...	1100	1.9	1070	7.80	20.0	--	--	--	--
SEP									
23...	1000	1.5	1090	7.80	16.5	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 1985								
17...	--	--	--	--	--	--	--	--
NOV								
19...	--	--	--	--	--	--	--	--
DEC								
19...	--	--	--	--	--	--	--	--
JAN 1986								
15...	--	--	--	--	--	--	--	--
APR								
15...	45	18	0.9	1.9	202	320	13	0.40
MAY								
15...	--	--	--	--	--	--	--	--
JUN								
19...	--	--	--	--	--	--	--	--
JUL								
17...	--	--	--	--	--	--	--	--
AUG								
15...	--	--	--	--	--	--	--	--
SEP								
23...	--	--	--	--	--	--	--	--

SANTA MARIA RIVER BASIN

11138500 SISQUOC RIVER NEAR SISQUOC, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1985								
17...	--	876	--	--	--	--	--	--
NOV								
19...	--	884	--	--	--	--	--	--
DEC								
19...	--	868	--	--	--	--	--	--
JAN 1986								
15...	--	886	--	--	--	--	--	--
APR								
15...	15	--	660	<0.100	0.010	130	14	4
MAY								
15...	--	732	--	--	--	--	--	--
JUN								
18...	--	756	--	--	--	--	--	--
JUL								
17...	--	772	--	--	--	--	--	--
AUG								
15...	--	769	--	--	--	--	--	--
SEP								
23...	--	807	--	--	--	--	--	--

< Actual value is known to be less than the value shown.

SANTA MARIA RIVER BASIN

11139500 TEPUSQUET CREEK NEAR SISQUOC, CA

LOCATION.--Lat 34°52'21", long 120°14'37", unsurveyed, Santa Barbara County, Hydrologic Unit 18060008, on downstream wingwall of right bridge abutment on Tepusquet Road, 1.1 mi upstream from mouth, and 3 mi east of Sisquoc.

DRAINAGE AREA.--28.7 mi².

PERIOD OF RECORD.--October 1943 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 9, 1948, at datum 0.9 ft higher.

REMARKS.--Estimated daily discharges: Apr. 12-14. Records fair. No regulation above station. Some diversion by pumping from wells along stream to irrigate about 100 acres above gage.

AVERAGE DISCHARGE.--43 years, 1.74 ft³/s, 1,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 788 ft³/s, Dec. 6, 1966, gage height, 5.48 ft, from rating curve extended above 220 ft³/s on basis of computation of maximum flow at contracted opening; maximum gage height, 6.33 ft, Mar. 1, 1983; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 16	1415	*94	*4.33				

Minimum daily, 0.01 ft³/s, Oct. 5, Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.07	.40	.35	.54	1.8	2.2	.81	.83	.32	.19	.11
2	.06	.07	.45	.29	.59	1.6	2.0	.83	.84	.32	.22	.07
3	.06	.12	.39	.29	.44	1.7	1.9	.95	.81	.34	.25	.06
4	.02	.15	.37	.34	.44	1.8	1.8	1.0	.79	.34	.21	.10
5	.01	.16	.33	.34	.45	1.8	1.8	.96	.75	.34	.19	.16
6	.04	.13	.28	.34	.45	1.9	1.8	.84	.68	.36	.17	.16
7	.10	.07	.28	.34	.45	2.0	1.7	.87	.70	.38	.14	.17
8	.11	.07	.26	.34	.48	4.4	1.7	.93	.70	.29	.15	.13
9	.13	.12	.27	.34	.46	3.8	1.7	.93	.67	.31	.15	.08
10	.07	.27	.36	.32	.46	4.6	1.6	.93	.58	.34	.13	.07
11	.03	.34	.32	.29	.46	9.0	1.5	.93	.58	.34	.11	.06
12	.03	.23	.31	.33	.66	6.1	1.4	1.0	.57	.33	.11	.07
13	.06	.22	.31	.36	.93	6.9	1.4	1.0	.60	.40	.04	.07
14	.08	.19	.32	.34	1.8	12	1.3	1.1	.55	.34	.09	.11
15	.02	.23	.34	.34	1.5	7.8	1.2	1.0	.56	.32	.06	.10
16	.02	.26	.31	.34	.99	44	1.1	.94	.52	.30	.08	.07
17	.07	.28	.34	.34	.94	45	1.1	.94	.54	.31	.10	.10
18	.09	.26	.34	.34	.93	19	.97	.95	.53	.30	.18	.10
19	.14	.23	.34	.34	1.0	11	.95	.91	.49	.28	.16	.13
20	.16	.24	.34	.40	.99	7.6	.97	.88	.45	.26	.18	.10
21	.22	.23	.33	.40	.99	5.6	.98	.93	.43	.26	.18	.15
22	.16	.23	.32	.40	.96	4.5	1.0	.88	.41	.35	.13	.14
23	.11	.31	.34	.40	1.0	3.7	.96	.87	.43	.30	.09	.11
24	.10	.32	.34	.41	1.1	3.5	.89	.85	.39	.20	.13	.23
25	.12	.31	.34	.38	1.2	3.3	.97	.80	.37	.21	.11	.25
26	.10	.27	.34	.41	1.2	3.0	.92	.78	.43	.21	.04	.19
27	.13	.29	.34	.38	1.4	2.6	1.0	.77	.45	.21	.04	.20
28	.16	.37	.34	.40	1.5	2.5	1.0	.73	.43	.24	.01	.19
29	.17	.58	.34	.42	---	2.4	.96	.82	.43	.23	.05	.18
30	.13	.42	.34	.47	---	2.2	.91	.82	.36	.19	.07	.17
31	.09	---	.34	.54	---	2.2	---	.78	---	.20	.13	---
TOTAL	2.88	7.04	10.37	11.32	24.31	229.3	39.68	27.73	16.87	9.12	3.89	3.83
MEAN	.093	.23	.33	.37	.87	7.40	1.32	.89	.56	.29	.13	.13
MAX	.22	.58	.45	.54	1.8	45	2.2	1.1	.84	.40	.25	.25
MIN	.01	.07	.26	.29	.44	1.6	.89	.73	.36	.19	.01	.06
AC-FT	5.7	14	21	22	48	455	79	55	33	18	7.7	7.6

CAL YR 1985	TOTAL	225.71	MEAN	.62	MAX	16	MIN	.01	AC-FT	448
WTR YR 1986	TOTAL	386.34	MEAN	1.06	MAX	45	MIN	.01	AC-FT	766

SANTA MARIA RIVER BASIN

11140000 SISQUOC RIVER NEAR GAREY, CA

LOCATION.--Lat 34°53'38", long 120°18'20", in SW 1/4 sec.36, T.10 N., R.33 W., Santa Barbara County, Hydrologic Unit 18060008, on downstream side of Santa Maria Mesa Road bridge near left bank, 0.6 mi northeast of Garey, and 3.7 mi downstream from Tepusquet Creek.

DRAINAGE AREA.--471 mi².

PERIOD OF RECORD.--October 1940 to current year. Records for water year 1941 incomplete, yearly estimate and monthly discharge only for October 1940 and January 1941, published in WSP 1315-B.

GAGE.--Two water-stage recorders. Datum of main gage is 354.8 ft Santa Barbara County datum. See WSP 1735 for history of changes of main gage prior to Oct. 1, 1959. Oct. 1, 1959, to Dec. 30, 1965, at datum 6.00 ft higher. Since Oct. 1, 1959, supplementary gage on downstream side of bridge near right bank at same datum.

REMARKS.--Estimated daily discharges: Feb. 22 to Mar. 21, Mar. 25 to Apr. 2, Apr. 5-14, 21, Apr. 23 to May 7. Records poor. No regulation above station. Pumping from wells along stream for irrigation of about 7,000 acres above station.

AVERAGE DISCHARGE.--46 years, 45.4 ft³/s, 32,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,600 ft³/s, Mar. 1, 1983, gage height, 11.16 ft, from rating curve extended above 22,000 ft³/s; maximum gage height, 13.50 ft, Dec. 6, 1966; no flow several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 15	0315	*3,860	*6.15	Mar. 11	Unknown	e 600	Unknown
Feb. 19	1500	2,030	3.70	Mar. 16	Unknown	e 800	Unknown

e Estimated on basis of peak flows recorded at nearby streams.

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	9.6	60	.60				
2					0	8.8	58	.30				
3					0	8.2	57	.15				
4					0	7.4	54	.10				
5					0	6.8	50	0				
6					0	6.2	43	0				
7					0	6.0	40	1.3				
8					0	22	38	0				
9					0	60	36	0				
10					0	200	33	0				
11					0	520	31	0				
12					0	340	30	0				
13					319	230	28	0				
14					384	200	27	0				
15					2070	175	26	0				
16					1250	620	24	0				
17					642	560	22	0				
18					432	380	20	0				
19					811	330	18	0				
20					502	250	15	0				
21					188	215	10	0				
22					45	186	13	0				
23					30	148	10	0				
24					20	117	9.5	0				
25					16	100	6.0	0				
26					13	90	5.0	0				
27					12	82	4.0	0				
28					10	78	3.0	0				
29					---	74	2.0	0				
30					---	70	1.0	0				
31					---	65	---	0				
TOTAL	0	0	0	0	6744	5165.0	773.5	2.45	0	0	0	0
MEAN	0	0	0	0	241	167	25.8	.079	0	0	0	0
MAX	0	0	0	0	2070	620	60	1.3	0	0	0	0
MIN	0	0	0	0	0	6.0	1.0	0	0	0	0	0
AC-FT	0	0	0	0	13380	10240	1530	4.9	0	0	0	0

SANTA MARIA RIVER BASIN

11140600 BRADLEY DITCH NEAR DONOVAN ROAD, AT SANTA MARIA, CA

LOCATION.--Lat 34°58'00", long 120°25'00", in NE 1/4 NE 1/4 sec.11, T.10 N., R.34 W., Santa Barbara County, Hydrologic Unit 18060008, on left bank 250 ft upstream from bridge on Donovan Road, and 0.2 mi east of U.S. Highway 101 in Santa Maria.

DRAINAGE AREA.--5.47 mi².

PERIOD OF RECORD.--October 1970 to September 1978, October 1979 to current year.

GAGE.--Water-stage recorder on concrete-lined channel. Elevation of gage is 225 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to September 1978, at site 50 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Mar. 12, July 16, Sept. 24. Records fair except for periods of estimated record, which are poor. Extensive channel modification in 1979 water year widened the concrete-lined channel.

AVERAGE DISCHARGE.--15 years, 1.47 ft³/s, 1,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 539 ft³/s, Mar. 1, 1983, gage height, 4.59 ft, from rating curve extended above 69 ft³/s on basis of slope-conveyance computations of discharge; maximum gage height, 5.85 ft, Mar. 4, 1978; no flow for several days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*), from rating curve extended as explained above:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	1900	171	2.99	Mar. 13	1430	189	3.09
Mar. 8	0915	166	2.96	Mar. 16	1500	*412	*4.12

No flow Mar. 19, 20, Sept. 8, 15, 21-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	.82	.03	.06	.08	1.4	1.0	1.2	1.9	1.1	1.1	.51
2	.76	1.1	3.8	.13	.02	.88	1.8	1.3	.71	1.2	1.7	.12
3	.85	1.2	.26	.45	.05	.66	1.1	.85	.94	1.3	.79	.09
4	.79	1.1	.14	.93	.03	1.3	.49	.80	.22	3.0	.28	.13
5	1.5	1.1	.02	.30	.02	1.1	1.2	1.0	1.5	1.2	1.8	.48
6	.76	1.1	.01	.02	.18	2.1	4.5	.66	1.8	1.4	.90	.07
7	.40	1.6	.01	.01	.05	1.3	1.4	.65	1.6	1.9	1.6	.13
8	.73	2.8	.01	.02	.11	24	.09	.90	1.6	2.1	1.7	0
9	.50	1.7	.09	.52	.38	.95	.02	.76	1.5	1.9	1.6	.04
10	1.1	.95	.22	.55	.69	10	.05	.42	2.0	1.4	1.8	.01
11	.87	1.9	.12	.24	.68	3.0	.47	.28	2.1	.87	.35	.10
12	1.1	.65	.19	.51	.83	3.1	.31	.64	1.8	1.2	1.1	.02
13	.72	.05	.80	.36	28	46	.11	.81	2.0	1.4	1.7	.05
14	.37	.03	.78	.47	27	3.1	.19	1.3	2.2	.59	1.5	.10
15	1.3	.17	.33	.73	6.0	31	1.0	1.8	1.6	1.2	1.5	0
16	2.2	.17	.10	.55	.38	112	1.5	1.2	1.0	1.1	1.6	.01
17	4.1	.05	.28	.57	.04	6.8	1.5	.95	1.4	1.5	1.5	.11
18	3.6	.40	.22	.41	.09	.13	1.4	.81	1.7	2.1	1.0	.03
19	3.3	.65	.23	.31	1.1	0	1.7	.33	2.2	1.6	2.5	.16
20	1.2	1.2	.96	.17	.05	0	.64	.18	2.2	.62	1.7	.07
21	.66	1.5	.75	.74	.01	.04	.71	.45	2.0	.57	1.5	0
22	.70	1.8	.18	.58	.09	.21	1.4	.69	1.3	1.6	1.3	0
23	1.0	1.1	.57	.53	.10	.80	.81	.45	.78	1.0	1.5	0
24	.62	1.9	1.1	.53	.54	1.1	.77	1.1	1.9	1.4	1.0	11
25	.82	2.9	.48	.11	1.1	.69	.68	1.9	1.9	1.8	1.1	.39
26	.97	.12	1.0	.10	1.1	1.7	1.4	1.2	1.9	1.4	1.3	.01
27	.63	.05	.72	.09	1.5	2.4	1.5	.56	1.9	1.4	.96	.03
28	.49	4.8	.73	.08	1.5	1.2	1.1	.96	2.4	.80	1.6	.47
29	1.4	11	.27	.43	---	.92	.81	.91	2.1	1.1	1.5	.02
30	1.6	.25	.10	.83	---	.63	.71	.55	1.8	.86	2.5	.95
31	1.6	---	.04	.42	---	.14	---	1.3	---	1.2	1.4	---
TOTAL	37.07	44.16	14.54	11.75	71.72	258.65	30.36	26.91	49.95	41.81	43.38	15.10
MEAN	1.20	1.47	.47	.38	2.56	8.34	1.01	.87	1.66	1.35	1.40	.50
MAX	4.1	11	3.8	.93	28	112	4.5	1.9	2.4	3.0	2.5	11
MIN	.37	.03	.01	.01	.01	0	.02	.18	.22	.57	.28	0
AC-FT	74	88	29	23	142	513	60	53	99	83	86	30

CAL YR 1985 TOTAL 405.94 MEAN 1.11 MAX 12 MIN 0 AC-FT 805
WTR YR 1986 TOTAL 645.40 MEAN 1.77 MAX 112 MIN 0 AC-FT 1280

SANTA MARIA RIVER BASIN

11141000 SANTA MARIA RIVER AT GUADALUPE, CA

LOCATION.--Lat 34°58'35", long 120°34'15", in Guadalupe Grant, Santa Barbara County, Hydrologic Unit 18060008, on downstream side of bridge on State Highway 1, 0.5 mi north of Guadalupe, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--1,741 mi².

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for October 1940 to January 1941, published in WSP 1315-B.

GAGE.--Three water-stage recorders. Datum of main gage (left channel) is 64.92 ft above National Geodetic Vertical Datum of 1929. Two supplementary gages started in 1956 at different datums and locations. Prior to Aug. 11, 1955, main gage at site 100 ft upstream, at present datum.

REMARKS.--Estimated daily discharges: Feb. 14-18, Mar. 12-15, 17-19. Records poor. Flow regulated since February 1959 by Twitchell Reservoir, capacity 240,000 acre-ft, 25 mi upstream on Cuyama River. Several small diversions and extensive pumping from wells upstream from station for irrigation.

AVERAGE DISCHARGE.--46 years, 30.5 ft³/s, 22,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,800 ft³/s, Jan. 16, 1952, gage height, 8.18 ft; maximum gage height, 10.00 ft, Feb. 26, 1969; no flow for all or part of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,190 ft³/s, Mar. 17, gage height, 6.53 ft; no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	0						
2					0	0						
3					0	0						
4					0	0						
5					0	0						
6					0	0						
7					0	0						
8					0	0						
9					0	0						
10					0	0						
11					0	0						
12					0	1.0						
13					0	2.0						
14					2.0	5.0						
15					580	6.0						
16					180	190						
17					5.0	820						
18					2.0	5.0						
19					0	2.0						
20					0	0						
21					0	0						
22					0	0						
23					0	0						
24					0	0						
25					0	0						
26					0	0						
27					0	0						
28					0	0						
29					---	0						
30					---	0						
31					---	0						
TOTAL	0	0	0	0	769.0	1031.0	0	0	0	0	0	0
MEAN	0	0	0	0	27.5	33.3	0	0	0	0	0	0
MAX	0	0	0	0	580	820	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	1530	2040	0	0	0	0	0	0

CAL YR 1985 TOTAL 0 MEAN 0 MAX 0 MIN 0 AC-FT 0
WTR YR 1986 TOTAL 1800 MEAN 4.93 MAX 820 MIN 0 AC-FT 3570

SANTA MARIA RIVER BASIN

11141050 ORCUTT CREEK NEAR ORCUTT, CA

LOCATION.--Lat 34°53'01", long 120°29'38", in SW 1/4 SE 1/4 sec.6, T.9 N., R.34 W., Santa Barbara County, Hydrologic Unit 18060008, on right bank, 10 ft upstream from Black Road bridge, 0.2 mi northeast of State Highway 1, and 3.0 mi northwest of Orcutt.

DRAINAGE AREA.--18.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 13-19, Mar. 17-31, Apr. 1-3, 7-17, 19-24, May 4-8, May 19 to June 17. Records poor. No regulation or diversion above station. Natural flow affected by pumping and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,830 ft³/s, Mar. 1, 1983, gage height, 7.53 ft, from floodmarks, from rating curve extended above 10 ft³/s on basis of slope-area measurements at gage heights 4.83 ft and 7.53 ft; no flow for several days during October and November 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 363 ft³/s, Feb. 14, gage height, 4.22 ft; minimum daily, 0.01 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	.03	.01	.40	.12	.04	.01	.05	.04	.73	.11
2	.01	.02	6.9	.01	.03	.12	.04	.01	.06	.02	1.0	.07
3	.01	.02	.41	.01	.02	.12	.02	.01	.06	.02	.24	.08
4	.01	.02	.03	.02	.01	.12	.02	.05	.16	.01	.08	.07
5	.01	.02	.02	.02	.01	.11	.02	.02	.20	.02	.03	.30
6	.01	.02	.02	.01	.01	.10	2.6	.01	.06	.02	.02	.07
7	.02	.02	.01	.01	.01	.10	13	.01	.04	.02	.07	.08
8	.01	.02	.01	.01	.01	15	4.1	.02	.08	.02	.05	.19
9	.02	.02	.01	.01	.01	3.8	1.6	.01	.08	.02	.03	.16
10	.01	.03	.01	.01	.01	16	.20	.01	.13	.06	.03	.09
11	.01	.07	.02	.01	.01	4.3	.65	.02	.08	.03	.09	.13
12	.01	.03	.01	.01	1.3	7.4	1.6	.02	.08	.02	.06	.05
13	.02	.02	.01	.01	52	41	1.1	.01	.08	.04	.03	.08
14	.02	.02	.02	.01	58	11	4.5	.02	.05	.06	.04	.12
15	.02	.02	.02	.01	11	38	.05	.01	.06	.03	.05	.06
16	.01	.02	.02	.01	1.4	160	.04	.01	.02	.02	.05	.08
17	.01	.02	.02	.01	.52	35	.03	.01	.04	.02	.06	.09
18	.01	.02	.02	.01	.69	2.0	.01	.08	.02	.02	.08	.12
19	.01	.01	.02	.01	1.0	.78	.01	.13	.01	.02	.06	.08
20	.01	.01	.02	.01	.37	.52	.02	.08	.01	.03	.07	.17
21	.03	.02	.01	.01	.24	.20	.02	.02	.02	.02	.19	.07
22	.01	.01	.01	.01	.18	.10	.03	.02	.02	.05	.08	.08
23	.01	.01	.01	.01	.16	.06	.04	.05	.02	.03	.07	.13
24	.01	.04	.01	.01	.16	.04	.05	.07	.02	.02	.08	1.8
25	.01	.06	.01	.01	.13	.06	.05	.04	.02	.02	.07	.06
26	.01	.05	.01	.02	.12	.08	.05	.02	.02	.02	.06	.02
27	.01	.02	.01	.01	.12	.06	.01	.03	.02	.02	.06	.02
28	.02	.04	.01	.03	.12	.05	.01	.05	.02	.04	.07	.02
29	.02	9.5	.02	.04	---	.05	.01	.04	.02	.09	.06	.01
30	.02	.69	.02	.15	---	.04	.01	.03	.02	.20	.10	.01
31	.02	---	.01	3.4	---	.04	---	.03	---	.35	.26	---
TOTAL	0.42	10.89	7.76	3.92	128.04	336.37	29.93	0.95	1.57	1.40	3.97	4.42
MEAN	.014	.36	.25	.13	4.57	10.9	1.00	.031	.052	.045	.13	.15
MAX	.03	9.5	6.9	3.4	58	160	13	.13	.20	.35	1.0	1.8
MIN	.01	.01	.01	.01	.01	.04	.01	.01	.01	.01	.02	.01
AC-FT	.8	22	15	7.8	254	667	59	1.9	3.1	2.8	7.9	8.8
CAL YR 1985	TOTAL	80.02	MEAN	.22	MAX	9.5	MIN	.01	AC-FT	159		
WTR YR 1986	TOTAL	529.64	MEAN	1.45	MAX	160	MIN	.01	AC-FT	1050		

SANTA MARIA RIVER BASIN

11141050 ORCUTT CREEK NEAR ORCUTT, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: November 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 1985									
16...	1315	0.01	3090	7.70	22.0	--	--	--	--
NOV									
18...	1230	0.02	2670	8.80	17.0	--	--	--	--
DEC									
17...	0945	0.02	2450	7.70	7.5	--	--	--	--
JAN 1986									
08...	1335	0.02	2730	8.80	19.5	320	76	68	37
FEB									
19...	1200	1.2	1450	7.70	18.0	--	--	--	--
MAR									
13...	1500	53	400	7.30	12.0	--	--	--	--
MAY									
13...	1310	0.01	2500	9.90	28.0	--	--	--	--
JUN									
18...	1025	0.02	2540	8.90	25.0	--	--	--	--
JUL									
15...	1010	0.02	2950	8.00	23.0	--	--	--	--
AUG									
12...	1030	0.02	2200	7.70	20.5	--	--	--	--
SEP									
24...	1305	0.50	2220	7.30	18.0	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 1985								
16...	--	--	--	--	--	--	--	--
NOV								
18...	--	--	--	--	--	--	--	--
DEC								
17...	--	--	--	--	--	--	--	--
JAN 1986								
08...	480	76	12	2.7	246	210	630	0.90
FEB								
19...	--	--	--	--	--	--	--	--
MAR								
13...	--	--	--	--	--	--	--	--
MAY								
13...	--	--	--	--	--	--	--	--
JUN								
18...	--	--	--	--	--	--	--	--
JUL								
15...	--	--	--	--	--	--	--	--
AUG								
12...	--	--	--	--	--	--	--	--
SEP								
24...	--	--	--	--	--	--	--	--

SANTA MARIA RIVER BASIN

11141050 ORCUTT CREEK NEAR ORCUTT, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 1985								
16...	--	1840	--	--	--	--	--	--
NOV								
18...	--	1590	--	--	--	--	--	--
DEC								
17...	--	1510	--	--	--	--	--	--
JAN 1986								
08...	16	--	1600	5.10	1.80	1000	80	50
FEB								
19...	--	809	--	--	--	--	--	--
MAR								
13...	--	279	--	--	--	--	--	--
MAY								
13...	--	1510	--	--	--	--	--	--
JUN								
18...	--	1520	--	--	--	--	--	--
JUL								
15...	--	1710	--	--	--	--	--	--
AUG								
12...	--	1350	--	--	--	--	--	--
SEP								
24...	--	1300	--	--	--	--	--	--

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft ³ /s)
Franklin Creek basin							
11119530	Franklin Creek at Carpinteria, CA	Lat 34°24'17", long 119°31'05", in Pueblo Lands of Santa Barbara, Santa Barbara County, Hydrologic Unit 18060013, on right bank 20 ft downstream from Malibu Drive bridge, 0.5 mi north of Carpinteria, and 0.9 mi upstream from mouth.	1.81	1970-78* 1981-86	2-14-86	2.32	497
Santa Ynez River basin							
11131700	Santa Rita Creek near Lompoc, CA	Lat 34°38'41", long 120°22'09", in Santa Rita Grant, Santa Barbara County, Hydrologic Unit 18060010, on left bank 2.4 mi upstream from mouth and 6.5 mi east of Lompoc.	14.1	1976-79 1981-86	3-15-86	8.01	282
11133700	Purisima Creek near Lompoc, CA	Lat 34°41'34", long 120°5'51", in Purisima Grant, Santa Barbara County, Hydrologic Unit 18060010, on right bank 1.1 mi northeast of junction of Buener Road and Lompoc-Casmalia Road, and 4.0 mi northeast of Lompoc.	4.75	1972-75* 1976-86	2-14-86	1.90	44
11135200	Rodeo-San Pasqual Creek near Lompoc, CA	Lat 34°38'42", long 120°30'57", in Lompoc Grant, Santa Barbara County, Hydrologic Unit 18060010, on left bank 0.1 mi east of Dewolf Avenue at Highway 246 3.3 mi west of Lompoc.	7.80	1971-72* 1973-78 1980-86	2-14-86	2.66	351

*Operated as a continuous-record gaging station.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

OWENS LAKE BASIN

10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°03'15", long 118°13'33", in SW 1/4 NE 1/4 sec. 26, T.10 S., R.34 E., Inyo County, Hydrologic Unit 18090102, about 100 ft west of center of dam, and 8.4 mi southeast of Big Pine.

DRAINAGE AREA.--1,964 mi².

PERIOD OF RECORD.--Water years 1975 to June 1986 (discontinued).

CHEMICAL DATA: Water years 1975 to June 1986 (discontinued).

BIOLOGICAL DATA: Water years 1975 to June 1986 (discontinued).

SPECIFIC CONDUCTANCE: Water years 1975-81.

WATER TEMPERATURE: Water years 1975-81.

SEDIMENT DATA: Water years 1975 to June 1986 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1975 to September 1981.

WATER TEMPERATURE: February 1975 to September 1981.

INSTRUMENTATION.--Specific-conductance recorder from May 1975 to September 1981. Temperature recorder from February 1975 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 442 microsiemens, Feb. 13, 1978; minimum recorded, 129 microsiemens, July 5, 1980.

WATER TEMPERATURE: Maximum recorded, 26.5°C, July 20, 1978; minimum recorded, 0.0°C, Dec. 7, 8, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED	COLI- FORM, FECAL,	STREP- TOCOCCHI FECAL,	HARD- NESS (MG/L AS CACO3)	
						(MM OF HG)			(PER- CENT SATUR- ATION)	0.7 UM-MF (COLS. / 100 ML)	KF AGAR (COLS. PER 100 ML)		
DEC	10...	0900	112	297	8.40	3.0	655	4.5	12.2	104	K2	45	76
MAR	13...	1030	819	381	8.60	9.5	650	17	10.2	104	K13	29	77
JUN	11...	1500	656	168	7.60	19.0	660	5.0	7.7	94	25	94	44
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY, CARBON- ATE IT-FLD (MG/L - CACO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	
DEC	10...	0	23	4.4	33	47	2	3.9	122	2.0	103	103	19
MAR	13...	0	23	4.7	50	57	3	5.2	140	5.0	124	124	33
JUN	11...	0	14	2.1	17	44	1	2.7	74	0	61	62	13
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	
DEC	10...	14	0.70	30	203	190	0.28	<0.010	0.180	0.020	0.020	0.40	0.070
MAR	13...	22	0.80	28	246	250	0.33	<0.010	<0.100	0.010	0.020	0.50	0.130
JUN	11...	6.1	0.40	14	103	110	0.14	<0.010	<0.100	0.020	0.020	0.40	0.070

See footnotes at end of table.

OWENS LAKE BASIN

10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
DEC 10...	0.040	0.040	<10	22	14	<0.5	<1	<1	<3	<1	30
MAR 13...	0.050	0.040	20	29	9	<0.5	<1	1	<3	8	37
JUN 11...	0.050	0.040	30	15	10	<0.5	<1	<1	<3	3	50

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 10...	2	84	10	<0.1	20	2	<1	<1	130	<6	7
MAR 13...	<1	120	4	<0.1	30	<1	<1	<1	130	<6	9
JUN 11...	<1	45	9	<0.1	30	<1	<1	<1	68	<6	3

K Results based on colony count outside the acceptable range (non-ideal colony count).

< Actual value is known to be less than the value shown.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDE (MG/L)
JUN										
* 11...	1520	6.00	168	7.60	19.0	660	7.7	94	10	
* 11...	1535	12.0	169	7.60	19.0	660	7.7	94	9	
* 11...	1545	18.0	168	7.60	19.0	660	7.7	94	11	

* Instantaneous streamflow at the time of cross-sectional measurements: June 11, 656 ft³/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 10...	0900	112	3.0	18	5.4	93
MAR 13...	1030	819	9.5	37	82	--
JUN 11...	1500	656	19.0	11	19	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

LOS PENASQUITOS CREEK BASIN

11023350 LOS PENASQUITOS CREEK NR LA JOLLA, CA

LOCATION.--Lat 32°54'23", long 117°12'45", in SE 1/4 SE 1/4 Sec.32, T.14 S., R.3 W., San Diego County,
Hydrologic Unit 18070304, on left bank 0.7 mi east of intersection of Interstates 5 and 805 and
3.8 mi northeast of La Jolla.

DRAINAGE AREA.--57.4 mi².

PERIOD OF RECORD.--

SEDIMENT DATA: January 1982 to August 1983, November 1985 to September 1986 (discontinued).

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED.	SED.
						SUSP. FALL DIAM. % FINER THAN .002 MM	SUSP. FALL DIAM. % FINER THAN .004 MM
NOV							
12...	1000	70	13.0	362	68	--	--
12...	1030	70	13.0	365	69	--	--
12...	1515	93	13.0	321	81	--	--
12...	1600	100	13.5	321	87	--	--
25...	1300	460	14.0	1640	2040	--	--
25...	1345	432	14.0	1400	1630	76	85
26...	1300	32	16.0	252	22	--	--
30...	1030	162	13.5	605	265	--	--
DEC							
03...	1230	180	14.5	570	277	--	--
JAN							
30...	1440	39	16.0	120	13	--	--
FEB							
08...	1015	136	11.5	436	160	--	--
08...	1400	209	12.0	334	188	--	--
15...	1430	639	16.0	1390	2400	70	83
16...	0915	146	15.0	201	79	--	--
MAR							
10...	1215	130	15.5	437	153	--	--
10...	1315	93	15.0	432	108	--	--
16...	0815	375	13.0	800	810	--	--
SEP							
25...	1245	75	19.0	172	35	--	--
DATE		SED.	SED.	SED.	SED.	SED.	SED.
		SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.
		FALL DIAM. % FINER THAN .008 MM	FALL DIAM. % FINER THAN .016 MM	FALL DIAM. % FINER THAN .031 MM	SIEVE DIAM. % FINER THAN .062 MM	SIEVE DIAM. % FINER THAN .125 MM	SIEVE DIAM. % FINER THAN .250 MM
NOV							
12...	--	--	--	98	98	99	100
12...	--	--	--	100	--	--	--
12...	--	--	--	99	99	100	--
12...	--	--	--	100	--	--	--
25...	--	--	--	--	--	--	--
25...	92	96	99	99	100	--	--
26...	--	--	--	100	--	--	--
30...	--	--	--	100	--	--	--
DEC							
03...	--	--	--	100	--	--	--
JAN							
30...	--	--	--	99	--	--	--
FEB							
08...	--	--	--	100	--	--	--
08...	--	--	--	100	--	--	--
15...	92	96	98	99	99	99	100
16...	--	--	--	99	--	--	--
MAR							
10...	--	--	--	100	--	--	--
10...	--	--	--	100	--	--	--
16...	--	--	--	100	--	--	--
SEP							
25...	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

LOS PENASQUITOS CREEK BASIN

11023350 LOS PENASQUITOS CREEK NR LA JOLLA, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
DEC							
30...	1100	--	1	2	4	9	28
30...	1105	--	1	4	9	23	63
30...	1110	--	1	23	40	61	84
FEB							
12...	1030	--	3	14	24	43	67
JUL							
08...	1200	27.5	4	13	25	44	71

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
DEC						
30...	45	52	55	60	70	100
30...	89	98	100	--	--	--
30...	95	99	100	--	--	--
FEB						
12...	83	92	98	98	99	100
JUL						
08...	87	93	95	96	99	100

PARTICLE-SIZE DISTRIBUTION OF TOTAL SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY)	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .125 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .250 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .500 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN 1.00 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN 2.00 MM
NOV										
12...	1515	13.0	93	81	99	99	100	--	--	--
FEB										
08...	1400	12.0	209	220	94	95	96	98	100	--
MAR										
16...	0815	13.0	375	930	94	94	95	98	100	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

SAN MATEO CREEK BASIN

11046370 SAN MATEO CREEK AT SAN ONOFRE, CA

WATER QUALITY RECORDS

LOCATION.--Lat 33°23'28", long 117°35'23", in SE 1/4 NW 1/4 sec.14, T.9 S., R.7 W., San Diego County, Hydrologic Unit 18070301, at bridge on old Highway 101, 0.5 mi upstream from mouth, and 2.6 mi downstream from Cristianitos Creek.

DRAINAGE AREA.--132 mi².

PERIOD OF RECORD.--Water years 1982 to current year.

WATER TEMPERATURE: Water years 1982-84.

SEDIMENT DATA: Water years 1982 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: December 1983 to September 1984.

SUSPENDED SEDIMENT DISCHARGE: December 1983 to September 1984.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 378 mg/L, Dec. 26, 1983; minimum daily mean, 1 mg/L many days during year.

SEDIMENT LOAD: Maximum daily, 302 tons, Dec. 25, 1983; minimum daily, 0 ton many days during year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV					
11...	1425	1.5	--	6	0.02
FEB					
15...	1045	1.6	18.0	114	0.49

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
SEP												
30...	1530	3	0.0	1	1	2	15	58	87	96	99	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

SANTA MARIA RIVER BASIN

345556120274001 LA BREA RECHARGE POND AT SANTA MARIA, CA

LOCATION.--Lat°34 55'56", long°120 27'40", unsurveyed, Santa Barbara County, Hydrologic Unit 18060008, at inflow structure of recharge pond, 2.1 mi southwest of Santa Maria.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--

CHEMICAL DATA: October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
NOV 1984													
08...	0715	470	7.3	15.0	--	--	--	--	--	--	--	--	
DEC													
19...	1800	101	7.3	12.5	34	12	8.2	3.2	8.3	34	0.6	1.4	
JAN 1985													
09...	0915	261	8.3	10.5	--	--	--	--	--	--	--	--	
FEB													
13...	0750	142	7.4	11.5	--	--	--	--	--	--	--	--	
MAR													
19...	0910	200	7.5	14.0	--	--	--	--	--	--	--	--	
APR													
18...	0930	290	8.6	16.0	--	--	--	--	--	--	--	--	
DATE		ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS S102)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 1984													
08...	--	--	--	--	--	--	339	--	--	--	--	--	--
DEC													
19...	22	31	6.7	0.1	7.4	--	82	0.26	0.16	50	1500	44	
JAN 1985													
09...	--	--	--	--	--	--	171	--	--	--	--	--	--
FEB													
13...	--	--	--	--	--	--	74	--	--	--	--	--	--
MAR													
19...	--	--	--	--	--	--	156	--	--	--	--	--	--
APR													
18...	--	--	--	--	--	--	184	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

SANTA MARIA RIVER BASIN

345556120274001 LA BREA RECHARGE POND AT SANTA MARIA, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
NOV 1985												
18...	1330	1030	8.00	15.0	--	--	--	--	--	--	--	--
DEC												
20...	0945	1170	7.90	13.0	--	--	--	--	--	--	--	--
JAN 1986												
16...	1030	321	8.00	13.0	--	--	--	--	--	--	--	--
FEB												
20...	1050	200	7.10	17.0	75	35	18	7.3	13	27	0.7	2.6
MAR												
14...	0930	*144	7.20	12.5	--	--	--	--	--	--	--	--
APR												
17...	1200	222	8.50	19.5	--	--	--	--	--	--	--	--

DATE	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 1985												
18...	--	--	--	--	--	732	--	--	--	--	--	--
DEC												
20...	--	--	--	--	--	814	--	--	--	--	--	--
JAN 1986												
16...	--	--	--	--	--	196	--	--	--	--	--	--
FEB												
20...	40	34	11	0.10	6.3	--	120	0.360	0.200	40	210	32
MAR												
14...	--	--	--	--	--	110	--	--	--	--	--	--
APR												
17...	--	--	--	--	--	145	--	--	--	--	--	--

* Laboratory value.

ANALYSIS OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

SANTA MARIA RIVER BASIN--Continued

345727120375401 GREEN CANYON CREEK AT MAIN STREET NEAR GUADALUPE, CA

LOCATION.--Lat 34°57'27", long 120°37'54", Santa Barbara County, Hydrologic Unit 18060008, at culvert on West Main Street, 3.6 mi southwest of Guadalupe.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--

CHEMICAL DATA: October 1985 to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	
JAN 1986													
16...	1310	4.9	2420	7.80	13.5	1100	790	240	120	160	24		
JUL 16...		1100	12	2160	7.50	17.5	940	640	210	100	140	24	
		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE DIS- SOLVED (UG/L AS M)
JAN 1986													
16...	6.7	304	830	170	0.40	26	1700	17.0	0.180	270	50	500	
JUL 16...		6.5	298	720	160	0.50	31	1500	17.0	0.470	290	30	130
		PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	AME- TRYNE TOTAL	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CYAN- AZINE TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- SYSTON TOTAL (UG/L)
JAN 1986													
16...	<1	<1.0	<0.1	<0.10	<1.0	<0.10	93	110	70	<0.01	3.4	0.02	
JUL 16...		<1	<1.0	<0.1	<0.10	<1.0	<0.10	120	150	<0.1	0.09	<0.1	<0.01
		ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	GUTHION TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- TERIAL (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	
JAN 1986													
16...	<0.1	<0.1	<0.01	--	<0.1	<0.1	<0.1	<0.1	<0.01	<1.0	0.01	<0.01	
JUL 16...		<0.1	<0.1	<0.01	<0.10	<0.1	<0.1	<0.1	<0.01	<0.1	<0.01	<0.01	
		MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG)	PHORATE TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)		
JAN 1986													
16...	<0.1	<0.01	<1.00	--	<0.1	<0.1	<0.10	2.8	<0.1	140	<0.01		
JUL 16...		<0.1	<0.01	<1.00	<0.01	<0.1	0.2	<0.10	<0.10	<0.1	400	<0.01	

< Actual value is known to be less than the value shown.

INDEX

	Page		Page
ABONDIGAS CREEK ABOVE LAKE GREGORY AT CRESTLINE.....	70	DARWIN CREEK NEAR DARWIN.....	38
ACCESS TO WATSTORE DATA.....	14	Data Collection and Computation.....	8
Accuracy of the Records.....	10	Data Presentation.....	9
Acre-foot, definition of.....	14	DEEP CREEK NEAR HESPERIA.....	68
Adenosine triphosphate, definition of.....	14	DEEP CREEK NEAR PALM DESERT.....	65
AGUA CALIENTE CREEK NEAR WARNER SPRINGS.....	119	DEFINITION OF TERMS.....	14
ALAMO RIVER AT DROP NO 3 NEAR CALIPATRIA.....	44	DEVIL CANYON CREEK NEAR SAN BERNARDINO.....	164
ALAMO RIVER NEAR NILAND.....	47	Diatoms, definition of.....	18
Algae, definition of.....	14	Discharge, definition of.....	15
Algal growth potential, definition of.....	14	Discontinued gaging stations.....	24
ALISAL RESERVOIR NEAR SOLVANG.....	256	Dissolved, definition of.....	15
ALISO CREEK AT SOUTH LAGUNA.....	140	Dissolved-solids concentration, definition of.....	15
ANDREAS CREEK NEAR PALM SPRINGS.....	64	Diversity index, definition of.....	16
Aquifer, definition of.....	14	Downstream Order System.....	7
Arrangement of Records.....	11	Drainage area, definition of.....	16
ARROYO BURRO CREEK AT SANTA BARBARA.....	242	Drainage basin, definition of.....	16
ARROYO SECO NEAR PASADENA.....	200	Dry mass, definition of.....	15
ARROYO TRABUCO AT SAN JUAN CAPISTRANO.....	137		
Artesian, definition of.....	14	EAST TWIN CREEK NEAR ARROWHEAD SPRINGS.....	156
Artificial substrate, definition of.....	19	EL CAPITAN LAKE NEAR LAKESIDE.....	94
Ash mass, definition of.....	15	EXPLANATION OF THE RECORDS.....	7
ATASCADERO CREEK NEAR GOLETA.....	244		
		Fecal-coliform bacteria, definition of.....	14
Bacteria, definition of.....	14	Fecal-streptococcal bacteria, definition of.....	14
BAUTISTA CREEK AT VALLE VISTA.....	170	FORESTER CREEK AT EL CAJON.....	97
Bed material, definition of.....	14	FULLERTON CREEK BELOW FULLERTON DAM NEAR BREA.....	198
Bedload discharge, definition of.....	18		
Bedload, definition of.....	18	Gage datum, definition of.....	16
BEELER CREEK AT POMERADO ROAD NEAR POWAY.....	102	Gage height, definition of.....	16
Benthic organisms, definition of.....	15	Gaging station, definition of.....	16
BIG BEAR LAKE NEAR BIG BEAR LAKE.....	143	GAVIOTA CREEK NEAR GAVIOTA.....	249
BIG ROCK CREEK NEAR VALVERMO.....	79	Green algae, definition of.....	18
BIG TUJUNGA CREEK BELOW HANSEN DAM.....	199	GREEN CANYON CREEK AT MAIN STREET NEAR GUADALUPE.....	298
Biochemical oxygen demand, definition of.....	15		
Biomass, definition of.....	15	Hardness, definition of.....	16
BISHOP CREEK BELOW POWERPLANT NO 6 NEAR BISHOP.....	81	HOUSTON CREEK ABOVE LAKE GREGORY AT CRESTLINE.....	69
Blue-green algae, definition of.....	18	HOUSTON CREEK BELOW LAKE GREGORY AT CRESTLINE.....	72
BORREGO PALM CREEK NEAR BORREGO SPRINGS.....	52	HUASNA RIVER NEAR ARROYO GRANDE.....	277
Bottom material, definition of.....	15	Hydrologic Bench-Mark Network.....	5
BRADLEY DITCH NEAR DONOVAN ROAD AT SANTA MARIA.....	285	Hydrologic Bench-Mark Network, definition of.....	16
BREA CREEK BELOW BREA DAM NEAR FULLERTON.....	197	Hydrologic unit, definition of.....	16
		Identifying Estimated Daily Discharge.....	10
CAJON CREEK BELOW LONE PINE CREEK NEAR KEENBROOK.....	163	Imperial County, location of discharge and water-quality stations in.....	25
CAMPO CREEK NEAR CAMPO.....	88	Instantaneous discharge, definition of.....	15
CARBON CREEK BELOW CARBON CANYON DAM.....	188	INTRODUCTION.....	1
CARMEL CREEK NEAR DEL MAR.....	109	Inyo County, location of discharge and water-quality stations in.....	26
CARPINTERIA CREEK NEAR CARPINTERIA.....	234		
CARROLL CREEK NEAR LA JOLLA.....	105	JAMUL CREEK NEAR JAMUL.....	91
CARUTHERS CREEK NEAR IVANPAH.....	41		
Cells/volume, definition of.....	15	Kern County, location of discharge and water-quality stations in.....	27
Chemical oxygen demand, definition of.....	15		
CHINO CANYON CREEK NEAR PALM SPRINGS.....	60	LA BREA RECHARGE POND AT SANTA MARIA.....	296
CHINO CREEK AT SCHAEFER AVENUE NEAR CHINO.....	173	Laboratory Measurements.....	12
Chlorophyll, definition of.....	15	LAKE CACHUMA NEAR SANTA YNEZ.....	255
CITY CREEK NEAR HIGHLAND.....	153	LAKE CASITAS NEAR CASITAS SPRINGS.....	227
Classification of Records.....	11	LAKE GREGORY AT CRESTLINE.....	71
Color unit, definition of.....	15	LAKE HODGES NEAR ESCONDIDO.....	115
Contents, definition of.....	15	LAKE PIRU NEAR PIRU.....	211
continuing-record station.....	11	LAKE WOHLFORD NEAR ESCONDIDO.....	118
Control structure, definition of.....	15	Latitude-Longitude System.....	7
Control, definition of.....	15	Light-attenuation coefficient, definition of.....	16
COOPERATION.....	2	LONE PINE CREEK NEAR KEENBROOK.....	162
COTTONWOOD CREEK ABOVE TECATE CREEK NEAR DULZURA.....	87	Los Angeles County, location of discharge and water-quality stations in... ..	28
COYOTE CREEK BELOW BOX CANYON NEAR BORREGO SPRINGS.....	51	LOS ANGELES RIVER AT LONG BEACH.....	203
COYOTE CREEK NEAR BORREGO SPRINGS.....	50	Los Angeles River basin schematic diagram of.....	194
COYOTE CREEK NEAR OAK VIEW.....	225	LOS COCHES CREEK NEAR LAKESIDE.....	96
Cross-Section Data.....	12	LOS PENASQUITOS CREEK BELOW POWAY CREEK NEAR POWAY.....	103
Cubic foot per second, definition of.....	15		
Cubic foot per second-day, definition of.....	15		
CUCAMONGA CREEK NEAR MIRA LOMA.....	174		
CUYAMA RIVER BELOW BUCKHORN CANYON NEAR SANTA MARIA.....	274		

	Page		Page
LOS PENASQUITOS CREEK NEAR POWAY.....	104	PIRU CREEK ABOVE LAKE PIRU.....	210
LOS PENASQUITOS CREEK NR LA JOLLA.....	293	PIRU CREEK BELOW SANTA FELICIA DAM.....	212
LOWER OTAY LAKE NEAR CHULA VISTA.....	92	Plankton, definition of.....	18
LYTLE CREEK AT COLTON.....	165	PLUNGE CREEK NEAR EAST HIGHLANDS.....	151
LYTLE CREEK NEAR FONTANA.....	160	Polychlorinated biphenyls, definition of....	18
		POWAY CREEK NEAR POWAY.....	100
Macrophytes, definition of.....	16	Primary productivity, definition of.....	18
MARIA YGNACIO CREEK AT UNIVERSITY		Radiochemical Program, definition of.....	18
DRIVE NEAR GOLETA.....	243	RATTLESNAKE CREEK AT POWAY.....	101
MATILIJA CREEK AT MATILIJA HOT SPRINGS.....	223	Records of Stage and Water Discharge.....	8
MATILIJA RESERVOIR AT MATILIJA HOT		Records of Surface-Water Quality.....	11
SPRINGS.....	222	Recoverable, definition of.....	18
Mean concentration, definition of.....	19	Remark Codes.....	13
Mean discharge, definition of.....	15	RIO HONDO ABOVE WHITTIER NARROWS DAM.....	201
Metamorphic stage, definition of.....	16	RIO HONDO BELOW WHITTIER NARROWS DAM.....	202
Methylene blue active substance,		Riverside County, location of	
definition of.....	16	discharge and water-quality stations in... 31	
Micrograms per gram, definition of.....	16	RODRIGUEZ RESERVOIR AT RODRIGUEZ DAM	
Micrograms per liter, definition of.....	16	BAJA CALIFORNIA MEXICO.....	90
MIGUELITO CREEK AT LOMPOC.....	264	RUSH CREEK BELOW AGNEW LAKE NEAR JUNE	
MILL CREEK BELOW LUNDY LAKE NEAR MONO		LAKE.....	86
LAKE.....	85	SALSIPUEDES CREEK NEAR LOMPOC.....	258
MILL CREEK NEAR YUCAIPA.....	149	SALT CREEK NEAR MECCA.....	43
Milligrams per liter, definition of.....	16	SALT CREEK NEAR STOVEPIPE WELLS.....	39
MISSION CREEK AT ROCKY NOOK PARK AT		SALTON SEA NEAR WESTMORLAND.....	42
SANTA BARBARA.....	236	SAN ANTONIO CREEK ABOVE BARKA SLOUGH	
MISSION CREEK NEAR DESERT HOT SPRINGS.....	59	NEAR ORCUTT.....	268
MISSION CREEK NEAR MISSION STREET AT		SAN ANTONIO CREEK AT LOS ALAMOS.....	267
SANTA BARBARA.....	241	SAN ANTONIO CREEK NEAR CASMALIA.....	271
MOJAVE RIVER:		San Bernardino County, location of	
Also see West Fork Mojave River		discharge and water-quality stations in... 32	
MOJAVE RIVER AT APTON.....	78	San Diego County, location of	
MOJAVE RIVER AT BARSTOW.....	77	discharge and water-quality stations in... 33	
MOJAVE RIVER AT LOWER NARROWS NEAR		SAN DIEGO CREEK AT CAMPUS DRIVE NEAR	
VICTORVILLE.....	75	IRVINE.....	141
MOJAVE RIVER BELOW MOJAVE FORKS		SAN DIEGO RIVER AT FASHION VALLEY AT	
RESERVOIR NEAR HESPERIA.....	74	SAN DIEGO.....	99
MOJAVE RIVER NEAR HODGE.....	76	SAN DIEGO RIVER AT MAST ROAD NEAR	
Mono County, location of discharge		SANTEE.....	98
stations in.....	29	SAN DIEGUITO CREEK NEAR DEL MAR.....	116
MONO LAKE NEAR MONO LAKE.....	84	SAN FELIPE CREEK NEAR WESTMORLAND.....	53
MURRIETA CREEK AT TEMECULA.....	129	SAN GABRIEL RIVER ABOVE WHITTIER	
		NARROWS DAM.....	196
National Geodetic Vertical Datum of		San Gabriel River basin schematic	
1929, definition of.....	17	diagram of.....	194
National Stream Quality Accounting		SAN GABRIEL RIVER BELOW SANTA FE DAM	
Network.....	5	NEAR BALDWIN PARK.....	195
National Stream Quality Accounting		SAN JACINTO RIVER NEAR ELSINORE.....	171
Network, definition of.....	17	SAN JACINTO RIVER NEAR SAN JACINTO.....	168
Natural substrate, definition of.....	19	SAN JOSE CREEK AT GOLETA.....	248
Nekton, definition of.....	17	SAN JOSE CREEK NEAR GOLETA.....	245
NEW RIVER AT INTERNATIONAL BOUNDARY AT		SAN JUAN CREEK AT SAN JUAN CAPISTRANO.....	132
CALEXICO.....	48	San Luis Obispo County, location of	
NEW RIVER NEAR WESTMORLAND.....	49	discharge and water-quality stations in... 34	
OAK CREEK NEAR MOJAVE.....	80	San Luis Rey River:	
Onsite Measurements and Sample		Also see West Fork San Luis Rey River	
Collection.....	11	SAN LUIS REY RIVER AT MONSERATE	
Orange County, location of discharge		NARROWS NEAR PALA.....	121
and water-quality stations in.....	30	SAN LUIS REY RIVER AT OCEANSIDE.....	122
ORCUTT CREEK NEAR ORCUTT.....	287	SAN MATEO CREEK AT SAN ONOFRE.....	295
Organic mass, definition of.....	15	SAN TIMOTEO CREEK NEAR LOMA LINDA.....	155
Organism count/area, definition of.....	17	SAN VICENTE RESERVOIR NEAR LAKESIDE.....	95
Organism count/volume, definition of.....	17	SANTA ANA CREEK NEAR OAK VIEW.....	226
Organism, definition of.....	17	SANTA ANA RIVER AT BALL ROAD AT	
Other Records Available.....	11	ANAHEIM.....	189
OWENS RIVER BELOW TINEMAHA RESERVOIR		SANTA ANA RIVER AT E STREET NEAR SAN	
NEAR BIG PINE.....	291	BERNARDINO.....	157
PALM CANYON CREEK NEAR PALM SPRINGS CA.....	63	SANTA ANA RIVER AT MWD CROSSING NEAR	
Parameter, definition of.....	17	ARLINGTON.....	166
partial-record station.....	11	SANTA ANA RIVER AT SANTA ANA.....	192
Partial-record station, definition of.....	17	SANTA ANA RIVER BELOW PRADO DAM.....	175
Particle size, definition of.....	17	SANTA ANA RIVER NEAR MENTONE.....	144
Particle-size classification,		SANTA ANA RIVER SPREADING DIVERSION	
definition of.....	17	BELOW IMPERIAL HIGHWAY NEAR ANAHEIM.....	187
Percent composition or percent of		Santa Ana River, schematic diagram of.....	142
total, definition of.....	17	Santa Barbara County, location of	
Periphyton, definition of.....	17	discharge and water-quality stations in... 35	
Pesticides, definition of.....	17	SANTA CLARA RIVER AT LOS ANGELES-	
pH, definition of.....	17	VENTURA COUNTY LINE.....	207
Phytoplankton, definition of.....	18	SANTA CLARA RIVER AT MONTALVO.....	221
Picocurie, definition of.....	17	SANTA CRUZ CREEK NEAR SANTA YNEZ.....	254
		SANTA MARGARITA RIVER AT YSIDORA.....	131

INDEX

	Page		Page
SANTA MARGARITA RIVER NEAR TEMECULA.....	130	TAHQUITZ CREEK NEAR PALM SPRINGS.....	62
SANTA MARIA CREEK NEAR RAMONA.....	114	Taxonomy, definition of.....	20
SANTA MARIA RIVER AT GUADALUPE.....	286	TECHNIQUES OF WATER-RESOURCES	
SANTA PAULA CREEK NEAR SANTA PAULA.....	214	INVESTIGATIONS.....	22
SANTA YNEZ RIVER ABOVE GIBRALTAR DAM		TEMECULA CREEK NEAR AGUANGA.....	128
NEAR SANTA BARBARA.....	251	TEMESCAL CREEK ABOVE MAIN STREET AT	
SANTA YNEZ RIVER AT JAMESON LAKE NEAR		CORONA.....	172
MONTECITO.....	250	TEPUSQUET CREEK NEAR SISQUOC.....	283
SANTA YNEZ RIVER AT NARROWS NEAR		Thermograph, definition of.....	20
LOMPOC.....	261	TIJUANA RIVER NEAR DULZURA.....	89
SANTA YNEZ RIVER AT SOLVANG.....	257	Time-weighted average, definition of.....	20
SANTA YNEZ RIVER BELOW GIBRALTAR DAM		Tons per acre-foot, definition of.....	20
NEAR SANTA BARBARA.....	252	Tons per day, definition of.....	20
SANTA YNEZ RIVER BELOW LOS LAURELES		Total coliform bacteria, definition of.....	14
CANYON NEAR SANTA YNEZ.....	253	Total load, definition of.....	20
SANTA YSABEL CREEK NEAR RAMONA.....	113	Total organism count, definition of.....	17
SANTIAGO CREEK AT MODJESKA.....	190	Total, definition of.....	20
SANTIAGO CREEK AT SANTA ANA.....	191	Total, recoverable, definition of.....	20
SATICOY DIVERSION NEAR SATICOY.....	215	Total-sediment discharge, definition of.....	19
Sediment.....	5	Total-sediment load, definition of.....	19
Sediment, definition of.....	18	Turbidity, definition of.....	20
SESE CREEK NEAR WHEELER SPRINGS.....	213		
SISQUOC RIVER NEAR GAREY.....	284	Ventura County, location of discharge	
SISQUOC RIVER NEAR SISQUOC.....	280	and water-quality stations in.....	36
SNOW CREEK NEAR WHITE WATER.....	56	VENTURA RIVER NEAR MEINERS OAKS.....	224
Sodium-adsorption-ratio, definition of.....	19	VENTURA RIVER NEAR VENTURA.....	228
Solute, definition of.....	19		
SPECIAL NETWORKS AND PROGRAMS.....	5	WARM CREEK NEAR SAN BERNARDINO.....	159
Specific conductance, definition of.....	19	Water Quality.....	5
Stage-discharge relation, definition of.....	19	Water Temperature.....	12
Station Identification Numbers.....	7	Water year, definition of.....	20
Streamflow, definition of.....	19	WDR, definition of.....	20
Substrate, definition of.....	19	Weighted average, definition of.....	20
SUMMARY OF HYDROLOGIC CONDITIONS.....	2	WEST FORK MOJAVE RIVER NEAR HESPERIA.....	73
Surface area, definition of.....	19	WEST FORK SAN LUIS REY RIVER NEAR	
Surface Water.....	2	WARNER SPRINGS.....	120
Surficial bed material, definition of.....	19	Wet mass, definition of.....	15
Suspended recoverable, definition of.....	19	WHITEWATER RIVER AT INDIO.....	66
Suspended sediment, definition of.....	18	WHITEWATER RIVER AT WHITE WATER CUTOFF	
Suspended, definition of.....	19	AT WHITE WATER.....	54
Suspended, total, definition of.....	20	WHITEWATER RIVER AT WINDY POINT NEAR	
Suspended-sediment concentration,		WHITE WATER.....	58
definition of.....	19	WHITEWATER RIVER NEAR MECCA.....	67
Suspended-sediment discharge,		WSP, definition of.....	20
definition of.....	19	Zooplankton, definition of.....	18
Suspended-sediment load, definition of.....	19		
SWEETWATER RIVER NEAR DESCANSO.....	93		

CALENDAR FOR WATER YEAR 1986

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