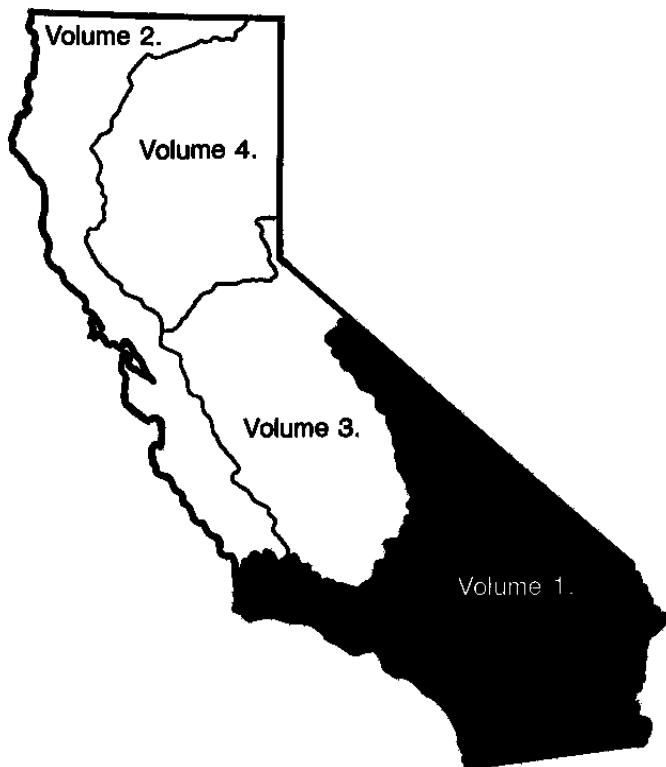


Prepared in cooperation with  
California Department of Water Resources and with other agencies

# Water Resources Data California Water Year 2004

Volume 1

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



Water-Data Report CA-04-1

# Calendar for Water Year 2004

## 2003

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October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1		1	2	3	4	5	6
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31			
							30													

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## 2004

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January							February							March						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7		1	2	3	4	5	6
4	5	6	7	8	9	10	8	9	10	11	12	13	14	7	8	9	10	11	12	13
11	12	13	14	15	16	17	15	16	17	18	19	20	21	14	15	16	17	18	19	20
18	19	20	21	22	23	24	22	23	24	25	26	27	28	21	22	23	24	25	26	27
25	26	27	28	29	30	31	29							28	29	30	31			

April							May							June						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3							1			1	2	3	4	5
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12
11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19
18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30			
							30	31												

July							August							September						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7				1	2	3	4
4	5	6	7	8	9	10	8	9	10	11	12	13	14	5	6	7	8	9	10	11
11	12	13	14	15	16	17	15	16	17	18	19	20	21	12	13	14	15	16	17	18
18	19	20	21	22	23	24	22	23	24	25	26	27	28	19	20	21	22	23	24	25
25	26	27	28	29	30	31	29	30	31					26	27	28	29	30		

# Water Resources Data California Water Year 2004

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. Agajanian, L.A. Caldwell, G.L. Rockwell, and G.L. Pope

Water-Data Report CA-04-1

Prepared in cooperation with the  
California Department of Water Resources and with other agencies

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## 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 water quality provide the hydrologic information needed by Federal, State, and local agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for California are contained in four volumes:

- Volume 1. Southern Great Basin from Mexican Border to Mono Lake Basin and Pacific Slope Basins from the 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

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 Michael V. Shulters, Water Science Center Chief, California.

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## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## CONTENTS

Preface .....	iii
Surface-Water and Water-Quality Stations in Downstream	
Order for which records are Published in this Volume .....	viii
Discontinued Gaging Stations .....	xv
Discontinued Lakes and Reservoirs .....	xxii
Discontinued Continuous Water-Quality Stations .....	xxii
Introduction .....	1
Cooperation .....	2
Downstream Order and Station Number .....	3
Numbering System for Wells and Miscellaneous Sites .....	3
Special Networks and Programs .....	3
Explanation of Stage- and Water-Discharge Records .....	5
Data Collection and Computation .....	5
Data Presentation .....	6
Station Manuscript .....	6
Peak Discharge Greater than Base Discharge .....	7
Data Table of Daily Mean Values .....	7
Statistics of Monthly Mean Data .....	7
Summary Statistics .....	7
Identifying Estimated Daily Discharge .....	8
Accuracy of Field Data and Computed Results .....	9
Other Data Records Available .....	9
Explanation of Precipitation Records .....	9
Data Collection and Computation .....	9
Data Presentation .....	9
Explanation of Water-Quality Records .....	10
Collection and Examination of Data .....	10
Water Analysis .....	10
Surface-Water-Quality Records .....	10
Classification of Records .....	10
Accuracy of the Records .....	11
Arrangement of Records .....	11
On-Site Measurements and Sample Collection .....	11
Water Temperature .....	11
Sediment .....	12
Laboratory Measurements .....	12
Data Presentation .....	12
Remark Codes .....	13
Water-Quality Control Data .....	13
Blank Samples .....	14
Reference Samples .....	14
Replicate Samples .....	14
Spike Samples .....	15
Access to USGS Water Data .....	15
Definition of Terms .....	15
Surface-Water-Discharge and Surface-Water-Quality Records .....	27
Remark Codes—Continued .....	27
Dissolved Trace-Element Concentrations .....	27
Data Precision .....	27
Analyses of Samples Collected at Water-Quality Partial-Record Sites .....	531
Index .....	545



ILLUSTRATIONS

<b>Figure 1.</b>	System for numbering wells and miscellaneous sites (latitude and longitude) .....	3
<b>Figure 2.</b>	Location of discharge stations in Imperial County. ....	16
<b>Figure 3.</b>	Location of discharge stations in Inyo County. ....	17
<b>Figure 4.</b>	Location of discharge stations in Kern County. ....	18
<b>Figure 5.</b>	Location of discharge and water-quality stations in Los Angeles County. ....	19
<b>Figure 6.</b>	Location of discharge and water-quality stations in Mono County. ....	20
<b>Figure 7.</b>	Location of discharge and water-quality stations in Orange County. ....	21
<b>Figure 8.</b>	Location of discharge and water-quality stations in Riverside County. ....	22
<b>Figure 9.</b>	Location of discharge and water-quality stations in San Bernardino County. ....	23
<b>Figure 10.</b>	Location of discharge and water-quality stations in San Diego County. ....	24
<b>Figure 11.</b>	Location of discharge and water-quality stations in Santa Barbara County. ....	25
<b>Figure 12.</b>	Location of discharge and water-quality stations in Ventura County. ....	26
<b>Figure 13.</b>	Diversions and storage in Salton Sea Basin. ....	37
<b>Figure 14.</b>	Diversions and storage in Mojave River Basin. ....	79
<b>Figure 15.</b>	Diversions and storage in Bishop Creek Basin. ....	125
<b>Figure 16.</b>	Diversions and storage in Santa Margarita River Basin. ....	182
<b>Figure 17.</b>	Diversions and storage in Santa Ana River Basin. ....	289
<b>Figure 18.</b>	Diversions and storage in San Gabriel and Los Angeles River Basins. ....	392
<b>Figure 19.</b>	Diversions and storage in Santa Clara River Basin. ....	411
<b>Figure 20.</b>	Diversions and storage in Santa Ynez River Basin. ....	455

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## SURFACE-WATER AND WATER-QUALITY STATIONS IN DOWNSTREAM ORDER FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[Letters after station name designate type of data collected: (d), discharge; (l), lake or reservoir elevation, gage heights, or contents; (g) gage height; (p), precipitation; (c), chemical; (b), biological; (t), water temperature; (u), turbidity; and (s), sediment]

	Station No.	Page
<b><u>THE GREAT BASIN</u></b>		
<b>OWENS LAKE BASIN</b>		
<b>DEATH VALLEY</b>		
Death Valley Wash:		
Coachella Canal at All American Canal diversion, near Holtville (d).....	09527590	28
<b>UPPER AMARGOSA</b>		
Amargosa River at Tecopa (dcs).....	10251300	29
Amargosa River in Upper Canyon, near Tecopa (cs) .....	354932116131201	531
Amargosa River below Willow Creek, near Tecopa (cs).....	354702116120601	534
<b>BRISTOL LAKE BASIN</b>		
Caruthers Creek near Ivanpah (d).....	10252550	35
Gourd Creek near Ludlow (d).....	10253000	528
<b>SALTON SEA BASIN</b>		
Salton Sea near Westmorland (l).....	10254005	38
Salt Creek near Mecca (d) .....	10254050	40
Alamo River near Niland (d) .....	10254730	41
New River at International Boundary, at Calexico (d).....	10254970	42
New River near Westmorland (d) .....	10255550	43
San Felipe Creek:		
Borrego Sink Wash (Borrego Sink):		
Coyote Creek:		
Pinyon Wash near Borrego (discontinued station, revision of records).....	10255730	530
Borrego Palm Creek near Borrego Springs (d) .....	10255810	44
Whitewater River at White Water (c).....	10256000	46
Whitewater River at White Water Cutoff, at White Water (d).....	10256060	47
San Geronio River:		
Snow Creek near White Water (dc) .....	10256500	48
Falls Creek near White Water (d).....	10257500	52
Whitewater River at Windy Point, near White Water (d) .....	10257550	55
Mission Creek near Desert Hot Springs (d).....	10257600	57
Chino Canyon Creek below Tramway, near Palm Springs (dc) .....	10257720	59
Palm Canyon Wash:		
Tahquitz Creek near Palm Springs (d).....	10258000	62
Palm Canyon Creek near Palm Springs (d) .....	10258500	64
Andreas Creek near Palm Springs (d).....	10259000	66
Palm Canyon Wash near Cathedral City (d).....	10259050	68
Whitewater River at Rancho Mirage (d).....	10259100	69
Deep Creek near Palm Desert (d) .....	10259200	70
Whitewater River at Indio (d) .....	10259300	72
Whitewater River near Mecca (d).....	10259540	74
<b>MOJAVE RIVER BASIN</b>		
Deep Creek (head of Mojave River) near Arrowbear Lake (c).....	10260431	75
Crab Creek at Crab Flats Road, near Lake Arrowhead (c) .....	10260432	76
Sheep Creek below Lake Arrowhead Scout Camp, near Lake Arrowhead (c).....	10260433	77
Holcomb Creek at Crab Flats Road, near Lake Arrowhead (c).....	10260434	78
Deep Creek near Hesperia (d).....	10260500	80
Mojave River:		
West Fork Mojave River:		
Sugar Pine Ranch precipitation gage near Devore (p).....	341621117230601	82
West Fork Mojave River above Silverwood Lake, near Hesperia (d).....	10260550	83
East Fork of West Fork Mojave River above Silverwood Lake, near Hesperia (d).....	10260700	85
East Branch California Aqueduct at Alamo Powerplant, near Gorman (d).....	10260776	86
East Branch California Aqueduct at Mojave Siphon Powerplant, near Hesperia (d) .....	10260780	87

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

SURFACE-WATER AND WATER-QUALITY STATIONS IN DOWNSTREAM  
ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME—CONTINUED

	Station No.	Page
<b>THE GREAT BASIN—Continued:</b>		
<b>MOJAVE RIVER BASIN—Continued:</b>		
Mojave River—Continued:		
Silverwood Lake near Hesperia (l) .....	10260790	88
West Fork Mojave River below Silverwood Lake, near Hesperia (d).....	10260820	89
West Fork Mojave River above Mojave River Forks Reservoir, near Hesperia (d).....	10260950	91
Mojave River below Forks Reservoir, near Hesperia (c) .....	10261100	93
Mojave River at Upper Narrows, at Victorville (c).....	10261480	95
Mojave River at Lower Narrows, near Victorville (d) .....	10261500	97
Mojave River at Barstow (d).....	10262500	99
Boom Creek near Barstow (d) .....	10262600	528
Mojave River at Afton (d).....	10263000	101
<b>ANTELOPE VALLEY</b>		
Big Rock Creek near Valyermo (d).....	10263500	103
Big Rock Creek above Pallett Creek, near Valyermo (d) .....	10263630	105
Pallett Creek at Big Rock Creek, near Valyermo (d) .....	10263665	107
Buckhorn Creek near Valyermo (d) .....	10263900	528
Little Rock Creek above Little Rock Reservoir, near Littlerock (d).....	10264000	108
Santiago Canyon Creek above Little Rock Creek, near Littlerock (d) .....	10264100	110
Pine Creek near Palmdale (d) .....	10264530	528
Spencer Canyon Creek near Fairmont (d) .....	10264560	528
Joshua Creek near Mojave (d) .....	10264605	529
Mescal Creek near Pinon Hills (d).....	10264682	111
<b>OWENS LAKE BASIN</b>		
Owens River:		
Mammoth Creek (head of Hot Creek):		
Twin Lakes Site A near Mammoth Lakes (c) .....	373723119002301	537
Twin Lakes Site B near Mammoth Lakes (c) .....	373718119002601	538
Twin Lakes Site C near Mammoth Lakes (c) .....	373716119002301	538
Mammoth Creek at Twin Lakes, near Mammoth Lakes (cs).....	10265125	113
Mammoth Creek Tributary below Mill City, at Mammoth Lakes (cs) .....	10265127	115
Mammoth Creek at Old Mammoth Road, at Mammoth Lakes (cs) .....	10265128	117
Mammoth Creek at Highway 395, near Mammoth Lakes (cs).....	10265130	119
Hot Creek at flume, near Mammoth (d) .....	10265150	121
Hilton Creek at Lake Crowley (cs) .....	10265360	123
Rock Creek above diversion, near Tom's Place (cs).....	10265702	124
Horton Creek:		
McGee Creek:		
McGee Creek Diversion near Bishop (d).....	10268225	126
McGee Creek below diversion dam, near Bishop (d) .....	10268227	127
Birch Creek below diversion dam, near Bishop (d).....	10268282	128
South Fork Bishop Creek:		
South Lake:		
Green Creek Conduit outlet near Bishop (d) .....	10270680	129
South Lake near Bishop (l) .....	10270700	130
South Fork Bishop Creek below South Lake, near Bishop (d).....	10270800	131
South Fork Bishop Creek below South Fork Diversion Dam, near Bishop (d).....	10270830	132
Middle Fork Bishop Creek:		
Lake Sabrina near Bishop (l) .....	10270870	133
Middle Fork Bishop Creek below Lake Sabrina, near Bishop (d).....	10270872	134
Intake No. 2 Reservoir near Bishop (l) .....	10270875	135
Middle Fork Bishop Creek below Intake No. 2 Reservoir, near Bishop (d).....	10270877	136
Bishop Creek below Intake No. 3 Diversion Dam, near Bishop (d).....	10270885	137
Bishop Creek Powerhouse No. 2 Diversion (from Intake No. 2 Reservoir):		
Birch-McGee Diversion to Bishop Creek Powerplant No. 2, near Bishop (d) .....	10270900	138

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

SURFACE-WATER AND WATER-QUALITY STATIONS IN DOWNSTREAM  
ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME—CONTINUED

	Station No.	Page
<b><u>THE GREAT BASIN—Continued:</u></b>		
<b>OWENS LAKE BASIN—Continued:</b>		
Owens River—Continued:		
Bishop Creek below Intake No. 4 Diversion Dam, near Bishop (d).....	10270940	139
Bishop Creek below Intake No. 5 Diversion Dam, near Bishop (d).....	10270970	140
Bishop Creek Powerhouse No. 6 Penstock:		
Abelour Ditch near Bishop (d).....	10270985	141
Bishop Creek above Powerplant No. 6, near Bishop (d) .....	10271200	142
<b>MONO LAKE BASIN</b>		
Mill Creek:		
Lundy Lake near Lee Vining (l).....	10287060	144
Mill Creek Flume below Lundy Lake, near Lee Vining (d) .....	10287069	145
Rush Creek:		
Waugh Lake near June Lake (l) .....	10287260	146
Rush Creek below Waugh Lake, near June Lake (d).....	10287262	147
Gem Lake near June Lake (l).....	10287280	148
Rush Creek below Gem Lake, near June Lake (d) .....	10287281	149
Agnew Lake near June Lake (l) .....	10287285	150
Rush Creek Flume below Agnew Lake, near June Lake (d).....	10287289	151
Lee Vining Creek:		
Saddlebag Lake near Lee Vining (l) .....	10287650	153
Lee Vining Creek below Saddlebag Lake, near Lee Vining (d) .....	10287655	154
Tioga Lake near Lee Vining (l).....	10287700	155
Glacier Creek below Tioga Lake, near Lee Vining (d).....	10287720	156
Ellery Lake near Lee Vining (l) .....	10287760	157
Lee Vining Creek below Rhinedollar Dam, near Lee Vining (d) .....	10287770	158
<b><u>PACIFIC SLOPE BASINS IN CALIFORNIA</u></b>		
<b>TIJUANA RIVER BASIN</b>		
Cottonwood Creek (head of Tijuana River) above Tecate Creek, near Dulzura (d).....	11012000	160
Tecate Creek:		
Campo Creek near Campo (d) .....	11012500	161
<b>OTAY RIVER BASIN</b>		
Jamul Creek near Jamul (d) .....	11014000	162
Lower Otay Lake near Chula Vista (l) .....	11014550	164
<b>SWEETWATER RIVER BASIN</b>		
Sweetwater River near Descanso (d) .....	11015000	165
<b>SAN DIEGO RIVER BASIN</b>		
San Diego River:		
El Capitan Lake near Lakeside (l) .....	11020600	167
San Vicente Reservoir near Lakeside (l).....	11022100	168
Los Cocheros Creek near Lakeside (d) .....	11022200	169
San Diego River at Mast Road, near Santee (d) .....	11022480	171
San Diego River at Fashion Valley, at San Diego (d) .....	11023000	173
<b>LOS PENASQUITOS CREEK BASIN</b>		
Los Penasquitos Creek near Poway (d) .....	11023340	175
<b>SAN DIEGUITO RIVER BASIN</b>		
Santa Ysabel Creek (head of San Dieguito River) near Ramona (d).....	11025500	176
Santa Maria Creek near Ramona (d).....	11028500	178
<b>SAN LUIS REY RIVER BASIN</b>		
San Luis Rey River at Oceanside (d) .....	11042000	180
<b>SANTA MARGARITA RIVER BASIN</b>		
Temecula Creek (head of Santa Margarita River) near Aguanga (d).....	11042400	183
Vail Lake near Temecula (lp).....	11042510	185
Pechanga Creek near Temecula (d).....	11042631	187
Murrieta Creek near Murrieta (d) .....	11042700	188

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

SURFACE-WATER AND WATER-QUALITY STATIONS IN DOWNSTREAM  
ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME—CONTINUED

	Station No.	Page
<b><u>PACIFIC SLOPE BASINS IN CALIFORNIA—Continued:</u></b>		
<b><u>SANTA MARGARITA RIVER BASIN—Continued:</u></b>		
Santa Margarita River—Continued:		
Murrieta Creek—Continued:		
Warm Springs Creek near Murrieta (d) .....	11042800	190
Santa Gertrudis Creek near Temecula (d) .....	11042900	192
Murrieta Creek at Temecula (d) .....	11043000	193
Santa Margarita River near Temecula (dct) .....	11044000	195
Rainbow Creek near Fallbrook (d) .....	11044250	203
Santa Margarita River at Fallbrook Public Utility District Sump, near Fallbrook (d) .....	11044300	205
Sandia Creek near Fallbrook (d) .....	11044350	207
De Luz Creek near De Luz (d) .....	11044800	209
De Luz Creek near Fallbrook (d) .....	11044900	211
Fallbrook Creek near Fallbrook (d) .....	11045300	213
O'Neill Lake Tributary near Fallbrook (d) .....	11045370	215
O'Neill Lake Outlet Channel near Fallbrook (d) .....	11045600	216
O'Neill Lake Spill Channel near Fallbrook (d) .....	11045700	217
Santa Margarita River at Ysidora (d) .....	11046000	218
Santa Margarita River at mouth, near Oceanside (gct) .....	11046050	220
Santa Margarita River Estuary near Oceanside (ct) .....	331346117243401	227
<b>PACIFIC OCEAN</b>		
Cocklebur Creek Lagoon at mouth, near Oceanside (ct) .....	11046062	232
Aliso Creek Lagoon at mouth, near Oceanside (ct) .....	11046072	237
Hidden Creek Lagoon at mouth, near Oceanside (ct) .....	11046082	242
<b>LAS FLORES CREEK BASIN</b>		
Las Flores Creek at Las Pulgas Canyon, near Oceanside (d) .....	11046090	247
Las Flores Creek near Oceanside (d) .....	11046100	249
Las Flores Creek Lagoon at mouth, near Oceanside (ct) .....	11046102	250
<b>SAN ONOFRE CREEK BASIN</b>		
San Onofre Creek at San Onofre (d) .....	11046250	255
San Onofre Creek Lagoon at mouth, near San Clemente (ct) .....	11046252	257
<b>SAN MATEO CREEK BASIN</b>		
San Mateo Creek near San Clemente (d) .....	11046300	262
Cristianitos Creek above San Mateo Creek, near San Clemente (d) .....	11046360	264
San Mateo Creek Lagoon at mouth, near San Clemente (ct) .....	11046372	266
<b>SAN JUAN CREEK BASIN</b>		
San Juan Creek tributary near Elsinore (discontinued station, revision of records) .....	11046390	530
San Juan Creek at Casper Regional Park, near San Juan Capistrano (d) .....	11046400	271
San Juan Creek near San Juan Capistrano (d) .....	11046500	272
San Juan Creek at La Novia Street Bridge, at San Juan Capistrano (d) .....	11046530	273
Arroyo Trabuco at San Juan Capistrano (d) .....	11047300	275
San Juan Creek at Stonehill Drive, near Dana Point (d) .....	11047350	277
<b>SAN DIEGO CREEK BASIN</b>		
San Diego Creek:		
Agua Chinon Wash near Irvine (ds) .....	11048200	278
Marshburn Channel near Irvine (ds) .....	11048400	280
Sand Canyon Creek at Irvine (ds) .....	11048553	283
Bonita Creek at Irvine (ds) .....	11048600	286
<b>SANTA ANA RIVER BASIN</b>		
Santa Ana River:		
Bear Creek:		
Big Bear Lake near Big Bear Lake (l) .....	11049000	290
Santa Ana River below Southern California Edison Co.'s No. 1 Diversion Dam, near Running Springs (d) .....	11049300	291
Santa Ana River above Seven Oaks Dam (cs) .....	11049400	292
Santa Ana River near Mentone (d) .....	11051500	294

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

SURFACE-WATER AND WATER-QUALITY STATIONS IN DOWNSTREAM  
ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME—CONTINUED

	Station No.	Page
<b><u>PACIFIC SLOPE BASINS IN CALIFORNIA—Continued</u></b>		
<b>SANTA ANA RIVER BASIN—Continued:</b>		
Santa Ana River—Continued:		
Mill Creek:		
Mill Creek Power Canal Nos. 2 and 3 near Yucaipa (d).....	11052500	298
Mill Creek below Southern California Edison Co.'s No. 3 Power Canal Diversion Dam, near Forest Falls (d).....	11052800	300
Mill Creek near Yucaipa (discontinued station, revision of records).....	11054000	301
Mill Creek near Mentone (d).....	11055000	302
Plunge Creek near East Highlands (d).....	11055500	303
City Creek near Highland (d).....	11055800	306
Little San Gorgonio River near Beaumont (discontinued station, revision of records).....	11056500	309
San Timoteo Creek near Loma Linda (d).....	11057500	310
Warm Creek Floodway:		
East Twin Creek near Arrowhead Springs (d).....	11058500	312
Waterman Canyon Creek below Saint Sophia Camp, near Arrowhead Springs (d).....	341234117170501	529
E Street precipitation gage, at San Bernardino (p).....	340436117173001	314
Santa Ana River at E Street, near San Bernardino (ds).....	11059300	315
Warm Creek near San Bernardino (dcs).....	11060400	318
Lytle Creek leakage below Southern California Edison Co.'s Diversion Dam, near Fontana (d).....	11060910	324
Middle Fork Lytle Creek precipitation gage, near Lytle Creek (p).....	341509117312601	325
Lytle Creek near Fontana (d).....	11062000	326
Cajon Creek:		
Lone Pine Creek near Keenbrook (d).....	11063500	329
Cajon Creek below Lone Pine Creek, near Keenbrook (d).....	11063510	331
Ridge Top precipitation gage near Devore (p).....	341556117240601	333
Devil Canyon Creek near San Bernardino (d).....	11063680	334
East Branch California Aqueduct at Devil Canyon Powerplant, near San Bernardino (d).....	11063682	336
Lytle Creek at Colton (d).....	11065000	337
Santa Ana River at Metropolitan Water District Crossing, near Arlington (dc).....	11066460	338
Santa Ana River at Riverside Narrows, near Arlington (d).....	11066500	341
Hole Lake Outlet Channel near Arlington (d).....	11066580	342
Day Creek near Etiwanda (discontinued station, revision of records).....	11067000	343
Santa Ana River at Etiwanda Avenue, near Norco (d).....	11067480	344
Santa Ana River at Hamner Avenue, at Norco (d).....	11067500	345
Santa Ana River at River Road, near Corona (d).....	11068000	346
Prado Flood Control Basin:		
San Jacinto River (infrequent tributary to Santa Ana River via Lake Elsinore and Temescal Creek):		
San Jacinto River near San Jacinto (d).....	11069500	347
Bautista Creek at head of flood control channel, near Hemet (d).....	11070020	349
San Jacinto River above State Street, near San Jacinto (d).....	11070150	350
Lamb Canyon Creek at Victory Ranch, near San Jacinto (d).....	11070185	529
San Jacinto River at Ramona Expressway, near Lakeview (d).....	11070210	351
Perris Valley Storm Drain at Nuevo Road, near Perris (d).....	11070270	352
San Jacinto River near Sun City (d).....	11070365	354
Salt Creek at Murrieta Road, near Sun City (d).....	11070465	356
San Jacinto River near Elsinore (d).....	11070500	357
Temescal Creek (continuation of San Jacinto River from Lake Elsinore):		
Temescal Creek above Main Street, at Corona (d).....	11072100	358
Chino Creek:		
San Antonio Creek near Claremont (discontinued station, revision of records).....	11073000	360
San Antonio Creek at Riverside Drive, near Chino (d).....	11073300	361
Chino Creek at Schaefer Avenue, near Chino (d).....	11073360	363
West Branch Cucamonga Channel above Ely Percolation Basins, at Ontario (d).....	11073493	365
Ely Percolation Basin No. 3 at Ontario (g).....	11073494	367
Cucamonga Creek near Mira Loma (d).....	11073495	369

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

SURFACE-WATER AND WATER-QUALITY STATIONS IN DOWNSTREAM  
ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME—CONTINUED

	Station No.	Page
<b><u>PACIFIC SLOPE BASINS IN CALIFORNIA—Continued:</u></b>		
<b>SAN ANA RIVER BASIN—Continued:</b>		
Santa Ana River below Prado Dam (dts) .....	11074000	371
Carbon Creek below Carbon Canyon Dam (d) .....	11075720	385
Santiago Creek at Modjeska (d) .....	11075800	386
Santiago Creek at Santa Ana (d) .....	11077500	388
Santa Ana River at Santa Ana (d) .....	11078000	390
<b>SAN GABRIEL RIVER BASIN</b>		
San Gabriel River below Santa Fe Dam, near Baldwin Park (d) .....	11085000	393
Walnut Creek:		
Dalton Creek:		
San Dimas Creek:		
Little Dalton Creek near Glendora (discontinued station, revision of records) .....	11086500	394
San Gabriel River above Whittier Narrows Dam (d) .....	11087020	395
Coyote Creek:		
Brea Creek below Brea Dam, near Fullerton (d) .....	11088500	396
Fullerton Creek below Fullerton Dam, near Brea (d) .....	11089500	397
<b>LOS ANGELES RIVER BASIN</b>		
Los Angeles River at Sepulveda Dam (d) .....	11092450	399
Big Tujunga Creek below Hansen Dam (d) .....	11097000	401
Arroyo Seco near Pasadena (d) .....	11098000	403
Rio Hondo above Whittier Narrows Dam (d) .....	11101250	405
Rio Hondo below Whittier Narrows Dam (d) .....	11102300	406
<b>CALLEGUAS CREEK BASIN</b>		
Calleguas Creek near Camarillo (dts) .....	11106550	408
<b>SANTA CLARA RIVER BASIN</b>		
Santa Clara River above Railroad Station, near Lang (d) .....	11107745	412
Mint Canyon Creek at Sierra Highway, near Saugus (d) .....	11107770	413
Bouquet Creek below Haskell Canyon Creek, near Saugus (d) .....	11107870	415
Santa Clara River near Saugus (d) .....	11108000	416
Castaic Creek:		
Elderberry Forebay near Castaic (l) .....	11108092	417
Castaic Lake near Castaic (l) .....	11108133	418
Castaic Creek below Metropolitan Water District diversion, below Castaic Lake, near Castaic (d) .....	11108134	419
Santa Clara River near Piru (d) .....	11109000	420
Pyramid Lake:		
California Aqueduct at North Portal Tehachapi Tunnel, near Gorman (d) .....	11109396	421
West Branch California Aqueduct at William Warne Powerplant, near Gorman (d) .....	11109398	422
Pyramid Lake near Gorman (l) .....	11109520	423
Piru Creek below Pyramid Lake, near Gorman (d) .....	11109525	424
Piru Creek above Lake Piru (d) .....	11109600	425
Lake Piru near Piru (l) .....	11109700	427
Piru Creek below Santa Felicia Dam (d) .....	11109800	428
Sespe Creek near Wheeler Springs (d) .....	11111500	430
Sespe Creek near Fillmore (d) .....	11113000	432
Santa Clara River at Montalvo (d) .....	11114000	434
<b>VENTURA RIVER BASIN</b>		
Ventura River:		
Matilija Creek near Reservoir, near Matilija Hot Springs (dts) .....	11114495	436
Ventura River near Ventura (ds) .....	11118500	439
<b>CARPINTERIA CREEK BASIN</b>		
Carpinteria Creek near Carpinteria (d) .....	11119500	444
<b>MISSION CREEK BASIN</b>		
Mission Creek at Rocky Nook Park, at Santa Barbara (d) .....	11119745	446
Mission Creek near Mission Street, at Santa Barbara (d) .....	11119750	448

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

SURFACE-WATER AND WATER-QUALITY STATIONS IN DOWNSTREAM  
ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME—CONTINUED

	Station No.	Page
<b><u>PACIFIC SLOPE BASINS IN CALIFORNIA—Continued:</u></b>		
<b>ATASCADERO CREEK BASIN</b>		
Atascadero Creek:		
Maria Ygnacio Creek at University Drive, near Goleta (d).....	11119940	449
Atascadero Creek near Goleta (d).....	11120000	451
<b>SAN JOSE CREEK BASIN</b>		
San Jose Creek near Goleta (d).....	11120500	453
<b>SANTA YNEZ RIVER BASIN</b>		
Santa Ynez River at Jameson Lake, near Montecito (l).....	11121000	456
Santa Ynez River above Gibraltar Dam, near Santa Barbara (l).....	11122000	457
Santa Ynez River below Gibraltar Dam, near Santa Barbara (d) .....	11123000	458
Santa Ynez River below Los Laureles Canyon, near Santa Ynez (dc).....	11123500	460
Lake Cachuma:		
Santa Cruz Creek near Santa Ynez (dc).....	11124500	464
Lake Cachuma near Santa Ynez (l) .....	11125500	468
Hilton Canyon Creek near Santa Ynez (dct).....	11125600	469
Santa Ynez River near Santa Ynez (dct).....	11126000	472
Santa Ynez River at Highway 154, near Santa Ynez (ct) .....	11126400	480
Alamo Pintado Creek near Solvang (d) .....	11128250	485
Alisal Creek:		
Alisal Reservoir near Solvang (l).....	11128300	487
Santa Ynez River at Solvang (dct).....	11128500	488
Zaca Creek near Buellton (d).....	11129800	496
Santa Rita Creek near Lompoc (d) .....	11131700	529
Salsipuedes Creek near Lompoc (dc) .....	11132500	497
Santa Ynez River at Narrows, near Lompoc (dct) .....	11133000	502
Purisima Creek near Lompoc (d).....	11133700	529
Santa Ynez River at H Street, near Lompoc (d) .....	11134000	509
Santa Ynez River at V Street, near Lompoc (d) .....	11134500	529
Miguelito Creek at Lompoc (d) .....	11134800	511
Rodeo-San Pasqual Creek near Lompoc (d) .....	11135200	529
Santa Ynez River at 13th Street Bridge, at Vandenberg Air Force Base, near Lompoc (d) .....	11135250	513
<b>SAN ANTONIO CREEK BASIN</b>		
San Antonio Creek at Los Alamos (d).....	11135800	514
<b>SANTA MARIA RIVER BASIN</b>		
Cuyama River (head of Santa Maria River) below Buckhorn Canyon, near Santa Maria (dc) .....	11136800	515
Sisquoc River near Sisquoc (c).....	11138500	519
Sisquoc River near Garey (d).....	11140000	522
Orcutt Creek near Orcutt (dc).....	11141050	524
Green Canyon Creek at Main Street, near Guadalupe (c) .....	345727120375401	541



## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED GAGING STATIONS

The following continuous-record streamflow stations in California have been discontinued or converted to partial-record stations. Daily records were collected and are stored in NWIS for the period of record shown for each station.

Station No.	Station name	Drainage area (mi <sup>2</sup> ) (Water Year)	Period of record
09424050	Chemehuevi Wash Tributary near Needles	2.04	1960–62, 1966–68
09428530	Arch Creek near Earp	1.52	1961–71
09429010	Colorado River at Palo Verde Dam	186,200	1969–88
10250600	Wildrose Creek near Wildrose Station	23.7	1961–73, 1975
10250800	Darwin Creek near Darwin	173	1963–89
10251000	Big Dip Creek near Stovepipe Wells	.95	1963–69
10251100	Salt Creek near Stovepipe Wells	—	1974–88
10251350	Horsethief Creek near Tecopa	3.06	1961–70
10251375	Amargosa River at Dumont Dunes, near Death Valley	3,284	1999–2001
10252300	China Spring Creek near Mountain Pass	.94	1961–72
10252330	Wheaton Wash near Mountain Pass	10.2	1965–68
10253080	Sunflower Wash near Essex	3.04	1963–70
10253320	Quail Wash near Joshua Tree	100	1964–71
10253350	Fortynine Palms Creek near Twentynine Palms	8.55	1963–71
10253540	Corn Springs Wash near Desert Center	24.1	1964–71
10253600	Eagle Creek at Eagle Mountain	7.74	1961–66
10254670	Alamo River at Drop No. 3, near Calipatria	—	1979–2003
10255200	Myer Creek Tributary near Jacumba	.11	1966–70
10255700	San Felipe Creek near Julian	89.2	1958–83
10255800	Coyote Creek near Borrego Springs	144	1951–83
10255805	Coyote Creek below Box Canyon, near Borrego Springs	154	1984–94
10255820	Yaqui Pass Wash near Borrego	.04	1965–69
10255850	Vallecito Creek near Julian	39.7	1964–83
10255885	San Felipe Creek near Westmorland	1,693	1961–91
10256000	Whitewater River at White Water	57.5	1949–79
10256050	Whitewater Municipal Water Company Diversion at White Water	—	1967–70, 1972–73, 1975–81
10256060	Whitewater River at White Water Cutoff, at White Water	59.1	1986–87, 1989–93
10256200	San Geronio River near Banning	14.8	1976–81
10256300	San Geronio River at Banning	44.2	1981
10256400	San Geronio River near White Water	154	1966–73, 1975–78
10257710	Chino Canyon Creek near Palm Springs	3.88	1975–85
10257800	Long Creek near Desert Hot Springs	19.6	1963–71
10258030	Tahquitz Creek at Palm Springs	—	1983
10258100	Palm Canyon Creek Tributary near Anza	.47	1967–73
10259600	Cottonwood Wash near Cottonwood Springs	.65	1960–72
10259920	Wasteway No. 1 near Mecca	—	1966–81
10260200	Pipes Creek near Yucca Valley	15.1	1958–71
10260400	Cushenbury Creek near Lucerne Valley	6.36	1957–71
10260620	Houston Creek above Lake Gregory, at Crestline	.35	1979–93
10260630	Abondigas Creek above Lake Gregory, at Crestline	1.15	1979–93
10260650	Houston Creek below Lake Gregory, at Crestline	2.68	1979–93
10261000	West Fork Mojave River near Hesperia	70.3	1905–22, 1930–71
10261100	Mojave River below Mojave River Fork Reservoir, near Hesperia	211	1972–74, 1981–97
10261900	Mojave River at Wild Crossing, near Helendale	957	1966–70
10262000	Mojave River near Hodge	1,091	1930–32, 1970–93
10262600	Boom Creek near Barstow	.24	1967–73
10263675	Big Rock Creek Wash at Highway 138, near Llano	53.1	1989–92
10263900	Buckhorn Creek near Valyermo	.48	1961–66
10264500	Little Rock Creek near Palmdale	78.0	1968
10264502	Peach Tree Creek near Littlerock	.04	1989–94
10264508	Somerset Creek at Palmdale	.50	1989–94

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record (Water Year)
10264510	Inn Creek at Palmdale	.03	1989–94
10264530	Pine Creek near Palmdale	1.78	1989–94
10264550	City Ranch Creek near Palmdale	.39	1989–94
10264555	Estates Creek near Quartz Hill	.11	1989–94
10264560	Spencer Canyon Creek near Fairmont	3.60	1965–73
10264590	Cottonwood Creek near Rosamond	35.7	1965–72
10264600	Oak Creek near Mojave	15.8	1957–86
10264605	Joshua Creek near Mojave	3.83	1989–94
10264636	Sled Track Canal at Lancaster Boulevard, near Rogers Lake	—	1996–2001
10264640	Buckhorn Creek at East 120th Avenue, near Rogers Lake	—	1996–2001
10264658	Mojave Creek at Forbes Avenue, at Edwards Air Force Base	168	1996–2000
10264660	Mojave Creek at Rosamond Boulevard, at Edwards Air Force Base	175	1998–2001
10264675	Rogers Lake Tributary at Edwards Air Force Base	1.73	1989–2001
10264710	Goler Gulch near Randsburg	41.3	1966–72
10264740	Cache Creek near Mojave	96.5	1965–72
10264750	Pine Tree Creek near Mojave	33.5	1958–79
10264770	Cottonwood Creek near Cantil	163	1966–72
10264870	Little Lake Creek near Little Lake	8.60	1964–68
10264878	Ninemile Creek near Brown	10.4	1962–71
10265160	Little Hot Creek below Hot Springs, near Mammoth Lakes	6.37	1990–95
10265200	Convict Creek near Mammoth Lakes	18.2	1925–78
10265500	Owens River near Round Valley	425	1909–23, 1928–40
10265700	Rock Creek at Little Round Valley, near Bishop	35.8	1925–78
10267000	Pine Creek at Division Box, near Bishop	36.4	1922–79
10268000	Owens River at Pleasant Valley, near Bishop	583	1918–40
10268700	Silver Canyon Creek near Laws	19.7	1930–78
10270960	Coyote Creek near Bishop	25.8	1991–96
10271210	Bishop Creek below Powerplant No. 6, near Bishop	104	1936–90
10276000	Big Pine Creek near Big Pine	39.0	1921–78
10276002	Giroux Ditch lower below Big Pine	—	1975–78
10276500	Tinemaha Creek near Big Pine	27.3	1907–11
10277000	Birch Creek near Big Pine	11.7	1907–11
10277400	Owens River below Tinemaha Reservoir, near Big Pine	1,964	1975–84
10277500	Owens River near Big Pine	1,976	1912–74
10278000	Taboose Creek near Aberdeen	11.2	1906–11
10278500	Goodale Creek near Aberdeen	11.2	1906–11
10281500	Oak Creek near Independence	24.1	1906–11
10281800	Independence Creek below Pi Canyon Creek, near Independence	18.1	1923–78
10282000	Independence Creek near Independence	18.8	1907–11
10282480	Mazourka Creek near Independence	15.6	1961–72
10284800	Inyo Creek near Lone Pine	1.54	1968–73
10285500	Tuttle Creek near Lone Pine	14.0	1909–11
10285700	Owens River at Keeler Bridge, near Lone Pine	2,604	1961–79
10286000	Cottonwood Creek near Olancha	40.1	1906–11, 1914–18, 1920–38, 1960–78
10286001	Cottonwood Creek Penstock weir, near Lone Pine	—	1906–11, 1914–78
10286002	Cottonwood Creek Diversion to powerhouse	—	1939–50, 1974–78
10287070	Mill Creek below Lundy Lake, near Mono Lake	18.1	1942–90
10287290	Rush Creek below Agnew Lake, near June Lake	23.3	1951–90
10287400	Rush Creek above Grant Lake, near June Lake	51.3	1937–79
10287780	Lee Vining Creek below Poole Powerplant, near Lee Vining	26.3	1999–2001
10287900	Lee Vining Creek near Lee Vining	34.9	1935–79
10290000	Summers Creek near Bridgeport	8.26	1954–59
11010900	Wilson Creek Tributary near Dulzura	.61	1968–73
11011900	Potrero Creek Tributary near Barrett Junction	.78	1966–69

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record (Water Year)
11012100	Miller Creek near Live Oak Springs	1.00	1962–64
11013000	Tijuana River near Dulzura	481	1937–90
11013500	Tijuana River near Nestor	1,695	1937–82
11013600	Jamul Creek at Lee Valley, near Jamul	2.26	1984–85, 1987–88
11013700	Jamul Creek Tributary near Jamul	2.47	1973
11014700	Telegraph Canyon Creek at Chula Vista	6.23	1973
11014850	Japacha Creek near Descanso	2.40	1965–67
11016000	Sweetwater River near Dehesa	112	1913–16
11021500	San Vicente Creek near Foster	66.0	1942
11022000	San Vicente Creek at San Vicente dam, at Foster	74.2	1937–41
11022350	Forester Creek at El Cajon	21.3	1983–93
11023200	San Clemente Canyon Creek at Miramar Naval Air Station	5.60	1973
11023250	Poway Creek near Poway	7.92	1978–87
11023310	Rattlesnake Creek at Poway	8.13	1978–89
11023315	Poway Creek Tributary at Oak Knoll Road, near Poway	.93	1972–75
11023318	Pomerado Creek at Glenoak Road, near Poway	2.43	1970–75
11023320	Pomerado Creek at Poway Road, near Poway	4.14	1971–75
11023325	Beeler Creek at Pomerado Road, near Poway	5.46	1978–89
11023330	Los Penasquitos Creek below Poway Creek, near Poway	31.2	1970–93
11023400	Carroll Creek near La Jolla	15.8	1985–86
11023450	Carmel Creek near Del Mar	1.11	1985–86
11023500	Santa Ysabel Creek near Santa Ysabel	12.5	1914
11024500	Black Canyon Creek near Mesa Grande	15.3	1914, 1923–24
11026000	Santa Ysabel Creek near San Pasqual	128	1957–80
11027000	Guejito Creek near San Pasqual	22.5	1947–82
11027500	Guejito Creek at San Pasqual	27.7	1915, 1917, 1947–56
11029000	San Dieguito River near San Pasqual	249	1956–65
11029500	San Dieguito River at Bernardo	269	1912–15
11030500	San Dieguito River near Del Mar	338	1984–89
11030730	Escondido Creek near Olivenhain	64.6	1973
11031000	San Luis Rey River near Warner Springs	33.6	1913–15
11031500	Agua Caliente Creek near Warner Springs	19.0	1961–87
11033000	West Fork San Luis Rey River near Warner Springs	25.5	1913–15, 1957–86
11035000	San Luis Rey River at Lake Henshaw, near Mesa Grande	206	1912–22
11037650	Pauma Valley Water Company diversion near Pauma Valley	—	1966–70, 1972–81
11037700	Pauma Creek near Pauma Valley	11.0	1965–81
11037701	Pauma Creek and Diversion near Pauma Valley	11.0	1965–81
11038500	San Luis Rey River near Pala	317	1909–11, 1913–15
11039100	San Luis Rey River Tributary near Pala	1.01	1966–73
11039600	Bubble-Up Creek near Pala	4.11	1991
11039800	San Luis Rey River at Couser Canyon Bridge, near Pala	364	1986–93
11040000	San Luis Rey River at Monserate Narrows, near Pala	373	1938–41, 1947–86
11040200	Keys Creek Tributary at Valley Center	7.65	1970–83, 1991
11040500	San Luis Rey River at Bonsall	456	1912–15
11040700	San Luis Rey River below Moosa Canyon, near Bonsall	499	1984–85
11041000	San Luis Rey River near Bonsall	513	1930–79
11042490	Wilson Creek above Vail Lake, near Radec	122	1990–94
11042520	Temecula Creek at Nigger Canyon, near Temecula	320	1923–48
11042600	Temecula Creek below Vail Dam	320	1978
11044500	Santa Margarita River near Fallbrook	644	1925–80
11044600	Santa Margarita River Tributary near Fallbrook	.52	1962–65
11044900	De Luz Creek near Fallbrook	47.5	1951–65, 1989–90, 2002–03
11045000	Santa Margarita River near De Luz Station	705	1925–26

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record (Water Year)
11045050	Santa Margarita River at U.S. Marine Corps Diversion Dam, near Ysidora	710	1999–2001
11045600	O'Neill Lake Outlet Channel near Fallbrook	9.77	1998–2003
11045700	O'Neill Lake Spill Channel near Fallbrook	9.77	1998–2003
11046200	San Onofre Creek near San Onofre	34.6	1951–67
11046310	San Mateo Creek near San Onofre	91.9	1951–52
11046350	Cristianitos Creek near San Clemente	29.0	1951–67
11046370	San Mateo Creek at San Onofre	132	1947–67, 1985, 1998–2003
11046400	San Juan Creek at Casper Regional Park, near San Juan Capistrano	42.1	2000–04
11046500	San Juan Creek near San Juan Capistrano	106	1929–1969, 1970, 1982, 2001–2004
11046501	San Juan Creek near San Juan Capistrano plus canal	106	1955–71
11046550	San Juan Creek at San Juan Capistrano	117	1970–85
11047000	Arroyo Trabuco near San Juan Capistrano	35.7	1930–72, 1980–81
11047200	Oso Creek at Crown Valley Parkway, near Mission Viejo	14.0	1970–81
11047350	San Juan Creek at Stonehill Drive, near Dana Point	174	1998–2004
11047500	Aliso Creek at El Toro	7.92	1931–80
11047700	Aliso Creek at South Laguna	34.4	1983–87
11048000	Irvine Ranch Drainage Canal near Tustin	92.0	1931–40
11048555	San Diego Creek at Campus Drive, near Irvine	—	1978–79, 1983–85
11049600	Greenspot Pipeline near Mentone	—	1972–73
11051600	Santa Ana River spreading diversion near Mentone	213	1952–77
*11054000	Mill Creek near Yucaipa (Revised records in WDR CA-92-1, WDR CA-04-1)	42.4	1920–38, 1948–86
11054600	Crafton near Mentone	—	1972–79
11056000	Santa Ana River near San Bernardino	306	1929–37, 1955–61
*11056500	Little San Gorgonio River near Beaumont (Revised records in WDR CA-92-1, WDR CA-04-1)	1.74	1949–85
11057490	San Timoteo Creek at Loma Linda	125	1979–80
11058600	Waterman Canyon Creek near Arrowhead Springs	4.65	1912–14, 1920–85
11059000	Warm Creek Floodway at San Bernardino	75.1	1961–81
11059100	San Bernardino Water-Quality Control Plant at San Bernardino	—	1973–82
11060300	Lytle Creek at Channel, at San Bernardino	—	1929–30, 1932–57
11060500	Meeks and Daley Canal near Colton	—	1921–81
11062200	Fontana Union Water Co. Lytle Creek return flow channel near Fontana	—	1973–80
11062810	West San Bernardino County Water District Rialto Diversion near Fontana	—	1981
11063000	Cajon Creek near Keenbrook	40.6	1920–71, 1978–83
11064000	Lytle Creek (East Channel) at San Bernardino	—	1929–57
11065800	Warm Creek near Colton	198	1921–61
11065801	Warm Creek near Colton plus diversion	259	1920–61
11066050	Santa Ana River at Colton	740	1962–66
11066100	Lytle Creek West Channel at Colton	—	1929–45
11066440	Santa Ana River at Mission Boulevard, at Riverside	808	1971–82
11066478	Riverside Water-Quality Control Plant Weir No. 1	—	1973–81
11066479	Riverside Water-Quality Control Plant Weir No. 2	—	1973–81
11066480	Riverside Water-Quality Control Plant at Riverside Narrows, near Arlington	—	1966–81
11066500	Santa Ana River at Riverside Narrows, near Arlington	853	1929–73
11066550	Sheehan Diversion at Riverside Narrows, near Arlington	—	1964–65, 1967–68
11066950	Day Creek Diversion near Etiwanda	—	1966–69, 1971
*11067000	Day Creek near Etiwanda (Revised records in WDR CA-04-1)	4.56	1929–72
11068000	Santa Ana River at Auburndale Bridge, near Corona	1,010	1961–68
11069300	South Fork San Jacinto River tributary near Valle Vista	2.20	1962–67
11069501	San Jacinto River near San Jacinto plus canals	141	1949–81, 1983–89
11070000	Bautista Creek near Hemet	39.6	1948–69

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record (Water Year)
11070050	Bautista Creek at Valle Vista	48.5	1970–87
11070232	East Fork Pigeon Pass Creek at Heacock Street, near Sunnymead	.48	1970–75
11070240	Sunnymead Channel at Alessandro Boulevard, near Sunnymead	13.3	1970–75, 1990–93
11070256	Perris Valley Storm Drain at Nandino Avenue, near March Air Force Base	50.6	1970–75, 1990–93
11070262	Perris Valley Storm Drain Lateral "B" near March Air Force Base	10.6	1970–75, 1990–93
11070263	Unnamed creek tributary to Perris Reservoir near Moreno Valley	.46	1989–91
11070375	San Jacinto River at Railroad Canyon Weir, near Elsinore	562	1952–84
11070475	Salt Creek at Railroad Canyon Reservoir, near Elsinore	122	1970–78
11072000	Temescal Creek near Corona	164	1929–80
11072200	Temescal Creek at Corona	249	1968–74
*11073000	San Antonio Creek near Claremont (Revised records in WDR CA-04-1)	16.5	1917–72
11073200	San Antonio Creek below San Antonio Dam	26.9	1963–80
11073440	Chino Creek near Chino	107	1968–69
11073470	Cucamonga Creek near Upland	9.68	1929–75
11073500	Chino Creek near Prado	218	1929–40
11074500	Santa Ana River at county line, below Prado Dam	1,510	1919–42, 1945–60
11075610	Santa Ana River above spreading diversion, below Imperial Highway, near Anaheim	1,545	1998–2001
11075620	Santa Ana River spreading diversion, below Imperial Highway near Anaheim	1,493	1974–85, 1999–2001
11075730	Carbon Creek at Olinda	19.7	1931–38
11075740	Carbon Creek near Yorba Linda	20.1	1950–61
11077000	Santiago Creek near Villa Park	84.6	1921–63
11077001	Santiago Creek plus diversion near Villa Park	83.8	1921–31
11078100	Santa Ana River at Adams Avenue, near Costa Mesa	1,701	1975–77
11078110	Rubio Wash at Glendon Way	—	1973–75
11078120	Compton Creek at 120th Street	—	1974–75
11078130	Arcadia Wash at Grand Avenue	—	1974–75
11078140	Eaton Wash at Loftas Drive	—	1974–75
11078150	Limekiln Creek above Aliso Creek	—	1973–74
11078170	Puddingstone Creek below Puddingstone Dam	—	1974
11078190	Santa Fe Diversion Channel	—	1974
11078191	West Fork San Gabriel River below Cogswell Dam	—	1975
11080000	East Fork San Gabriel River at Camp Bonita	58.2	1928–32
11080500	East Fork San Gabriel River near Camp Bonita	84.6	1933–79
11081000	Bear Creek near Camp Rincon	28.2	1930–36
11081500	North Fork San Gabriel River at Camp Rincon	18.6	1930–36
11082000	West Fork San Gabriel River at Camp Rincon	104	1928–78
11083500	San Gabriel River near Azusa	214	1894, 1896–1959, 1961–66
11084000	Rogers Creek near Azusa	6.64	1918–62
11084500	Fish Creek near Duarte	6.36	1916–79
11085019	San Gabriel River below Valley Boulevard	—	1973–74
11086000	Dalton Creek near Glendora	7.24	1913–62
11086300	San Dimas Creek below San Dimas Dam	16.3	1957–78
11086400	San Dimas Creek near San Dimas	18.3	1917–56
*11086500	Little Dalton Creek near Glendora (Revised records in WDR CA-04-1)	2.72	1939–68, 1970–71
11086990	San Jose Creek near El Monte	87.8	1965–78
11087100	Rio Hondo Flood Flow Channel at Whittier Narrows Dam	—	1966–70
11087195	San Jose Creek near Whittier	88.7	1929–64
11087500	San Gabriel River at Pico	447	1929–78
11088000	San Gabriel River at Spring Street, near Los Alamitos	472	1937–51, 1953–79
11089000	Brea Creek at Fullerton	23.6	1931–69
11090000	Fullerton Creek at Fullerton	7.50	1936–64
11090200	Fullerton Creek at Richman Avenue, at Fullerton	12.1	1960–77, 1979–81

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record (Water Year)
11090500	Coyote Creek near Artesia	120	1930–63
11090700	Coyote Creek at Los Alamitos	150	1964–78
11093000	Pacoima Creek near San Fernando	28.3	1917–79
11093490	North Fork Mill Creek near La Canada	5.80	1966–73
11093500	Mill Creek near Colby Ranch	21.7	1931–34
11094000	Big Tujunga Creek below Mill Creek, near Colby Ranch (formerly Tujunga Creek)	64.9	1948–71
11094500	Big Tujunga Creek near Colby Ranch (formerly Tujunga Creek)	67.5	1931–50
11095000	Fox Creek near Colby Ranch	9.22	1931–37
11095500	Big Tujunga Creek near Sunland (formerly Tujunga Creek)	106	1917–77
11096000	Haines Creek near Tujunga	1.26	1917–34, 1936–61
11096500	Little Tujunga Creek near San Fernando	21.1	1929–73
11097500	Los Angeles River at Los Angeles	514	1930–79
11098500	Los Angeles River near Downey	599	1928–78
11099500	Sawpit Creek near Monrovia	5.21	1916–61
*11100000	Santa Anita Creek near Sierra Madre (Revised records in WDR CA-92-1)	9.71	1917–70
11100500	Little Santa Anita Creek near Sierra Madre	1.84	1916–62
11101000	Eaton Creek near Pasadena	6.47	1918–66
11101380	Alhambra Wash at Klingerman Street, near Montebello	15.2	1976–79
11101500	Rio Hondo near Montebello	116	1929–78
11102000	Mission Creek near Montebello	4.16	1930–77
11102500	Rio Hondo near Downey	143	1928–79
11103500	Ballona Creek near Culver City	89.5	1928–78
11105500	Malibu Creek at Crater Camp, near Calabasas	105	1982–88
11106000	Calleguas Creek at Camarillo	168	1929–31, 1955–58
11106400	Conejo Creek above Highway 101, near Camarillo	64.2	1973–83
11106500	Conejo Creek near Camarillo	69.8	1928–31
11107000	Honda Barranca near Somis	2.57	1955–63
11107500	Beardsley Wash near Somis	13.5	1954–58
11107860	Bouquet Creek near Saugus	51.6	1971–75, 2002–03
11107922	South Fork Santa Clara River at Saugus	43.4	1976–77
11108075	Castaic Creek above Fish Creek, near Castaic	37.0	1977–78, 1989–93
11108080	Fish Creek above Castaic Creek, near Castaic	27.2	1977–78, 1989–93
11108090	Elderberry Canyon Creek above Castaic Creek, near Castaic	2.50	1978, 1989–93
11108095	Necktie Canyon Creek above Castaic Creek, near Castaic	2.12	1977–78, 1989–93
11108130	Elizabeth Lake Canyon Creek above Castaic Lake, near Castaic	43.7	1977–78, 1989–93
11108135	Castaic Lagoon Parshall Flume near Castaic	138	1977–78, 1988–96
11108145	Castaic Creek near Saugus	184	1947–76
11108500	Santa Clara River at Los Angeles–Ventura County Line	625	1953–96
11109100	Piru Creek below Thorn Meadows, near Stauffer	22.5	1972–78
11109200	Middle Fork Lockwood Creek near Stauffer	5.50	1972–78
11109250	Lockwood Creek at gorge, near Stauffer	58.7	1972–81
11110000	Piru Creek near Piru	437	1912–13, 1928–56, 1969–74
11111500	Sespe Creek near Wheeler Springs	49.5	1948–97
11112500	Fillmore Irrigation Company Canal near Fillmore	—	1940–51, 1972–83
11113001	Sespe Creek and Fillmore Irrigation Company Canal	—	1927–85, 1990–93
11113900	Saticoy Diversion near Saticoy	—	1969–81, 1983–87
11114000	Santa Clara River at Montalvo	1,577	1928–32, 1950–88, 1990–93, 1996–2004
11114500	Matilija Creek above reservoir, near Matilija Hot Springs	50.7	1948–69
11115500	Matilija Creek at Matilija Hot Springs	54.6	1928–88
11116000	North Fork Matilija Creek at Matilija Hot Springs	15.6	1929–32, 1934–83

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record (Water Year)
11116500	Ventura River near Ojai	70.7	1912–14, 1922–24, 1983–84
11116550	Ventura River near Meiners Oaks	76.4	1959–79, 1981–82, 1984–88
11117000	San Antonio Creek near Ojai	33.7	1928–32
11117600	Coyote Creek near Oak View	13.2	1959–88
11117800	Santa Ana Creek near Oak View	9.11	1959–88
11118000	Coyote Creek near Ventura	41.2	1928–32, 1934–58, 1970–82
11119660	San Ysidro Creek at Montecito	3.07	1980–83
11119700	Sycamore Creek at Santa Barbara	3.41	1971–72, 1980
11119760	Victoria Street drain at outlet, at Santa Barbara	0.62	1970–78
11119780	Arroyo Burro at Santa Barbara	6.65	1970–93
11119900	Atascadero Creek at Puente Road, near Goleta	3.86	1971–72
11120510	San Jose Creek at Goleta	9.42	1970–92, 1997–2000
11120520	San Pedro Creek at Goleta	3.21	1971–72
11120530	Tecolotito Creek near Goleta	4.42	1970–72, 1980–82, 1987–91
11120550	Gaviota Creek near Gaviota	18.8	1967–86
11120600	Jalama Creek near Lompoc	20.5	1966–82
11120700	Canada Honda Creek near Lompoc	3.09	1959–62
11120800	Canada Honda Creek near Point Arguello	8.47	1959–62
11124000	Santa Cruz Creek above Stuke Canyon	64.9	1947–52
11125000	Cachuma Creek near Santa Ynez	23.8	1951–62
11126500	Santa Agueda Creek near Santa Ynez	55.8	1941–71, 1977–78
11127000	San Lucas Creek near Santa Ynez	3.2	1953–54
11127500	Zanja de Cota Creek near Santa Ynez	13.8	1955–61
11128000	Santa Ynez River at Grand Avenue, near Santa Ynez	513	1955–65
11128400	Alisal Creek near Solvang	12.3	1955, 1957–72
11129000	Nojoqui Creek near Buellton	15.1	1953–54
11129500	Santa Ynez River at Buellton	611	1955–59
11130000	Zaca Creek at Buellton	39.4	1941–63
11130500	Santa Ynez River near Buellton	668	1952–74
11131000	Santa Ynez River at Santa Rosa Dam site, near Buellton	700	1955–64
11131500	Santa Ynez River at Cooper's Reef, near Lompoc	708	1955–76
11132000	Santa Ynez River below Santa Rita Creek, near Lompoc	733	1955–62
*11133700	Purissima Creek near Lompoc	4.75	1972–75
*11134500	Santa Ynez River at V Street, near Lompoc	820	1955–75
11135000	Santa Ynez River at Pine Canyon, near Lompoc	884	1941–46, 1964–83
11135500	Santa Ynez River at barrier, near Surf	895	1947–65
11135800	San Antonio Creek at Los Alamos	34.9	1970–92, 1998–99
11136000	San Antonio Creek at Harris	93.7	1941–55
11136050	San Antonio Creek above Barka slough, near Orcutt	114	1985–87
11136100	San Antonio Creek near Casmalia	135	1956–93, 1995–2003
11136150	San Antonio Creek Tributary near Casmalia	.28	1947–70
11136400	Wagon Road Creek near Stauffer	17.9	1972–78
11136480	Reyes Creek near Ventucopa	4.62	1972–78
11136500	Cuyama River near Ventucopa	89.9	1945–58
11136650	Aliso Canyon Creek near New Cuyama	16.1	1964–72
11137000	Cuyama River near Santa Maria	904	1930–62
11137400	Alamo Creek near Nipomo	83.3	1959–77
11137500	Alamo Creek near Santa Maria	86.6	1944–62
11137900	Huasna River near Arroyo Grande	10.3	1959–86

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record (Water Year)
11138000	Huasna River near Santa Maria	117	1930–62
11138100	Cuyama River below Twitchell Dam	1,132	1959–83
11138500	Sisquoc River near Sisquoc	281	1943–99
11139000	La Brea Creek near Sisquoc	93.6	1944–73
11139350	Foxen Creek near Sisquoc	16.8	1966–73
11139500	Tepusquet Creek near Sisquoc	28.7	1944–87
11140585	Santa Maria River at Suey Crossing, near Santa Maria	—	1999
11140600	Bradley Ditch near Donovan Road, at Santa Maria	5.47	1970–92, 1998–99
11140800	Blosser Ditch near Donovan Road, at Santa Maria	—	1972–76
11141000	Santa Maria River at Guadalupe	1,741	1940–87

## DISCONTINUED LAKES AND RESERVOIRS

The following continuous-record lake stations in California have been discontinued. Daily records were collected and are stored in NWIS for the period of record shown for each location.

Station No.	Station name	Drainage area (mi <sup>2</sup> ) (Water Year)	Period of record
10260640	Lake Gregory at Crestline	2.66	1978–93
10287000	Mono Lake near Mono Lake	785	1912–90
11011000	Barrett Lake near Dulzura	245	1960–66, 1986–93
11013200	Rodriquez Reservoir at Rodriquez Dam, Baja California, Mexico	977	1937–90
11014550	Lower Otay Lake near Chula Vista	99.0	1945–59, 1972–93
11020600	El Capitan Lake near Lakeside	188	1936–66, 1972–93
11022100	San Vicente Reservoir near Lakeside	74.2	1947–61, 1973–98
11030020	Lake Hodges near Escondido	303	1945–68, 1972–93
11030700	Lake Wohlford near Escondido	7.96	1972–93
11117900	Lake Casitas near Casitas Springs	38.6	1986–87

## DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS

The following continuous-record water-quality stations in California have been discontinued. Daily records were collected and are stored in NWIS for the period of record shown for each location.

Station No.	Station name	Drainage area (mi <sup>2</sup> ) record	Type of (Water Year)	Period of record
09424190	Colorado River Aqueduct near San Jacinto	—	WQ, B	1975–81
10254670	Alamo River at Drop No. 3, near Calipatria	—	C,T	1981–85
10254970	New River at International Boundary, at Calexico	—	C,T	1973–81
10256060	Whitewater River at White Water Cutoff, at White Water	59.1	WQ	1972–76, 1978–96
10261500	Mojave River at Lower Narrows, near Victorville	513	C,T	1962–81
10263675	Big Rock Creek Wash at Highway 138, near Llano	53.1	P	1989–92
10264502	Peach Tree Creek near Littlerock	.04	P	1989–94
10264508	Somerset Creek at Palmdale	.50	P	1989–94
10264510	Inn Creek at Palmdale	.03	P	1989–94
10264530	Pine Creek near Palmdale	1.78	P	1989–94



## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Type of record	Period of record (Water Year)
10264550	City Ranch Creek near Palmdale	.39	P	1989–94
10264555	Estates Creek near Quartz Hill	.11	P	1989–94
10264605	Joshua Creek near Mojave	3.83	P	1989–94
10264636	Sled Track Canal at Lancaster Boulevard, near Rogers Lake	—	P	1996–2000
10264646	South Drainage Bissell/Rosamond Hills near Edwards AFB	9.25	P	1996–2001
10264658	Mojave Creek at Forbes Avenue, at Edwards Air Force Base	168	P	1996–2001
10264675	Rogers Lake Tributary at Edwards Air Force Base	1.73	P	1989–2001
10265150	Hot Creek at flume, near Mammoth	68.3	C,T	1983–88
10277400	Owens River below Tinemaha Reservoir, near Big Pine	1,964	C,T	1975–81
11013500	Tijuana River near Nestor	1,695	T,S	1970–71, 1976, 1978
11022500	San Diego River near Santee	377	T,S	1970–78
11023000	San Diego River at Fashion Valley, at San Diego	429	T,S	1984
11030500	San Dieguito River near Del Mar	338	S	1984
11042000	San Luis Rey River at Oceanside	557	WQ,B,C, T,S	1969–93
11044300	Santa Margarita River at Fallbrook Public Utility Sump, near Fallbrook	620	WQ,C,T	1999–2003
11046000	Santa Margarita River at Ysidora	723	WQ,T,S	1969–78, 1980–83
11046500	San Juan Creek near San Juan Capistrano	106	T,S	1967–68, 1971, 1982
11046530	San Juan Creek at La Novia Street Bridge, at San Juan Capistrano	109	T,S	1986–93
11046550	San Juan Creek at San Juan Capistrano	117	T,S	1972–82, 1987
11047000	Arroyo Trabuco near San Juan Capistrano	35.7	T,S	1967, 1978
11047300	Arroyo Trabuco at San Juan Capistrano	54.1	T,S	1971–77, 1984–93
11048500	San Diego Creek at Culver Drive, near Irvine	41.8	T,S	1972–85
11048530	El Modena Irvine Channel near Irvine	—	T,S	1975–79
11048540	Peters Canyon Wash at Barranca Road, near Irvine	—	T,S	1975–79, 1983–85
11048550	San Diego Creek at Lane Road, near Irvine	—	T,S	1972–76
11048555	San Diego Creek at Campus Drive, near Irvine	—	T,S	1972–76, 1978–79, 1983–85
11051500	Santa Ana River near Mentone	210	WQ,C,T,S	1999–2001
11056200	Santa Ana River at Waterman Avenue, at San Bernardino	339	T,S	1977, 1979
11057000	San Timoteo Creek near Redlands	118	T,S	1977–78
11059100	San Bernardino Water-Quality Control Plant at San Bernardino	—	C	1973–80
11066480	Riverside Water-Quality Control Plant at Riverside Narrows, near Arlington	—	C	1970–82
11066500	Santa Ana River at Riverside Narrows, near Arlington	853	C,T	1968
11067890	Santa Ana River at Prado Park, near Corona	1,010	T,S	1976–80
11068000	Santa Ana River at Auburndale Bridge, near Corona	1,010	C,T	1968
11070240	Sunnymead Channel at Alessandro Boulevard near Sunnymead	13.3	P	1990–93
11070262	Perris Valley Storm Drain Lateral "B" near March Air Force Base	10.6	P	1991
11070263	Unnamed creek tributary to Perris Reservoir near Moreno Valley	.46	P	1990–91
11070270	Perris Valley Storm Drain at Nuevo Road, near Perris	93.3	P	1990–97
11073495	Cucamonga Creek near Mira Loma	75.8	WQ,C,T,S	1999–2000
11075600	Santa Ana River at Imperial Highway, near Anaheim	1,544	T,S	1973–77, 1979
11075610	Santa Ana River above spreading diversion, below Imperial Highway, near Anaheim	1,545	C,T,S	1999–2001
11075620	Santa Ana River spreading diversion, below Imperial Highway, near Anaheim	—	WQ,C,T	1974–85, 1996–2001
11075755	Santa Ana River at Ball Road, at Anaheim	1,587	T,S	1977–80
11075760	Santa Ana River near Katella Avenue, at Orange	1,593	T,S	1974–76
11078100	Santa Ana River at Adams Avenue, near Costa Mesa	1,701	T,S	1974–76
11102250	Mission Creek below Whittier Narrows Dam	—	C	1956–70
11103000	Los Angeles River at Long Beach	827	C,T	1979–84

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Type of record	Period of record (Water Year)
11103010	Los Angeles River at Willow Street Bridge, at Long Beach	831	C,T	1974–75, 1981
11105850	Arroyo Simi near Simi	70.6	T,S	1970–71, 1974–78
11108500	Santa Clara River at Los Angeles–Ventura County Line	625	WQ,B,T,S	1969–88
11109550	Piru Creek above Frenchmans Flat	308	C	1972–80
11109600	Piru Creek above Lake Piru	372	WQ	1972–80
11109800	Piru Creek below Santa Felicia Dam	425	WQ,T	1969, 1974–80
11110000	Piru Creek near Piru	437	C,T	1970–71
11110500	Hopper Creek near Piru	23.6	T,S	1977–78
11113000	Sespe Creek near Fillmore	252	C,S	1967–78
11113500	Santa Paula Creek near Santa Paula	38.4	WQ,T	1969–80
11113900	Saticoy Diversion near Saticoy	—	C,T	1969–71, 1982–87
11113910	Santa Clara River at diversion, near Saticoy	—	C	1971
11114000	Santa Clara River at Montalvo	1,577	T,S	1969–85, 1989–93
11117500	San Antonio Creek at Casitas Springs	51.2	T,S	1977–85
11119745	Mission Creek at Rocky Nook Park, at Santa Barbara	6.60	T,S	1984–86
11120000	Atascadero Creek near Goleta	18.9	T,S	1982
11120500	San Jose Creek near Goleta	5.51	WQ	1978–91
11120510	San Jose Creek at Goleta	9.42	S	1982–85
11120530	Tecolotito Creek near Goleta	4.42	S	1982
11120600	Jalama Creek near Lompoc	20.5	T	1981–83
11120900	Canada Honda Creek at Pt. Arguello	—	T	1981–83
11125500	Lake Cachuma near Santa Ynez	417	WQ	1998
11129800	Zaca Creek near Buellton	32.8	WQ	1997
11134800	Miguelito Creek at Lompoc	11.6	WQ	1980–86, 1988–97
11136100	San Antonio Creek near Casmalia	135	WQ,T	1978–2003
11140585	Santa Maria River at Suey Crossing, near Santa Maria	—	S	1999–2000
11141000	Santa Maria River at Guadalupe	1,741	T,S	1969–70

\* Revision published after station became inactive.

Type of record: WQ (Water quality); B (Biological); C (Conductivity); T (Temperature); S (Sediment); P (Precipitation).

# WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004 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. Agajanian, L.A. Caldwell, G.L. Rockwell, and G.L. Pope

## INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State and Federal 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 database 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 volume of the report includes records on surface water in the States. Specifically, it contains: (1) discharge records for 193 streamflow-gaging stations and 12 partial-record stations; (2) stage and content records for 25 lakes and reservoirs; (3) gage-height records for 2 stations; (4) precipitation records for 5 stations; and (5) water-quality records for 54 streamflow-gaging stations and water-quality partial-record stations. Records included for stream stages are only a small fraction of those obtained during the water year.

The 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 include data on quantities of surface water, quality of surface and ground water, and ground-water levels. From the 1985 through the 1993 water years, 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 principal cities of the United States, or if not out of print, they may be purchased from U.S. Geological Survey, Information Services, Box 25286, Denver Federal Center, Denver, CO 80225-0046.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. Each report has 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-04-1." 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 on microfiche, by the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. For further ordering information, the Customer Inquiries telephone number is (703) 487-4650, between 8:30 a.m. and 5:30 p.m. Eastern Standard Time.

Additional information for ordering specific reports may be obtained from the District Office at the address given on the back of the title page or by telephone at (916) 278-3100.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

### 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:

- Antelope Valley-East Kern Water Agency, Russell E. Fuller, General Manager.
  - Borrego Water District, Tom Weber, General Manager.
  - California Department of Water Resources, Thomas M. Hannigan, Director.
  - Casitas Municipal Water District, John J. Johnson, General Manager.
  - Chino Basin Water Conservation District, Barrett Kehl, General Manager.
  - Chino Basin Watermaster, Gordon P. Treweek, Project Engineer.
  - Coachella Valley Water District, Mr. Steve Robbins, General Manager-Chief Engineer.
  - Desert Water Agency, Dan M. Ainsworth, General Manager.
  - Eastern Municipal Water District, Anthony J. Pack, General Manager.
  - Goleta Water District, Kevin D. Walsh, General Manager and Chief Engineer.
  - Imperial County Department of Public Works, Timothy B. Jones, Director.
  - Imperial Irrigation District, Michael King, Manager, Water Department.
  - Lompoc, city of, James Beck, Utility Director.
  - Los Angeles County Department of Public Works, James A. Noyes, Director.
  - Mojave Water Agency, Kirby Brill, General Manager.
  - Mono County, Energy Management Department, Daniel L. Lyster, Director.
  - Montecito Water District, General Manager.
  - Oceanside, city of, Marla Doyle, City Engineer.
  - Orange County Public Facilities and Resources Department, Vicki L. Wilson, Director.
  - Orange County Water District, Virginia Grebbien, General Manager.
  - Padre Dam Municipal Water District, August A. Caires, General Manager.
  - Pechanga Indian Reservation, Mark A. Macarro, Tribal Chairman.
  - Riverside County Flood Control and Water Conservation District, Warren Williams, General Manager-Chief Engineer.
  - San Bernardino Environmental Public Works Agency-Flood Control District, Ken A. Miller, Director.
  - San Bernardino Valley Municipal Water District, Robert L. Reiter, General Manager-Chief Engineer.
  - San Diego, city of, Larry Gardner, Water Utilities Director.
  - San Diego County Flood Control District, Doug Isbell, Manager.
  - San Juan Basin Authority, Donald J. Martinson, Administrator.
  - Santa Barbara, city of, Department of Public Works, Anthony J. Nisich, Director.
  - Santa Barbara County Flood Control and Water Conservation District and Water Agency, Thomas D. Fayram, Deputy Director.
  - Santa Margarita River Watershed, James S. Jenks, Watermaster.
  - Santa Maria Valley Water Conservation District, Debi Askew, Secretary.
  - Santa Ynez River Water Conservation District, Bruce A. Wales, General Manager.
  - Sweetwater Authority, Mr. Dennis A. Bostad, General Manager.
  - United Water Conservation District, Ms. Dana L. Wisheart, General Manager.
  - Ventura County Public Works Agency, Ronald C. Coons, Director.
- Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army; Bureau of Reclamation, U.S. Department of the Interior; Edwards Air Force Base, U.S. Air Force; and Camp Pendleton and Twentynine Palms Marine Corps Bases, U.S. Marine Corps.
- The following organizations aided in collecting records: California Department of Water Resources, Southern California Edison Co., and United Water Conservation District.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

### DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, 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 composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number "09" plus the 6-digit (or 8-digit) downstream order number "004100." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

### NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 1). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

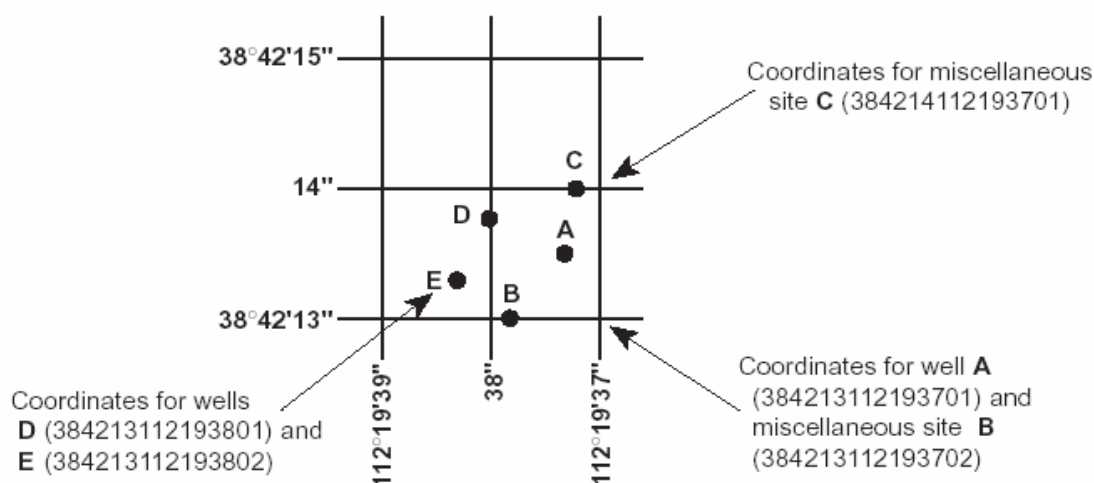


Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude).

### SPECIAL NETWORKS AND PROGRAMS

**Hydrologic Benchmark Network** is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from <http://water.usgs.gov/hbn/>.

**National Stream-Quality Accounting Network (NASQAN)** is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

**The National Atmospheric Deposition Program/National Trends Network (NADP/NTN)** is a network of monitoring sites that provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>.

**The USGS National Water-Quality Assessment (NAWQA) Program** is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents is measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

**The USGS National Streamflow Information Program (NSIP)** is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsipl/>.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

## Data Collection and Computation

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2, which may be accessed from <http://water.usgs.gov/pubs/twri/>. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standardization (ISO).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence 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 at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, 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.

At some stream-gaging stations in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge from other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the volume or contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly changes are computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

### Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and (5) a hydrograph of discharge.

### Station Manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; 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 follow that clarify information presented under the various headings of the station description.

**LOCATION.**—Location information is obtained from the most accurate maps available. The location of the gaging station 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 term indicates the time period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that its flow reasonably can be considered equivalent to flow at the present station.

**REVISED RECORDS.**—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

**GAGE.**—The type of gage in current use, the datum of the current gage referred to a standard datum, 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 either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

**COOPERATION.**—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

**EXTREMES OUTSIDE PERIOD OF RECORD.**—Information here documents 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 USGS.

**REVISIONS.**—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://water.usgs.gov/nwis/nwis>). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations 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 (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. 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 stage-capacity table when daily volumes are given.

### Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

### Data Table of Daily Mean Values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed TOTAL gives the sum of the daily figures for each month; the line headed MEAN gives the arithmetic average flow in cubic feet per second for the month; and the lines headed MAX and MIN give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month is expressed in cubic feet per second per square mile (line headed CF5M); or in inches (line headed IN); or in acre-feet (line headed AC-FT). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir volumes are given. These values are identified by a symbol and a corresponding footnote.

### Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those values. The designated period will be expressed as FOR WATER YEARS \_\_-\_\_, BY WATER YEAR (WY), and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript.

### Summary Statistics

A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS \_\_-\_\_, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the ANNUAL 7-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

The following summary statistics data are provided with each continuous record of discharge. Comments that follow clarify information presented under the various line headings of the SUMMARY STATISTICS table.

**ANNUAL TOTAL.**—The sum of the daily mean values of discharge for the year.

**ANNUAL MEAN.**—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

**HIGHEST ANNUAL MEAN.**—The maximum annual mean discharge occurring for the designated period.

**LOWEST ANNUAL MEAN.**—The minimum annual mean discharge occurring for the designated period.

**HIGHEST DAILY MEAN.**—The maximum daily mean discharge for the year or for the designated period.

**LOWEST DAILY MEAN.**—The minimum daily mean discharge for the year or for the designated period.

**ANNUAL 7-DAY MINIMUM.**—The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1–March 31). The date shown in the summary statistics table is the initial date of the 7-day period. This value should not be confused with the 7-day 10-year low-flow statistic.

**MAXIMUM PEAK FLOW.**—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

**MAXIMUM PEAK STAGE.**—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

**INSTANTANEOUS LOW FLOW.**—The minimum instantaneous discharge occurring for the water year or for the designated period.

**ANNUAL RUNOFF.**—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-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.

Cubic feet per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

Inches (INCHES) indicate the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

**10 PERCENT EXCEEDS.**—The discharge that has been exceeded 10 percent of the time for the designated period.

**50 PERCENT EXCEEDS.**—The discharge that has been exceeded 50 percent of the time for the designated period.

**90 PERCENT EXCEEDS.**—The discharge that has been exceeded 90 percent of the time for the designated period.

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 table lists annual maximum stage and discharge at crest-stage stations, and the second table lists 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 often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a 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. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e—Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

### Accuracy of Field Data and Computed Results

The accuracy of streamflow data 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 observations of stage, measurements of discharge, and interpretations of records.

The degree of accuracy of the records is stated in the REMARKS in the station description. "Excellent" indicates that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair," within 15 percent. "Poor" indicates that daily discharges have less than "fair" accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft<sup>3</sup>/s; to the nearest tenths between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures above 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

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, values 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 Data Records Available

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the District office. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the District office (see address that is shown on the back of the title page of this report).

## EXPLANATION OF PRECIPITATION RECORDS

### Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol "---" in the table.

### Data Presentation

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

**LOCATION.**—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**PERIOD OF RECORD.**—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

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

### EXPLANATION OF WATER-QUALITY RECORDS

#### Collection and Examination of Data

Surface-water samples for analysis usually are collected at or near stream-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

#### Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRI's, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

One sample can define adequately 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 at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values 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 (and sometimes mean or median values) for each constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

### SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data are useful in the interpretation of surface-water quality. Records of surface-water quality in this report 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 *continuous-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 continuous- or partial-record station, where 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 *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings;

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

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 2 and 12.

### Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Measured physical property	Rating			
	Excellent	Good	Fair	Poor
Water temperature	$\leq \pm 0.2$ °C	$> \pm 0.2$ to 0.5 °C	$> \pm 0.5$ to 0.8 °C	$> \pm 0.8$ °C
Specific conductance	$\leq \pm 3\%$	$> \pm 3$ to 10%	$> \pm 10$ to 15%	$> \pm 15\%$
Dissolved oxygen	$\leq \pm 0.3$ mg/L	$> \pm 0.3$ to 0.5 mg/L	$> \pm 0.5$ to 0.8 mg/L	$> \pm 0.8$ mg/L
pH	$\leq \pm 0.2$ unit	$> \pm 0.2$ to 0.5 unit	$> \pm 0.5$ to 0.8 unit	$> \pm 0.8$ unit
Turbidity	$\leq \pm 5\%$	$> \pm 5$ to 10%	$> \pm 10$ to 15%	$> \pm 15\%$

### 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.

### On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be 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 on-site measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 5, Chapters A1, A3, and A4; and Book 9, Chapters A1-A6. These TWRI's are listed in this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

### Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the 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.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

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 be 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 are 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.

### Laboratory Measurements

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI, Book 1, Chapter D2; and Book 5, Chapters A1, A3, and A4. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. These methods are consistent with ASTM standards and generally follow ISO standards.

### 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 so forth, 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 then 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 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 information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**DRAINAGE AREA.**—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**PERIOD OF RECORD.**—This indicates the time periods for which published water-quality records for the station are available. 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 parameters individually.

**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.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

**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 USGS by a cooperating organization are identified here.

**EXTREMES.**—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

**REVISIONS.**—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

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 section:

Printed Output	Remark
e	Value is estimated.
>	Actual value is known to be greater than value shown.
<	Actual value is known to be less than value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

### Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte was either not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District office are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples. These data are not presented in this report but are available from the District office.

### Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

**Field blank**—A blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

**Trip blank**—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

**Equipment blank**—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

**Sampler blank**—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

**Filter blank**—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

**Splitter blank**—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

**Preservation blank**—A blank solution that is treated with the sampler preservatives used for an environmental sample.

### Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

### Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

**Concurrent samples**—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

**Sequential samples**—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

**Split sample**—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.



## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

### Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

### ACCESS TO USGS WATER DATA

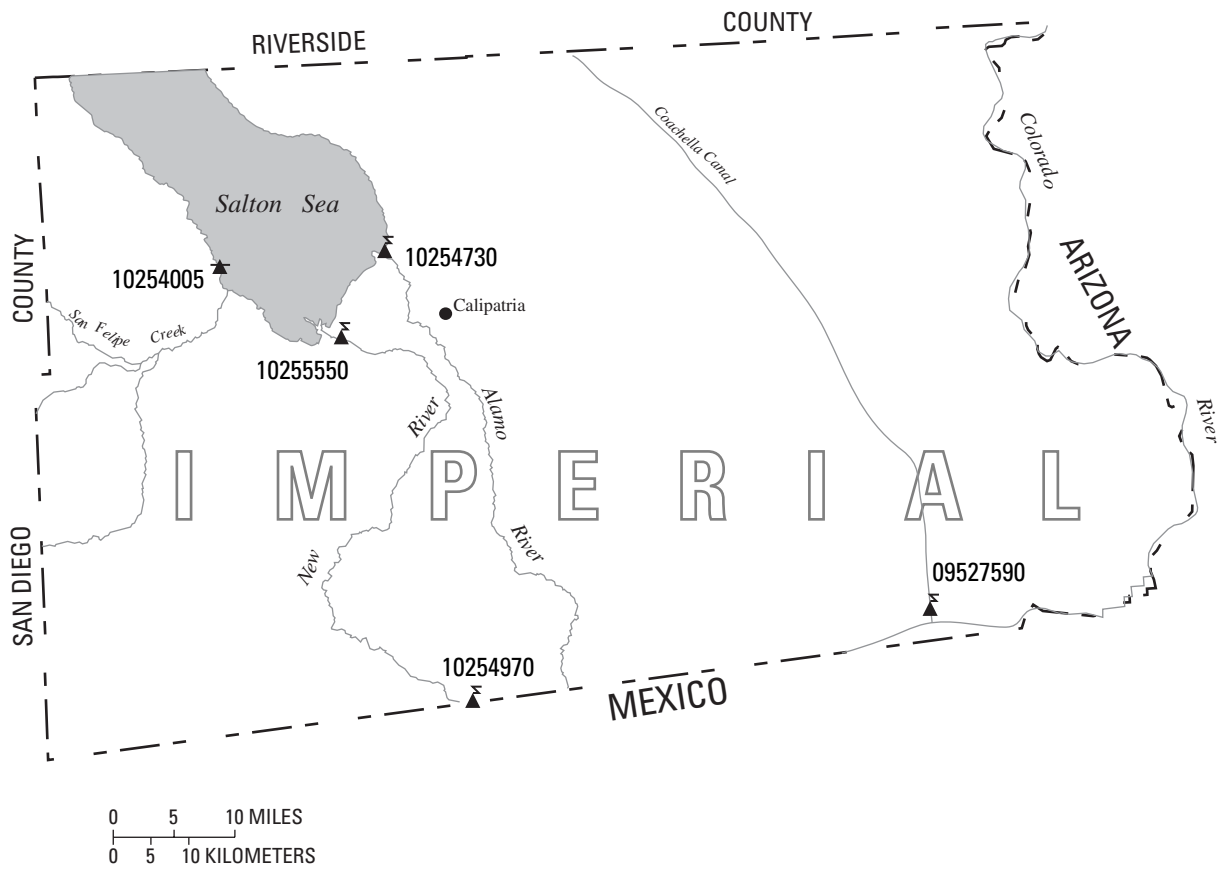
The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Discipline District Office (See address that is shown on the back of the title page of this report.)

### DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, may be accessed from [http://water.usgs.gov/ADR\\_Defs\\_2004.pdf](http://water.usgs.gov/ADR_Defs_2004.pdf). Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004



**EXPLANATION**

- ▲ Gaging Station (Telephone and Modem or Data-Collection Platform)
- ★ Reservoir Site and Elevations



**Figure 2.** Location of discharge stations in Imperial County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

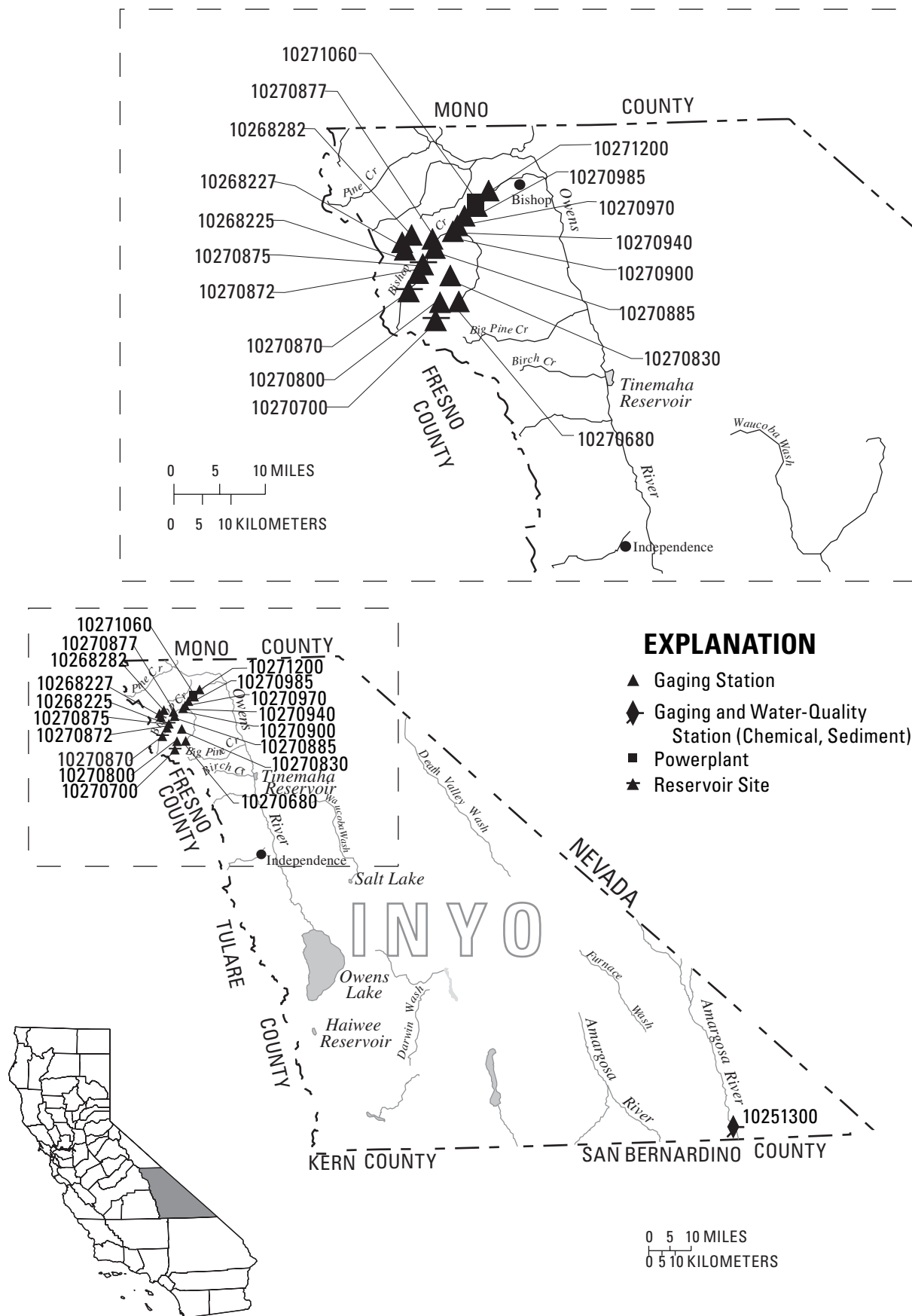
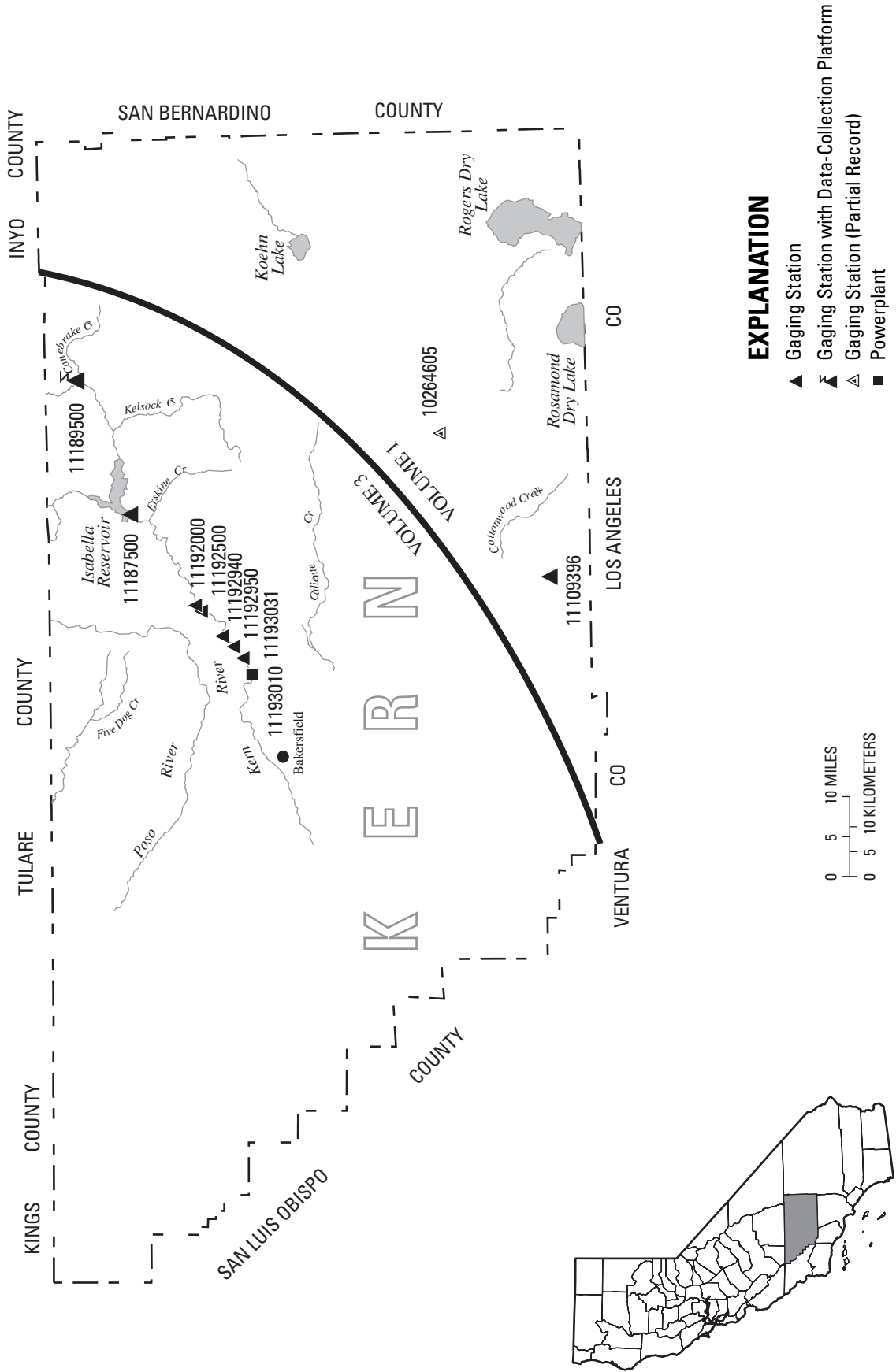
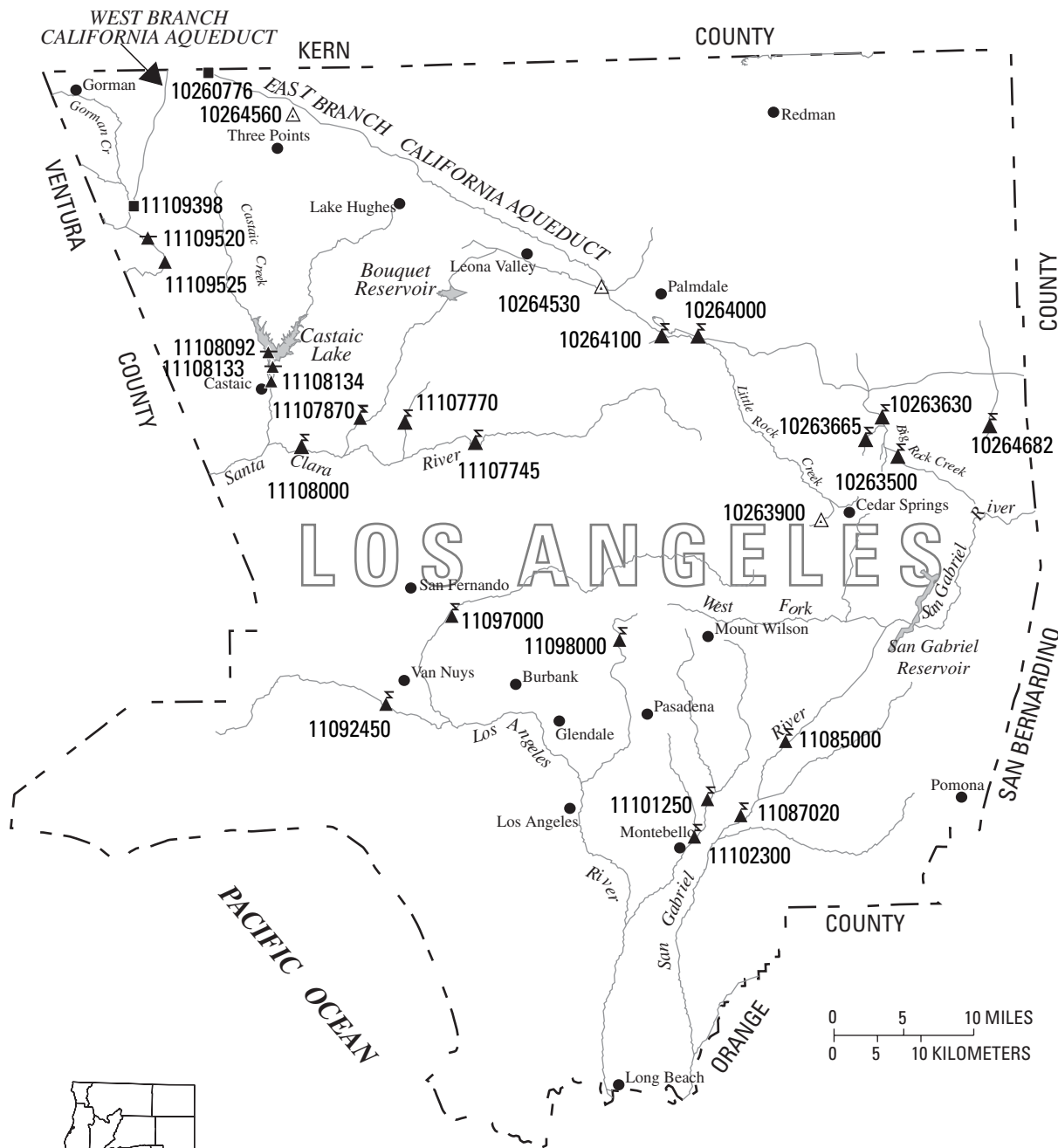


Figure 3. Location of discharge stations in Inyo County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004



WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

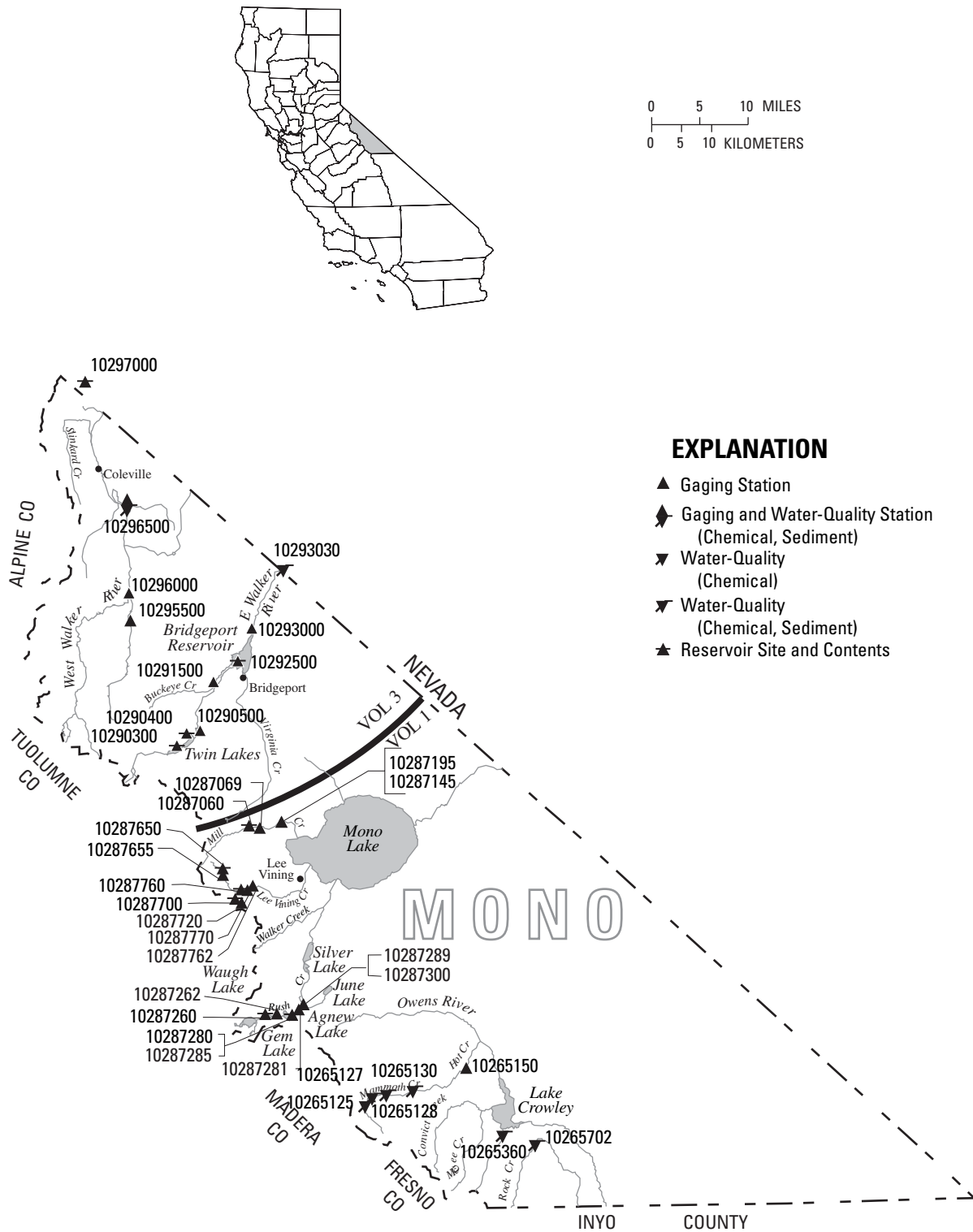


**EXPLANATION**

- ▲ Gaging Station
- ▲ Gaging Station (Telephone and Modem or Data-Collection Platform)
- △ Gaging Station (Partial Record)
- ▼ Water-Quality Station (Chemical)
- Powerplant
- ★ Reservoir Site and Contents

Figure 5. Location of discharge and water-quality stations in Los Angeles County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004



**Figure 6.** Location of discharge and water-quality stations in Mono County.  
 (NOTE: Records for stations 10290300 through 10297000 published in volume 3.)

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

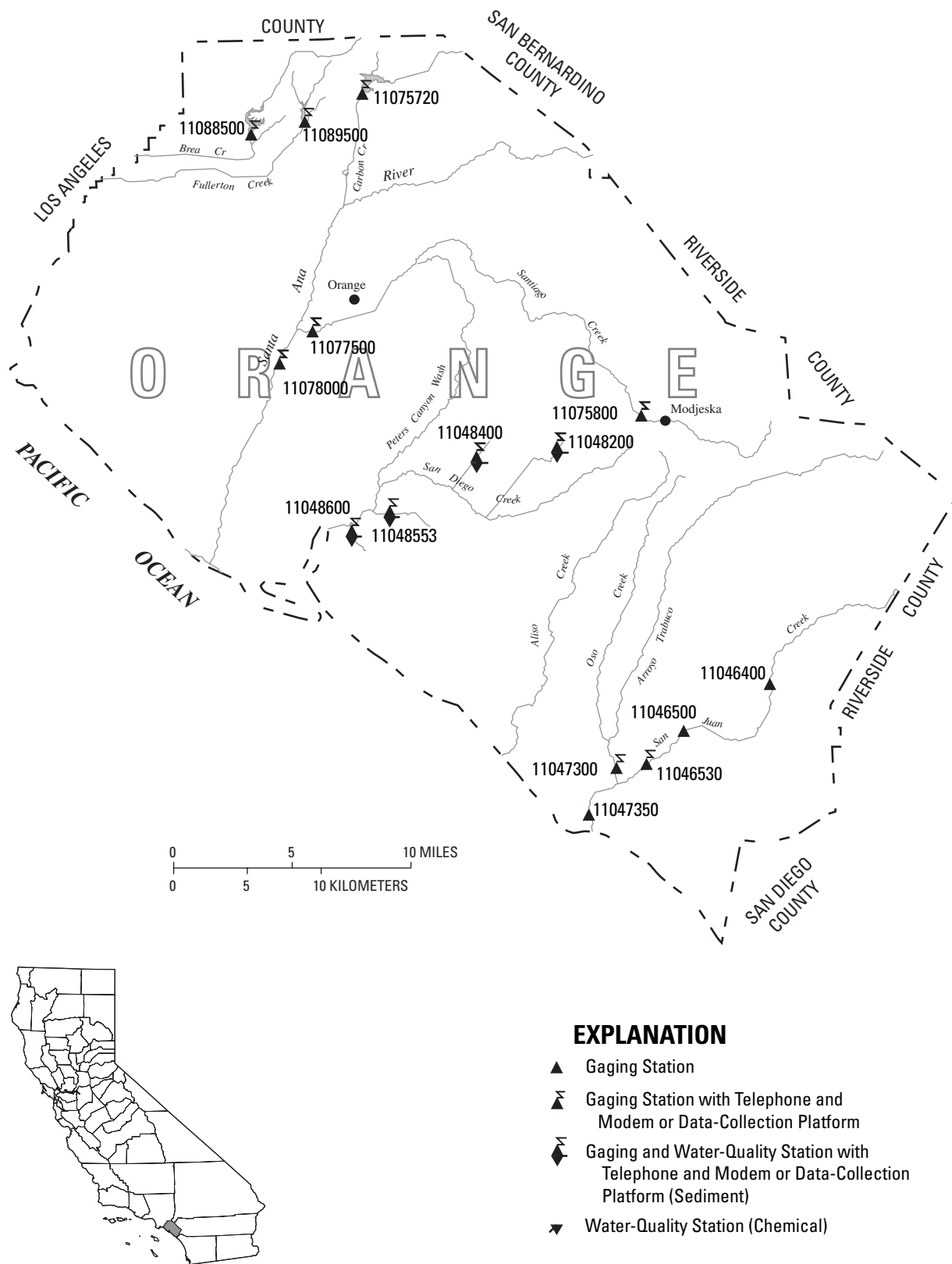


Figure 7. Location of discharge and water-quality stations in Orange County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

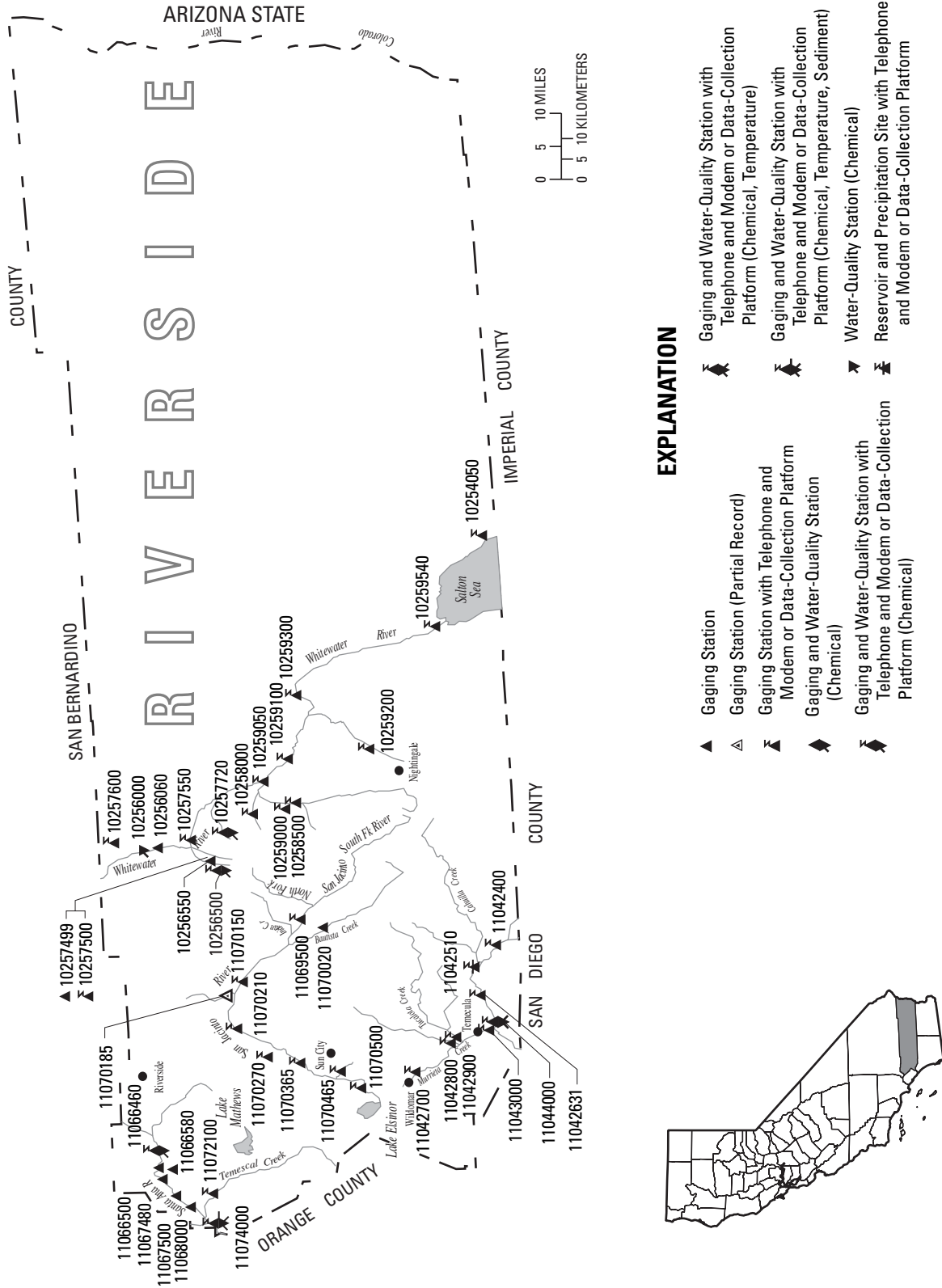
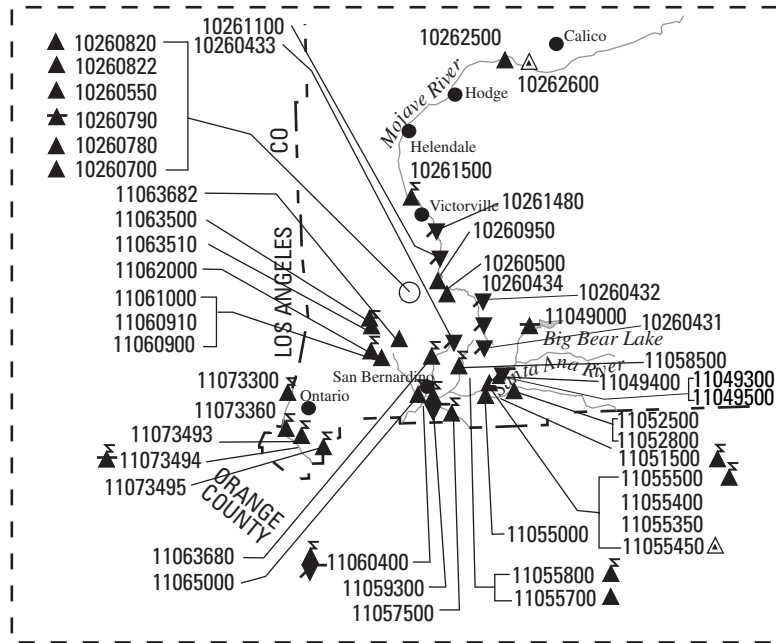


Figure 8. Location of discharge and water-quality stations in Riverside County.



WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004



**EXPLANATION**

- ▲ Gaging Station
- △ Gaging Station (Partial Record)
- ▲ Gaging Station with Telephone and Modem or Data-Collection Platform
- ◆ Gaging and Water-Quality Station with Telephone and Modem or Data-Collection Platform (Sediment)
- ▲ Gaging and Water-Quality Station (Sediment, Chemical, Temperature)
- ◆ Gaging and Water-Quality Station with Telephone and Modem or Data-Collection Platform (Sediment, Chemical)
- ▲ Gaging and Water-Quality Station with Telephone and Modem or Data-Collection Platform (Sediment, Chemical, Temperature)
- ▼ Water-Quality Station (Chemical)
- ★ Reservoir Site
- ▲ Reservoir Site with Data-Collection Platform

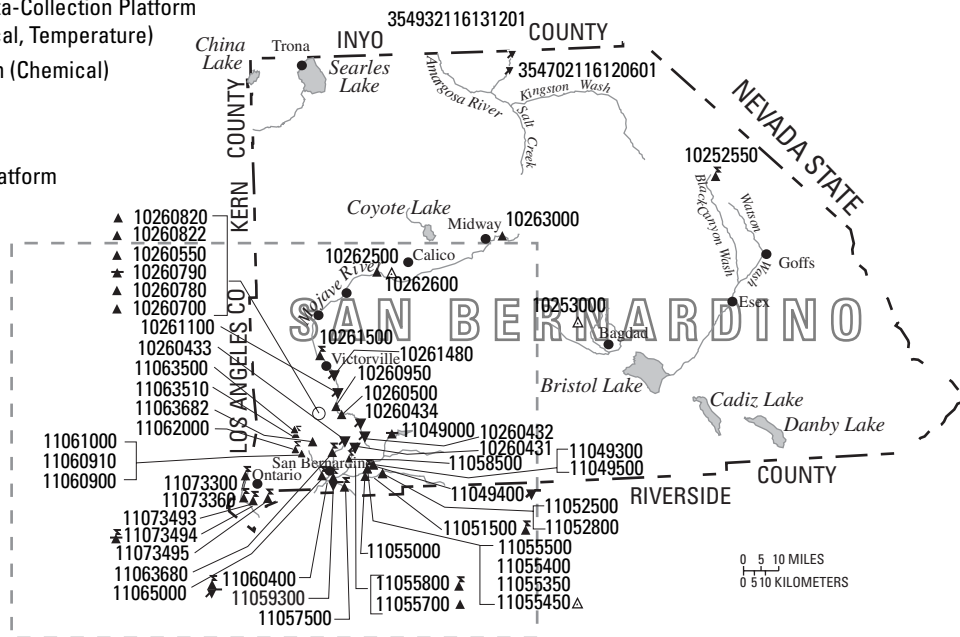
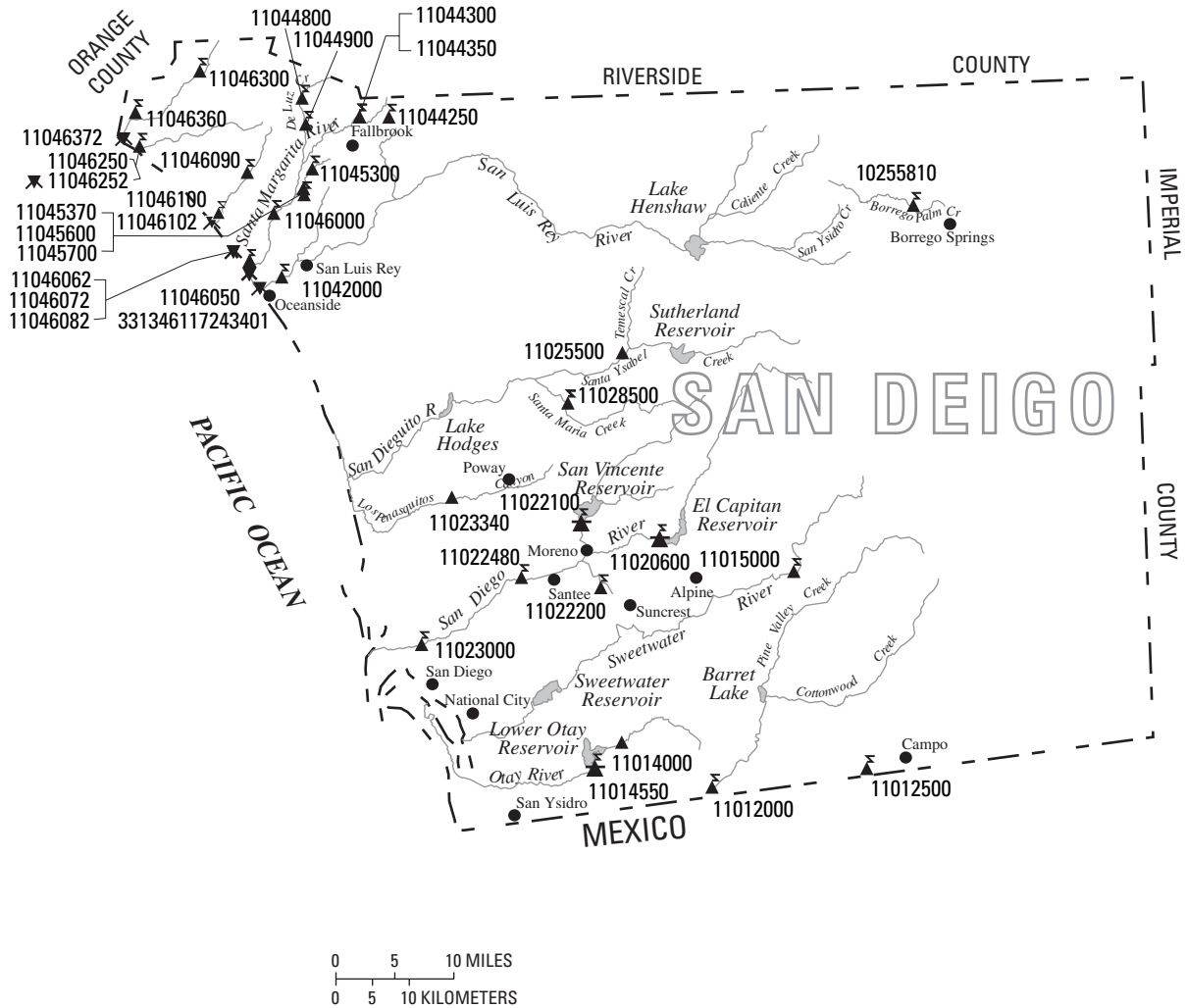


Figure 9. Location of discharge and water-quality stations in San Bernardino County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004



**EXPLANATION**

- ▲ Gaging Station
- ▲ Gaging Station with Telephone and Modem or Data-Collection Platform
- ▲ Gaging and Water-Quality Station (Chemical, Temperature)
- ▲ Gaging and Water-Quality Station with Telephone and Modem or Data-Collection Platform (Chemical)
- ▲ Gaging and Water-Quality Station with Telephone and Modem or Data-Collection Platform (Chemical, Temperature)
- ✖ Water-Quality Station (Chemical, Temperature)
- ▲ Reservoir and Site with Telephone and Modem or Data-Collection Platform



Figure 10. Location of discharge and water-quality stations in San Diego County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004



**EXPLANATION**

- ▲ Gaging Station
- ▲ Gaging Station with Telephone and Modem or Data-Collection Platform
- △ Gaging Station (Partial Record)
- ◆ Gaging and Water-Quality Station (Sediment)
- ◆ Gaging and Water-Quality Station (Chemical)
- ◆ Gaging and Water-Quality Station with Telephone and Modem or Data-Collection Platform (Chemical)
- ◆ Gaging and Water-Quality Station (Chemical, Temperature)
- ◆ Gaging and Water-Quality Station with Telephone and Modem or Data-Collection Platform (Chemical, Temperature)
- ▲ Reservoir Site and Contents
- ▲ Reservoir Site and Contents with Telephone and Modem or Data-Collection Platform
- ▲ Reservoir Site and Contents and Water-Quality Station (Chemical)
- ✖ Water-Quality Station (Chemical, Temperature)
- ▼ Water-Quality Station (Chemical)

Figure 11. Location of discharge and water-quality stations in Santa Barbara County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

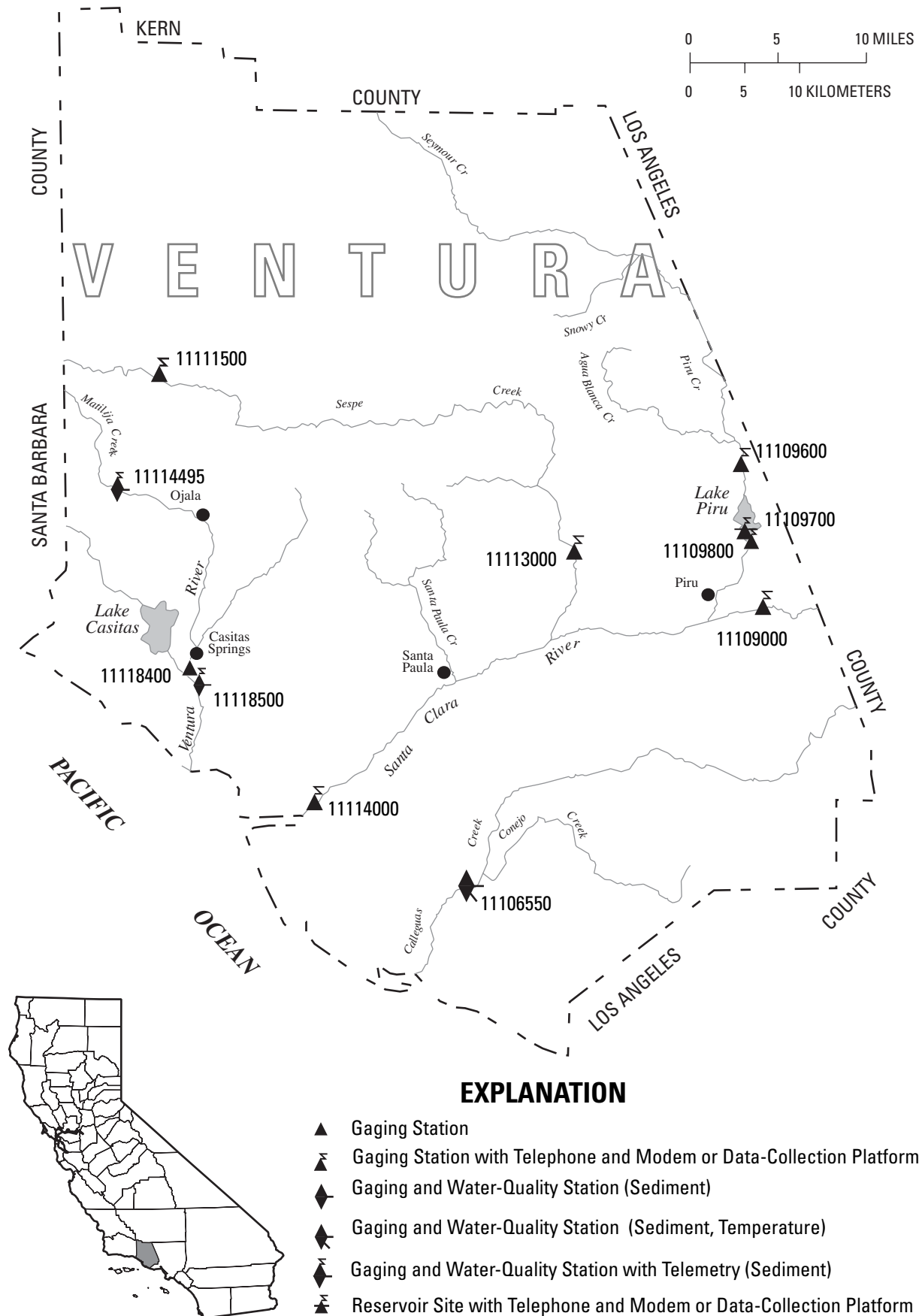


Figure 12. Location of discharge and water-quality stations in Ventura County.

## WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

## SURFACE-WATER-DISCHARGE AND SURFACE-WATER-QUALITY RECORDS

## Remark Codes—Continued

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

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
D	Biological organism count equal to or greater than 15 percent (dominant).
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
ND	Not detected.
SS	Suspended-sediment data determined from a sample collected and processed according to National Water-Quality Assessment (NAWQA) program protocol.
&	Biological organism estimated as dominant.
*	Instantaneous discharge at the time of cross-sectional measurements.
**	Partial sampled width.
1	Laboratory value.
2	Laboratory fixed-end point titration.
†	Sample collected using an automatic sampler.

## Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ( $\mu\text{g/L}$ ) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter ( $\text{ng/L}$ ). Data above the  $\mu\text{g/L}$  level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

## Data Precision

NOTE: Precision varies for different analytical methods used to determine the same constituent. The presence of trailing zeroes after the decimal in values printed in this report does not necessarily indicate that the method used for the determination is as precise as the level implied by the rightmost zero.

## 09527590 COACHELLA CANAL AT ALL AMERICAN CANAL DIVERSION, NEAR HOLTVILLE, CA

LOCATION.—Lat 32°42'51", long 114°56'38", in NW 1/4 SE 1/4 sec.31, T.16 S., R.20 E., Imperial County, Hydrologic Unit 18100200, 600 ft downstream of the diversion from the All American Canal, at the flume and drop structure, near Gordons Well, and 25 mi east of Holtville.

PERIOD OF RECORD.—October 2003 to September 2004.

GAGE.—Water-stage recorder and stilling well. Concrete control with 50 ft Parshall flume. Elevation of gage is 161 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. Flows diverted from the All American Canal. Water is imported for ground-water recharge and irrigation in the Coachella Valley

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 893 ft<sup>3</sup>/s, Oct. 3, 2003, gage height, 2.66 ft; minimum daily 1.00 ft<sup>3</sup>/s, July 27, 2004.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	535	383	368	201	300	176	545	594	578	622	581	584
2	463	426	324	211	319	261	524	596	628	443	598	583
3	424	429	383	110	326	227	314	628	643	494	600	413
4	330	431	383	201	322	221	452	633	490	595	649	353
5	509	427	287	201	321	242	524	632	445	621	705	508
6	584	428	275	238	272	183	489	632	565	560	711	595
7	590	335	322	237	216	315	486	607	596	517	566	655
8	544	326	374	235	300	333	531	508	640	562	677	640
9	537	420	330	192	310	478	403	626	599	569	705	659
10	445	429	324	140	356	488	247	657	592	384	657	561
11	299	428	280	264	359	487	384	659	544	529	697	435
12	457	425	226	274	357	479	527	650	439	613	705	331
13	484	333	171	278	305	378	583	653	556	620	558	565
14	484	278	262	275	208	364	595	514	585	616	442	549
15	484	175	317	276	286	373	533	485	585	665	562	538
16	482	356	322	270	342	373	474	573	580	526	586	446
17	392	371	323	265	347	460	570	595	581	450	582	388
18	380	326	325	259	348	467	577	598	486	619	581	329
19	468	324	233	302	346	464	585	600	462	652	581	456
20	529	322	170	311	255	363	587	597	556	658	533	480
21	585	276	262	305	145	444	583	544	617	658	433	479
22	542	273	271	263	217	460	534	484	625	657	512	480
23	534	319	270	207	140	547	529	569	575	471	583	481
24	487	323	131	120	182	460	388	594	569	355	639	435
25	262	322	217	192	183	447	548	643	330	472	596	288
26	402	323	216	245	178	353	588	646	512	374	586	440
27	478	323	112	242	179	337	597	649	550	1.0	586	517
28	529	324	203	244	131	471	593	466	613	314	444	525
29	534	231	210	241	169	494	590	425	621	798	552	526
30	532	314	212	264	---	493	577	468	622	767	582	478
31	440	---	112	302	---	587	---	503	---	573	584	---
TOTAL	14745	10400	8215	7365	7719	12225	15457	18028	16784	16755.0	18373	14717
MEAN	476	347	265	238	266	394	515	582	559	540	593	491
MAX	590	431	383	311	359	587	597	659	643	798	711	659
MIN	262	175	112	110	131	176	247	425	330	1.0	433	288
AC-FT	29250	20630	16290	14610	15310	24250	30660	35760	33290	33230	36440	29190

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

MEAN	476	347	265	238	266	394	515	582	559	540	593	491
MAX	476	347	265	238	266	394	515	582	559	540	593	491
(WY)	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004
MIN	476	347	265	238	266	394	515	582	559	540	593	491
(WY)	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004

## SUMMARY STATISTICS

## FOR 2004 WATER YEAR

ANNUAL TOTAL	160783.0
ANNUAL MEAN	439
HIGHEST DAILY MEAN	798 Jul 29
LOWEST DAILY MEAN	1.0 Jul 27
ANNUAL SEVEN-DAY MINIMUM	166 Feb 23
MAXIMUM PEAK FLOW	893 Oct 3
MAXIMUM PEAK STAGE	2.66 Oct 3
ANNUAL RUNOFF (AC-FT)	318900
10 PERCENT EXCEEDS	622
50 PERCENT EXCEEDS	462
90 PERCENT EXCEEDS	224

## 10251300 AMARGOSA RIVER AT TECOPA, CA

LOCATION.—Lat 35°50'53", long 116°13'43" referenced to North American Datum of 1927, in NW 1/4 NW 1/4 SE 1/4 sec.9, T.20 N., R.07 E., Inyo County, Hydrologic Unit 18090202, on right bank, 20 ft upstream from Old Spanish Trail Road, and 0.2 mi west of Tecopa.

DRAINAGE AREA.—3,090 mi<sup>2</sup>, much of which is noncontributing.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1961 to August 1983, October 1991 to September 1995, 1998 miscellaneous discharge, January 1999 to current year.

GAGE.—Water-stage recorder and culvert control. Elevation of gage is 1,310 ft above NGVD of 1929, from topographic map. Prior to Oct. 16, 1991, at datum 16.52 ft higher.

REMARKS.—Records poor. City of Tecopa pumps water for municipal use upstream. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,600 ft<sup>3</sup>/s, Aug. 19, 1983, determined from culvert computations and flow over road, gage height, 16.00 ft, datum then in use; no flow some days some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 15 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 25	2130	*92	*6.11	Mar 4	0815	35	5.53
Feb 26	0959	44	5.71	Aug 15	2230	36	5.69
Mar 2	1159	69	5.94	Sep 13	1930	22	5.58

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.27	0.06	e0.75	e1.0	0.90	5.9	0.47	0.12	0.11	0.03	0.05	0.14
2	0.23	0.06	e0.75	e1.0	0.82	36	0.63	0.13	0.10	0.04	0.05	0.12
3	0.25	0.06	0.84	e1.0	1.4	25	0.68	0.14	0.10	0.06	0.06	0.11
4	0.21	0.09	0.85	e1.0	1.3	27	0.76	0.13	0.08	0.04	0.06	0.11
5	0.23	0.14	0.87	e1.0	1.1	16	0.69	0.09	0.10	0.03	0.06	0.10
6	0.27	0.19	0.83	e1.1	0.91	9.5	0.54	0.08	0.09	0.03	0.07	0.10
7	0.27	0.23	0.74	1.1	0.85	7.0	0.48	0.09	0.08	0.04	0.08	0.10
8	e0.25	0.25	0.75	1.1	0.74	5.5	0.42	0.10	0.08	0.03	0.09	0.09
9	e0.25	0.29	0.55	1.1	0.72	4.8	0.47	0.10	0.10	0.04	0.09	0.09
10	e0.25	0.33	0.65	1.2	0.70	2.7	0.46	0.11	0.12	0.05	0.09	0.09
11	e0.25	0.31	0.85	1.2	0.61	1.5	0.35	0.12	0.12	0.06	0.10	0.09
12	e0.25	1.2	0.79	1.2	0.55	1.0	0.35	0.13	0.08	0.06	0.09	0.11
13	e0.25	2.7	0.82	1.2	0.54	1.1	0.35	0.15	0.08	0.05	0.11	5.4
14	e0.25	0.87	0.83	1.2	0.69	0.97	0.30	0.16	0.08	0.06	0.13	11
15	e0.20	0.73	1.1	1.2	0.74	1.0	0.30	0.17	0.08	0.06	2.8	4.2
16	e0.20	1.3	0.87	1.1	0.78	0.89	0.29	0.15	0.08	0.07	3.7	0.65
17	e0.20	0.89	0.84	1.1	0.81	0.84	0.31	0.13	0.10	0.07	0.17	0.07
18	e0.20	0.72	1.1	1.1	1.8	0.89	0.36	0.12	0.11	0.07	2.6	0.07
19	e0.20	0.84	0.97	1.2	4.1	0.95	0.41	0.11	0.12	0.06	4.8	0.06
20	e0.20	0.93	1.2	1.1	2.6	0.95	0.44	0.12	0.12	0.05	1.7	0.07
21	e0.15	1.1	1.2	1.1	3.7	0.84	0.44	0.12	0.05	0.06	1.2	0.07
22	e0.15	0.77	1.2	1.0	4.5	0.86	0.40	0.12	0.03	0.06	0.94	0.08
23	e0.15	e0.70	1.3	0.86	28	0.84	0.26	0.10	0.02	0.06	0.13	0.08
24	e0.15	e0.70	1.5	0.90	8.7	0.74	0.22	0.12	0.02	0.05	0.57	0.08
25	e0.15	e0.70	15	0.94	6.4	0.75	0.23	0.11	0.02	0.05	1.1	0.09
26	e0.10	e0.70	17	0.79	20	0.67	0.22	0.13	0.02	0.05	0.45	0.08
27	e0.10	e0.70	3.2	0.84	8.7	0.69	0.18	0.15	0.03	0.05	0.19	0.08
28	e0.10	e0.70	1.5	0.97	7.8	0.57	0.17	0.14	0.04	0.06	0.22	0.08
29	e0.10	e0.70	1.0	0.93	7.2	0.55	0.14	0.12	0.03	0.05	0.29	0.08
30	e0.10	e0.70	e1.0	0.98	---	0.55	0.12	0.11	0.03	0.05	0.33	0.07
31	e0.10	---	e1.0	1.0	---	0.55	---	0.13	---	0.05	0.20	---
TOTAL	6.03	19.66	61.85	32.51	117.66	157.10	11.44	3.80	2.22	1.59	22.52	23.56
MEAN	0.19	0.66	2.00	1.05	4.06	5.07	0.38	0.12	0.07	0.05	0.73	0.79
MAX	0.27	2.7	17	1.2	28	36	0.76	0.17	0.12	0.07	4.8	11
MIN	0.10	0.06	0.55	0.79	0.54	0.55	0.12	0.08	0.02	0.03	0.05	0.06
AC-FT	12	39	123	64	233	312	23	7.5	4.4	3.2	45	47

e Estimated.

## UPPER AMARGOSA

## 10251300 AMARGOSA RIVER AT TECOPA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.41	0.87	3.94	6.16	11.5	6.35	1.82	0.44	0.14	0.55	6.09	3.95
MAX	39.1	11.4	65.3	56.2	95.6	54.2	16.2	3.19	2.55	3.52	103	93.1
(WY)	(1977)	(1966)	(1966)	(1995)	(1993)	(1983)	(2003)	(1977)	(1969)	(1965)	(1983)	(1976)
MIN	0.00	0.01	0.39	0.70	0.69	0.36	0.07	0.02	0.00	0.00	0.00	0.00
(WY)	(1972)	(1993)	(1994)	(1994)	(1979)	(1994)	(1994)	(1993)	(1966)	(1963)	(1962)	(1964)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	1,944.55		459.94			
ANNUAL MEAN	5.33		1.26		3.62	
HIGHEST ANNUAL MEAN					14.9	
LOWEST ANNUAL MEAN					0.22	
HIGHEST DAILY MEAN	490	Aug 20	36	Mar 2	1,500	Feb 26, 1969
LOWEST DAILY MEAN	0.05	May 24	0.02	Jun 23	0.00	Jul 23, 1962
ANNUAL SEVEN-DAY MINIMUM	0.05	May 23	0.03	Jun 22	0.00	Aug 1, 1962
MAXIMUM PEAK FLOW			92	Dec 25	10,600	Aug 19, 1983
MAXIMUM PEAK STAGE			6.11	Dec 25	16.00	Aug 19, 1983
ANNUAL RUNOFF (AC-FT)	3,860		912		2,630	
10 PERCENT EXCEEDS	5.0		1.5		2.4	
50 PERCENT EXCEEDS	0.45		0.27		0.24	
90 PERCENT EXCEEDS	0.09		0.06		0.00	



## 10251300 AMARGOSA RIVER AT TECOPA, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—March to September 2004.

CHEMICAL DATA.—March to September 2004.

SEDIMENT DATA.—March to September 2004.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltrd lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
MAR 17...	1105	e.30	96	730	12.9	148	8.9	8210	18.5	69	13.4
Date	Calcium water unfltrd recover-able, mg/L (00916)	Magnesium water, fltrd, mg/L (00925)	Magnesium water, recover-able, mg/L (00927)	Potassium water, fltrd, mg/L (00935)	Sodium water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
MAR 17...	19.2	8.56	16.5	54.9	1990	1180	1200	119	1170	6.5	74.5
Date	Sulfate water, fltrd, mg/L (00945)	Residue at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Fecal coliform, M-FC 0.7u MF 100 mL (31625)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Antimony, water, fltrd, ug/L (01095)
MAR 17...	1430	5860	1.6	.011	.005	.769	.994	K4	e6	2810	1.51
Date	Antimony, water, unfltrd ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd ug/L (01002)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, fltrd, ug/L (01030)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)
MAR 17...	1.1	699	695	<.24	e.22	23800	.18	.16	<16.0	2.2	.210
Date	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, recover-able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, recover-able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, recover-able, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Manganese, water, recover-able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover-able, ug/L (71900)
MAR 17...	1.46	6.6	14.8	40	2550	.50	2.71	6.9	93	e.02	.02

e Estimated.

K Results based on colony count outside the acceptance range (non-ideal colony count).

&lt; Actual value is known to be less than the value shown.

## 10251300 AMARGOSA RIVER AT TECOPA, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Molybdenum, water, fltrd, ug/L (01060)	Molybdenum, water, recoverable, fltrd, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, recoverable, fltrd, ug/L (01067)	Selenium, water, fltrd, ug/L (01145)	Selenium, water, unfltrd, ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd, recoverable, fltrd, ug/L (01077)	Thallium, water, fltrd, ug/L (01057)	Thallium, water, unfltrd, ug/L (01059)	Vanadium, water, fltrd, ug/L (01085)
MAR 17...	62.0	60.0	1.14	5.25	e1.4	<1.6	<.8	<.64	<.16	<.7	28.9
Date	Vanadium, water, unfltrd, ug/L (01087)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd, recoverable, fltrd, ug/L (01092)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd, 0.7u GF, ug/L (38746)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbonyl furan, water, fltrd, 0.7u GF, ug/L (49308)	3-Keto carbonyl furan, water, fltrd, ug/L (50295)
MAR 17...	30	5.5	12	<.009	<.02	<.02	<.03	<.04	<.008	<.006	<2
Date	Acifluorfen, water, fltrd, 0.7u GF, ug/L (49315)	Aldicarb sulfone, water, fltrd, 0.7u GF, ug/L (49313)	Aldicarb sulfide, water, fltrd, 0.7u GF, ug/L (49314)	Aldicarb, water, fltrd, 0.7u GF, ug/L (49312)	Atrazine, water, fltrd, ug/L (39632)	Bendiocarb, water, fltrd, ug/L (50299)	Benomyl, water, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Benazoxon, water, fltrd, 0.7u GF, ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd, 0.7u GF, ug/L (49311)
MAR 17...	<.007	<.02	<.008	<.04	<.009	<.03	<.004	<.02	<.01	<.03	<.02
Date	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF, ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF, ug/L (49309)	Chloramben methyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chloro-diazinon, water, fltrd, 0.7u GF, ug/L (04039)	Chlorothalonil, water, fltrd, 0.7u GF, ug/L (49306)	Clopyralid, water, fltrd, 0.7u GF, ug/L (49305)	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd, 0.7u GF, ug/L (49304)	Dicamba, water, fltrd, 0.7u GF, ug/L (38442)
MAR 17...	e.0148	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01	<.01
Date	Dichloroprop, water, fltrd, 0.7u GF, ug/L (49302)	Dinoseb, water, fltrd, 0.7u GF, ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Diuron, water, fltrd, 0.7u GF, ug/L (49300)	Fenuron, water, fltrd, ug/L (49297)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron, water, fltrd, 0.7u GF, ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	Linuron, water, fltrd, 0.7u GF, ug/L (38478)
MAR 17...	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02	<.007	<.01

e Estimated.

&lt; Actual value is known to be less than the value shown.

## 10251300 AMARGOSA RIVER AT TECOPA, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta- laxyl, water, fltrd, ug/L (50359)	Methio- carb, water, fltrd 0.7u GF ug/L (38501)	Meth- omyl, water, fltrd 0.7u GF ug/L (49296)	Metsul- furon, water, fltrd, ug/L (61697)	N- (4- Chloro- phenyl) -N' - methyl- urea, ug/L (61692)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico- sul- furon, water, fltrd, ug/L (50364)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)
MAR 17...	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01	<.01	<.02	<.02
Date	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Pic- loram, water, fltrd 0.7u GF ug/L (49291)	Propham water fltrd 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd, ug/L (50471)	Pro- poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- benuron water, fltrd, ug/L (61159)	Tri- clopypyr, water, fltrd 0.7u GF ug/L (49235)
MAR 17...	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--	<.02
Date	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di- chloro- ethane, water unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,2-Di- chloro- benzene water unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo- di- chloro- methane water unfltrd ug/L (32101)
MAR 17...	<.2	<.2	<.2	<.2	<.2	<.4	<.2	<.2	<.2	<.2	<.2
Date	Chloro- benzene water unfltrd ug/L (34301)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	Di- bromo- chloro- methane water unfltrd ug/L (32105)	Di- chloro- di- fluoro- methane water unfltrd ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Di- ethyl ether, water, unfltrd ug/L (81576)	Diiso- propyl ether, water, unfltrd ug/L (81577)	Ethyl- benzene water unfltrd ug/L (34371)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- + para- Xylene, water, unfltrd ug/L (85795)	o- Xylene, water, unfltrd ug/L (77135)
MAR 17...	<.2	<.2	<.4	<.4	<.4	<.4	<.4	<.2	<.4	<.4	<.2
Date	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	Tri- bromo- methane water unfltrd ug/L (32104)	Tri- chloro- ethene, water, unfltrd ug/L (39180)	Tri- chloro- fluoro- methane water unfltrd ug/L (34488)	Tri- chloro- methane water unfltrd ug/L (32106)
MAR 17...	<.2	<.2	<.4	<.2	<.4	<.2	<.2	<.4	<.2	<.4	<.2

&lt; Actual value is known to be less than the value shown.

## UPPER AMARGOSA

## 10251300 AMARGOSA RIVER AT TECOPA, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Vinyl chloride, water, unfltrd ug/L (39175)	Deuterium/Protium ratio, water, unfltrd per mil (82082)	Gross alpha radioac water, unfltrd Th-230, pCi/L (63018)	Gross beta radioac water, unfltrd Cs-137, pCi/L (03519)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Ra-226, water, unfltrd pCi/L (09501)	Tritium 2-sigma water, unfltrd pCi/L (75985)	Tritium water, unfltrd pCi/L (07000)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
MAR 17...	<.4	-81.80	14	57	-9.31	.16	.58	3.0	118	e.10

## CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Sampling depth, feet (00003)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking downstrm ft from l bank (00009)
MAR									
17...*	1055	.30	.20	13.0	149	8.9	7820	18.5	.80
17...*	1056	.60	.20	12.9	148	8.9	7890	18.5	1.80
17...*	1057	.50	.20	12.9	148	8.9	8130	18.5	2.80
17...*	1058	.40	.20	12.9	148	8.9	8500	18.5	3.80
17...*	1059	.30	.20	12.9	150	8.9	8720	19.0	4.80

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

e Estimated.

\* Estimated discharge at the time of cross-sectional measurements: Mar. 17, 0.30 ft<sup>3</sup>/s.

## 10252550 CARUTHERS CREEK NEAR IVANPAH, CA

LOCATION.—Lat 35°14'42", long 115°17'53", 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.—0.84 mi<sup>2</sup>.

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

REVISED RECORDS.—WDR CA-82-1: 1979(M); WDR CA-96-1: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 5,640 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 814 ft<sup>3</sup>/s, Aug. 12, 1979, gage height, 5.75 ft, from rating curve extended above 2.5 ft<sup>3</sup>/s, on basis of slope-conveyance studies, maximum gage height, 9.75 ft, July 15, 1996; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 10 ft<sup>3</sup>/s, from rating curve extended above 2.5 ft<sup>3</sup>/s, on basis of slope-conveyance studies, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0830	7.6	1.08

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.58	0.01	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.67	2.2	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	1.8	2.8	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	1.2	1.3	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.77	0.57	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	1.0	0.33	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	1.8	0.18	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	1.5	0.06	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.92	0.02	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.28
11	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.20
12	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.06
13	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	e0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	e0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.09	0.00	1.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.08	0.00	3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.04	0.00	1.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.04	0.00	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.03	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.03	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.02	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.33	0.00	10.03	11.82	7.47	0.00	0.00	0.00	0.00	0.54
MEAN	0.00	0.00	0.01	0.00	0.35	0.38	0.25	0.00	0.00	0.00	0.00	0.02
MAX	0.00	0.00	0.09	0.00	3.5	1.8	2.8	0.00	0.00	0.00	0.00	0.28
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.7	0.00	20	23	15	0.00	0.00	0.00	0.00	1.1

e Estimated.

## BRISTOL LAKE BASIN

## 10252550 CARUTHERS CREEK NEAR IVANPAH, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.07	0.03	0.10	0.17	0.19	0.31	0.08	0.00	0.00	0.13	0.22	0.03
MAX	2.81	0.67	1.27	2.22	1.44	2.23	0.95	0.01	0.05	2.45	2.70	0.34
(WY)	1977	1966	1966	1993	1980	1992	1965	1983	1972	1984	1979	1976
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1965	1964	1964	1964	1964	1967	1964	1965	1964	1964	1964	1964

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1964 - 2004
ANNUAL TOTAL	4.59	30.19	
ANNUAL MEAN	0.01	0.08	0.11
HIGHEST ANNUAL MEAN			0.36 1993
LOWEST ANNUAL MEAN			0.00 2002
HIGHEST DAILY MEAN	0.61 Mar 16	3.5 Feb 26	80 Aug 12 1979
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1963
MAXIMUM PEAK FLOW		7.6 Feb 26	814 Aug 12 1979
MAXIMUM PEAK STAGE		1.08 Feb 26	9.75 Jul 15 1996
ANNUAL RUNOFF (AC-FT)	9.1	60	79
10 PERCENT EXCEEDS	0.04	0.03	0.06
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

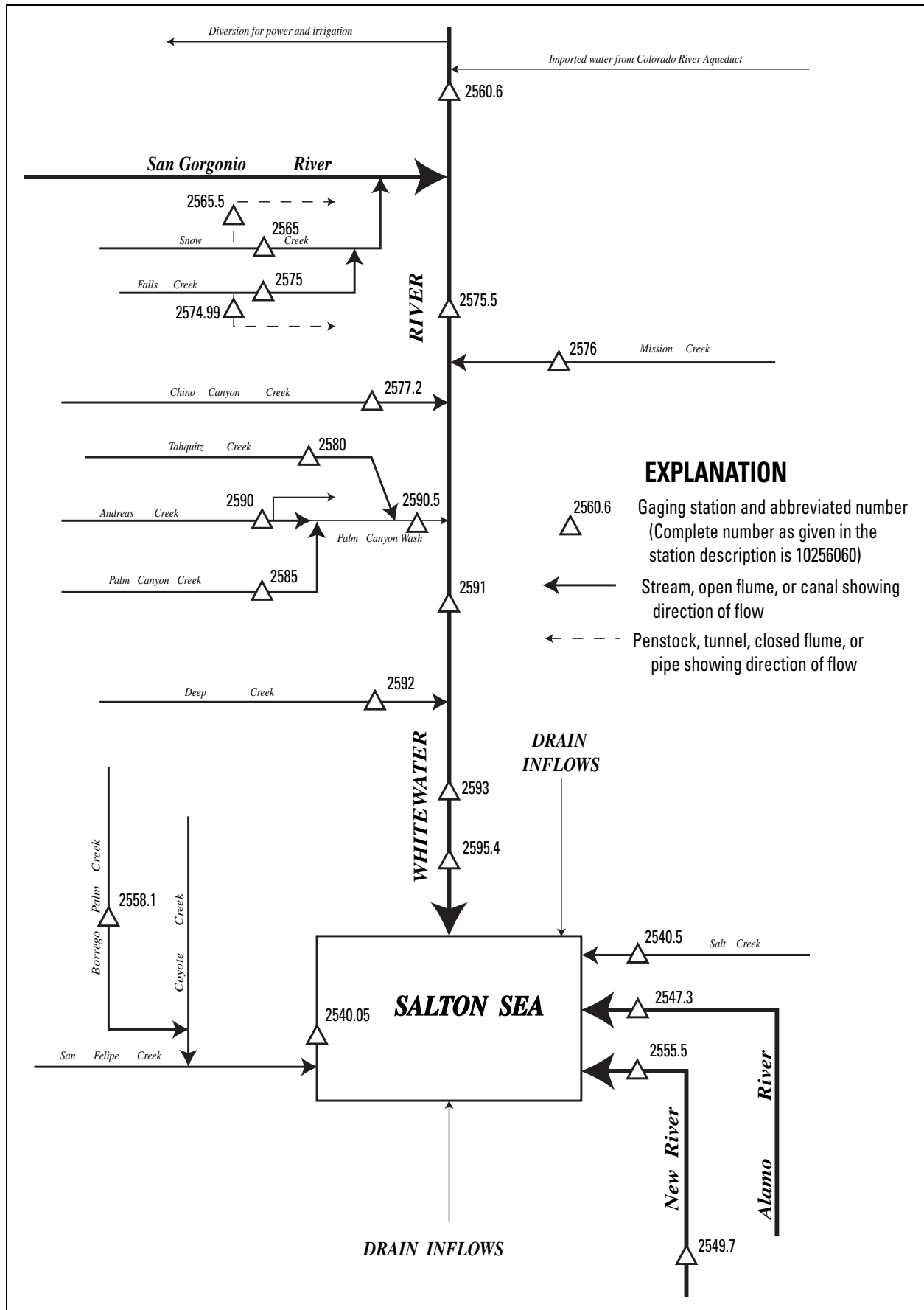


Figure 13. Diversions and storage in Salton Sea Basin.

## 10254005 SALTON SEA NEAR WESTMORLAND, CA

LOCATION.—Lat 33°11'33", long 115°49'59", in SE 1/4 SW 1/4 sec.21, T.11 S., R.11 E., Imperial County, Hydrologic Unit 18100200, on western shore, at Sandy Beach, and 15.5 mi northwest of Westmorland.

DRAINAGE AREA.—8,360 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.—November 1904 to current year. Records prior to 1932 are published in WSP 735. Monthend elevations only prior to October 1987.

REVISED RECORDS.—WDR CA-87-1: 1980–85.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929. See WSP 1734 for history of changes prior to Mar. 2, 1956.

REMARKS.—Bottom of sea is 277.7 ft below NGVD of 1929. See WSP 300, 735, and 918 for condensed history of Salton Sea. See schematic diagram of Salton Sea Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum elevation, 195.9 ft below NGVD of 1929 in February and March 1907; minimum since 1906, 251.6 ft below NGVD of 1929 in November 1924.

EXTREMES FOR CURRENT YEAR.—Maximum daily elevation, 228.0 ft below NGVD of 1929, May 5; minimum, 229.3 ft below NGVD of 1929, several days in September.

## ELEVATION BELOW NGVD 1929, FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-228.70	-228.90	-229.00	-228.90	-228.70	-228.50	-228.20	-228.10	-228.30	-228.40	-228.60	-229.00
2	-228.80	-228.90	-229.00	-228.90	-228.70	-228.40	-228.20	-228.10	-228.30	-228.40	-228.60	-229.00
3	-228.80	-228.90	-229.00	-228.90	-228.70	-228.40	-228.10	-228.10	-228.30	-228.40	-228.70	-229.00
4	-228.80	-229.00	-229.00	-228.90	-228.70	-228.40	-228.10	-228.10	-228.30	-228.40	-228.70	-229.00
5	-228.80	-229.00	-229.00	-228.90	-228.70	-228.40	-228.10	-228.00	-228.20	-228.50	-228.70	-229.10
6	-228.80	-229.00	-229.00	-228.90	-228.70	-228.40	-228.10	-228.10	-228.20	-228.50	-228.70	-229.10
7	-228.80	-229.00	-229.00	-228.90	-228.70	-228.40	-228.10	-228.10	-228.20	-228.50	-228.70	-229.10
8	-228.80	-229.00	-229.00	-228.90	-228.70	-228.40	-228.10	-228.10	-228.20	-228.50	-228.70	-229.10
9	-228.80	-229.00	-229.00	-228.90	-228.70	-228.30	-228.10	-228.10	-228.30	-228.50	-228.70	-229.10
10	-228.80	-229.00	-229.00	-228.90	-228.70	-228.30	-228.10	-228.10	-228.30	-228.50	-228.80	-229.10
11	-228.80	-229.00	-229.00	-228.90	-228.70	-228.30	-228.10	-228.10	-228.30	-228.50	-228.80	-229.10
12	-228.80	-229.00	-229.00	-228.90	-228.70	-228.30	-228.10	-228.10	-228.30	-228.50	-228.80	-229.10
13	-228.80	-229.00	-229.00	-228.90	-228.60	-228.30	-228.10	-228.10	-228.30	-228.50	-228.80	-229.10
14	-228.80	-229.00	-229.00	-228.90	-228.60	-228.30	-228.10	-228.10	-228.30	-228.50	-228.80	-229.10
15	-228.80	-229.00	-229.00	-228.90	-228.60	-228.30	-228.10	-228.10	-228.30	-228.50	-228.80	-229.10
16	-228.80	-229.00	-229.00	-228.80	-228.60	-228.30	-228.10	-228.10	-228.30	-228.50	-228.80	-229.10
17	-228.80	-229.00	-229.00	-228.80	-228.60	-228.30	-228.10	-228.10	-228.30	-228.50	-228.80	-229.10
18	-228.80	-229.00	-229.00	-228.80	-228.60	-228.20	-228.10	-228.10	-228.30	-228.50	-228.80	-229.20
19	-228.80	-229.00	-229.00	-228.80	-228.60	-228.20	-228.10	-228.10	-228.30	-228.50	-228.80	-229.20
20	-228.80	-229.00	-229.00	-228.80	-228.60	-228.20	-228.10	-228.10	-228.30	-228.50	-228.80	-229.20
21	-228.80	-229.00	-229.00	-228.80	-228.60	-228.20	-228.10	-228.10	-228.30	-228.60	-228.80	-229.20
22	-228.80	-229.00	-229.00	-228.80	-228.60	-228.20	-228.10	-228.10	-228.30	-228.60	-228.80	-229.20
23	-228.80	-228.90	-229.00	-228.80	-228.60	-228.20	-228.10	-228.10	-228.40	-228.60	-228.80	-229.30
24	-228.80	-228.90	-229.00	-228.80	-228.60	-228.20	-228.10	-228.20	-228.40	-228.60	-228.90	-229.30
25	-228.80	-228.90	-229.00	-228.80	-228.50	-228.20	-228.10	-228.20	-228.40	-228.60	-228.90	e-229.30
26	-228.80	-229.00	-228.90	-228.70	-228.50	-228.20	-228.10	-228.20	-228.40	-228.60	-228.90	e-229.30
27	-228.80	-229.00	-228.90	-228.70	-228.50	-228.20	-228.10	-228.20	-228.40	-228.60	-229.00	e-229.30
28	-228.80	-229.00	-228.90	-228.70	-228.50	-228.20	-228.10	-228.20	-228.40	-228.60	-229.00	e-229.30
29	-228.80	-229.00	-228.90	-228.70	-228.50	-228.20	-228.10	-228.20	-228.40	-228.60	-229.00	e-229.30
30	-228.80	-229.00	-228.90	-228.70	---	-228.20	-228.10	-228.20	-228.40	-228.60	-229.00	e-229.30
31	-228.90	---	-228.90	-228.70	---	-228.20	---	-228.30	---	-228.60	-229.00	---
MAX	-228.70	-228.90	-228.90	-228.70	-228.50	-228.20	-228.10	-228.00	-228.20	-228.40	-228.60	-229.00
MIN	-228.90	-229.00	-229.00	-228.90	-228.70	-228.50	-228.20	-228.30	-228.40	-228.60	-229.00	-229.30
CAL YR 2003	MAX	-228.0	MIN	-229.0								
WTR YR 2004	MAX	-228.0	MIN	-229.3								

e Estimated.



FLOW FROM MEXICO AT INTERNATIONAL BOUNDARY

The following table lists the monthly and annual flows, in acre-feet, of the Alamo River and the New River (station 10254970) at the United States–Mexico International Boundary. Data for the Alamo River provided by the Imperial Irrigation District and is not reviewed by the U.S. Geological Survey.

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Alamo River . . . . .	0	0	0	0	0	0	0	0	0	0	0	0
New River . . . . .	7,720	7,720	9,180	10,220	11,690	12,170	12,270	9,840	7,660	7,410	7,290	7,510
CAL YR 2003:	Alamo River		176 acre-ft			WTR YR 2004:		0 acre-ft				
CAL YR 2003:	New River		109,600 acre-ft			WTR YR 2004:		110,700 acre-ft				

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1961 to current year (since October 1990, low-flow records only).

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

REMARKS.—Records fair above 1 ft<sup>3</sup>/s and poor below. No regulation or diversion upstream from station. No discharge records computed above 20 ft<sup>3</sup>/s since October 1990. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (January 1961 to September 1990), 9,900 ft<sup>3</sup>/s, Sept. 24, 1976, gage height, 16.8 ft, present datum, from floodmarks, from rating curve extended above 20 ft<sup>3</sup>/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); no flow for many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	1.7	2.2	2.5	2.5	1.1	0.06	0.00	0.00	0.00	0.00
2	0.00	0.00	1.7	2.2	2.3	2.5	1.3	0.03	0.00	0.00	0.00	0.00
3	0.00	0.00	1.7	2.4	2.3	2.7	4.2	0.02	0.00	0.00	0.00	0.00
4	0.00	0.00	1.8	2.5	2.5	2.8	4.5	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	1.8	2.1	2.4	2.7	3.9	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	1.9	2.0	2.2	2.5	2.8	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	1.9	2.2	2.0	2.4	2.4	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	1.9	2.4	2.0	2.3	2.0	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	1.9	2.3	2.1	2.3	1.8	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	1.7	2.4	2.0	2.4	1.7	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	1.8	2.4	2.0	2.3	1.5	0.00	0.00	0.00	0.00	0.00
12	0.00	---	2.0	2.4	1.9	2.1	1.3	0.00	0.00	0.00	0.00	0.00
13	0.00	3.6	1.9	2.3	1.8	1.9	1.0	0.00	0.00	0.00	0.00	0.00
14	0.00	3.9	1.9	2.4	1.8	2.0	0.86	0.00	0.00	0.00	0.00	0.00
15	0.00	2.1	2.0	2.5	2.0	2.0	0.83	0.00	0.00	0.00	0.00	0.00
16	0.00	1.6	2.0	2.4	2.2	1.9	0.78	0.00	0.00	0.00	0.00	0.00
17	0.00	1.4	1.8	2.4	2.3	1.9	0.76	0.00	0.00	0.00	0.00	0.00
18	0.00	1.3	1.9	2.3	2.3	1.8	0.80	0.00	0.00	0.00	0.00	0.00
19	0.00	1.3	2.0	2.2	2.4	1.7	0.85	0.00	0.00	0.00	0.00	0.00
20	0.00	1.4	2.1	2.4	2.5	1.7	0.90	0.00	0.00	0.00	0.00	0.00
21	0.00	1.4	2.2	2.5	2.6	1.7	0.91	0.00	0.00	0.00	0.00	0.00
22	0.00	1.4	2.2	2.8	---	1.7	0.89	0.00	0.00	0.00	0.00	0.00
23	0.00	1.3	2.2	2.7	---	1.7	0.76	0.00	0.00	0.00	0.00	0.00
24	0.00	1.1	2.3	2.5	---	1.6	0.62	0.00	0.00	0.00	0.00	0.00
25	0.00	1.1	2.4	2.5	4.8	1.6	0.54	0.00	0.00	0.00	0.00	0.00
26	0.00	1.5	2.3	2.5	3.5	1.6	0.52	0.00	0.00	0.00	0.00	0.00
27	0.00	1.5	2.2	2.4	3.2	1.6	0.45	0.00	0.00	0.00	0.00	0.00
28	0.00	1.4	1.9	2.3	2.9	1.5	0.40	0.00	0.00	0.00	0.00	0.00
29	0.00	1.5	1.9	2.5	2.6	1.3	0.21	0.00	0.00	0.00	0.00	0.00
30	0.00	1.6	2.1	2.4	---	1.2	0.10	0.00	0.00	0.00	0.00	0.00
31	0.00	---	2.3	2.5	---	1.1	---	0.00	---	0.00	0.00	---
TOTAL	0.00	---	61.4	74.0	---	61.0	40.68	0.11	0.00	0.00	0.00	0.00
MEAN	0.00	---	1.98	2.39	---	1.97	1.36	0.00	0.00	0.00	0.00	0.00
MAX	0.00	---	2.4	2.8	---	2.8	4.5	0.06	0.00	0.00	0.00	0.00
MIN	0.00	---	1.7	2.0	---	1.1	0.10	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	---	122	147	---	121	81	0.2	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1990, BY WATER YEAR (WY)

MEAN	5.61	7.45	8.05	9.86	11.6	13.5	5.56	3.86	2.85	3.40	5.05	7.02
MAX (WY)	12.6	22.1	14.8	18.8	45.5	137	11.9	12.7	7.50	21.0	55.6	76.5
MIN (WY)	1.55	1.05	1.59	4.13	4.26	3.79	2.37	1.49	.86	.41	.70	.59
	1964	1981	1966	1977	1980	1983	1980	1980	1975	1986	1983	1976
	1990	1979	1979	1990	1990	1990	1986	1986	1989	1989	1989	1978

SUMMARY STATISTICS

WATER YEARS 1962 - 1990

ANNUAL MEAN	6.97
HIGHEST ANNUAL MEAN	23.7
LOWEST ANNUAL MEAN	2.57
HIGHEST DAILY MEAN	2830
LOWEST DAILY MEAN	0.06
ANNUAL SEVEN-DAY MINIMUM	0.07
MAXIMUM PEAK FLOW	9900
MAXIMUM PEAK STAGE	19.40
ANNUAL RUNOFF (AC-FT)	5050
10 PERCENT EXCEEDS	10
50 PERCENT EXCEEDS	4.6
90 PERCENT EXCEEDS	1.3

## 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.—Acoustic-velocity meter and water-stage recorder. Elevation of gage is 220 ft below NGVD of 1929, from topographic map. Prior to Oct. 1, 1986, at site 0.4 mi downstream at different datum.

REMARKS.—Records good except for Feb. 23, 24, Mar. 30, 31, Apr. 3, 4, and Aug. 13–19, which are fair. Discharge mainly represents seepage and return flow from irrigated areas. See schematic diagram of Salton Sea Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 4,500 ft<sup>3</sup>/s, Aug. 17, 1977, estimated, by Imperial Irrigation District; minimum daily, 288 ft<sup>3</sup>/s, Jan. 2, 1966, Dec. 15, 1984.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	992	851	621	568	620	392	1180	1030	814	914	782	852
2	956	824	593	526	595	448	1250	992	798	903	782	899
3	948	742	655	563	624	483	1760	1020	839	950	762	867
4	981	688	665	614	629	496	1440	1030	869	905	778	844
5	970	773	703	581	646	460	951	1060	896	895	760	876
6	941	863	693	529	695	484	722	1010	934	856	788	811
7	941	865	713	518	693	536	683	1010	937	898	755	821
8	950	851	695	522	671	604	735	1090	913	905	813	837
9	999	823	653	508	677	674	803	1070	943	905	774	859
10	1030	783	653	562	752	767	900	1050	950	860	827	838
11	1060	759	659	651	759	871	913	1040	928	862	868	818
12	1030	764	661	632	776	929	821	993	957	859	859	849
13	931	833	669	642	775	951	894	1040	926	864	833	773
14	903	763	631	652	743	997	1060	1070	910	858	921	733
15	965	724	604	629	729	969	1120	1070	893	837	913	787
16	979	691	617	686	692	987	1110	1070	868	889	904	761
17	947	698	675	708	721	993	1130	970	922	861	833	804
18	934	670	731	707	755	971	1140	906	894	827	773	852
19	953	722	677	624	774	959	1150	888	883	807	759	971
20	843	799	641	640	794	952	1050	921	905	796	757	816
21	837	816	674	657	780	1010	1040	894	862	853	804	805
22	853	794	698	701	801	1040	1070	914	835	834	788	808
23	955	765	694	682	1960	986	1090	954	853	839	750	846
24	1000	749	710	630	1340	1020	1030	894	846	844	753	795
25	960	733	544	616	669	1050	1020	826	809	875	744	784
26	942	733	450	576	514	1020	1030	872	854	828	789	796
27	873	730	486	569	437	1040	1070	914	910	765	818	793
28	869	673	537	635	400	1100	1100	936	938	777	837	809
29	865	608	550	653	390	1130	1090	970	904	849	837	862
30	903	651	624	632	---	1130	1070	941	884	814	838	922
31	896	---	600	641	---	1130	---	909	---	792	859	---
TOTAL	29206	22738	19776	19054	21411	26579	31422	30354	26674	26521	25058	24888
MEAN	942	758	638	615	738	857	1047	979	889	856	808	830
MAX	1060	865	731	708	1960	1130	1760	1090	957	950	921	971
MIN	837	608	450	508	390	392	683	826	798	765	744	733
AC-FT	57930	45100	39230	37790	42470	52720	62330	60210	52910	52600	49700	49370

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY)

MEAN	943	764	645	640	752	965	1090	973	839	842	848	899
MAX	1159	851	792	834	970	1144	1272	1182	992	1027	1278	1271
(WY)	1964	1991	1973	1972	1964	1963	1980	1975	2001	1963	1977	1962
MIN	742	616	416	396	495	734	797	684	646	636	656	667
(WY)	1986	1966	1986	1978	1993	1987	1965	1964	1964	1985	1986	1992

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1961 - 2004

ANNUAL TOTAL	304643		303681									
ANNUAL MEAN	835		830							850		
HIGHEST ANNUAL MEAN										991		1963
LOWEST ANNUAL MEAN										680		1986
HIGHEST DAILY MEAN		1170		Apr 18		1960		Feb 23		4500		Aug 17 1977
LOWEST DAILY MEAN		396		Feb 17		390		Feb 29		288		Jan 2 1966
ANNUAL SEVEN-DAY MINIMUM		429		Feb 16		435		Feb 27		323		Dec 27 1965
ANNUAL RUNOFF (AC-FT)	604300					602400				615900		
10 PERCENT EXCEEDS		1040				1040				1100		
50 PERCENT EXCEEDS		863				837				847		
90 PERCENT EXCEEDS		609				619				613		

## 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, and 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.

CHEMICAL DATA: Water years 1969–71, 1973–85.

BIOLOGICAL DATA: Water years 1973–81.

SPECIFIC CONDUCTANCE: Water years 1973–81.

WATER TEMPERATURE: Water years 1974–81.

SEDIMENT DATA: Water years 1975–85.

GAGE.—Water-stage recorder. Elevation of gage is 30 ft below NGVD of 1929, from topographic map.

REMARKS.—Records fair except for discharges below 150 ft<sup>3</sup>/s, which are poor. Discharge represents seepage and return flow from irrigated areas. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 833 ft<sup>3</sup>/s, Dec. 9, 1982, Sept. 25, 1997, gage height, 14.73 ft; minimum daily, 50 ft<sup>3</sup>/s, estimated, Oct. 29, 2001.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	113	141	147	190	242	168	194	142	124	115	117
2	126	113	150	149	185	241	210	189	138	105	121	117
3	124	115	156	154	194	251	189	190	135	94	119	118
4	119	121	150	155	190	261	200	196	134	96	117	116
5	118	122	148	162	187	256	215	193	130	98	116	118
6	120	122	147	169	185	243	229	185	128	103	114	118
7	126	121	145	169	184	229	223	180	124	109	112	119
8	124	122	145	161	183	220	218	177	121	121	114	121
9	123	121	148	156	184	234	222	172	117	128	116	126
10	119	120	142	154	184	238	225	168	115	130	119	128
11	117	123	145	151	187	235	224	161	120	129	118	130
12	115	144	148	149	181	230	231	156	121	127	117	131
13	113	141	150	149	170	217	233	156	124	126	117	127
14	113	134	155	156	158	190	230	157	124	128	116	131
15	115	133	161	147	147	168	223	158	127	128	111	130
16	121	135	157	148	144	165	211	160	128	128	108	128
17	120	132	154	146	149	163	202	149	129	130	110	127
18	119	132	154	146	157	172	187	145	139	126	118	124
19	116	133	150	142	161	177	175	146	138	124	118	124
20	114	136	147	143	165	174	173	146	133	122	131	140
21	114	136	144	156	170	171	188	146	124	124	132	142
22	113	132	145	169	308	178	195	142	123	127	128	133
23	114	131	143	174	276	167	199	144	127	129	125	138
24	116	134	144	169	250	164	200	146	132	126	121	132
25	116	137	146	177	300	164	203	146	133	126	119	129
26	115	137	152	193	303	167	204	141	133	126	121	129
27	115	136	151	206	281	167	204	142	132	126	125	125
28	112	139	154	210	266	164	207	142	128	122	123	123
29	117	141	153	216	253	160	201	145	134	119	120	123
30	114	138	152	220	---	162	197	146	131	119	117	121
31	115	---	151	208	---	165	---	143	---	118	116	---
TOTAL	3638	3894	4628	5151	5892	6135	6186	4961	3864	3738	3674	3785
MEAN	117	130	149	166	203	198	206	160	129	121	119	126
MAX	126	144	161	220	308	261	233	196	142	130	132	142
MIN	112	113	141	142	144	160	168	141	115	94	108	116
AC-FT	7220	7720	9180	10220	11690	12170	12270	9840	7660	7410	7290	7510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2004, BY WATER YEAR (WY)

	210	205	243	247	257	272	275	250	210	216	243	225
MEAN	210	205	243	247	257	272	275	250	210	216	243	225
MAX	370	334	374	366	375	395	452	389	321	394	441	399
(WY)	1984	1985	1987	1987	1987	1986	1986	1984	1984	1984	1984	1983
MIN	117	108	112	152	179	190	188	160	126	121	119	117
(WY)	2004	1997	1997	2003	1991	1995	1996	2004	2003	2004	2004	2003

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1980 - 2004
ANNUAL TOTAL	55112	55546	
ANNUAL MEAN	151	152	238
HIGHEST ANNUAL MEAN			362 1986
LOWEST ANNUAL MEAN			152 2004
HIGHEST DAILY MEAN	292	Feb 25 308	Feb 22 735 Dec 9 1982
LOWEST DAILY MEAN	107	Sep 26 94	Jul 3 e50 Oct 29 2001
ANNUAL SEVEN-DAY MINIMUM	108	Sep 24 104	Jul 2 99 Nov 23 1996
MAXIMUM PEAK FLOW		674	Feb 22 833 Dec 9 1982
MAXIMUM PEAK STAGE		14.05	Feb 22 14.73 Dec 9 1982
ANNUAL RUNOFF (AC-FT)	109300	110200	172200
10 PERCENT EXCEEDS	210	210	353
50 PERCENT EXCEEDS	139	142	220
90 PERCENT EXCEEDS	115	116	146

e Estimated.

## 10255550 NEW RIVER NEAR WESTMORLAND, CA

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.

PERIOD OF RECORD.—January 1943 to current year. (Monthly discharge only, January 1943 to September 1960 published in WSP 1734; daily discharge available in files of the U.S. Geological Survey.)

GAGE.—Water-stage recorder. Elevation of gage is 220 ft below NGVD of 1929, from topographic map.

REMARKS.—Records good through July and fair thereafter. Discharge mainly represents seepage and return flow from irrigated areas. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 3,000 ft<sup>3</sup>/s, Aug. 17, 18, 1977, estimated, by Imperial Irrigation District; minimum daily, 150 ft<sup>3</sup>/s, Mar. 7, 1945.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	506	541	461	434	552	519	725	761	705	575	543	556
2	505	534	456	408	525	552	756	740	635	549	542	507
3	524	520	462	423	528	631	1030	740	609	565	668	504
4	553	503	481	448	512	854	933	769	613	528	571	478
5	586	478	470	458	527	670	819	710	656	525	518	499
6	630	480	452	498	508	583	733	690	668	651	527	521
7	597	499	452	500	526	611	659	670	681	611	531	641
8	586	503	457	467	528	604	653	659	784	527	515	531
9	555	480	459	479	512	625	687	695	638	508	530	492
10	579	477	467	466	527	630	750	741	591	551	640	526
11	592	496	482	467	545	686	762	855	553	546	517	683
12	556	497	491	451	566	683	704	727	594	605	502	582
13	531	526	508	458	564	715	758	689	706	735	521	547
14	519	515	492	448	521	739	736	697	653	609	548	680
15	551	476	480	456	514	753	746	724	707	574	578	515
16	552	470	469	464	484	741	803	744	589	598	621	500
17	570	437	495	436	500	690	775	723	592	576	698	502
18	594	435	488	423	514	678	783	774	591	557	646	516
19	580	448	509	430	505	706	812	677	578	602	714	521
20	555	447	478	445	520	695	793	656	589	686	685	520
21	551	435	475	453	550	679	780	628	564	566	544	651
22	544	441	473	474	586	664	725	620	648	535	557	593
23	538	432	481	477	960	714	721	718	551	549	522	569
24	544	437	448	485	730	703	710	681	531	557	614	522
25	579	448	413	463	708	676	711	611	556	577	490	553
26	565	457	397	443	619	645	732	620	537	606	490	562
27	549	432	434	461	614	670	733	604	557	681	520	588
28	536	409	455	478	564	696	709	588	563	591	522	684
29	551	425	436	488	533	706	710	588	667	544	519	546
30	549	445	482	510	---	721	736	583	584	525	556	501
31	536	---	478	558	---	745	---	628	---	586	671	---
TOTAL	17263	14123	14481	14349	16342	20984	22684	21310	18490	17995	17620	16590
MEAN	557	471	467	463	564	677	756	687	616	580	568	553
MAX	630	541	509	558	960	854	1030	855	784	735	714	684
MIN	505	409	397	408	484	519	653	583	531	508	490	478
AC-FT	34240	28010	28720	28460	32410	41620	44990	42270	36670	35690	34950	32910

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

	638	561	544	560	597	680	731	666	594	597	612	615
MEAN	638	561	544	560	597	680	731	666	594	597	612	615
MAX	837	760	707	795	789	829	953	853	763	808	913	807
(WY)	1953	1954	1963	1944	1944	1998	1993	1953	1953	1979	1977	1963
MIN	471	408	386	387	458	516	541	485	436	442	460	486
(WY)	1978	1965	1968	1978	1965	1965	1965	1964	1964	1964	1964	1970

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	206038		212231			
ANNUAL MEAN	564		580		616	
HIGHEST ANNUAL MEAN					741 1953	
LOWEST ANNUAL MEAN					484 1965	
HIGHEST DAILY MEAN	786	Apr 17	1030	Apr 3	e3000	Aug 17 1977
LOWEST DAILY MEAN	397	Dec 26	397	Dec 26	150	Mar 7 1945
ANNUAL SEVEN-DAY MINIMUM	434	Nov 23	434	Nov 23	284	Mar 4 1945
ANNUAL RUNOFF (AC-FT)	408700		421000		446200	
10 PERCENT EXCEEDS	703		728		760	
50 PERCENT EXCEEDS	546		555		605	
90 PERCENT EXCEEDS	469		457		483	

e Estimated.

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1950 to September 1993, October 1994 to current year. Prior to October 1960, published as "Palm Canyon Creek." Monthly discharge only for October to November 1950, published in WSP 1734.

REVISED RECORDS.—WSP 2128: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 1,200 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. No regulation or diversion upstream from station. Indefinite stage-discharge relationship October to May 2004, discharge measurements only. Gage destroyed by peak of Sept. 10, 2004. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,990 ft<sup>3</sup>/s, Aug. 20, 2003, gage height, 10.17 ft, from floodmarks, on basis of slope-area measurement of peak flow, maximum gage height, 18.03 ft, from high-water mark, Sept. 10, 2004; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 15 ft<sup>3</sup>/s, or maximum, from rating curve extended above 72 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 7.50, 9.80, and 10.17 ft:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Sep. 10	unknown	unknown	18.03

## DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 2003 TO MAY 2004

Date	Time	Discharge (ft <sup>3</sup> /s)
Oct. 6	0945	0.34
Oct. 14	1045	0.25
Oct. 23	1120	0.25
Nov. 3	1100	0.31
Nov. 14	1550	0.25
Dec. 1	0945	0.56
Dec. 18	1300	0.70
Jan. 5	1020	0.58
Jan. 16	1315	0.78
Feb. 4	1115	0.64
Feb. 12	1320	0.47
Mar. 1	1230	0.84
Mar. 16	1230	0.82
Apr. 2	0855	0.76
Apr. 16	0950	0.35
May 5	0745	0.16

## 10255810 BORREGO PALM CREEK NEAR BORREGO SPRINGS, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	0.01	0.00	0.00	0.00
2	---	---	---	---	---	---	---	---	0.01	0.00	0.00	0.00
3	---	---	---	---	---	---	---	---	0.00	0.00	0.00	0.00
4	---	---	---	---	---	---	---	---	0.00	0.00	0.00	0.00
5	---	---	---	---	---	---	---	---	0.00	0.00	0.00	0.00
6	---	---	---	---	---	---	---	---	0.00	0.00	0.00	0.00
7	---	---	---	---	---	---	---	---	0.00	0.00	0.00	0.00
8	---	---	---	---	---	---	---	---	0.00	0.00	0.00	0.00
9	---	---	---	---	---	---	---	---	0.01	0.00	0.00	3.5
10	---	---	---	---	---	---	---	---	0.02	0.00	0.00	---
11	---	---	---	---	---	---	---	---	0.01	0.00	0.00	---
12	---	---	---	---	---	---	---	---	0.00	0.00	0.00	---
13	---	---	---	---	---	---	---	---	0.00	0.00	0.00	---
14	---	---	---	---	---	---	---	---	0.00	0.00	0.00	e1.0
15	---	---	---	---	---	---	---	---	0.00	0.00	0.00	---
16	---	---	---	---	---	---	---	---	0.00	0.00	0.00	---
17	---	---	---	---	---	---	---	e0.04	0.00	0.00	0.00	---
18	---	---	---	---	---	---	---	0.03	0.00	0.00	0.00	---
19	---	---	---	---	---	---	---	0.03	0.00	0.00	0.00	---
20	---	---	---	---	---	---	---	0.04	0.00	0.00	0.00	---
21	---	---	---	---	---	---	---	0.04	0.00	0.00	0.00	---
22	---	---	---	---	---	---	---	0.04	0.00	0.00	0.00	e0.50
23	---	---	---	---	---	---	---	0.03	0.00	0.00	0.00	---
24	---	---	---	---	---	---	---	0.02	0.00	0.00	0.00	---
25	---	---	---	---	---	---	---	0.03	0.00	0.00	0.00	---
26	---	---	---	---	---	---	---	0.03	0.00	0.00	0.00	---
27	---	---	---	---	---	---	---	0.03	0.00	0.00	0.00	---
28	---	---	---	---	---	---	---	0.02	0.00	0.00	0.00	---
29	---	---	---	---	---	---	---	0.02	0.00	0.00	0.00	---
30	---	---	---	---	---	---	---	0.02	0.00	0.00	0.00	---
31	---	---	---	---	---	---	---	0.01	---	0.00	0.00	---
TOTAL	---	---	---	---	---	---	---	---	0.06	0.00	0.00	---
MEAN	---	---	---	---	---	---	---	---	0.00	0.00	0.00	---
MAX	---	---	---	---	---	---	---	---	0.02	0.00	0.00	---
MIN	---	---	---	---	---	---	---	---	0.00	0.00	0.00	---
AC-FT	---	---	---	---	---	---	---	---	0.1	0.00	0.00	---

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2004, BY WATER YEAR (WY)

MEAN	0.16	0.32	0.78	1.64	2.77	2.94	1.60	0.67	0.22	0.18	0.50	0.15
MAX	2.83	2.97	5.29	27.4	32.5	29.3	11.2	7.55	3.96	4.46	10.6	3.27
(WY)	1984	1984	1984	1993	1980	1983	1980	1980	1980	1979	1979	1983
MIN	0.00	0.00	0.00	0.00	0.03	0.07	0.01	0.00	0.00	0.00	0.00	0.00
(WY)	1951	1951	1963	1972	1972	1972	1972	1961	1954	1952	1951	1951

## SUMMARY STATISTICS

## WATER YEARS 1951 - 2004

ANNUAL MEAN	0.99
HIGHEST ANNUAL MEAN	7.61 1980
LOWEST ANNUAL MEAN	0.01 1972
HIGHEST DAILY MEAN	277 Aug 16 1979
LOWEST DAILY MEAN	0.00 Oct 1 1950
ANNUAL SEVEN-DAY MINIMUM	0.00 Oct 1 1950
MAXIMUM PEAK FLOW	2990 Aug 20 2003
MAXIMUM PEAK STAGE	18.03 Sep 10 2004
ANNUAL RUNOFF (AC-FT)	714
10 PERCENT EXCEEDS	2.0
50 PERCENT EXCEEDS	0.10
90 PERCENT EXCEEDS	0.00

e Estimated.

## 10256000 WHITEWATER RIVER AT WHITE WATER, CA

LOCATION.—Lat 33°56'48", long 116°38'24", in NW 1/4 NE 1/4 sec.2, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, 1.5 mi north of White Water, and 3.5 mi upstream from San Geronio River.

DRAINAGE AREA.—57.5 mi<sup>2</sup>.

PERIOD OF RECORD.—Water years 1949–1981, 1997 to current year.

WATER-DISCHARGE RECORDS: October 1948 to September 1979, water years 1980–81 (partial records).

CHEMICAL DATA: Water years 1967–1981, 1997 to current year.

SEDIMENT DATA: Water year 1972.

REMARKS.—Chemical-quality records for water years 1975–1981 were furnished by California Department of Water Resources.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)	Noncarb hardness, wat flt lab, mg/L as CaCO3 (00905)	Calcium water, fltrd, mg/L (00915)
NOV 17...	0830	4.6	8.4	410	12.5	200	21	22	56.4
Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Bromide water, fltrd, mg/L (71870)
NOV 17...	14.0	4.88	.4	14.6	13	177	208	4	.02
Date	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)
NOV 17...	3.61	1.0	16.7	38.2	259	.35	259	.15	.05
Date	Nitrite + nitrate, water, fltrd, as N mg/L (00631)	Nitrite, water, fltrd, as N mg/L (00613)	Orthophosphate, water, fltrd, as P mg/L (00671)	Phosphorus, water, fltrd, mg/L (00666)	Organic carbon, water, unfltrd mg/L (00680)	Arsenic, water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)
NOV 17...	.80	.052	.04	.05	3.1	<2	14	<6	4.3

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



## 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 from San Gorgonio River.

DRAINAGE AREA.—59.1 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1985 to September 1987 and October 1988 to September 1990. Discharge measurements for the period October 1984 to September 1985 available in files of the U.S. Geological Survey. Discharge measurements only, October 1987 to September 1988, October 1990 to current year. Station discontinued as continuous-record site effective Sept. 30, 1993.

CHEMICAL DATA: Water years 1972–76, 1978–96.

GAGE.—None. Datum of station is 1,360 ft above NGVD of 1929, from topographic map.

REMARKS.—Indeterminate stage-discharge relationship. At times, 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. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD (1986–87 and 1989–90).—Maximum discharge, 2,020 ft<sup>3</sup>/s, Feb. 15, 1986, gage height, 11.97 ft, from rating curve extended above 900 ft<sup>3</sup>/s; no flow for many days in some years.

## DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Discharge (ft <sup>3</sup> /s)
Oct. 2	1525	2.2
Nov. 17	0740	4.6
Dec. 4	1350	2.2
Jan. 8	1510	3.0
Mar. 3	1435	3.9
Mar. 19	0845	4.1
Mar. 31	1430	2.3
May 6	0940	1.2
June 8	0950	1.3
July 23	0940	1.5
Aug. 5	0845	1.9
Sept. 2	1710	5.5

## 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, at upstream side of Desert Water Agency Diversion Dam, 0.1 mi downstream from East Fork, and 4.4 mi southwest of White Water.

DRAINAGE AREA.—10.9 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July to December 1921, May 1922 to February 1927, December 1927 to September 1931, October 1959 to current year. Yearly discharges for 1929–31, published in WSP 1314. Discharge records for Snow Creek Diversion (station 10256550) since October 1978, and those for creek only October 1978 through September 1988 available in files of the U.S. Geological Survey.

REVISED RECORDS.—WDR CA-89-1: Drainage area. WDR CA-90-1: 1980 Combined discharge. WDR CA-93-1: 1991. WDR CA-96-1: 1969(M), 1976(M).

GAGE.—Water-stage recorder, crest-stage gage, and broad-crested weir on creek, nonrecording flow meter on diversion. Elevation of gage is 2,000 ft above NGVD of 1929, from topographic map. Prior to October 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 from diversion at present datum. Gage moved to present site 10 ft downstream from diversion Oct. 25, 1978.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation upstream from station. Diversion (station 10256550) 10 ft upstream, generally taking most of the base flow. For combined record of creek and diversion, [see station 10256501](#). Published record prior to 1989 represents entire flow from basin (combined creek plus diversion prior to March 1927 and October 1978 to September 1988; creek only, upstream from diversion, December 1927 to September 1931, and October 1959 to September 1978). Both creek only and combined flow published beginning October 1989. Statistics for station 10256501 (combined flow) reflect equivalent total flow from basin. See schematic diagram of [Salton Sea Basin](#).

COOPERATION.—Records for diversion provided by Desert Water Agency.

EXTREMES FOR PERIOD OF RECORD (Combined creek and diversion).—Maximum discharge, 9,900 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 13.8 ft, from floodmarks, site and datum then in use, from rating curve extended above 55 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; minimum daily, 2.1 ft<sup>3</sup>/s, June 23–27, Sept. 5–11, 1961.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended above 29.9 ft<sup>3</sup>/s, on basis of broad-crested weir computations:

Date	Time	Creek only		Combined creek and diversion
		Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Discharge (ft <sup>3</sup> /s)
Dec. 25	1930	144	4.12	144

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.0	0.30	3.8	0.32	6.6	2.5	1.8	0.65	0.24	0.66	0.25
2	0.27	2.7	0.29	3.7	0.52	7.0	3.8	1.8	0.63	0.20	0.66	0.33
3	0.35	1.3	0.28	5.1	3.9	6.8	6.1	1.9	0.61	0.19	0.66	0.54
4	0.35	0.52	0.27	4.2	3.5	4.3	6.1	2.2	0.58	0.16	0.66	0.58
5	0.36	0.53	0.27	4.0	1.6	2.9	4.2	2.6	0.55	0.14	0.53	0.58
6	0.35	0.38	0.25	3.8	0.49	2.7	2.0	2.3	0.54	0.12	0.30	0.57
7	0.34	0.17	0.35	2.4	0.47	2.9	1.8	2.1	0.57	0.11	0.28	0.57
8	0.33	0.18	0.52	0.79	0.44	3.5	1.8	2.0	0.56	0.12	0.26	1.2
9	0.31	1.4	0.56	0.56	0.43	4.4	1.8	1.9	0.48	0.13	0.19	2.8
10	0.40	2.7	0.57	0.50	0.42	5.7	1.9	1.8	0.49	0.13	0.20	1.8
11	0.43	2.7	1.8	0.46	0.42	6.3	1.9	1.8	0.38	0.10	0.25	1.0
12	0.39	4.3	3.0	0.43	0.40	6.3	1.7	1.7	0.27	0.24	0.28	0.82
13	0.35	4.8	3.0	0.40	0.39	6.5	1.5	1.5	0.19	0.13	1.2	0.77
14	0.34	3.0	2.9	0.38	0.40	5.5	1.4	1.4	0.16	1.0	3.8	0.82
15	0.34	3.5	1.4	0.35	0.41	4.8	1.3	1.4	0.13	1.2	3.4	0.81
16	0.34	3.5	0.42	0.31	0.41	4.9	1.4	1.4	0.15	0.23	1.5	0.82
17	0.34	3.5	0.42	0.31	0.44	4.5	3.2	1.5	0.15	0.20	0.59	0.81
18	0.34	1.9	0.42	0.30	1.7	4.0	5.4	1.5	0.10	0.19	0.53	0.75
19	0.33	0.80	0.42	0.31	3.8	4.0	3.0	1.5	0.09	0.17	0.49	0.72
20	0.31	2.4	0.44	0.30	3.6	4.3	1.6	1.4	0.07	0.16	0.47	0.80
21	0.32	1.9	0.46	2.6	3.7	4.8	1.4	1.2	0.05	0.31	0.47	0.80
22	0.32	3.0	0.47	3.3	6.7	5.0	1.4	1.1	0.04	0.56	0.43	0.79
23	0.32	1.9	1.5	3.3	8.6	5.7	1.4	1.1	0.03	0.57	0.41	0.63
24	0.33	0.39	3.0	3.2	5.7	5.7	1.3	1.0	0.01	0.59	0.39	0.39
25	0.33	0.36	e20	3.2	5.2	4.4	1.3	0.97	0.00	0.58	0.38	0.35
26	0.35	0.39	e17	3.2	42	3.7	1.4	0.96	0.01	0.59	0.35	0.36
27	0.37	0.35	e7.0	3.2	17	3.3	1.6	0.85	0.00	0.54	0.32	0.36
28	0.37	0.34	e5.5	1.9	9.9	3.0	1.8	0.81	0.05	0.55	0.31	0.37
29	0.32	0.33	e4.5	0.37	7.6	2.7	2.5	0.87	0.27	0.59	0.30	0.43
30	0.38	0.31	4.2	0.35	---	2.5	2.2	0.79	0.26	0.59	0.29	0.48
31	0.52	---	4.0	0.32	---	2.5	---	0.69	---	0.62	0.26	---
TOTAL	11.70	51.55	85.51	57.34	130.46	141.2	70.7	45.84	8.07	11.25	20.82	22.30
MEAN	0.38	1.72	2.76	1.85	4.50	4.55	2.36	1.48	0.27	0.36	0.67	0.74
MAX	1.2	4.8	20	5.1	42	7.0	6.1	2.6	0.65	1.2	3.8	2.8
MIN	0.27	0.17	0.25	0.30	0.32	2.5	1.3	0.69	0.00	0.10	0.19	0.25
AC-FT	23	102	170	114	259	280	140	91	16	22	41	44

e Estimated.

## 10256500 SNOW CREEK NEAR WHITE WATER, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.95	3.26	5.01	12.4	19.3	15.0	9.77	9.81	5.73	3.22	2.63	2.02
MAX	6.55	13.3	24.0	131	173	71.5	28.6	40.8	31.7	14.4	18.0	7.55
(WY)	1993	1984	1984	1993	1980	1995	1983	1983	1983	1983	1983	1983
MIN	0.01	0.30	0.00	0.85	0.92	0.52	0.84	0.29	0.14	0.00	0.00	0.17
(WY)	1985	1982	1982	1999	2002	1999	2002	1984	1984	1981	1981	1981

## SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1979 - 2004

ANNUAL TOTAL	1123.09	656.74	7.45	
ANNUAL MEAN	3.08	1.79	28.4	1980
HIGHEST ANNUAL MEAN			1.01	2002
LOWEST ANNUAL MEAN			909	Jan 7 1993
HIGHEST DAILY MEAN	89	Feb 12	42	Feb 26
LOWEST DAILY MEAN	0.00	Feb 1	0.00	Jun 25
ANNUAL SEVEN-DAY MINIMUM	0.01	Jan 30	0.02	Jun 21
MAXIMUM PEAK FLOW			144	Dec 25
MAXIMUM PEAK STAGE			4.12	Dec 25
ANNUAL RUNOFF (AC-FT)	2230	1300	7.35	Jan 7 1993
10 PERCENT EXCEEDS	5.0	4.3	17	
50 PERCENT EXCEEDS	0.78	0.63	2.6	
90 PERCENT EXCEEDS	0.16	0.24	0.20	

## 10256501 SNOW CREEK NEAR WHITE WATER, CA—Continued

## SNOW CREEK AND SNOW CREEK DIVERSION NEAR WHITE WATER, CA

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.7	2.8	3.8	3.1	6.6	5.8	5.1	3.9	2.8	2.5	2.2
2	2.4	2.7	2.8	3.7	3.1	7.0	6.0	5.1	3.8	2.8	2.5	2.2
3	2.5	2.7	2.8	5.1	3.9	6.8	6.1	5.2	3.8	2.8	2.5	2.2
4	2.5	2.7	2.8	4.2	3.5	6.3	6.1	5.5	3.8	2.8	2.5	2.3
5	2.5	2.7	2.8	4.0	3.2	6.2	5.8	5.9	3.8	2.7	2.4	2.3
6	2.5	2.7	2.8	3.8	3.2	6.0	5.7	5.6	3.7	2.7	2.4	2.3
7	2.4	2.7	2.9	3.9	3.2	6.2	5.5	5.4	3.8	2.7	2.4	2.3
8	2.4	2.7	3.0	3.8	3.1	6.8	5.5	5.3	3.8	2.6	2.4	2.4
9	2.4	2.7	3.1	3.6	3.1	7.7	5.5	5.2	3.7	2.6	2.3	2.8
10	2.5	2.7	3.1	3.5	3.1	9.0	5.6	5.1	3.7	2.6	2.3	2.8
11	2.5	2.7	3.1	3.5	3.1	9.6	5.6	5.1	3.6	2.6	2.4	2.7
12	2.5	4.3	3.0	3.4	3.1	9.6	5.4	5.0	3.5	2.7	2.4	2.5
13	2.5	4.8	3.0	3.4	3.1	9.8	5.2	4.8	3.4	2.6	2.5	2.5
14	2.4	e3.7	2.9	3.4	3.1	8.8	5.1	4.7	3.4	2.7	3.8	2.5
15	2.4	3.5	3.0	3.4	3.1	8.1	5.0	4.7	3.3	2.6	3.4	2.5
16	2.4	3.5	3.0	3.3	3.1	8.2	5.1	4.7	3.4	2.5	2.8	2.5
17	2.4	3.5	3.0	3.3	3.1	7.8	5.5	4.8	3.2	2.5	2.6	2.5
18	2.4	3.5	3.0	3.3	3.4	7.3	5.4	4.8	3.2	2.5	2.5	2.5
19	2.4	3.4	3.0	3.3	3.8	7.3	5.1	4.8	3.2	2.5	2.5	2.4
20	2.4	3.2	3.0	3.3	3.6	7.6	5.0	4.7	3.2	2.5	2.5	2.5
21	2.4	3.1	3.1	3.5	3.7	8.1	4.8	4.5	3.1	2.6	2.5	2.5
22	2.4	3.0	3.1	3.3	6.7	8.3	4.8	4.4	3.1	2.6	2.4	2.5
23	2.4	3.0	3.1	3.3	8.6	9.0	4.8	4.4	3.1	2.4	2.4	2.5
24	2.4	2.9	3.0	3.2	e6.0	9.0	4.7	4.3	3.1	2.4	2.4	2.5
25	2.4	2.9	e20	3.2	5.2	7.7	4.7	4.3	3.0	2.4	2.4	2.5
26	2.5	2.9	e17	3.2	42	7.0	4.8	4.3	3.0	2.4	2.4	2.5
27	2.5	2.9	e7.0	3.2	17	6.6	5.0	4.2	3.0	2.3	2.3	2.5
28	2.5	2.8	e5.5	3.2	9.9	6.3	5.2	4.1	2.9	2.4	2.3	2.5
29	2.4	2.8	e4.5	3.2	7.6	6.0	5.9	4.2	2.9	2.4	2.3	2.5
30	2.5	2.8	4.2	3.1	---	5.8	5.6	4.1	2.9	2.4	2.3	2.6
31	2.6	---	4.0	3.1	---	5.8	---	4.0	---	2.4	2.3	---
TOTAL	75.8	92.2	133.4	108.5	171.7	232.3	160.3	148.3	101.3	79.5	77.6	74.0
MEAN	2.45	3.07	4.30	3.50	5.92	7.49	5.34	4.78	3.38	2.56	2.50	2.47
MAX	2.6	4.8	20	5.1	42	9.8	6.1	5.9	3.9	2.8	3.8	2.8
MIN	2.4	2.7	2.8	3.1	3.1	5.8	4.7	4.0	2.9	2.3	2.3	2.2
AC-FT	150	183	265	215	341	461	318	294	201	158	154	147

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.64	7.07	9.90	14.0	15.7	13.8	12.1	12.2	8.88	6.03	5.15	5.13
MAX	10.7	82.5	76.7	178	173	72.0	36.7	45.7	37.6	20.2	20.7	32.5
(WY)	1984	1966	1967	1969	1980	1995	1969	1983	1983	1983	1983	1976
MIN	2.45	2.75	3.11	3.30	3.40	3.39	3.16	2.55	2.35	2.31	2.35	2.40
(WY)	2004	1963	1963	1961	1961	1961	1961	1961	1961	1961	1960	1961

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1921 - 2004

ANNUAL TOTAL	2044.1	1454.9	
ANNUAL MEAN	5.60	3.98	9.63
HIGHEST ANNUAL MEAN			33.0 1969
LOWEST ANNUAL MEAN			2.96 1961
HIGHEST DAILY MEAN	91 Mar 15	42 Feb 26	3490 Jan 25 1969
LOWEST DAILY MEAN	2.4 Oct 1	2.2 Sep 1	2.1 Jun 23 1961
ANNUAL SEVEN-DAY MINIMUM	2.4 Oct 14	2.3 Aug 28	2.1 Sep 5 1961
MAXIMUM PEAK FLOW		144 Dec 25	9900 Jan 25 1969
MAXIMUM PEAK STAGE			13.80 Jan 25 1969
ANNUAL RUNOFF (AC-FT)	4050	2890	6980
10 PERCENT EXCEEDS	7.1	6.1	16
50 PERCENT EXCEEDS	3.7	3.1	5.5
90 PERCENT EXCEEDS	2.7	2.4	3.0

e Estimated.

## 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 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfltrd uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)
NOV 17...	1500	3.5	8.0	113	12.5	37	12.9	1.03	2.18
Date	Sodium adsorp- tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
NOV 17...	.7	9.78	35	54	66	<.02	1.77	<.2	19.6
Date	Sulfate water, fltrd, mg/L (00945)	Residue sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)
NOV 17...	1.5	82	.11	78	<.10	<.04	.08	<.008	<.02
Date	Phos- phorus, water, fltrd, mg/L (00666)	Organic carbon, water, unfltrd mg/L (00680)	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)			
NOV 17...	<.04	2.5	<2	e6.6	9	.9			

&lt; Actual value is known to be less than value shown.

e Estimated.

## 10257500 FALLS CREEK NEAR WHITE WATER, CA

LOCATION.—Lat 33°52'10", long 116°40'15", in SW 1/4 NE 1/4 sec.33, T.3 S., R.3 E., [Riverside County](#), Hydrologic Unit 18100200, on right bank, at upstream side of Desert Water Agency Diversion Dam, 0.75 mi upstream from confluence with Snow Creek, and 4.4 mi southwest of White Water.

DRAINAGE AREA.—4.14 mi<sup>2</sup>.

PERIOD OF RECORD.—September 1922 to January 1927, January 1928 to July 1931, October 1994 to current year. Previous gage destroyed by flood of Aug. 29, 1931. Monthly and yearly discharges for 1922–31, published in WSP 1314. Discharge records for Falls Creek Diversion (station 10257499) since October 1994 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder, broad-crested weir, and crest-stage gage on creek, totalizing flow meter on diversion. Auxiliary gage 0.25 mi downstream with crest-stage gage and culvert control. Elevation of gage is 1,940 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. No regulation upstream from station. Diversion (station 10257499) immediately upstream takes a varying portion of the base flow. For combined record of creek and diversion, see [station 10257501](#). Published record prior to 1995 represents entire flow from basin. Records for the period 1922–1931 (prior to construction of diversion) are equivalent to those for station 10257501. Both creek only and combined flow published beginning October 1994. Statistics for station 10257501 (combined flow) reflect equivalent total flow from basin. See schematic diagram of [Salton Sea Basin](#).

COOPERATION.—Records for diversion provided by Desert Water Agency.

EXTREMES FOR PERIOD OF RECORD (Combined creek and diversion).—Maximum discharge, 154 ft<sup>3</sup>/s, Jan. 10, 1995, gage height, 6.14 ft (creek gage; no diversion at peak), from rating curve extended above 6.5 ft<sup>3</sup>/s on basis of critical depth computations; maximum gage height, 6.24 ft, Feb. 14, 1998; minimum daily, 0.10 ft<sup>3</sup>/s, Sept. 11, 1997.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s, or maximum, from rating curve extended as noted above:

Date	Time	Creek only		Combined creek and diversion
		Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Discharge (ft <sup>3</sup> /s)
Dec. 25	2045	41	5.23	41

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.21	0.30	0.40	0.56	0.38	1.4	0.18	0.16	0.53	0.26	0.13	0.14
2	0.21	0.29	0.41	0.52	0.38	1.5	0.53	0.19	0.54	0.26	0.14	0.14
3	0.21	0.30	0.40	0.57	0.70	1.5	1.1	0.25	0.55	0.26	0.13	0.14
4	0.21	0.31	0.40	0.53	0.49	1.4	1.1	0.33	0.56	0.25	0.13	0.14
5	0.21	0.32	0.41	0.50	0.44	1.3	0.64	0.37	0.53	0.25	0.13	0.14
6	0.21	0.30	0.40	0.45	0.41	1.2	0.27	0.28	0.52	0.23	0.13	0.14
7	0.21	0.28	0.38	0.45	0.40	1.3	0.27	0.20	0.55	0.22	0.13	0.14
8	0.21	0.29	0.40	0.45	0.40	1.4	0.25	0.17	0.55	0.22	0.12	0.14
9	0.21	0.29	0.40	0.44	0.40	1.6	0.25	0.17	0.50	0.22	0.12	0.18
10	0.22	0.30	0.42	0.42	0.38	1.6	0.26	0.14	0.47	0.21	0.12	0.14
11	0.22	0.30	0.45	0.41	0.39	1.7	0.27	0.18	0.44	0.20	0.12	0.14
12	0.22	3.0	0.45	0.40	0.39	e1.8	0.21	0.13	0.41	0.19	0.12	0.14
13	0.22	2.0	0.41	0.40	0.38	1.8	0.17	0.08	0.41	0.19	0.12	0.15
14	0.23	1.0	0.41	0.40	0.38	1.6	0.17	0.06	0.41	0.20	0.17	0.16
15	0.22	0.75	0.42	0.40	0.38	1.1	0.15	0.06	0.44	0.18	0.13	0.17
16	0.23	0.64	0.40	0.40	0.37	0.76	0.18	0.27	0.48	0.19	0.17	0.17
17	0.22	0.56	0.40	0.40	0.38	0.94	0.46	0.38	0.47	0.19	0.20	0.17
18	0.22	0.49	0.38	0.40	0.45	0.84	0.77	0.16	0.43	0.19	0.20	0.17
19	0.22	0.45	0.34	0.40	0.55	0.47	0.37	0.15	0.41	0.18	0.21	0.17
20	0.22	0.42	0.34	0.40	0.55	0.54	0.11	0.12	0.40	0.18	0.20	0.17
21	0.21	0.39	0.37	0.61	0.73	0.60	0.07	0.06	0.40	0.17	0.19	0.17
22	0.22	0.41	0.35	0.50	1.4	0.65	0.14	0.03	0.38	0.17	0.19	0.17
23	0.23	0.43	0.35	0.45	1.6	1.2	0.15	0.03	0.38	0.16	0.19	0.16
24	0.24	0.45	0.39	0.44	1.1	1.2	0.11	0.04	0.36	0.16	0.18	0.16
25	0.25	0.45	5.2	0.42	0.91	0.59	0.10	0.03	0.33	0.15	0.18	0.16
26	0.24	0.45	4.4	0.41	7.9	0.42	0.14	0.03	0.32	0.15	0.17	0.16
27	0.23	0.43	1.5	0.41	3.7	0.32	0.19	0.02	0.30	0.14	0.16	0.16
28	0.23	0.43	1.0	0.40	2.2	0.23	0.22	0.37	0.29	0.14	0.16	0.16
29	0.22	0.41	0.81	0.40	1.7	0.17	0.33	0.62	0.30	0.14	0.16	0.17
30	0.26	0.40	0.69	0.40	---	0.13	0.25	0.57	0.30	0.14	0.15	0.17
31	0.27	---	0.60	0.38	---	0.14	---	0.53	---	0.13	0.14	---
TOTAL	6.93	16.84	23.68	13.72	29.84	31.40	9.41	6.18	12.96	5.92	4.79	4.69
MEAN	0.22	0.56	0.76	0.44	1.03	1.01	0.31	0.20	0.43	0.19	0.15	0.16
MAX	0.27	3.0	5.2	0.61	7.9	1.8	1.1	0.62	0.56	0.26	0.21	0.18
MIN	0.21	0.28	0.34	0.38	0.37	0.13	0.07	0.02	0.29	0.13	0.12	0.14
AC-FT	14	33	47	27	59	62	19	12	26	12	9.5	9.3

e Estimated.

## 10257500 FALLS CREEK NEAR WHITE WATER, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.89	1.12	1.42	1.48	1.93	1.71	1.59	1.41	1.10	0.79	0.71	0.80
MAX	2.52	2.81	5.68	4.58	8.08	8.75	7.90	4.25	3.33	2.37	2.67	2.23
(WY)	1923	1923	1927	1995	1998	1995	1926	1926	1998	1926	1926	1926
MIN	0.13	0.31	0.48	0.31	0.36	0.15	0.15	0.13	0.13	0.11	0.11	0.12
(WY)	2003	2003	2002	1999	2002	1997	1997	1997	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1923 - 2004	
ANNUAL TOTAL	240.38		166.36			
ANNUAL MEAN	0.66		0.45		1.21	
HIGHEST ANNUAL MEAN					2.77	
LOWEST ANNUAL MEAN					0.26	
HIGHEST DAILY MEAN	16	Feb 12	7.9	Feb 26	50	Mar 5 1995
LOWEST DAILY MEAN	0.00	Jun 8	0.02	May 27	0.00	Apr 16 1997
ANNUAL SEVEN-DAY MINIMUM	0.04	Jun 2	0.03	May 21	0.00	Apr 13 1997
MAXIMUM PEAK FLOW			41	Dec 25	154	Jan 10 1995
MAXIMUM PEAK STAGE			5.23	Dec 25	6.24	Feb 14 1998
ANNUAL RUNOFF (AC-FT)	477		330		875	
10 PERCENT EXCEEDS	1.0		0.82		2.5	
50 PERCENT EXCEEDS	0.30		0.30		0.80	
90 PERCENT EXCEEDS	0.11		0.14		0.16	

## 10257501 FALLS CREEK NEAR WHITE WATER, CA—Continued

## FALLS CREEK AND FALLS CREEK DIVERSION NEAR WHITE WATER, CA

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.21	0.30	0.40	0.56	0.38	1.4	0.87	0.86	0.53	0.26	0.13	0.14
2	0.21	0.29	0.41	0.52	0.38	1.5	0.97	0.89	0.54	0.26	0.14	0.14
3	0.21	0.30	0.40	0.57	0.70	1.5	1.1	0.95	0.55	0.26	0.13	0.14
4	0.21	0.31	0.40	0.53	0.49	1.4	1.1	1.0	0.56	0.25	0.13	0.14
5	0.21	0.32	0.41	0.50	0.44	1.3	1.0	1.1	0.53	0.25	0.13	0.14
6	0.21	0.30	0.40	0.45	0.41	1.2	0.97	0.98	0.52	0.23	0.13	0.14
7	0.21	0.28	0.38	0.45	0.40	1.3	0.97	0.90	0.55	0.22	0.13	0.14
8	0.21	0.29	0.40	0.45	0.40	1.4	0.95	0.87	0.55	0.22	0.12	0.14
9	0.21	0.29	0.40	0.44	0.40	1.6	0.95	0.87	0.50	0.22	0.12	0.18
10	0.22	0.30	0.42	0.42	0.38	1.6	0.96	0.80	0.47	0.21	0.12	0.14
11	0.22	0.30	0.45	0.41	0.39	1.7	0.96	0.87	0.44	0.20	0.12	0.14
12	0.22	3.0	0.45	0.40	0.39	e1.8	0.91	0.83	0.41	0.19	0.12	0.14
13	0.22	2.0	0.41	0.40	0.38	1.8	0.87	0.75	0.41	0.19	0.12	0.15
14	0.23	1.0	0.41	0.40	0.38	1.6	0.87	0.76	0.41	0.20	0.17	0.16
15	0.22	0.75	0.42	0.40	0.38	1.5	0.84	0.76	0.44	0.18	0.13	0.17
16	0.23	0.64	0.40	0.40	0.37	1.5	0.87	0.72	0.48	0.19	0.17	0.17
17	0.22	0.56	0.40	0.40	0.38	1.4	0.89	0.78	0.47	0.19	0.20	0.17
18	0.22	0.49	0.38	0.40	0.45	1.2	0.77	0.84	0.43	0.19	0.20	0.17
19	0.22	0.45	0.34	0.40	0.55	1.2	0.81	0.84	0.41	0.18	0.21	0.17
20	0.22	0.42	0.34	0.40	0.55	1.2	0.78	0.78	0.40	0.18	0.20	0.17
21	0.21	0.39	0.37	0.61	0.73	1.3	0.77	0.73	0.40	0.17	0.19	0.17
22	0.22	0.41	0.35	0.50	1.4	1.4	0.83	0.72	0.38	0.17	0.19	0.17
23	0.23	0.43	0.35	0.45	1.6	1.6	0.85	0.73	0.38	0.16	0.19	0.16
24	0.24	0.45	0.39	0.44	1.1	1.6	0.80	0.73	0.36	0.16	0.18	0.16
25	0.25	0.45	5.2	0.42	0.91	1.3	0.76	0.69	0.33	0.15	0.18	0.16
26	0.24	0.45	4.4	0.41	7.9	1.1	0.83	0.72	0.32	0.15	0.17	0.16
27	0.23	0.43	1.5	0.41	3.7	1.0	0.87	0.70	0.30	0.14	0.16	0.16
28	0.23	0.43	1.0	0.40	2.2	0.93	0.91	0.67	0.29	0.14	0.16	0.16
29	0.22	0.41	0.81	0.40	1.7	0.87	1.0	0.62	0.30	0.14	0.16	0.17
30	0.26	0.40	0.69	0.40	---	0.83	0.95	0.57	0.30	0.14	0.15	0.17
31	0.27	---	0.60	0.38	---	0.84	---	0.53	---	0.13	0.14	---
TOTAL	6.93	16.84	23.68	13.72	29.84	41.87	26.98	24.56	12.96	5.92	4.79	4.69
MEAN	0.22	0.56	0.76	0.44	1.03	1.35	0.90	0.79	0.43	0.19	0.15	0.16
MAX	0.27	3.0	5.2	0.61	7.9	1.8	1.1	1.1	0.56	0.26	0.21	0.18
MIN	0.21	0.28	0.34	0.38	0.37	0.83	0.76	0.53	0.29	0.13	0.12	0.14
AC-FT	14	33	47	27	59	83	54	49	26	12	9.5	9.3

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	0.55	0.83	0.87	1.23	2.19	1.99	1.18	1.32	0.94	0.68	0.53	0.61
MAX	1.40	1.64	1.71	4.58	8.08	8.75	2.92	4.05	3.33	2.32	1.76	1.52
(WY)	1996	1997	1997	1995	1998	1995	1995	1998	1998	1995	1995	1995
MIN	0.13	0.31	0.48	0.43	0.36	0.34	0.29	0.17	0.13	0.11	0.11	0.12
(WY)	2003	2003	2002	2002	2002	1997	2002	2002	2002	2002	2002	2002

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1995 - 2004

ANNUAL TOTAL	282.86	212.78		
ANNUAL MEAN	0.77	0.58	1.07	
HIGHEST ANNUAL MEAN			2.99	1995
LOWEST ANNUAL MEAN			0.26	2002
HIGHEST DAILY MEAN	16	Feb 12	7.9	Feb 26
LOWEST DAILY MEAN	0.16	Aug 13	0.12	Aug 8
ANNUAL SEVEN-DAY MINIMUM	0.16	Aug 12	0.12	Aug 7
MAXIMUM PEAK FLOW			41	Dec 25
ANNUAL RUNOFF (AC-FT)	561	422	154	Jan 10 1995
10 PERCENT EXCEEDS	1.0		2.3	
50 PERCENT EXCEEDS	0.40		0.59	
90 PERCENT EXCEEDS	0.21		0.19	

e Estimated.



## 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.—264 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1984 to September 1987, October 1989 to current year. Discharge measurements only, October 1987 to September 1989. Discharge measurements for the period July 1982 to September 1984 available in files of the U.S. Geological Survey.

REVISED RECORDS.—WDR CA-88-1: Drainage area.

GAGE.—Water-stage recorder and concrete control; auxiliary water-stage recorder on overflow channel since Jan. 23, 1992. Elevation of gage is 1,040 ft above NGVD of 1929, from topographic map.

REMARKS.—Records 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 the San Geronio River Basin and to an area north of Banning for irrigation and domestic use. See schematic diagram of [Salton Sea Basin](#).

COOPERATION.—Records of Colorado River Aqueduct releases provided by Metropolitan Water District.

EXTREMES FOR PERIOD OF RECORD.—Maximum computed discharge, 2,530 ft<sup>3</sup>/s, Jan. 10, 1995, gage height, 8.32 ft, main channel, from rating curve extended above 400 ft<sup>3</sup>/s, on basis of critical-depth computation (flow in overflow channel at peak); maximum probably exceeded during flood of Jan. 16, 1993, but discharge is unknown; no flow for many days in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	3.0	0.91	0.75	0.08	0.00	0.06	0.00	0.01	3.1
2	0.00	0.00	0.00	3.5	0.82	0.65	0.86	0.00	0.00	0.00	0.02	2.8
3	0.00	0.00	0.00	3.2	1.1	1.6	1.5	0.00	0.00	0.00	0.15	2.3
4	0.00	0.00	0.00	3.5	0.99	1.6	1.1	0.00	0.00	0.00	0.30	2.2
5	0.00	0.00	0.00	3.1	0.73	0.59	0.28	0.00	0.00	0.00	0.18	2.5
6	0.00	0.00	0.00	2.4	0.51	0.35	0.08	0.00	0.00	0.00	0.00	2.4
7	0.00	0.00	0.00	2.1	0.68	0.26	0.29	0.00	0.06	0.00	0.09	1.8
8	0.00	0.00	0.00	1.9	0.64	0.63	0.19	0.00	0.00	0.00	0.00	1.5
9	0.00	0.00	e0.00	2.1	0.54	0.00	0.06	0.00	0.00	0.00	0.00	1.9
10	0.00	0.00	0.00	2.3	0.80	0.03	0.03	0.00	0.18	0.00	0.00	3.1
11	0.00	0.00	e0.74	2.0	0.41	0.09	0.22	0.01	0.00	0.00	0.00	3.6
12	0.00	14	e3.3	2.2	0.75	0.95	0.37	0.00	0.00	0.00	0.00	3.6
13	0.00	8.0	0.01	2.2	0.78	1.8	0.27	0.00	0.02	0.00	0.06	3.1
14	0.00	3.7	0.13	2.0	0.84	2.1	0.42	0.00	0.00	0.00	1.3	3.4
15	0.00	0.87	0.00	1.7	1.1	2.1	0.31	0.00	0.00	0.00	4.6	2.2
16	0.00	0.12	0.00	1.6	0.62	1.6	0.21	0.00	0.00	0.00	2.6	1.4
17	0.00	0.62	0.02	1.9	0.55	2.4	0.80	0.00	0.00	0.00	2.6	1.5
18	0.00	0.62	0.00	1.2	1.1	2.3	1.5	0.02	0.00	0.01	2.2	1.4
19	0.00	0.13	0.00	1.4	9.1	1.4	0.33	0.04	0.00	0.00	2.4	1.2
20	0.00	e0.00	0.00	1.5	8.1	0.87	0.36	0.14	0.00	0.00	2.6	1.8
21	0.00	0.00	0.00	2.0	3.4	0.96	0.19	0.00	0.00	0.00	2.5	1.8
22	0.00	0.00	0.00	1.8	8.8	1.3	0.20	0.00	0.00	0.00	2.8	1.8
23	0.00	0.00	0.00	1.0	10	0.75	0.00	0.00	0.00	0.00	2.3	1.9
24	0.00	0.00	0.00	0.96	5.8	1.1	0.00	0.03	0.00	0.00	2.4	3.3
25	0.00	0.00	e100	1.2	3.8	0.89	0.00	0.00	0.00	0.14	2.2	3.6
26	0.00	0.00	30	1.1	e30	0.35	0.00	0.00	0.00	0.05	1.9	2.3
27	0.00	0.00	9.1	1.2	e3.0	0.58	0.00	0.03	0.00	0.00	2.5	2.0
28	0.00	0.00	7.2	0.94	0.92	0.44	0.00	0.00	0.04	0.00	2.7	1.9
29	0.00	0.00	4.2	0.75	0.82	0.25	0.00	0.00	0.00	0.00	2.8	2.0
30	0.00	0.00	2.8	0.60	---	0.33	0.00	0.14	0.00	0.00	2.9	1.2
31	0.00	---	2.5	0.80	---	0.04	---	0.06	---	0.01	2.9	---
TOTAL	0.00	28.06	160.00	57.15	97.61	29.06	9.65	0.47	0.36	0.21	47.01	68.6
MEAN	0.00	0.94	5.16	1.84	3.37	0.94	0.32	0.02	0.01	0.01	1.52	2.29
MAX	0.00	14	100	3.5	30	2.4	1.5	0.14	0.18	0.14	4.6	3.6
MIN	0.00	0.00	0.00	0.60	0.41	0.00	0.00	0.00	0.00	0.00	0.00	1.2
AC-FT	0.00	56	317	113	194	58	19	0.9	0.7	0.4	93	136
a	0	0	0	0	0	0	0	0	0	0	0	0

e Estimated.

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

## SALTON SEA BASIN

## 10257550 WHITEWATER RIVER AT WINDY POINT, NEAR WHITE WATER, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	55.8	89.3	50.9	1.82	43.5	109	55.3	61.3	48.1	1.60	12.0	8.35
MAX	242	308	180	2.75	152	464	304	350	288	9.21	68.4	30.6
(WY)	1999	2003	2003	2002	2000	2000	1999	1999	1999	1999	1999	2000
MIN	0.00	0.94	1.60	0.70	0.35	0.33	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	2004	2004	2000	2003	2001	2001	2002	2001	2000	2000	2001	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	1230.47		498.18			
ANNUAL MEAN	3.37		1.36		44.7	
HIGHEST ANNUAL MEAN					137	1999
LOWEST ANNUAL MEAN					1.09	2002
HIGHEST DAILY MEAN	244	Feb 6	100	Dec 25	551	Mar 5 2000
LOWEST DAILY MEAN	0.00	Jan 31	0.00	Oct 1	0.00	Oct 23 1998
ANNUAL SEVEN-DAY MINIMUM	0.00	Mar 26	0.00	Oct 1	0.00	Jun 23 1999
MAXIMUM PEAK FLOW			539	Dec 25	967	Jul 13 1999
MAXIMUM PEAK STAGE			5.40	Dec 25	6.07	Jul 13 1999
ANNUAL RUNOFF (AC-FT)	2440		988		32400	
10 PERCENT EXCEEDS	4.0		2.8		168	
50 PERCENT EXCEEDS	0.00		0.06		0.22	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 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, on right bank, 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1967 to current year.

GAGE.—Water-stage recorder, crest-stage gage, and concrete scour limiter since November 1988. Elevation of gage is 2,400 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. Slight regulation of low flow by two small dams with a combined capacity of about 3 acre-ft, 2 mi upstream from station. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,750 ft<sup>3</sup>/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; maximum gage height since November 1988, 5.80 ft, from crest-stage gage, Jan. 16, 1993, discharge not determined; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s, or maximum, from rating curve extended above 36 ft<sup>3</sup>/s, on basis of critical depth computations:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2000	16	2.05

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.17	0.08	0.84	0.13	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.13	0.09	0.99	0.17	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.11	0.15	0.76	0.29	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.14	0.11	0.61	0.19	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.13	0.11	0.55	0.16	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.12	0.11	0.52	0.13	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.10	0.11	0.46	0.12	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.08	0.11	0.42	0.12	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.07	0.12	0.38	0.11	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.06	0.11	0.34	0.08	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.05	0.11	0.33	0.07	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.03	0.11	0.33	0.08	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.03	0.13	0.32	0.06	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.02	0.10	0.28	0.07	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.04	0.10	0.26	0.06	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.05	0.08	0.24	0.06	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.06	0.07	0.25	0.10	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.06	0.10	0.19	0.12	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.05	0.12	0.15	0.09	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.05	0.12	0.15	0.07	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.07	0.14	0.14	0.05	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.08	1.4	0.13	0.04	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.08	1.3	0.12	0.04	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.08	0.76	0.15	0.03	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	1.3	0.09	0.62	0.15	0.02	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.92	0.08	3.7	0.15	0.01	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.52	0.09	1.7	0.15	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.36	0.07	1.2	0.14	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.40	0.08	0.98	0.13	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.31	0.07	---	0.12	0.01	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.19	0.07	---	0.11	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	4.00	2.41	13.94	9.86	2.48	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.13	0.08	0.48	0.32	0.08	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	1.3	0.17	3.7	0.99	0.29	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.02	0.07	0.11	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	7.9	4.8	28	20	4.9	0.00	0.00	0.00	0.00	0.00

## 10257600 MISSION CREEK NEAR DESERT HOT SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.76	0.96	1.03	3.05	7.54	5.95	4.82	3.92	2.51	1.68	1.29	0.84
MAX	3.83	4.54	4.51	29.2	174	49.6	31.6	25.8	16.4	10.1	5.42	4.74
(WY)	1970	1984	1979	1980	1980	1980	1993	1993	1993	1980	1983	1993
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1968	1969	1969	1968	1968	1989	1968	1968	1968	1972	1968	1968

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	4.15		32.69			
ANNUAL MEAN	0.01		0.09		2.83	
HIGHEST ANNUAL MEAN					28.3	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	1.3	Dec 25	3.7	Feb 26	540	Feb 18 1980
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1967
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1967
MAXIMUM PEAK FLOW			16		1750	
MAXIMUM PEAK STAGE			2.05		6.40	
ANNUAL RUNOFF (AC-FT)	8.2		65		2050	
10 PERCENT EXCEEDS	0.00		0.17		5.2	
50 PERCENT EXCEEDS	0.00		0.00		0.28	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 10257720 CHINO CANYON CREEK BELOW TRAMWAY, NEAR PALM SPRINGS, CA

LOCATION.—Lat 33°50'39", long 116°36'16", in NW 1/4 NE 1/4 sec.7, T.4 S., R.4 E., [Riverside County](#), Hydrologic Unit 18100200, on left bank, 0.5 mi downstream from tram building, 3.5 mi west of Highway 111 on road leading to Palm Springs aerial tramway, and 5.5 mi west of Palm Springs.

DRAINAGE AREA.—4.71 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1986 to current year.

REVISED RECORDS.—WDR CA-89-1: 1987(M).

GAGE.—Water-stage recorder and crest-stage gage. Concrete control with low-water v-notch weir since June 25, 1996. Elevation of gage is 2,100 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are poor. Two small diversions upstream, one for city of Palm Springs and one for Palm Springs aerial tramway. October 1974 to July 1985, data published as "Chino Canyon Creek near Palm Springs" (station 10257710), with station located 0.45 mi upstream from present location. Previous gage destroyed by debris flow on July 19, 1985. Data for these sites are roughly equivalent. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 153 ft<sup>3</sup>/s, Jan. 7, 1993, gage height, 10.18 ft, from rating curve extended above 35 ft<sup>3</sup>/s, on basis of critical depth computations, maximum gage height, 10.32 ft, Feb. 14, 1998; no flow for many days in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.07	0.00	0.00	0.00	0.00	0.48	0.03	0.00	0.00	0.00	0.00	0.00
2	0.08	0.00	0.00	0.00	0.00	0.62	0.25	0.00	0.00	0.00	0.00	0.00
3	0.07	0.00	0.00	0.00	0.00	0.55	0.36	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.50	0.30	0.00	0.00	0.00	e0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.45	0.21	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.41	0.20	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.02	0.00	0.37	0.17	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.05	0.00	0.33	0.15	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.01	0.00	0.30	0.11	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.29	0.11	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.28	0.13	0.00	0.00	0.00	0.00	0.00
12	0.00	0.35	0.00	0.00	0.00	0.27	0.12	0.00	0.00	0.00	0.00	0.00
13	0.00	0.17	0.00	0.00	0.00	0.28	0.02	0.00	0.00	0.00	0.02	0.00
14	0.00	0.05	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.01	0.00
15	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	e0.00	e0.00	0.00
23	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	e0.00	0.00
24	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	e0.00	0.00
25	0.00	0.00	0.63	0.00	0.15	0.00	0.00	0.00	0.00	0.00	e0.00	0.00
26	0.00	0.00	0.53	0.00	1.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.26	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.15	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.07	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.02	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.22	0.57	1.66	0.08	4.78	5.67	2.16	0.00	0.00	0.00	0.03	0.00
MEAN	0.01	0.02	0.05	0.00	0.16	0.18	0.07	0.00	0.00	0.00	0.00	0.00
MAX	0.08	0.35	0.63	0.05	1.2	0.62	0.36	0.00	0.00	0.00	0.02	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.4	1.1	3.3	0.2	9.5	11	4.3	0.00	0.00	0.00	0.06	0.00

e Estimated.

## 10257720 CHINO CANYON CREEK BELOW TRAMWAY, NEAR PALM SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.24	0.35	0.43	1.45	2.05	1.67	1.05	0.55	0.21	0.06	0.09	0.19
MAX	1.19	1.32	1.49	14.0	17.8	8.82	3.85	2.34	0.88	0.28	0.65	1.38
(WY)	1994	1987	1994	1993	1993	1993	1993	1998	1998	1987	1993	1993
MIN	0.00	0.00	0.00	0.00	0.10	0.02	0.05	0.00	0.00	0.00	0.00	0.00
(WY)	1991	1991	1991	2004	1999	1999	1999	2004	1992	1989	1990	1990

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1987 - 2004
ANNUAL TOTAL	56.48	15.17	
ANNUAL MEAN	0.15	0.04	0.69
HIGHEST ANNUAL MEAN			4.02 1993
LOWEST ANNUAL MEAN			0.04 2004
HIGHEST DAILY MEAN	1.4 Mar 16	1.2 Feb 26	49 Jan 17 1993
LOWEST DAILY MEAN	0.00 Oct 4	0.00 Oct 4	0.00 Jun 15 1989
ANNUAL SEVEN-DAY MINIMUM	0.00 Oct 4	0.00 Oct 4	0.00 Jun 15 1989
MAXIMUM PEAK FLOW		3.6 Dec 25	153 Jan 7 1993
MAXIMUM PEAK STAGE		9.72 Dec 25	10.32 Feb 14 1998
ANNUAL RUNOFF (AC-FT)	112	30	498
10 PERCENT EXCEEDS	0.40	0.14	1.5
50 PERCENT EXCEEDS	0.08	0.00	0.14
90 PERCENT EXCEEDS	0.00	0.00	0.00

10257720 CHINO CANYON CREEK BELOW TRAMWAY, NEAR PALM SPRINGS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1987 to current year.  
 CHEMICAL DATA: Water years 1987 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)
APR 05...	1230	.18	8.1	213	14.0	88	31.1	2.59	5.44

Date	Sodium adsorp- tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
APR 05...	.6	12.2	22	104	127	<.02	3.02	<.2	18.2

Date	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)
APR 05...	5.0	140	.19	139	e.05	<.04	<.06	<.008	<.02

Date	Phos- phorus, water, fltrd, mg/L (00666)	Organic carbon, water, unfltrd mg/L (00680)	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)
APR 05...	<.04	5.8	<2	14	<6	<.8

< Actual value is known to be less than value shown.  
 e Estimated.

## 10258000 TAHQUITZ CREEK NEAR PALM SPRINGS, CA

LOCATION (REVISED).—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 mi southwest of Palm Springs and 4 mi upstream from confluence with Palm Canyon Wash.

DRAINAGE AREA.—16.9 mi<sup>2</sup>.

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

REVISED RECORDS.—WSP 1244: 1948, 1951. WDR CA-88-1: Drainage area.

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

REMARKS.—Records good except for flows below 1.0 ft<sup>3</sup>/s, which are fair. No regulation or diversion upstream from station. See schematic diagram of Salton Sea Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,900 ft<sup>3</sup>/s, Nov. 22, 1965, Jan. 25, 1969, gage height, 12.34 ft, from rating curve extended above 70 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 10.45 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 ft<sup>3</sup>/s, or maximum, from rating curve extended above 147 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 10.45 and 12.34 ft:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	1400	11	4.35

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.65	0.40	1.8	3.3	1.4	0.30	0.00	0.00	0.00
2	0.00	0.00	0.00	0.63	0.40	1.6	3.4	1.3	0.26	0.00	0.00	0.00
3	0.00	0.00	0.00	0.60	0.44	1.5	3.6	1.3	0.23	0.00	0.00	0.00
4	0.00	0.00	0.00	0.57	0.48	1.4	3.5	1.2	0.20	0.00	0.00	0.00
5	0.00	0.00	0.00	0.55	0.45	1.2	3.0	1.1	0.15	0.00	0.00	0.00
6	0.00	0.00	0.00	0.58	0.42	1.2	3.0	1.1	0.12	0.00	0.00	0.00
7	0.00	0.00	0.00	0.58	0.40	1.2	2.9	1.1	0.08	0.00	0.00	0.00
8	0.00	0.00	0.00	0.56	0.40	1.3	2.8	1.0	0.05	0.00	0.00	0.00
9	0.00	0.00	0.00	0.54	0.39	1.5	2.7	0.94	0.03	0.00	0.00	0.00
10	0.00	0.00	0.00	0.54	0.39	1.8	2.6	0.89	0.03	0.00	0.00	0.00
11	0.00	0.00	0.00	0.52	0.39	2.2	2.6	0.90	0.02	0.00	0.00	0.00
12	0.00	0.00	0.00	0.50	0.37	2.6	2.4	0.87	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.49	0.37	2.8	2.4	0.82	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.48	0.37	2.8	2.3	0.80	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.47	0.37	2.9	2.2	0.74	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.46	0.36	3.1	2.2	0.70	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.45	0.36	3.2	2.2	0.69	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.44	0.37	3.2	2.5	0.66	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.43	0.36	3.4	2.5	0.62	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.42	0.42	3.6	2.3	0.59	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.43	0.47	3.8	2.2	0.57	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.45	1.6	4.1	2.0	0.56	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.47	2.2	4.7	1.9	0.55	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.46	1.2	5.1	1.8	0.55	0.00	0.00	0.00	0.00
25	0.00	0.00	0.20	0.45	1.0	4.4	1.7	0.54	0.00	0.00	0.00	0.00
26	0.00	0.00	3.0	0.44	5.7	4.1	1.6	0.50	0.00	0.00	0.00	0.00
27	0.00	0.00	1.8	0.43	4.5	3.7	1.5	0.47	0.00	0.00	0.00	0.00
28	0.00	0.00	1.1	0.43	2.7	3.7	1.5	0.43	0.00	0.00	0.00	0.00
29	0.00	0.00	0.91	0.42	2.1	3.5	1.5	0.40	0.00	0.00	0.00	0.00
30	0.00	0.00	0.81	0.42	---	3.3	1.5	0.38	0.00	0.00	0.00	0.00
31	0.00	---	0.71	0.41	---	3.4	---	0.34	---	0.00	0.00	---
TOTAL	0.00	0.00	8.53	15.27	29.38	88.1	71.6	24.01	1.47	0.00	0.00	0.00
MEAN	0.00	0.00	0.28	0.49	1.01	2.84	2.39	0.77	0.05	0.00	0.00	0.00
MAX	0.00	0.00	3.0	0.65	5.7	5.1	3.6	1.4	0.30	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.41	0.36	1.2	1.5	0.34	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	17	30	58	175	142	48	2.9	0.00	0.00	0.00



## 10258000 TAHQUITZ CREEK NEAR PALM SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.53	1.61	3.19	5.69	7.08	8.04	10.3	13.2	6.89	2.20	0.92	0.67
MAX	8.64	43.1	72.5	81.3	117	72.0	57.3	78.3	58.0	24.9	6.36	4.88
(WY)	1984	1966	1967	1993	1980	1995	1969	1969	1980	1980	1980	1976
MIN	0.00	0.00	0.00	0.00	0.21	0.17	0.02	0.00	0.00	0.00	0.00	0.00
(WY)	1948	1948	1948	1948	1964	1961	2002	1961	1961	1956	1948	1948

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1948 - 2004
ANNUAL TOTAL	630.61	238.36	
ANNUAL MEAN	1.73	0.65	5.01
HIGHEST ANNUAL MEAN			32.9 1980
LOWEST ANNUAL MEAN			0.06 2002
HIGHEST DAILY MEAN	32 Mar 16	5.7 Feb 26	1080 Jan 25 1969
LOWEST DAILY MEAN	0.00 Jul 15	0.00 Oct 1	0.00 Oct 1 1947
ANNUAL SEVEN-DAY MINIMUM	0.00 Jul 15	0.00 Oct 1	0.00 Oct 1 1947
MAXIMUM PEAK FLOW		11 Feb 26	2900 Nov 22 1965
MAXIMUM PEAK STAGE		4.35 Feb 26	15.78 Sep 7 1981
ANNUAL RUNOFF (AC-FT)	1250	473	3630
10 PERCENT EXCEEDS	5.0	2.5	11
50 PERCENT EXCEEDS	0.25	0.00	0.80
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 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.—93.1 mi<sup>2</sup>.

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

REVISED RECORDS.—WSP 1314: 1936(M). WDR CA-88-1: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 700 ft above NGVD of 1929, from topographic map. Prior to Jan. 14, 1942, at datum 0.2 ft higher.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,000 ft<sup>3</sup>/s, Feb. 21, 1980, gage height, 7.29 ft, from rating curve extended above 650 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 6.38 ft and 6.81 ft; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended above 950 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 6.81 ft:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Sept. 11	1715	1,630	5.47

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	1.6	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	2.0	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	4.9	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	3.6	0.16	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	2.5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	2.1	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	1.8	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	1.8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	1.8	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	1.6	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	1.5	0.00	0.00	0.00	0.00	0.00	30
12	0.00	0.00	0.00	0.00	0.00	1.4	0.00	0.00	0.00	0.00	0.00	e0.04
13	0.00	0.00	0.00	0.00	0.00	1.3	0.00	0.00	0.00	0.00	0.00	e0.00
14	0.00	0.00	0.00	0.00	0.00	1.1	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	3.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	2.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	2.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	10.60	32.22	0.16	0.00	0.00	0.00	0.00	30.04
MEAN	0.00	0.00	0.00	0.00	0.37	1.04	0.01	0.00	0.00	0.00	0.00	1.00
MAX	0.00	0.00	0.00	0.00	3.7	4.9	0.16	0.00	0.00	0.00	0.00	30
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	21	64	0.3	0.00	0.00	0.00	0.00	60

e Estimated.

## 10258500 PALM CANYON CREEK NEAR PALM SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.33	0.77	3.55	8.16	18.2	18.0	6.93	2.11	0.64	0.73	0.93	0.80
MAX	5.95	20.6	39.6	203	318	188	80.8	24.1	9.87	15.1	33.0	19.5
(WY)	1984	1966	1983	1993	1980	1983	1958	1983	1980	1979	1983	1976
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1931	1933	1950	1951	1951	1951	1934	1934	1931	1931	1932	1930

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	111.16		73.02			
ANNUAL MEAN	0.30		0.20		5.04	
HIGHEST ANNUAL MEAN					47.4 1980	
LOWEST ANNUAL MEAN					0.00 1972	
HIGHEST DAILY MEAN	30	Mar 16	30	Sep 11	2040	Feb 21 1980
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Jul 16 1930
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Jul 16 1930
MAXIMUM PEAK FLOW			1630		7000 Feb 21 1980	
MAXIMUM PEAK STAGE			5.47		7.29 Feb 21 1980	
ANNUAL RUNOFF (AC-FT)	220		145		3650	
10 PERCENT EXCEEDS	0.43		0.00		6.0	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 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 upstream from mouth, and 5.1 mi south of Palm Springs.

DRAINAGE AREA.—8.65 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1948 to current year.

REVISED RECORDS.—WDR CA-88-1: Drainage area. WDR CA-91-1: 1986(M), 1988(M).

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

REMARKS.—Records good above 1 ft<sup>3</sup>/s and fair below. No regulation upstream from station. One small diversion for domestic use about 1 mi upstream from station. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,960 ft<sup>3</sup>/s, Aug. 31, 1954, gage height, 7.11 ft, from rating curve extended above 80 ft<sup>3</sup>/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 ft<sup>3</sup>/s, or maximum, from rating curve extended above 98 ft<sup>3</sup>/s, by theoretical computations of flow over weir:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2200	29	2.94

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.54	0.93	1.2	1.7	1.5	2.2	1.7	1.2	0.68	0.51	0.20	0.24
2	0.49	0.92	1.2	1.6	1.5	2.3	1.9	1.1	0.65	0.47	0.21	0.24
3	0.60	0.92	1.2	1.7	1.8	2.3	2.5	1.1	0.65	0.45	0.23	0.23
4	0.62	0.96	1.2	1.7	1.6	2.2	2.0	1.0	0.62	0.44	0.24	0.28
5	0.63	0.96	1.2	1.7	1.5	2.1	1.8	1.0	0.58	0.41	0.26	0.32
6	0.67	0.93	1.2	1.7	1.5	2.1	1.8	1.0	0.56	0.40	0.23	0.31
7	0.66	0.91	1.3	1.6	1.5	2.2	1.7	1.0	0.64	0.38	0.20	0.28
8	0.69	0.91	1.2	1.6	1.5	2.4	1.7	1.0	0.71	0.40	0.18	0.34
9	0.66	0.93	1.2	1.6	1.5	2.5	1.6	0.97	0.72	0.37	0.15	0.56
10	0.75	0.90	1.3	1.6	1.5	2.5	1.6	0.99	0.77	0.34	0.17	0.87
11	0.81	1.0	1.4	1.6	1.5	2.6	1.6	1.0	0.72	0.30	0.20	0.64
12	0.75	2.1	1.4	1.5	1.5	2.5	1.5	1.1	0.67	0.28	0.26	0.46
13	0.67	1.5	1.3	1.5	1.5	2.5	1.5	1.0	0.63	0.27	0.37	0.34
14	0.65	1.2	1.3	1.5	1.4	2.3	1.5	1.0	0.61	0.42	0.57	0.39
15	0.65	1.1	1.3	1.5	1.4	2.3	1.5	0.96	0.61	0.58	0.64	0.43
16	0.61	1.1	1.2	1.5	1.4	2.2	1.5	0.94	0.66	0.36	0.39	0.42
17	0.63	1.1	1.2	1.5	1.4	2.1	1.6	0.94	0.65	0.31	0.42	0.45
18	0.62	1.1	1.3	1.5	1.5	2.1	1.7	0.88	0.59	0.29	0.35	0.39
19	0.62	1.1	1.3	1.5	1.9	2.1	1.6	0.87	0.59	0.27	0.31	0.35
20	0.61	1.1	1.3	1.5	1.7	2.1	1.5	0.90	0.54	0.24	0.34	0.49
21	0.58	1.0	1.3	1.6	1.7	2.0	1.5	0.92	0.53	0.21	0.31	0.53
22	0.58	1.0	1.4	1.5	2.8	2.0	1.5	0.96	0.56	0.20	0.33	0.50
23	0.53	1.1	1.4	1.5	2.7	2.1	1.4	0.97	0.54	0.23	0.33	0.45
24	0.52	1.2	1.4	1.5	2.0	2.1	1.3	0.95	0.51	0.29	0.36	0.40
25	0.52	1.2	4.7	1.5	1.9	2.0	1.3	0.91	0.46	0.31	0.37	0.35
26	0.54	1.2	5.5	1.5	8.6	2.0	1.2	0.90	0.42	0.24	0.37	0.36
27	0.61	1.2	2.1	1.6	3.9	1.9	1.2	0.89	0.42	0.21	0.31	0.36
28	0.62	1.2	1.8	1.6	2.7	1.8	1.1	0.84	0.47	0.15	0.32	0.34
29	0.65	1.2	1.7	1.5	2.3	1.8	1.2	0.85	0.53	0.20	0.35	0.40
30	0.65	1.2	1.7	1.5	---	1.7	1.2	0.78	0.53	0.20	0.36	0.54
31	0.83	---	1.6	1.5	---	1.7	---	0.72	---	0.20	0.27	---
TOTAL	19.56	33.17	49.8	48.4	59.2	66.7	46.7	29.64	17.82	9.93	9.60	12.26
MEAN	0.63	1.11	1.61	1.56	2.04	2.15	1.56	0.96	0.59	0.32	0.31	0.41
MAX	0.83	2.1	5.5	1.7	8.6	2.6	2.5	1.2	0.77	0.58	0.64	0.87
MIN	0.49	0.90	1.2	1.5	1.4	1.7	1.1	0.72	0.42	0.15	0.15	0.23
AC-FT	39	66	99	96	117	132	93	59	35	20	19	24

## 10259000 ANDREAS CREEK NEAR PALM SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.32	2.13	2.98	4.49	5.42	5.70	4.20	2.90	1.86	1.33	1.31	1.21
MAX	5.60	19.2	30.2	46.5	56.4	33.7	20.0	17.4	12.4	7.51	9.52	6.05
(WY)	1984	1966	1967	1993	1980	1980	1983	1983	1983	1983	1983	1983
MIN	0.38	0.60	0.96	0.95	1.03	0.99	0.68	0.51	0.23	0.09	0.14	0.24
(WY)	1966	1963	1963	1976	1961	1961	1961	1961	1961	1961	1963	1964

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1949 - 2004
ANNUAL TOTAL	591.77	402.78	
ANNUAL MEAN	1.62	1.10	2.89
HIGHEST ANNUAL MEAN			12.4 1983
LOWEST ANNUAL MEAN			0.66 1961
HIGHEST DAILY MEAN	23 Mar 16	8.6 Feb 26	395 Dec 6 1966
LOWEST DAILY MEAN	0.49 Sep 22	0.15 Jul 28	0.00 Jun 27 1961
ANNUAL SEVEN-DAY MINIMUM	0.55 Oct 20	0.20 Jul 27	0.00 Jul 13 1963
MAXIMUM PEAK FLOW		29 Dec 25	1960 Aug 31 1954
MAXIMUM PEAK STAGE		2.94 Dec 25	7.11 Aug 31 1954
ANNUAL RUNOFF (AC-FT)	1170	799	2090
10 PERCENT EXCEEDS	2.6	2.0	5.2
50 PERCENT EXCEEDS	1.2	1.0	1.6
90 PERCENT EXCEEDS	0.62	0.31	0.55

## 10259050 PALM CANYON WASH NEAR CATHEDRAL CITY, CA

LOCATION.—Lat 33°47'47", long 116°28'48", in SE 1/4 NE 1/4 sec.29, T.5 S., R.4 E., [Riverside County](#), Hydrologic Unit 18100200, on right bank, 500 ft downstream from Golf Club Drive, 0.4 mi upstream from Whitewater River, and 1.5 mi northeast of Cathedral City.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—January 1988 to current year.

GAGE.—Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 330 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. No regulation upstream from station. Two diversions for domestic use upstream from station on Andreas Creek. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,280 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 8.70 ft, from rating curve extended above 1,350 ft<sup>3</sup>/s; no flow for most of each year.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e28
12	0.00	6.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e65
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e1.0
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	2.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	2.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	6.80	2.00	0.00	3.35	0.00	0.00	0.00	0.00	0.00	0.00	94.00
MEAN	0.00	0.23	0.06	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	3.13
MAX	0.00	6.8	2.0	0.00	2.7	0.00	0.00	0.00	0.00	0.00	0.00	65
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	13	4.0	0.00	6.6	0.00	0.00	0.00	0.00	0.00	0.00	186

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

MEAN	0.00	0.01	0.04	13.4	3.70	6.46	0.22	1.27	1.30	0.15	0.37	0.37
MAX	0.00	0.23	0.45	202	35.2	93.3	3.81	18.3	22.1	1.32	1.77	3.13
(WY)	1988	2004	1993	1993	1993	1995	1993	1998	1998	1999	1989	2004
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1988	1988	1988	1988	1989	1988	1988	1988	1988	1988	1990	1988

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1988 - 2004

ANNUAL TOTAL	55.40	106.15	
ANNUAL MEAN	0.15	0.29	2.29
HIGHEST ANNUAL MEAN			20.4 1993
LOWEST ANNUAL MEAN			0.00 1990
HIGHEST DAILY MEAN	24 Mar 16	65 Sep 12	1700 Jan 16 1993
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1987
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1987
MAXIMUM PEAK FLOW		408 Sep 11	8280 Jan 16 1993
MAXIMUM PEAK STAGE		7.67 Sep 11	8.70 Jan 16 1993
ANNUAL RUNOFF (AC-FT)	110	211	1660
10 PERCENT EXCEEDS	0.00	0.00	0.00
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated.

## 10259100 WHITEWATER RIVER AT RANCHO MIRAGE, CA

LOCATION.—Lat 33°44'58", long 116°25'19", in NW 1/4 SW 1/4 sec.12, T.5 S., R.5 E., [Riverside County](#), Hydrologic Unit 18100200, on right bank, 0.2 mi upstream from Magnesia Spring Canyon storm channel, and 2.7 mi northwest of the intersection of Highways 111 and 74.

DRAINAGE AREA.—588 mi<sup>2</sup>.

PERIOD OF RECORD.—March 1989 to current year.

REVISED RECORDS.—WDR CA-93-1: 1989–92(M). WDR CA-95-1: 1993, 1993(M).

GAGE.—Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 230 ft above NGVD of 1929, from topographic map. Prior to Dec. 4, 1997, at datum 10.00 ft lower.

REMARKS.—Records fair. No regulation upstream from station. Water diverted from tributary streams for municipal supply in vicinity of Palm Springs. Water from the Colorado River Basin is imported for ground-water recharge and irrigation. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 9,060 ft<sup>3</sup>/s, Jan. 7, 1993, gage height, 5.93 ft, datum then in use, from rating curve extended above 1,460 ft<sup>3</sup>/s, on basis of critical depth computations, maximum gage height, 8.09 ft (present datum), Feb. 14, 1998; no flow for many days in each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.1
12	0.00	2.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.4
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	2.90	0.00	0.00	1.50	0.14	0.00	0.02	0.00	0.00	0.00	3.50
MEAN	0.00	0.10	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.12
MAX	0.00	2.9	0.00	0.00	1.5	0.09	0.00	0.02	0.00	0.00	0.00	2.4
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	5.8	0.00	0.00	3.0	0.3	0.00	0.04	0.00	0.00	0.00	6.9

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2004, BY WATER YEAR (WY)

MEAN	0.00	0.01	0.02	21.9	4.93	5.04	0.03	0.02	0.01	0.02	0.09	0.13
MAX	0.02	0.10	0.18	310	52.3	66.0	0.21	0.27	0.05	0.23	0.78	1.30
(WY)	1993	2004	1993	1993	1993	1995	1993	1993	1998	1999	1989	1995
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1990	1991	1994	1994	1997	1990	1989	1989	1989	1989	1990	1989

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1989 - 2004		
ANNUAL TOTAL	10.79		8.06				
ANNUAL MEAN	0.03		0.02		2.69		
HIGHEST ANNUAL MEAN					30.4	1993	
LOWEST ANNUAL MEAN					0.00	2002	
HIGHEST DAILY MEAN	4.8	Mar 16	2.9	Nov 12	2950	Jan 16 1993	
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Mar 30 1989	
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Mar 30 1989	
MAXIMUM PEAK FLOW			36		Sep 12	9060	Jan 7 1993
MAXIMUM PEAK STAGE			7.05		Sep 12	8.09	Feb 14 1998
ANNUAL RUNOFF (AC-FT)	21		16		1950		
10 PERCENT EXCEEDS	0.00		0.00		0.00		
50 PERCENT EXCEEDS	0.00		0.00		0.00		
90 PERCENT EXCEEDS	0.00		0.00		0.00		

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—May 1962 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 1,440 ft above NGVD of 1929, from topographic map.

REMARKS.—Record fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,100 ft<sup>3</sup>/s, Sept. 10, 1976, gage height, 7.84 ft inside, 11.5 ft from floodmarks, from rating curve extended above 40 ft<sup>3</sup>/s on basis of slope-area measurement at gage heights 2.68, 5.15, and 7.84 ft, maximum gage height, 10.27 ft, Aug. 14, 1984; no flow for many days most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 20 ft<sup>3</sup>/s, or maximum, from rating curve extended above 52 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 5.15 and 10.27 ft:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Aug. 13	1430	33	2.51

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	0.00	0.00	0.00	0.00	0.44	0.24	0.06	0.00	0.00	0.00	0.00
2	0.03	0.00	0.00	0.00	0.00	0.59	0.25	0.06	0.00	0.00	0.00	0.00
3	0.03	0.00	0.00	0.00	0.00	5.8	0.31	0.05	0.00	0.00	0.00	0.00
4	0.03	0.00	0.00	0.00	0.00	4.4	0.28	0.05	0.00	0.00	0.00	0.00
5	0.03	0.00	0.00	0.00	0.00	2.7	0.26	0.04	0.00	0.00	0.00	0.00
6	0.03	0.00	0.00	0.00	0.00	1.6	0.23	0.02	0.00	0.00	0.00	0.00
7	0.02	0.00	0.00	0.00	0.00	1.3	0.20	0.02	0.00	0.00	0.00	0.00
8	0.02	0.00	0.00	0.00	0.00	1.1	0.19	0.01	0.00	0.00	0.00	0.00
9	0.02	0.00	0.00	0.00	0.00	1.0	0.17	0.00	0.00	0.00	0.00	0.00
10	0.02	0.00	0.00	0.00	0.00	0.96	0.16	0.00	0.00	0.00	0.00	0.00
11	0.02	0.00	0.00	0.00	0.00	0.95	0.15	0.00	0.00	0.00	0.00	0.00
12	0.00	0.01	0.00	0.00	0.00	0.82	0.14	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.73	0.13	0.00	0.00	0.00	e1.2	0.00
14	0.00	0.00	0.00	0.00	0.00	0.63	0.12	0.00	0.00	0.00	e0.02	0.00
15	0.00	0.00	0.00	0.00	0.00	0.57	0.12	0.00	0.00	0.00	e0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.52	0.12	0.00	0.00	0.00	e0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.49	0.12	0.00	0.00	0.00	e0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.46	0.11	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.43	0.12	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.40	0.12	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.39	0.11	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.37	0.10	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.36	0.10	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.35	0.09	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.34	0.09	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	1.3	0.31	0.09	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	2.0	0.30	0.08	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.77	0.28	0.08	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.52	0.27	0.08	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.25	0.07	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.24	---	0.00	---	0.00	0.00	---
TOTAL	0.28	0.01	0.00	0.00	4.59	29.35	4.43	0.31	0.00	0.00	1.22	0.00
MEAN	0.01	0.00	0.00	0.00	0.16	0.95	0.15	0.01	0.00	0.00	0.04	0.00
MAX	0.03	0.01	0.00	0.00	2.0	5.8	0.31	0.06	0.00	0.00	1.2	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.24	0.07	0.00	0.00	0.00	0.00	0.00
AC-FT	0.6	0.02	0.00	0.00	9.1	58	8.8	0.6	0.00	0.00	2.4	0.00

e Estimated.



## 10259200 DEEP CREEK NEAR PALM DESERT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.21	0.77	1.72	4.06	7.14	5.53	1.93	0.77	0.30	0.71	0.94	1.15
MAX	4.62	16.3	23.5	88.6	101	49.3	12.4	7.15	3.97	11.8	15.3	38.1
(WY)	1984	1966	1983	1993	1980	1983	1983	1983	1983	1979	1984	1976
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1963	1963	1963	1963	1963	1963	1963	1962	1962	1962	1962	1962

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1962 - 2004
ANNUAL TOTAL	64.32	40.19	
ANNUAL MEAN	0.18	0.11	2.08
HIGHEST ANNUAL MEAN			15.1 1993
LOWEST ANNUAL MEAN			0.00 2002
HIGHEST DAILY MEAN	16 Aug 26	5.8 Mar 3	850 Sep 10 1976
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 12	0.00 May 1 1962
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 12	0.00 May 1 1962
MAXIMUM PEAK FLOW		33 Aug 13	7100 Sep 10 1976
MAXIMUM PEAK STAGE		2.51 Aug 13	10.27 Aug 14 1984
ANNUAL RUNOFF (AC-FT)	128	80	1510
10 PERCENT EXCEEDS	0.21	0.26	2.6
50 PERCENT EXCEEDS	0.00	0.00	0.03
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—March 1966 to current year.

REVISED RECORDS.—WDR CA-72-1: 1971.

GAGE.—Water-stage recorder and crest-stage gage. Concrete control since Oct. 1, 1979. Elevation of gage is NGVD 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, and Feb. 18, 1983, to Nov. 18, 1991, at same site at different datums.

REMARKS.—Records fair. No regulation upstream from station. Water diverted from tributary streams for municipal supply in vicinity of Palm Springs. Water from the Colorado River Basin is imported for ground-water recharge and irrigation. See schematic diagram of [Salton Sea Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,400 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 14.41 ft, site and datum then in use, from rating curve extended above 1,300 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 15.3 ft for flood of Nov. 22, 1965; no flow for all or most of each year.

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

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s, or maximum, from rating curve extended above 480 ft<sup>3</sup>/s on basis of critical-depth computations:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Aug. 14	0400	17	7.32

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.99	0.00	0.00	0.64	0.08	0.00	0.00	0.00	0.00	0.73	0.00
MEAN	0.00	0.03	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00
MAX	0.00	0.99	0.00	0.00	0.56	0.06	0.00	0.00	0.00	0.00	0.72	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	2.0	0.00	0.00	1.3	0.2	0.00	0.00	0.00	0.00	1.4	0.00

## 10259300 WHITEWATER RIVER AT INDIO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.01	0.07	2.07	19.1	11.8	4.20	0.02	0.01	0.01	0.98	0.98	2.29
MAX	0.17	0.88	61.3	513	278	56.2	0.17	0.35	0.19	32.1	29.4	86.2
(WY)	1979	1979	1967	1993	1980	1978	1984	1972	1968	1979	1983	1976
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1967	1967	1968	1967	1967	1966	1966	1966	1966	1967	1966	1966

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	3.60		2.44			
ANNUAL MEAN	0.01		0.01		3.45	
HIGHEST ANNUAL MEAN					47.4 1993	
LOWEST ANNUAL MEAN					0.00 1973	
HIGHEST DAILY MEAN	1.3	Aug 20	0.99	Nov 12	5000	Jan 16 1993
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Mar 1 1966
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Mar 1 1966
MAXIMUM PEAK FLOW			17	Aug 14	11400	Jan 25 1969
MAXIMUM PEAK STAGE			7.32	Aug 14	14.41	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	7.1		4.8		2500	
10 PERCENT EXCEEDS	0.00		0.00		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1960 to current year (since October 1992, low-flow records only).

GAGE.—Water-stage recorder. Datum of gage is 221 ft below NGVD of 1929 (levels by Coachella Valley 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.—Records fair. Most flow represents seepage and return flow from irrigated areas. No discharge records computed above 200 ft<sup>3</sup>/s since October 1992. See schematic diagram of Salton Sea Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 2,500 ft<sup>3</sup>/s, estimated, Jan. 25, 1969; minimum daily, 37 ft<sup>3</sup>/s, Nov. 25–29, 1960.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	65	58	61	68	70	64	60	57	55	62	60
2	66	66	59	62	68	70	66	61	58	58	60	61
3	67	72	60	61	68	70	67	60	57	58	61	60
4	66	68	60	61	66	70	66	60	58	57	61	59
5	67	67	60	62	69	71	65	62	58	58	61	58
6	66	66	59	63	72	71	64	63	58	58	62	59
7	66	66	59	60	72	71	65	65	59	58	62	58
8	66	66	59	59	72	70	64	62	59	56	62	57
9	65	67	59	59	71	68	64	59	57	57	62	57
10	63	66	60	60	67	68	63	59	56	59	63	59
11	64	66	59	62	67	69	63	59	56	58	64	58
12	65	68	58	66	67	69	64	59	57	60	63	58
13	66	74	57	61	68	69	63	60	57	60	63	58
14	69	69	58	61	70	70	62	60	57	59	65	58
15	68	69	58	64	69	69	63	59	56	60	68	57
16	67	68	59	65	69	69	63	58	56	61	64	56
17	68	68	60	65	68	71	63	59	55	61	64	55
18	67	64	62	65	67	70	63	59	55	61	64	56
19	69	62	61	65	66	70	62	59	56	61	63	56
20	68	62	62	63	64	69	61	59	56	62	61	55
21	66	63	62	63	66	68	62	59	56	61	61	52
22	66	61	63	65	67	68	61	60	55	61	62	53
23	66	61	60	66	71	67	63	59	55	62	61	53
24	66	62	61	69	67	67	62	59	55	62	60	52
25	65	62	60	67	67	68	62	57	55	63	59	52
26	65	64	59	68	69	66	61	57	55	64	59	50
27	67	61	59	69	69	66	61	59	56	64	59	49
28	67	60	59	69	69	66	61	58	56	64	59	47
29	66	59	60	68	69	65	60	58	55	61	60	47
30	65	59	61	67	---	64	60	58	55	60	59	49
31	66	---	61	69	---	64	---	57	---	61	60	---
TOTAL	2053	1951	1852	1985	1982	2123	1888	1843	1691	1860	1914	1659
MEAN	66.2	65.0	59.7	64.0	68.3	68.5	62.9	59.5	56.4	60.0	61.7	55.3
MAX	69	74	63	69	72	71	67	65	59	64	68	61
MIN	63	59	57	59	64	64	60	57	55	55	59	47
AC-FT	4070	3870	3670	3940	3930	4210	3740	3660	3350	3690	3800	3290

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1992, BY WATER YEAR (WY)

MEAN	99.9	94.9	95.0	107	125	124	119	118	107	107	120	115
MAX	147	149	141	236	396	222	172	173	145	198	183	220
(WY)	1976	1966	1983	1969	1980	1978	1976	1976	1975	1979	1983	1976
MIN	53.9	44.4	45.4	51.4	56.6	71.8	77.9	80.7	66.9	57.4	80.3	74.1
(WY)	1961	1961	1961	1961	1961	1961	1961	1992	1987	1987	1992	1992

## SUMMARY STATISTICS

## WATER YEARS 1961 - 1992

ANNUAL TOTAL	
ANNUAL MEAN	111
HIGHEST ANNUAL MEAN	156
LOWEST ANNUAL MEAN	68.4
HIGHEST DAILY MEAN	2500
LOWEST DAILY MEAN	37
ANNUAL SEVEN-DAY MINIMUM	37
ANNUAL RUNOFF (AC-FT)	80380
10 PERCENT EXCEEDS	140
50 PERCENT EXCEEDS	108
90 PERCENT EXCEEDS	76

## 10260431 DEEP CREEK NEAR ARROWBEAR LAKE, CA

LOCATION.—Lat 34°13'01", long 117°04'28", in SW 1/4 NE 1/4 sec.34, T.2 N., R.2 W., San Bernardino County, Hydrologic Unit 18090208, 6.7 mi east of Lake Arrowhead, and 15.3 mi northeast of San Bernardino.

DRAINAGE AREA.—4.09 mi<sup>2</sup>.

PERIOD OF RECORD.—July 2001 to current year.

CHEMICAL DATA: July 2001 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)
JAN									
21...	1345	.10	--	--	--	7.6	157	2.5	25.0
APR									
21...	1215	1.1	605	9.1	97	7.2	112	8.0	11.5
JUL									
20...	1015	e.01	610	4.2	51	6.9	195	14.5	25.7

Date	Fluoride, water, fltrd, mg/L (00950)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Boron, water, fltrd, ug/L (01020)
JAN									
21...	<.2	2.3	118	.21	.002	.001	.002	.019	<7.0
APR									
21...	<.2	.5	91	.18	.002	.001	.003	.011	<7.0
JUL									
20...	<.2	<.2	149	.30	.012	.001	--	.069	7.4

e Estimated.

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

## 10260432 CRAB CREEK AT CRAB FLATS ROAD, NEAR LAKE ARROWHEAD, CA

LOCATION.—Lat 34°15'32", long 117°05'00", in SW 1/4 NW 1/4 sec.15, T.2 N., R.2 W., San Bernardino County, Hydrologic Unit 18090208, 6.1 mi east of Lake Arrowhead, and 16.5 mi southeast of Hesperia.

DRAINAGE AREA.—2.16 mi<sup>2</sup>.

PERIOD OF RECORD.—July 2001 to current year.

CHEMICAL DATA: July 2001 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, deg C (00010)	Chloride, water, fltrd, mg/L (00940)
JAN 21...	1230	.22	--	--	--	8.2	180	4.0	3.32
APR 21...	1100	.39	614	9.2	97	7.4	142	8.0	2.41

Date	Fluoride, water, fltrd, mg/L (00950)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Boron, water, fltrd, ug/L (01020)
JAN 21...	<.2	1.2	144	.16	.003	.001	.002	.009	<7.0
APR 21...	<.2	.7	117	.18	.003	.001	.002	.023	<7.0

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

10260433 SHEEP CREEK BELOW LAKE ARROWHEAD SCOUT CAMP, NEAR LAKE ARROWHEAD, CA

LOCATION.—Lat 34°15'12", long 117°07'24", in SE 1/4 SE 1/4 sec.18, T.2 N., R.2 W., San Bernardino County, Hydrologic Unit 18090208, 3.8 mi east of Lake Arrowhead, and 15.0 mi southeast of Hesperia.

DRAINAGE AREA.—1.25 mi<sup>2</sup>.

PERIOD OF RECORD.—July 2001 to current year.

CHEMICAL DATA: July 2001 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, deg C (00010)	Chloride, water, fltrd, mg/L (00940)
JAN 21...	1530	e.02	--	--	--	7.2	290	3.5	24.9
APR 21...	1420	.13	628	8.3	98	7.5	224	14.0	14.1

Date	Fluoride, water, fltrd, mg/L (00950)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Boron, water, fltrd, ug/L (01020)
JAN 21...	<.2	2.0	196	.46	.068	.007	.057	.072	e6.4
APR 21...	<.2	4.4	146	.15	.046	.001	.018	.040	e6.7

e Estimated.

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

## 10260434 HOLCOMB CREEK AT CRAB FLATS ROAD, NEAR LAKE ARROWHEAD, CA

LOCATION.—Lat 34°16'32", long 117°02'58", in SW 1/4 NW 1/4 sec.12, T.2 N., R.2 W., San Bernardino County, Hydrologic Unit 18090208, 8.2 mi east of Lake Arrowhead, and 17.3 mi southeast of Hesperia.

DRAINAGE AREA.—25.4 mi<sup>2</sup>.

PERIOD OF RECORD.—July 2001 to current year.

CHEMICAL DATA: July 2001 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)
OCT									
20...	1545	e.20	629	7.7	93	7.6	297	15.0	4.61
JAN									
21...	1045	1.0	--	--	--	8.2	279	2.5	4.75
APR									
21...	0915	2.2	622	9.3	94	8.0	218	7.0	2.90

Date	Fluoride, water, fltrd, mg/L (00950)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Boron, water, fltrd, ug/L (01020)
OCT									
20...	4.8	2.5	188	.08	.001	.001	.005	.015	41
JAN									
21...	1.7	3.7	187	.14	.002	.001	.002	.011	12
APR									
21...	.7	2.1	151	.19	.003	.001	.007	.013	8.8

e Estimated.



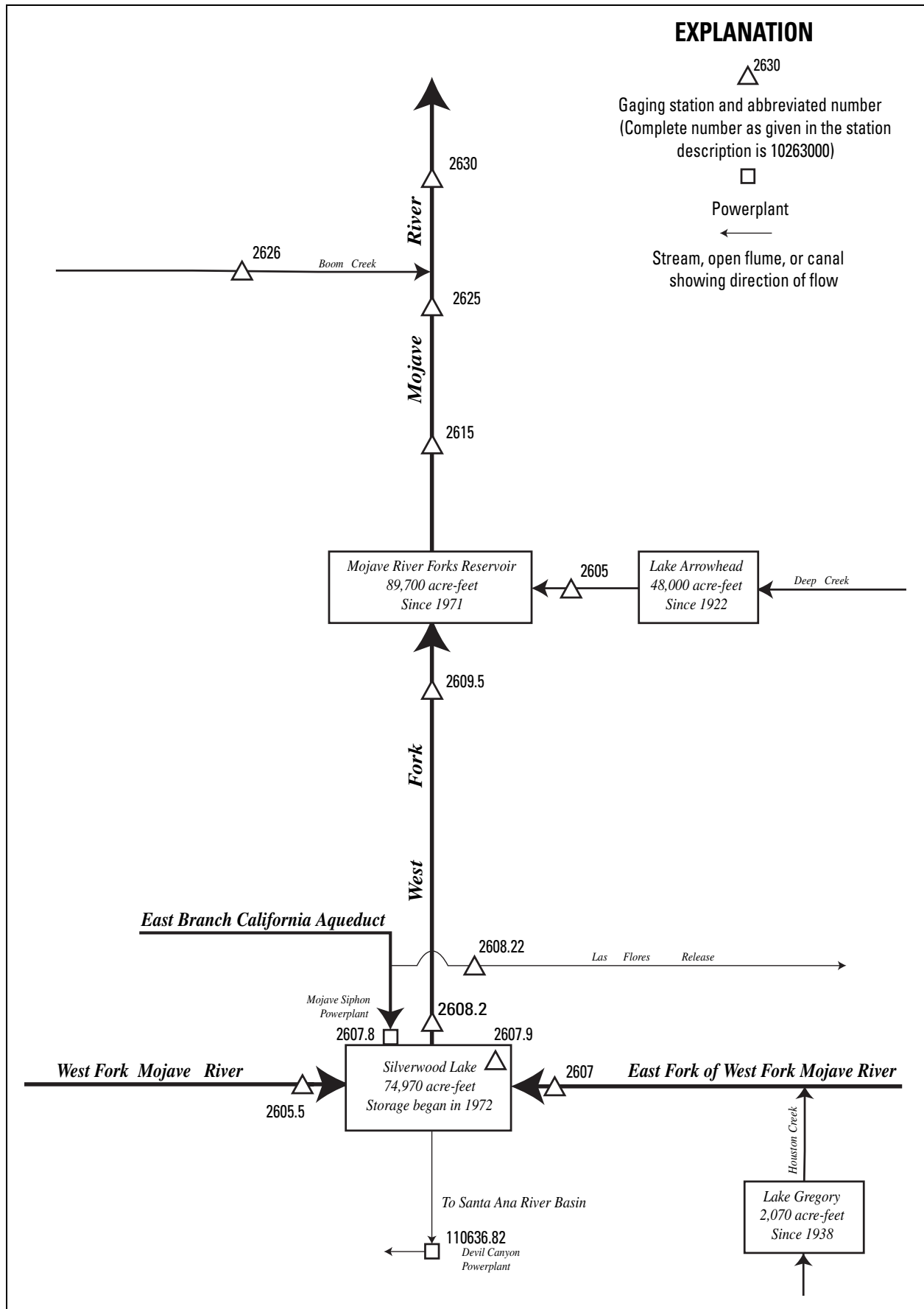


Figure 14. Diversions and storage in Mojave River Basin.

## 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 River Forks Dam, 7 mi southeast of Hesperia, and 11 mi downstream from Lake Arrowhead.

DRAINAGE AREA.—134 mi<sup>2</sup>.

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

REVISED RECORDS.—WSP 1314: 1931(M). WSP 1927: Drainage area.

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

REMARKS.—Records good above 1 ft<sup>3</sup>/s and fair below except for estimated daily discharges, which are poor. Slight regulation by Lake Arrowhead, capacity, 48,000 acre-ft, principally used for recreation. Sewage effluent from Lake Arrowhead area is released above gage at times. See schematic diagram of [Mojave River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 46,600 ft<sup>3</sup>/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow, maximum gage height, 23.81 ft, Feb. 10, 1978 (backwater from Mojave River Forks Reservoir); no flow July 17, 18, 1961.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s, or maximum, from rating curve extended above 3,330 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2015	8,250	7.77	Feb. 26	1000	5,310	6.40

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.51	0.97	3.3	8.2	5.1	37	20	e7.3	2.1	0.21	0.11	0.26
2	0.56	1.1	3.3	7.2	5.1	40	20	e6.4	1.8	0.23	0.12	0.27
3	0.62	0.88	3.3	7.1	8.7	56	21	e5.7	1.7	0.28	0.12	0.30
4	0.64	1.1	3.3	8.9	8.9	54	19	5.6	1.5	0.21	0.16	0.43
5	0.65	1.8	3.3	7.6	6.5	46	19	5.4	1.4	0.19	0.18	0.52
6	0.65	1.9	3.3	5.9	5.4	48	17	5.2	1.3	0.16	0.19	0.46
7	0.65	1.9	3.3	5.2	5.3	59	16	5.0	1.1	0.23	0.19	0.40
8	0.66	1.9	3.3	5.2	5.3	88	16	4.8	1.1	0.21	0.16	0.45
9	0.64	1.9	3.4	5.1	5.1	108	15	4.7	1.2	0.20	0.24	0.56
10	0.58	2.0	3.4	4.9	5.1	109	14	4.6	1.2	0.23	0.27	0.82
11	0.62	2.1	3.5	4.9	5.1	124	13	4.5	1.4	0.24	0.23	0.85
12	0.70	3.5	3.6	5.1	5.1	108	12	4.6	1.7	0.17	0.30	0.69
13	0.65	5.7	3.9	5.0	4.9	96	12	4.6	1.5	0.22	0.31	0.52
14	0.62	7.4	3.9	4.9	4.9	84	11	4.5	1.3	0.19	0.62	0.51
15	0.58	4.8	3.8	4.9	4.9	76	11	4.3	1.1	0.16	1.1	0.57
16	0.56	4.2	3.7	4.7	4.9	76	11	4.2	0.95	0.18	0.98	0.46
17	0.59	4.3	3.8	4.9	4.9	71	10	4.2	0.83	0.20	0.75	0.38
18	0.61	4.1	3.7	4.9	4.9	64	13	3.9	0.72	0.20	0.68	0.36
19	0.60	3.8	3.8	4.9	7.5	59	14	3.8	0.61	0.23	0.45	0.41
20	0.58	3.4	3.7	4.7	8.6	56	14	3.8	0.51	0.19	0.43	0.50
21	0.59	3.3	3.8	4.8	12	54	13	3.7	0.43	0.11	0.46	0.58
22	0.57	3.1	3.9	4.9	44	52	12	3.8	0.38	0.09	0.41	0.75
23	0.52	3.0	3.9	4.8	51	51	11	3.9	0.29	0.08	0.44	0.71
24	0.56	3.0	4.1	4.7	23	48	9.9	4.0	0.27	0.08	0.47	0.71
25	0.58	3.1	1310	4.7	16	39	9.5	3.8	0.25	0.07	0.67	0.66
26	0.57	3.3	856	4.8	1580	34	8.9	3.7	0.26	0.07	0.65	0.57
27	0.63	3.3	44	4.9	188	30	e8.6	3.5	0.23	0.07	0.63	0.53
28	0.65	3.3	17	4.9	75	27	e8.3	3.3	0.20	0.09	0.61	0.49
29	0.63	3.3	11	4.9	49	25	e8.0	3.2	0.17	0.09	0.42	0.51
30	0.67	3.3	9.8	4.9	---	22	e7.7	3.0	0.20	0.12	0.29	0.66
31	0.75	---	8.9	5.1	---	21	---	2.6	---	0.10	0.22	---
TOTAL	18.99	90.75	2343.0	167.6	2154.2	1862	394.9	135.6	27.70	5.10	12.86	15.89
MEAN	0.61	3.02	75.6	5.41	74.3	60.1	13.2	4.37	0.92	0.16	0.41	0.53
MAX	0.75	7.4	1310	8.9	1580	124	21	7.3	2.1	0.28	1.1	0.85
MIN	0.51	0.88	3.3	4.7	4.9	21	7.7	2.6	0.17	0.07	0.11	0.26
AC-FT	38	180	4650	332	4270	3690	783	269	55	10	26	32

e Estimated.

10260500 DEEP CREEK NEAR HESPERIA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.09	18.9	54.2	128	206	210	139	62.8	17.0	5.46	3.12	3.46
MAX	42.0	606	843	2062	2028	1539	747	456	80.4	25.9	29.2	54.3
(WY)	1984	1966	1922	1993	1993	1978	1958	1998	1998	1969	1983	1976
MIN	0.23	1.14	2.53	4.56	6.07	4.87	3.20	2.37	0.83	0.14	0.13	0.10
(WY)	1934	1957	1905	1951	1951	1956	1951	1934	2002	1961	1933	1933

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1905 - 2004	
ANNUAL TOTAL	17106.73		7228.59			
ANNUAL MEAN	46.9		19.8		70.3	
HIGHEST ANNUAL MEAN					411 1993	
LOWEST ANNUAL MEAN					3.06 1951	
HIGHEST DAILY MEAN	3470	Mar 16	1580	Feb 26	14700	Jan 25 1969
LOWEST DAILY MEAN	0.12	Aug 17	0.07	Jul 25	0.00	Jul 17 1961
ANNUAL SEVEN-DAY MINIMUM	0.17	Aug 14	0.08	Jul 22	0.07	Jul 12 1961
MAXIMUM PEAK FLOW			8250	Dec 25	46600	Mar 2 1938
MAXIMUM PEAK STAGE			7.77	Dec 25	23.81	Feb 10 1978
ANNUAL RUNOFF (AC-FT)	33930		14340		50950	
10 PERCENT EXCEEDS	46		28		134	
50 PERCENT EXCEEDS	4.3		3.3		9.6	
90 PERCENT EXCEEDS	0.41		0.22		0.90	



## 10260550 WEST FORK MOJAVE RIVER ABOVE SILVERWOOD LAKE, NEAR HESPERIA, CA

LOCATION.—Lat 34°17'06", long 117°22'16", in NW 1/4 SE 1/4 sec.2, T.2 N., R.5 W., San Bernardino County, Hydrologic Unit 18090208, San Bernardino National Forest, on left bank, 1.5 mi upstream from Silverwood Lake, and 10.6 mi southwest of Hesperia.

DRAINAGE AREA.—3.22 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1995 to current year. Unpublished records for water years 1961–95 available in files of the California Department of Water Resources. Records for water year 2003 have not been published, pending further review, and will be published in a subsequent volume in this series.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 3,550 ft above NGVD of 1929, from topographic map.

REMARKS.—No regulation or diversion upstream from station. See schematic diagram of the [Mojave River Basin](#).

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426.

EXTREMES FOR PERIOD OF RECORD.—Maximum recorded discharge, 584 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 3.88 ft; no flow for many days in each year. The peak discharge for the flood of Dec. 25, 2003, may have exceeded the maximum recorded discharge, but is unknown and may have been the result of a debris or hyperconcentrated flow event, due to an intense rain storm over a drainage area that was burned by wildfire less than two months prior.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	e1.8	e0.20	e2.9	e0.39	e0.22	e0.15	e0.09	e0.02	e0.01
2	0.00	0.00	0.00	e1.7	e0.23	e34	e0.35	e0.21	e0.15	e0.09	e0.02	e0.01
3	0.00	0.00	0.00	e1.5	e0.42	e17	e0.35	e0.20	e0.15	e0.08	e0.02	e0.01
4	0.00	0.00	0.00	e1.4	e0.35	e8.4	e0.39	e0.20	e0.14	e0.08	e0.02	e0.01
5	0.00	0.00	0.00	e1.3	e0.28	e4.2	e0.39	e0.20	e0.14	e0.08	e0.02	e0.01
6	0.00	0.00	0.00	e1.2	e0.25	e4.1	e0.38	e0.20	e0.14	e0.08	e0.02	e0.01
7	0.00	0.00	0.00	e1.1	e0.22	e3.7	e0.35	e0.20	e0.14	e0.08	e0.02	e0.01
8	0.00	0.00	0.00	e1.1	e0.19	e3.3	e0.35	e0.20	e0.14	e0.07	e0.01	e0.01
9	0.00	0.00	0.00	e0.98	e0.16	e2.9	e0.33	e0.20	e0.13	e0.07	e0.01	e0.01
10	0.00	0.00	0.00	e0.90	e0.14	e2.6	e0.31	e0.20	e0.12	e0.07	e0.01	e0.01
11	0.00	0.00	0.00	e0.83	e0.14	e2.3	e0.31	e0.20	e0.12	e0.07	e0.01	e0.01
12	0.00	0.00	0.00	e0.76	e0.13	e2.0	e0.28	e0.20	e0.12	e0.06	e0.01	e0.01
13	0.00	0.00	0.00	e0.70	e0.12	e1.8	e0.28	e0.20	e0.12	e0.06	e0.01	e0.01
14	0.00	0.00	0.00	e0.64	e0.12	e1.5	e0.28	e0.20	e0.12	e0.06	e0.01	e0.01
15	0.00	0.00	0.00	e0.58	e0.12	e1.3	e0.28	e0.20	e0.12	e0.06	e0.01	e0.01
16	0.00	0.00	0.00	e0.53	e0.11	e1.1	e0.28	e0.20	e0.11	e0.06	e0.01	e0.01
17	0.00	0.00	0.00	e0.48	e0.11	e0.97	e0.45	e0.20	e0.11	e0.06	e0.01	e0.01
18	0.00	0.00	0.00	e0.43	e0.17	e0.83	e0.50	e0.20	e0.11	e0.05	e0.01	e0.01
19	0.00	0.00	0.00	e0.39	e0.25	e0.70	e0.34	e0.20	e0.11	e0.05	e0.01	e0.01
20	0.00	0.00	0.00	e0.35	e0.38	e0.58	e0.29	e0.20	e0.11	e0.05	e0.01	e0.01
21	0.00	0.00	0.00	e0.31	e0.77	e0.48	e0.26	e0.20	e0.10	e0.05	e0.01	e0.01
22	0.00	0.00	0.00	e0.28	e48	e0.40	e0.26	e0.20	e0.10	e0.04	e0.01	e0.01
23	0.00	0.00	0.00	e0.26	e34	e0.39	e0.25	e0.20	e0.10	e0.04	e0.01	e0.01
24	0.00	0.00	0.00	e0.25	e12	e0.39	e0.25	e0.20	e0.10	e0.04	e0.01	e0.01
25	0.00	0.00	e244	e0.24	e3.3	e0.39	e0.25	e0.20	e0.10	e0.04	e0.01	e0.01
26	0.00	0.00	e101	e0.23	e79	e0.39	e0.24	e0.20	e0.10	e0.03	e0.01	e0.01
27	0.00	0.00	e9.5	e0.23	e17	e0.39	e0.23	e0.19	e0.09	e0.03	e0.01	e0.01
28	0.00	0.00	e3.1	e0.22	e8.5	e0.39	e0.23	e0.18	e0.09	e0.03	e0.01	e0.01
29	0.00	0.00	e2.4	e0.22	e5.7	e0.39	e0.23	e0.17	e0.09	e0.03	e0.01	e0.01
30	0.00	0.00	e2.2	e0.22	---	e0.39	e0.22	e0.16	e0.09	e0.03	e0.01	e0.01
31	0.00	---	e1.9	e0.21	---	e0.39	---	e0.16	---	e0.03	e0.01	---
TOTAL	0.00	0.00	364.10	21.34	212.36	100.57	9.30	6.09	3.51	1.76	0.38	0.30
MEAN	0.00	0.00	11.7	0.69	7.32	3.24	0.31	0.20	0.12	0.06	0.01	0.01
MAX	0.00	0.00	244	1.8	79	34	0.50	0.22	0.15	0.09	0.02	0.01
MIN	0.00	0.00	0.00	0.21	0.11	0.39	0.22	0.16	0.09	0.03	0.01	0.01
AC-FT	0.00	0.00	722	42	421	199	18	12	7.0	3.5	0.8	0.6

e Estimated.

## MOJAVE RIVER BASIN

## 10260550 WEST FORK MOJAVE RIVER ABOVE SILVERWOOD LAKE, NEAR HESPERIA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.04	0.10	2.21	2.08	7.44	4.29	2.69	2.70	0.90	0.24	0.06	0.03
MAX	0.25	0.41	11.7	12.8	26.5	12.5	10.5	17.1	5.94	1.81	0.44	0.26
(WY)	1999	1999	2004	1997	1998	1998	1998	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.02	0.04	0.20	0.20	0.18	0.07	0.00	0.00	0.00	0.00
(WY)	1998	2001	2002	2000	2002	2002	2002	2002	2002	1997	1996	1996

## SUMMARY STATISTICS

## FOR 2004 WATER YEAR

## WATER YEARS 1996 - 2004

ANNUAL TOTAL	719.71		
ANNUAL MEAN	1.97		1.87
HIGHEST ANNUAL MEAN			6.29 1998
LOWEST ANNUAL MEAN			0.06 2002
HIGHEST DAILY MEAN	244	Dec 25	278 Feb 23 1998
LOWEST DAILY MEAN	0.00	Oct 1	0.00 Jul 7 1996
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 1	0.00 Jul 7 1996
MAXIMUM PEAK FLOW	(a)	Dec 25	584 Feb 23 1998
MAXIMUM PEAK STAGE	(a)	Dec 25	3.88 Feb 23 1998
ANNUAL RUNOFF (AC-FT)	1430		1350
10 PERCENT EXCEEDS	1.1		4.1
50 PERCENT EXCEEDS	0.10		0.17
90 PERCENT EXCEEDS	0.00		0.00

(a) The maximum discharge and stage for water year 2004 is unknown, but is known to have occurred on Dec. 25. This peak may have been a debris or hyperconcentrated flow event, due to an intense rain storm occurring in a drainage basin that had been burned by wildfire less than two months prior.

10260700 EAST FORK OF WEST FORK MOJAVE RIVER ABOVE SILVERWOOD LAKE, NEAR HESPERIA, CA

LOCATION.—Lat 34°16'13", long 117°17'31", in NW 1/4 SW 1/4 sec.10, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, San Bernardino National Forest, on right bank, 0.8 mi downstream from Houston Creek, 1.5 mi upstream from Silverwood Lake, and 10.8 mi south of Hesperia.

DRAINAGE AREA.—11.2 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1995 to current year. Unpublished records for water years 1961–95 available in files of the California Department of Water Resources.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 3,590 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow slightly regulated by Lake Gregory 3.2 mi upstream. See schematic diagram of [Mojave River Basin](#).

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,440 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 6.92 ft; no flow for many days in each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.98	0.54	9.8	1.4	0.55	0.12	0.00	0.00	0.00
2	0.00	0.00	0.00	0.94	0.64	17	1.6	0.52	0.11	0.00	0.00	0.00
3	0.00	0.00	0.00	1.3	1.8	16	1.4	0.48	0.09	0.00	0.00	0.00
4	0.00	0.00	0.00	0.97	1.1	12	1.4	0.44	0.08	0.00	0.00	0.00
5	0.00	0.00	0.00	0.87	0.87	9.5	1.3	0.42	0.07	0.00	0.00	0.00
6	0.00	0.00	0.00	0.81	0.94	7.9	1.2	0.38	0.06	0.00	0.00	0.00
7	0.00	0.00	0.00	0.75	0.82	6.8	1.2	0.37	0.06	0.00	0.00	0.00
8	0.00	0.00	0.00	0.69	0.74	6.1	1.1	0.36	0.06	0.00	0.00	0.00
9	0.00	0.00	0.02	0.66	0.69	5.5	1.1	0.35	0.06	0.00	0.00	0.00
10	0.00	0.00	0.04	0.61	0.63	5.0	1.1	0.33	0.06	0.00	0.00	0.00
11	0.00	0.00	0.07	0.61	0.57	4.5	0.98	0.37	0.05	0.00	0.00	0.00
12	0.00	0.00	0.17	0.58	0.56	4.1	0.93	0.38	0.04	0.00	0.00	0.00
13	0.00	0.00	0.12	0.56	0.56	3.8	0.91	0.33	0.04	0.00	0.00	0.00
14	0.00	0.00	0.11	0.56	0.55	3.4	0.88	0.30	0.03	0.00	0.00	0.00
15	0.00	0.00	0.11	0.55	0.50	3.1	0.88	0.27	0.02	0.00	0.00	0.00
16	0.00	0.00	0.11	0.50	0.54	2.9	0.88	0.28	0.01	0.00	0.00	0.00
17	0.00	0.00	0.10	0.50	0.61	2.7	1.4	0.28	0.01	0.00	0.00	0.00
18	0.00	0.00	0.10	0.50	0.96	2.5	1.4	0.29	0.01	0.00	0.00	0.00
19	0.00	0.00	0.10	0.50	1.4	2.4	1.0	0.29	0.00	0.00	0.00	0.00
20	0.00	0.00	0.10	0.49	2.1	2.2	0.92	0.29	0.00	0.00	0.00	0.00
21	0.00	0.00	0.10	0.45	4.3	2.0	0.88	0.30	0.00	0.00	0.00	0.00
22	0.00	0.00	0.10	0.44	28	1.9	0.85	0.32	0.00	0.00	0.00	0.00
23	0.00	0.00	0.10	0.40	21	1.8	0.79	0.32	0.00	0.00	0.00	0.00
24	0.00	0.00	0.10	0.43	12	1.7	0.76	0.32	0.00	0.00	0.00	0.00
25	0.00	0.00	52	0.66	8.1	1.6	0.72	0.30	0.00	0.00	0.00	0.00
26	0.00	0.00	38	0.57	169	1.7	0.68	0.28	0.00	0.00	0.00	0.00
27	0.00	0.00	5.6	0.56	35	1.5	0.64	0.25	0.00	0.00	0.00	0.00
28	0.00	0.00	1.8	0.51	18	1.4	0.61	0.22	0.00	0.00	0.00	0.00
29	0.00	0.00	1.4	0.50	12	1.3	0.61	0.20	0.00	0.00	0.00	0.00
30	0.00	0.00	1.3	0.49	---	1.3	0.61	0.19	0.00	0.00	0.00	0.00
31	0.00	---	1.1	0.56	---	1.3	---	0.15	---	0.00	0.00	---
TOTAL	0.00	0.00	102.75	19.50	324.52	144.7	30.13	10.13	0.98	0.00	0.00	0.00
MEAN	0.00	0.00	3.31	0.63	11.2	4.67	1.00	0.33	0.03	0.00	0.00	0.00
MAX	0.00	0.00	52	1.3	169	17	1.6	0.55	0.12	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.40	0.50	1.3	0.61	0.15	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	204	39	644	287	60	20	1.9	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
MEAN	0.07	0.42	1.85	4.47	18.4	11.7	7.98	7.52	2.24	0.59	0.12	0.28
MAX	0.45	2.09	9.36	29.5	84.8	38.0	43.0	53.2	17.5	5.18	1.11	2.56
(WY)	1999	1997	1997	1997	1998	1998	1998	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.08	0.26	0.39	0.44	0.33	0.17	0.00	0.00	0.00	0.00
(WY)	1998	2000	2000	2000	2002	2002	2002	2002	2002	2000	1996	1996

SUMMARY STATISTICS FOR 2003 CALENDAR YEAR FOR 2004 WATER YEAR WATER YEARS 1996 - 2004

ANNUAL TOTAL	1198.05	632.71	
ANNUAL MEAN	3.28	1.73	4.56
HIGHEST ANNUAL MEAN			20.5
LOWEST ANNUAL MEAN			0.15
HIGHEST DAILY MEAN	156	Mar 16	577
LOWEST DAILY MEAN	0.00	Jul 9	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 9	0.00
MAXIMUM PEAK FLOW			487
MAXIMUM PEAK STAGE			5.34
ANNUAL RUNOFF (AC-FT)	2380	1250	3300
10 PERCENT EXCEEDS	7.5	1.8	9.8
50 PERCENT EXCEEDS	0.28	0.05	0.34
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 10260776 EAST BRANCH CALIFORNIA AQUEDUCT AT ALAMO POWERPLANT, NEAR GORMAN, CA

LOCATION.—Lat 34°48'56", long 118°41'03", in NW 1/4 NE 1/4 sec.4, T.8 N., R.17 W., Los Angeles County, Hydrologic Unit 18070102, in powerplant 2.2 mi downstream from Tehachapi Tunnel on the East Branch California Aqueduct, and 9 mi east of Gorman.

PERIOD OF RECORD.—October 1995 to current year. Prior to October 1995 in files of California Department of Water Resources. Published as "Alamo Powerplant" prior to October 1999.

GAGE.—Acoustic-velocity meter in penstock and water-stage recorder in bypass flume. Datum of gage is 2,932.5 ft above NGVD of 1929 (levels by California Department of Water Resources).

REMARKS.—Upstream the flow splits as it leaves the Tehachapi Tunnel. Flow at this site represents East Branch California Aqueduct water flowing southeast to Silverwood Lake. Flow at this site has three components which are combined for publication: flow through the powerplant, occasional bypass flow through the Alamo Bypass (Cottonwood Chute) and estimated leakage. The West Branch California Aqueduct flows through William Warne Powerplant (station 11109398). See schematic of [Santa Clara River Basin](#).

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 2,510 ft<sup>3</sup>/s, July 12, 1997; no flow at times in some years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1600	1240	1420	1740	2000	1020	1260	1900	1810	1630	1590	1660
2	1940	1090	1210	1230	1500	1110	1890	1800	1770	1810	1560	1610
3	1760	889	1080	1590	1650	1200	1770	1570	1940	1750	1780	1670
4	1220	1340	1480	1460	1430	1380	1940	1520	1900	1760	1630	1980
5	1580	1410	1930	1290	1440	1490	1630	1650	1660	1840	1750	2180
6	1630	1380	1470	1200	1400	1460	1560	1550	1440	1650	1780	1910
7	1780	1230	1430	1140	1620	1630	1220	1760	1080	1780	1870	1340
8	1670	1560	1410	1580	1490	1300	779	1740	947	1630	2130	1750
9	2120	1370	1560	1340	1520	1400	1110	1660	1220	1820	1800	1770
10	2210	1580	1370	1450	1560	1160	1100	1340	1450	1900	1700	1850
11	1800	1590	1300	1540	1560	1450	1160	1950	1450	1940	1570	2050
12	978	1540	1890	1150	1470	1500	1230	1500	1590	1430	1520	1350
13	1680	1730	795	1210	1370	1540	1320	1810	1770	1890	1680	1810
14	1670	876	1410	1150	1550	1620	1630	1980	1800	1740	2090	1580
15	1640	528	1460	1150	1620	1600	1630	1900	1660	1530	1940	1490
16	1990	976	1400	1140	1420	1540	1620	2170	1670	1800	1740	1790
17	2230	922	1340	1900	1510	1490	1230	1900	1880	1780	1750	1690
18	1640	1550	1710	1820	1130	1570	1080	1530	1810	1980	1880	1910
19	1120	1350	2080	1360	1070	1310	1280	1860	1860	1790	1790	2070
20	1040	1800	1560	1770	1390	1530	1160	1920	1900	1830	1660	1860
21	1320	2120	1730	1560	1030	1430	1530	1760	1720	1780	2010	1840
22	1280	1600	1710	1870	1010	1490	1990	1900	1720	1800	2180	1760
23	1580	1670	1870	1380	1040	1390	1840	1920	1780	1880	1480	1880
24	1460	1600	1910	1490	892	1320	1880	1900	1810	2050	1770	1790
25	1280	2170	1980	1640	719	1830	1840	1710	1680	2010	1810	1930
26	1140	1420	2290	1150	1050	1860	1670	1730	1940	1750	1650	1950
27	941	1570	1600	1380	824	1480	1640	1750	1680	1780	1760	1800
28	938	1950	1520	1540	912	1540	1690	1870	1810	1710	1890	1890
29	1160	1410	1200	1680	1130	1450	1720	1780	1760	1830	1570	1700
30	1080	1380	665	1440	---	1430	1610	1830	1720	1760	1530	1970
31	1800	---	493	1780	---	1670	---	1690	---	1860	1720	---
TOTAL	47277	42841	46273	45120	38307	45190	45009	54850	50227	55490	54580	53830
MEAN	1525	1428	1493	1455	1321	1458	1500	1769	1674	1790	1761	1794
MAX	2230	2170	2290	1900	2000	1860	1990	2170	1940	2050	2180	2180
MIN	938	528	493	1140	719	1020	779	1340	947	1430	1480	1340
AC-FT	93770	84980	91780	89500	75980	89630	89280	108800	99630	110100	108300	106800

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

MEAN	894	692	777	647	581	875	1146	1245	1267	1395	1401	1341
MAX	1525	1428	1526	1455	1321	1458	1500	1769	1674	1790	1761	1794
(WY)	2004	2004	2001	2004	2004	2004	2004	2004	2004	2004	2004	2004
MIN	28.0	51.3	94.7	62.1	1.46	217	683	722	922	852	1044	820
(WY)	1996	1997	1997	1999	1998	1998	1999	1999	1998	1998	1998	1998

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1996 - 2004	
ANNUAL TOTAL	528836.00		578994			
ANNUAL MEAN	1449		1582		1024	
HIGHEST ANNUAL MEAN					1582	
LOWEST ANNUAL MEAN					603	
HIGHEST DAILY MEAN	2320		Apr 2		2510	
LOWEST DAILY MEAN	0.00		Jan 31		0.00	
ANNUAL SEVEN-DAY MINIMUM	511		Feb 16		0.00	
ANNUAL RUNOFF (AC-FT)	1049000		1148000		741900	
10 PERCENT EXCEEDS	1940		1920		1760	
50 PERCENT EXCEEDS	1540		1630		1090	
90 PERCENT EXCEEDS	789		1140		79	



10260780 EAST BRANCH CALIFORNIA AQUEDUCT AT MOJAVE SIPHON POWERPLANT, NEAR HESPERIA, CA

LOCATION.—Lat 34°18'25", long 117°19'24", in SE 1/4 NW 1/4 sec.32, T.3 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, San Bernardino National Forest, in powerplant and bypass channel, 0.2 mi north of Silverwood Lake, and 8.3 mi south of Hesperia.

PERIOD OF RECORD.—October 1995 to current year. Unpublished records for water years 1975–94 available in files of the California Department of Water Resources. Published as "Mojave Siphon Powerplant" prior to October 1999.

REVISED RECORDS.—WDR CA-00-1: 1997–1999.

GAGE.—Acoustic-velocity meters on intake pipes. Water stage recorder in stilling well on bypass flume. Elevation of powerplant is 3,182 ft above NGVD of 1929. Elevation of bypass gage is 3,372.5 ft above NGVD of 1929, from California Department of Water Resources.

REMARKS.—Flow at this site represents East Branch California Aqueduct water to Silverwood Lake. Flow at this site has two components which are combined for publication: flow through the powerplant, and bypass flow through the flume. No flow through the bypass flume has occurred since Mar. 30, 2001. See schematic diagram of [Mojave River Basin](#).

COOPERATION.—Records collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 2,200 ft<sup>3</sup>/s, July 14, 1997; no flow for many days in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1420	575	975	1470	1810	967	1260	1850	1650	1530	1420	1280
2	1660	575	1110	1360	1440	981	1670	1690	1590	1440	1440	1630
3	1620	572	1100	1320	1700	1050	1660	1650	1710	1580	1450	1560
4	1670	574	1230	1330	1220	1420	1770	1380	1860	1620	1520	1620
5	1860	1070	1160	1320	1190	1420	1780	1480	1140	1690	1490	1920
6	1810	1680	1210	1070	1520	1380	1550	1400	1450	1530	1430	1730
7	1780	1480	1220	1210	1250	1580	940	1650	883	1650	1600	1160
8	1670	1690	1490	1280	1450	1220	875	1710	750	1420	1870	1640
9	1640	1470	1560	1200	1580	1290	1060	1550	999	1540	1770	1640
10	1520	987	1590	1410	1480	966	1060	1370	1280	1650	1510	1480
11	1150	1330	1070	1530	1450	1360	964	1310	1320	1710	1460	1780
12	1600	1420	1360	1080	1260	1380	1060	1590	1280	1550	1450	1360
13	1280	1460	1270	1060	1410	1460	1240	1730	1670	1460	1340	1650
14	1460	1180	1390	976	1400	1440	1430	1620	1700	1540	1660	1410
15	1310	1600	1250	975	1350	1500	1410	1840	1470	1300	2000	1150
16	1490	1500	881	1170	1510	1450	1440	1880	1720	1710	1520	1650
17	1550	1040	1320	1620	1380	1470	1050	1580	1550	1460	1520	1410
18	1790	882	1290	1600	980	1360	1060	1600	1560	1740	1640	1660
19	1750	818	1140	1600	1170	1430	1060	1480	1660	1670	1610	1860
20	1600	727	1240	1510	1100	1320	1350	1810	1670	1560	1690	1670
21	1300	974	1220	1530	979	1320	1280	1640	1570	1630	1600	1660
22	1540	1120	1320	1640	952	1480	1690	1710	1530	1700	1810	1530
23	1530	809	1160	1370	1050	1180	1890	1650	1510	1550	1530	1810
24	1410	944	1180	1350	900	1360	1840	1760	1470	1690	1550	1600
25	961	766	1040	1370	632	1680	1720	1590	1560	1690	1580	1990
26	653	767	986	1020	1040	1820	1730	1540	1760	1590	1530	1620
27	603	1170	592	1370	744	1440	1610	1690	1620	1790	1420	1690
28	635	972	174	1390	805	1500	1600	1610	1540	1400	1620	1740
29	573	1010	467	1260	1160	1480	1470	1600	1510	1550	1620	1620
30	574	996	609	1410	---	1250	1660	1620	1540	1590	1200	1820
31	577	---	1090	1870	---	1640	---	1570	---	1560	1630	---
TOTAL	41986	32158	34694	41671	35912	42594	42179	50150	44522	49090	48480	48340
MEAN	1354	1072	1119	1344	1238	1374	1406	1618	1484	1584	1564	1611
MAX	1860	1690	1590	1870	1810	1820	1890	1880	1860	1790	2000	1990
MIN	573	572	174	975	632	966	875	1310	750	1300	1200	1150
AC-FT	83280	63790	68820	82650	71230	84490	83660	99470	88310	97370	96160	95880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	782	583	672	582	538	778	1038	1084	1076	1180
MAX	1354	1271	1431	1344	1238	1374	1406	1618	1484	1584
(WY)	2004	2001	2001	2004	2004	2004	2004	2004	2004	2004
MIN	22.6	0.00	0.95	7.89	0.52	169	584	531	734	655
(WY)	1996	1997	1997	1997	1997	1996	1999	1999	1998	1998

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1996 - 2004	
ANNUAL TOTAL	460051.00		511776			
ANNUAL MEAN	1260		1398		891	
HIGHEST ANNUAL MEAN					1398	
LOWEST ANNUAL MEAN					502	
HIGHEST DAILY MEAN	2120	Jun 22	2000	Aug 15	2200	Jul 14 1997
LOWEST DAILY MEAN	0.00	Mar 22	174	Dec 28	0.00	Oct 11 1995
ANNUAL SEVEN-DAY MINIMUM	442	Jan 9	574	Oct 29	0.00	Oct 11 1995
ANNUAL RUNOFF (AC-FT)	912500		1015000		645700	
10 PERCENT EXCEEDS	1690		1720		1550	
50 PERCENT EXCEEDS	1330		1470		952	
90 PERCENT EXCEEDS	628		973		21	

## 10260790 SILVERWOOD LAKE NEAR HESPERIA, CA

LOCATION.—Lat 34°18'15", long 117°19'05", in SW 1/4 NE 1/4 sec.32, T.3 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, San Bernardino National Forest, in control structure, near spillway of Cedar Springs Dam, and 8.7 mi south of Hesperia.

DRAINAGE AREA.—34.0 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1995 to current year. Unpublished records for water years 1972–95 available in files of the California Department of Water Resources.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.—Lake is formed by earthfill dam completed in 1972. Capacity, 74,970 acre-ft, at spillway crest of 3,355 ft. Dead storage at invert of outlet structure, 3,967 acre-ft, elevation, 3,235 ft. Lake is a holding basin for East Branch California Aqueduct. See REMARKS for station 10260820. See schematic diagram of Mojave River Basin.

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426. Contents not rounded to U.S. Geological Survey standards.

EXTREMES (AT 2400 HOURS) FOR PERIOD OF RECORD.—Maximum contents, 74,853 acre-ft, Dec. 27, 2003, elevation, 3,354.88 ft; minimum contents, 38,006 acre-ft, Mar. 22, 1996, elevation, 3,310.24 ft.

EXTREMES (AT 2400 HOURS) FOR CURRENT YEAR.—Maximum contents, 74,853 acre-ft, Dec. 27, elevation, 3,354.88 ft; minimum contents, 67,199 acre-ft, Oct. 29, elevation, 3,346.80 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on table provided by California Department of Water Resources, dated January 1978)

3,300	31,395	3,325	48,732	3,345	65,554	3,355	74,970
3,315	41,311	3,335	56,811				

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70082	67660	69660	71235	71216	70554	69988	72436	73032	72331	71558	71017
2	70648	68215	69585	71235	71026	70884	70271	72734	72839	71958	71473	71247
3	70742	68493	68940	71758	71549	71074	70648	72983	73089	71882	71178	71235
4	70932	68400	68902	72073	71501	71216	71977	72657	73388	71873	71131	71473
5	71311	69613	68828	72465	71501	71406	73032	72523	72599	72226	70913	72274
6	71882	71787	68753	72188	71977	71501	73513	72274	72791	72274	70544	72705
7	72360	72551	68968	71787	71691	71882	73032	72523	73253	72032	70487	71853
8	72551	72935	69735	71596	71787	71406	72580	72657	73089	71987	71074	71901
9	72647	73417	70572	71311	72073	70932	71977	72983	73003	71930	71397	71825
10	72743	72647	71121	71406	72073	70082	71596	72599	73118	71796	71178	71530
11	72169	72427	70648	71501	72169	69613	71026	72006	73465	72006	71131	71987
12	72456	72398	71159	71691	71977	69707	70176	71977	73032	71901	70752	71530
13	71882	72360	71568	71787	71787	69547	69988	72063	73137	71853	70252	71444
14	71882	71644	71863	71596	71787	69707	69913	72226	73118	71530	70544	71102
15	71311	71787	72006	71121	71787	69688	69782	72657	72868	70837	71473	70252
16	71311	72456	71606	70648	72169	69894	69725	73089	73032	71178	71425	70308
17	71216	72839	72006	71216	72360	70082	69117	73089	72839	70837	71178	70120
18	71882	73032	72063	71311	71977	70271	68651	73032	72791	71178	71264	70016
19	72073	72226	71834	71596	72073	70082	68131	72868	72705	71264	71425	70601
20	71882	71653	71634	71787	72073	70176	68363	73118	72868	71207	71530	70752
21	71501	71121	71501	71501	72169	69894	67946	73195	72839	71368	71606	70516
22	71216	71121	71615	71977	72456	70082	68437	73089	72599	71530	72331	70280
23	71121	70459	72197	71691	72257	68958	69145	73118	72695	71473	72121	70648
24	70837	70790	72274	71882	71977	68307	69669	73407	72551	71691	72035	70554
25	69988	70176	73649	71787	71311	68586	70016	73407	72274	71691	72092	71292
26	69613	69613	74434	70648	72073	69613	70572	73224	72926	71901	72169	71235
27	68307	70280	74853	70365	71264	69707	70998	72503	73003	72092	71901	71311
28	67844	70064	74288	70176	70554	70082	71368	73407	72983	71691	72035	72849
29	67199	70026	73272	69894	70742	70365	71501	73253	72628	71796	72197	71825
30	67291	69951	71568	69753	---	70176	71958	73195	72523	71930	71473	71739
31	67383	---	70572	70459	---	70459	---	72983	---	71739	71606	---
MAX	72743	73417	74853	72465	72456	71882	73513	73407	73465	72331	72331	72849
MIN	67199	67660	68753	69753	70554	68307	67946	71977	72274	70837	70252	70016
a	3347.00	3349.76	3350.42	3350.30	3350.60	3350.30	3351.88	3352.95	3352.47	3351.65	3351.51	3351.65
b	-2605	+2568	+621	-113	+283	-283	+1499	+1025	-460	-784	-133	+133

CAL YR 2003 b -445

WTR YR 2004 b +1751

a Elevation, in feet, at end of month.

b Change in contents, in acre feet.

## 10260820 WEST FORK MOJAVE RIVER BELOW SILVERWOOD LAKE, NEAR HESPERIA, CA

LOCATION.—Lat 34°18'15", long 117°19'06", in SW 1/4 NE 1/4 sec.32, T.3 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, San Bernardino National Forest, in control room under spillway at Cedar Springs Dam, and 8.7 mi south of Hesperia.

DRAINAGE AREA.—34.0 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1980 to September 1983, October 1995 to current year. Unpublished records for water years 1973–95 available in files of the California Department of Water Resources.

GAGE.—Flowmeter on release valve and theoretical rating on two slide gates. Elevation of gage is 3,180 ft above NGVD of 1929, from topographic map. Prior to October 1983, at recording site 0.3 mi downstream, at different datum.

REMARKS.—Flow regulated by Silverwood Lake (station 10260790). Lake stores water received from the East Branch California Aqueduct through Mojave Siphon Powerplant (station 10260780) until it is transferred to Santa Ana River Basin area through Devil Canyon Powerplant (station 11063682). Las Flores Release from East Branch California Aqueduct (station 10260822) delivers water to vicinity of West Fork Mojave River. See schematic diagram of [Mojave River Basin](#).

COOPERATION.—Records collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426.

EXTREMES FOR PERIOD OF RECORD (Water years 1981–83).—Maximum discharge, 2,290 ft<sup>3</sup>/s, Mar. 2, 1983, gage height, 7.51 ft, site and datum then in use; no flow for most of every year.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	290	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	200	0.00	0.00	21	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	200	0.00	0.00	40	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	200	0.00	0.00	21	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	200	0.00	0.00	48	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	200	0.00	0.00	48	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	200	0.00	0.00	46	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	200	0.00	0.00	12	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	250	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	250	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	271	98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	300	98	62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	300	98	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	300	98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	143	98	119	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	12	92	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	293	68	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	401	19	48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	350	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	501	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	7296	784.00	627.00	236.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	235	25.3	21.6	7.61	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	501	98	195	48	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	14470	1560	1240	468	0.00	0.00	0.00	0.00	0.00	0.00
a	43	0	0	22	187	341	85	61	162	166	169	156

a Flow, in acre-feet, through Las Flores Release (station 10260822), provided by California Department of Water Resources.

## 10260820 WEST FORK MOJAVE RIVER BELOW SILVERWOOD LAKE, NEAR HESPERIA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.03	0.45	25.9	14.5	58.7	80.4	19.4	18.2	3.23	0.44	1.25	0.10
MAX	0.19	4.03	235	73.9	403	739	87.8	126	28.9	2.65	14.6	1.18
(WY)	1983	1983	2004	1997	1983	1983	1998	1998	1998	1997	1997	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1996	1996	1996	1999	1999	1999	1997	1997	1981	1996	1996	1996

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1981 - 2004	
ANNUAL TOTAL	7981.10		8943.00			
ANNUAL MEAN	21.9		24.4		18.4	
HIGHEST ANNUAL MEAN					118	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	501	Dec 31	501	Dec 31	1990	Mar 3 1983
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1980
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1980
MAXIMUM PEAK FLOW					2290	
MAXIMUM PEAK STAGE					7.51	
ANNUAL RUNOFF (AC-FT)	15830		17740		13310	Mar 2 1983
TOTAL FLOW (AC-FT) a	19160		19130			
10 PERCENT EXCEEDS	39		98		24	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a Total flow, in acre-ft, including flow through Las Flores Release (10260822), provided by California Department of Water Resources.

10260950 WEST FORK MOJAVE RIVER ABOVE MOJAVE RIVER FORKS RESERVOIR, 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 on Silverwood Lake, and 6.5 mi southeast of Hesperia.

DRAINAGE AREA.—70.3 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1974 to current year. October 1974 to September 1991 published incorrectly as station 10261000. Records for station 10261000 are not equivalent due to difference in drainage area.

REVISED RECORDS.—WDR CA-84: 1983.

GAGE.—Water-stage recorder and culvert control. Elevation of gage is 3,040 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. Flow regulated by Silverwood Lake (holding basin for imported water from East Branch California Aqueduct), total capacity, 74,970 acre-ft, 4.5 mi upstream, which releases all natural inflow as soon as possible after a storm. See schematic diagram of [Mojave River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,300 ft<sup>3</sup>/s, Feb. 10, 1978, gage height, 23.2 ft, on basis of slope-area measurement of peak flow, maximum gage height possibly affected by backwater from Mojave River Forks Reservoir; no flow for several months in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 26,100 ft<sup>3</sup>/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow for station 10261000 at site 1.5 mi downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	178	87	0.00	8.6	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	178	4.5	0.00	8.2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	178	1.4	0.00	14	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	179	0.33	0.00	49	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	179	0.00	0.00	12	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	179	0.00	0.00	4.5	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	180	0.00	0.00	3.4	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	180	0.00	0.00	2.7	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	180	0.00	0.00	2.5	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	182	0.00	0.00	7.7	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	183	0.00	0.00	40	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	181	0.00	0.00	42	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	183	0.00	0.00	42	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	182	0.00	0.00	25	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	182	0.00	0.00	2.8	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	182	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	257	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	3.7	342	1.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	61	342	46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	71	357	73	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	75	398	75	34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	78	402	76	66	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	96	655	76	4.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	126	258	76	428	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	149	38	78	197	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	175	271	63	150	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	176	494	29	69	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	177	393	1.9	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	601	0.15	---	0.00	---	0.00	---	0.00	---	---
TOTAL	0.00	1187.70	8294	688.68	951.10	264.88	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	39.6	268	22.2	32.8	8.54	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	177	655	87	428	49	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	2360	16450	1370	1890	525	0.00	0.00	0.00	0.00	0.00	0.00

## MOJAVE RIVER BASIN

## 10260950 WEST FORK MOJAVE RIVER ABOVE MOJAVE RIVER FORKS RESERVOIR, NEAR HESPERIA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.26	5.44	21.0	62.8	138	132	45.7	29.0	12.0	1.22	0.48	0.58
MAX	41.8	50.4	268	810	883	948	253	296	169	10.1	11.4	8.29
(WY)	1994	1993	2004	1993	1993	1983	1980	1978	1978	1998	1997	1993
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1975	1975	1976	1975	2002	2002	1987	1984	1975	1975	1975	1975

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1975 - 2004	
ANNUAL TOTAL	11093.30		11386.36			
ANNUAL MEAN	30.4		31.1		37.0	
HIGHEST ANNUAL MEAN					183 1978	
LOWEST ANNUAL MEAN					0.00 2002	
HIGHEST DAILY MEAN	655	Dec 25	655	Dec 25	4900	Feb 10 1978
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1974
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1974
MAXIMUM PEAK FLOW			2080 Dec 25		11300 Feb 10 1978	
MAXIMUM PEAK STAGE			6.22 Dec 25		23.20 Feb 10 1978	
ANNUAL RUNOFF (AC-FT)	22000		22580		26810	
10 PERCENT EXCEEDS	113		149		59	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

10261100 MOJAVE RIVER BELOW FORKS RESERVOIR, NEAR HESPERIA, CA

LOCATION.—Lat 34°20'45", long 117°14'14", in NW 1/4 NW 1/4 sec.18, T.3 N., R.3 W., San Bernardino County, Hydrologic Unit 18090208, 6.0 mi southeast of Hesperia, and 10.4 mi south of Apple Valley.

DRAINAGE AREA.—209 mi<sup>2</sup>.

REVISED RECORDS. WDR-CA-04-1: Drainage area.

PERIOD OF RECORD.—Water years 1971–74, 1980–97, July 2001 to current year.

WATER-DISCHARGE RECORDS: Water years 1971–74, 1980–97.

CHEMICAL DATA: July 2001 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	
OCT	21...	1130	.67	690	8.9	100	8.4	615	16.0	16.7
JAN	20...	1245	4.9	--	--	--	8.1	388	8.5	13.6
APR	20...	1245	14	684	9.2	105	8.0	262	16.5	7.45
JUL	21...	1215	.01	682	10.8	133	8.9	546	20.0	21.1

Date	Fluoride, water, fltrd, mg/L (00950)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Boron, water, fltrd, ug/L (01020)	
OCT	21...	5.3	130	386	.21	.008	.002	.030	.048	303
JAN	20...	2.3	43.8	256	.34	.065	.003	.058	.078	88
APR	20...	1.3	14.3	171	.29	.004	.001	.044	.060	44
JUL	21...	2.7	16.9	341	.34	.014	.002	--	.140	184

Date	1,1,1-Trichloroethane, water, unfltrd ug/L (34506)	CFC-113, water, unfltrd ug/L (77652)	1,1-Dichloroethane, water, unfltrd ug/L (34496)	1,1-Dichloroethene, water, unfltrd ug/L (34501)	1,2-Dichlorobenzene, water, unfltrd ug/L (34536)	1,2-Dichloroethane, water, unfltrd ug/L (32103)	1,2-Dichloropropane, water, unfltrd ug/L (34541)	1,3-Dichlorobenzene, water, unfltrd ug/L (34566)	1,4-Dichlorobenzene, water, unfltrd ug/L (34571)
OCT	21...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1
JAN	20...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1
APR	20...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1
JUL	21...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1

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

## 10261100 MOJAVE RIVER BELOW FORKS RESERVOIR, NEAR HESPERIA, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Benzene water unfltrd ug/L (34030)	Bromo- di- chloro- methane unfltrd ug/L (32101)	Chloro- benzene water unfltrd ug/L (34301)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	Di- bromo- chloro- methane water unfltrd ug/L (32105)	Di- chloro- di- fluoro- methane wat unf ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Di- ethyl ether, water, unfltrd ug/L (81576)	Diiso- propyl ether, water, unfltrd ug/L (81577)
OCT 21...	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2
JAN 20...	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2
APR 20...	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2
JUL 21...	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2

Date	Ethyl- benzene water, unfltrd ug/L (34371)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- + para- Xylene, water, unfltrd ug/L (85795)	o- Xylene, water, unfltrd ug/L (77135)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)
OCT 21...	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
JAN 20...	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
APR 20...	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
JUL 21...	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2

Date	Toluene water unfltrd ug/L (34010)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	Tri- bromo- methane water unfltrd ug/L (32104)	Tri- chloro- ethene, water, unfltrd ug/L (39180)	Tri- chloro- fluoro- methane water unfltrd ug/L (34488)	Tri- chloro- methane water unfltrd ug/L (32106)	Vinyl chloro- ide, water, unfltrd ug/L (39175)
OCT 21...	<.1	<.1	<.2	<.1	<.2	<.1	<.2
JAN 20...	<.1	<.1	<.2	<.1	<.2	<.1	<.2
APR 20...	<.1	<.1	<.2	<.1	<.2	<.1	<.2
JUL 21...	<.1	<.1	<.2	<.1	<.2	<.1	<.2

&lt; Actual value is known to be less than value shown.



10261480 MOJAVE RIVER AT UPPER NARROWS, AT VICTORVILLE, CA

LOCATION.—Lat 34°31'59", long 117°17'10", in SW 1/4 SE 1/4 sec.10, T.5 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, 3.3 mi southeast of U.S. Geological Survey station 10261500, and 6.9 mi northwest of Apple Valley.

DRAINAGE AREA.—315 mi<sup>2</sup>.

PERIOD OF RECORD.—July 2001 to current year.

CHEMICAL DATA: July 2001 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)
OCT 21...	1420	3.0	696	4.2	49	7.3	832	18.0	65.2
JAN 20...	1000	11	--	--	--	7.3	605	9.0	45.2
APR 20...	1040	9.8	691	5.3	57	7.3	565	14.0	40.4
JUL 22...	0910	3.6	688	2.5	30	7.4	815	18.5	72.3

Date	Fluoride, water, fltrd, mg/L (00950)	Sulfate, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Boron, water, fltrd, ug/L (01020)
OCT 21...	.5	50.3	477	.17	.519	.008	.028	.048	197
JAN 20...	.4	38.8	369	.41	.325	.005	.013	.064	107
APR 20...	.4	31.2	345	.71	.311	.005	.017	.072	107
JUL 22...	.6	63.0	496	.21	1.12	.017	--	.088	275

Date	1,1,1-Trichloroethane, water, unfltrd ug/L (34506)	CFC-113, water, unfltrd ug/L (77652)	1,1-Dichloroethane, water, unfltrd ug/L (34496)	1,1-Dichloroethene, water, unfltrd ug/L (34501)	1,2-Dichlorobenzene, water, unfltrd ug/L (34536)	1,2-Dichloroethane, water, unfltrd ug/L (32103)	1,2-Dichloropropane, water, unfltrd ug/L (34541)	1,3-Dichlorobenzene, water, unfltrd ug/L (34566)	1,4-Dichlorobenzene, water, unfltrd ug/L (34571)
OCT 21...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
JAN 20...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
APR 20...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
JUL 22...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1

Date	Benzene, water, unfltrd ug/L (34030)	Bromodichloromethane, water, unfltrd ug/L (32101)	Chlorobenzene, water, unfltrd ug/L (34301)	cis-1,2-Dichloroethene, water, unfltrd ug/L (77093)	Di-bromochloromethane, water, unfltrd ug/L (32105)	Di-chlorodifluoromethane, water, unfltrd ug/L (34668)	Di-chloromethane, water, unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diisopropyl ether, water, unfltrd ug/L (81577)
OCT 21...	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2
JAN 20...	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2
APR 20...	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2
JUL 22...	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2

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

## 10261480 MOJAVE RIVER AT UPPER NARROWS, AT VICTORVILLE, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Ethylbenzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta- + para-Xylene, water, unfltrd ug/L (85795)	o-Xylene, water, unfltrd ug/L (77135)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)
OCT 21...	<.1	<.2	<.2	<.1	<.1	<.1	e.1	<.1	<.2
JAN 20...	<.1	<.2	<.2	<.1	<.1	<.1	e.2	<.1	<.2
APR 20...	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2
JUL 22...	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2

Date	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)
OCT 21...	<.1	<.1	<.2	<.1	<.2	<.1	<.2
JAN 20...	<.1	<.1	<.2	<.1	<.2	<.1	<.2
APR 20...	<.1	<.1	<.2	<.1	<.2	<.1	<.2
JUL 22...	<.1	<.1	<.2	<.1	<.2	<.1	<.2

## CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC uS/cm (00095)	Temperature, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
OCT 21...*	1432	1.30	.60	696	4.3	50	7.3	895	18.0	1.40
21...*	1433	1.23	.60	696	4.2	49	7.3	895	18.0	2.40
21...*	1434	1.20	.60	696	4.2	49	7.3	878	18.0	3.40
21...*	1435	1.25	.60	696	4.0	46	7.3	832	17.5	4.40
21...*	1436	1.20	.60	696	3.7	43	7.4	658	17.5	5.40
21...*	1437	1.23	.60	696	3.9	44	7.4	634	17.0	6.40

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

e Estimated.

\* Instantaneous discharge at the time of cross-sectional measurement: Oct. 21, 3.0 ft<sup>3</sup>/s.

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 National Trails Highway (formerly U.S. Highway 66), 0.6 mi downstream from Atchison, Topeka, & Santa Fe Railway bridge, and 3 mi northwest of Victorville.

DRAINAGE AREA.—513 mi<sup>2</sup>.

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.

CHEMICAL ANALYSES: Water years 1967–82, water years 1969–74 (partial-record station).

BIOLOGICAL DATA: Water years 1975–81.

SPECIFIC CONDUCTANCE: Water years 1975–82.

WATER TEMPERATURE: Water years 1962–65, 1975–82.

SEDIMENT DATA: Water years 1975–82.

REVISED RECORDS.—WSP 1927: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Auxiliary gage with water-stage recorder 85 ft upstream, on right bank. Elevation of gage is 2,643.01 ft above NGVD 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 lower; Apr. 15, 1966, to July 17, 1969, at site 350 ft upstream at datum 7.00 ft lower. From July 18, 1969, to Oct. 13, 2003, at present site at datum 10.00 ft lower.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Flow regulated by Mojave River Forks Reservoir, capacity, 89,700 acre-ft, since 1971, 17.8 mi upstream; Silverwood Lake, capacity, 74,970 acre-ft, since 1972; and Lake Arrowhead, capacity, 48,000 acre-ft, since 1922. Some water is imported into basin. Diversions and pumping for irrigation and for Mojave State Fish Hatchery upstream from station. See schematic diagram of [Mojave River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 70,600 ft<sup>3</sup>/s, Mar. 2, 1938, gage height, 33.7 ft, present datum, from rating curve extended above 10,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; no flow Sept. 21–23, 1995.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.67	1.1	7.2	72	11	15	8.3	4.7	1.8	1.3	0.73	1.1
2	0.69	1.1	6.2	e15	11	14	8.6	4.3	1.8	1.3	0.76	0.95
3	0.71	1.3	6.6	e14	19	13	9.5	3.9	1.7	1.3	0.75	0.79
4	0.69	1.1	7.2	e13	15	13	9.2	4.0	1.7	1.3	0.78	0.75
5	0.70	1.1	9.2	e12	14	13	9.1	4.0	1.6	1.3	0.79	0.81
6	0.70	1.1	7.6	e11	13	12	8.5	3.9	1.6	1.3	0.76	0.85
7	0.66	1.3	8.8	11	13	12	8.8	3.7	1.6	1.3	0.96	0.83
8	0.72	0.88	8.0	11	13	12	8.9	3.1	1.6	1.3	0.96	0.83
9	0.71	0.95	7.1	11	12	12	8.4	2.9	1.7	1.3	0.99	0.83
10	0.85	1.4	7.9	11	12	12	8.8	2.7	1.7	1.4	0.97	0.88
11	0.95	1.4	8.1	11	12	12	8.7	2.7	1.9	1.2	0.97	0.87
12	0.99	2.7	9.1	11	12	13	8.5	2.9	1.8	1.2	1.0	0.92
13	1.0	2.6	8.8	11	12	12	8.7	2.8	1.8	1.3	1.1	0.88
14	e1.1	2.0	9.4	11	11	12	8.7	2.4	1.6	1.1	1.1	0.86
15	e1.0	1.9	10	10	11	12	8.0	2.3	1.5	1.1	1.1	0.92
16	e1.0	3.1	8.9	10	11	13	7.8	1.7	1.5	1.1	1.3	0.92
17	e0.90	2.8	9.9	10	11	13	7.7	1.8	1.4	1.1	1.5	0.83
18	0.83	3.8	9.9	10	13	12	7.4	1.8	1.4	1.1	1.3	0.70
19	0.83	6.2	10	11	12	12	7.9	1.9	1.5	1.0	1.3	0.74
20	0.86	5.9	11	12	12	12	7.8	2.5	1.4	1.0	1.3	0.78
21	0.90	6.1	10	12	12	11	7.6	2.9	1.4	1.1	1.4	0.75
22	0.81	4.6	9.2	12	14	11	7.2	2.9	1.3	1.1	1.9	0.80
23	1.7	4.0	9.0	12	27	11	6.7	2.7	1.4	e1.0	0.92	0.81
24	1.0	4.4	10	12	17	11	5.8	2.9	1.2	e0.90	0.88	0.85
25	1.0	5.1	21	12	e17	10	5.7	2.9	1.2	e0.80	0.96	1.1
26	0.92	7.3	466	12	e32	9.9	5.5	2.9	1.2	e0.77	1.0	0.67
27	0.91	6.4	e54	12	e41	9.7	5.3	2.6	1.2	e0.75	0.97	0.66
28	1.0	6.4	e42	11	18	9.7	5.1	2.5	1.3	e0.73	0.93	0.66
29	1.1	6.1	e18	11	16	9.1	4.7	2.2	1.3	0.73	0.83	0.79
30	1.4	6.1	e42	11	---	8.6	4.7	2.2	1.2	0.76	0.88	0.91
31	1.1	---	61	11	---	8.2	---	1.9	---	0.82	0.94	---
TOTAL	28.40	100.23	913.1	416	444	360.2	227.6	88.6	45.3	33.76	32.03	25.04
MEAN	0.92	3.34	29.5	13.4	15.3	11.6	7.59	2.86	1.51	1.09	1.03	0.83
MAX	1.7	7.3	466	72	41	15	9.5	4.7	1.9	1.4	1.9	1.1
MIN	0.66	0.88	6.2	10	11	8.2	4.7	1.7	1.2	0.73	0.73	0.66
AC-FT	56	199	1810	825	881	714	451	176	90	67	64	50

e Estimated.

## MOJAVE RIVER BASIN

## 10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	22.5	33.6	49.1	92.9	199	210	120	45.9	20.3	13.9	14.1	15.8
MAX	58.2	222	376	1487	2334	2229	1015	312	157	32.5	29.3	41.7
(WY)	1977	1966	1967	1993	1993	1938	1958	1998	1978	1969	1969	1976
MIN	0.92	3.34	9.15	9.23	14.0	11.6	7.59	2.86	1.48	1.09	0.73	0.61
(WY)	2004	2004	2003	2003	2002	2004	2004	2004	2003	2004	2002	2003

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	3688.29		2714.26			
ANNUAL MEAN	10.1		7.42		69.1	
HIGHEST ANNUAL MEAN					402	
LOWEST ANNUAL MEAN					6.29	
HIGHEST DAILY MEAN	466	Dec 26	466	Dec 26	21000	Feb 25 1969
LOWEST DAILY MEAN	0.50	Sep 14	0.66	Oct 7	0.00	Sep 21 1995
ANNUAL SEVEN-DAY MINIMUM	0.53	Sep 19	0.69	Oct 1	0.37	Sep 20 1995
MAXIMUM PEAK FLOW			1620	Dec 26	70600	Mar 2 1938
MAXIMUM PEAK STAGE			14.88	Dec 26	33.70	Mar 2 1938
ANNUAL RUNOFF (AC-FT)	7320		5380		50040	
10 PERCENT EXCEEDS	13		12		52	
50 PERCENT EXCEEDS	4.0		2.8		25	
90 PERCENT EXCEEDS	0.69		0.83		8.4	

10262500 MOJAVE RIVER AT BARSTOW, CA

LOCATION.—Lat 34°54'25", long 117°01'19", in SW 1/4 SE 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 1st Avenue (formerly U.S. Highway 91), at Barstow.

DRAINAGE AREA.—1,291 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1930 to current year.

REVISED RECORDS.—WSP 1564: 1932. WDR CA-76-1: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 2,089.34 ft above NGVD of 1929.

REMARKS.—Records poor. Flow regulated by Mojave River Forks Reservoir, capacity, 89,700 acre-ft, since 1971, 60 mi upstream; Silverwood Lake, capacity, 74,970 acre-ft, since 1972; and Lake Arrowhead, capacity, 48,000 acre-ft, since 1922. Some water is imported into basin. Diversions and pumping for irrigation of about 15,000 acres upstream from station. Southern California Water Company releases water from Crook Plant Pumping Station into the river 600 ft upstream of the gage at times in some years. See schematic diagram of Mojave River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 64,300 ft<sup>3</sup>/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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.12	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.2	0.00

e Estimated.

## MOJAVE RIVER BASIN

## 10262500 MOJAVE RIVER AT BARSTOW, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.33	3.18	23.4	90.4	105	38.4	5.08	0.00	0.00	0.02	0.02
MAX	0.06	20.2	116	747	1640	1962	547	93.5	0.08	0.09	1.31	0.71
(WY)	1959	1966	1967	1969	1993	1938	1941	1941	1972	1958	1979	1984
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	0.00		0.12			
ANNUAL MEAN	0.00		0.00		21.8	
HIGHEST ANNUAL MEAN					202	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	0.00	Jan 1	0.12	Aug 15	18100	Mar 3 1938
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1930
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1930
MAXIMUM PEAK FLOW			e7.3		64300	Mar 3 1938
MAXIMUM PEAK STAGE			a		8.60	Mar 3 1938
ANNUAL RUNOFF (AC-FT)	0.00		0.2		15780	
10 PERCENT EXCEEDS	0.00		0.00		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated.

a Maximum instantaneous stage is unknown, but probably occurred on Aug. 15.

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 right bank side of right pier of Union Pacific Railroad bridge, 0.3 mi west of Afton, and 63 mi east of Barstow.

DRAINAGE AREA.—2,121 mi<sup>2</sup>.

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

REVISED RECORDS.—WSP 1564: 1931. WDR CA-00-1: 1982(M).

GAGE.—Water-stage recorder. Datum of gage is 1,398.15 ft above NGVD 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.—Records fair. Natural flow affected by ground-water withdrawals, diversions, municipal use, and storage in reservoirs 100 mi upstream. For description of upstream reservoirs see "Mojave River at Barstow" ([station 10262500](#)). See schematic diagram of [Mojave River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 18,000 ft<sup>3</sup>/s, Jan. 26, 1969, gage height, 12.40 ft (present datum), from rating curve extended above 3,200 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; no flow at times during many years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 2	2330	47	4.48

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.07	0.26	0.52	0.77	0.69	0.75	0.77	0.38	0.14	0.00	0.00	0.00
2	0.09	0.27	0.48	0.79	0.69	8.9	0.80	0.36	0.12	0.00	0.00	0.00
3	0.10	0.27	0.48	0.80	0.81	21	0.88	0.31	0.10	0.00	0.00	0.00
4	0.12	0.27	0.50	0.76	0.73	1.6	0.87	0.26	0.08	0.00	0.00	0.00
5	0.13	0.28	0.50	0.78	0.69	0.99	0.83	0.30	0.06	0.00	0.00	0.00
6	0.14	0.29	0.50	0.80	0.69	0.92	0.78	0.25	0.04	0.00	0.00	0.00
7	0.15	0.29	0.52	0.80	0.70	0.91	0.75	0.27	0.03	0.00	0.00	0.00
8	0.15	0.30	0.49	0.72	0.70	0.89	0.70	0.24	0.03	0.00	0.00	0.00
9	0.15	0.32	0.48	0.72	0.70	0.89	0.67	0.23	0.03	0.00	0.00	0.00
10	0.14	0.32	0.52	0.73	0.70	0.88	0.61	0.23	0.06	0.00	0.00	0.00
11	0.16	0.30	0.53	0.74	0.70	0.85	0.62	0.22	0.08	0.00	0.00	0.00
12	0.17	5.4	0.50	0.74	0.70	0.85	0.62	0.23	0.06	0.00	0.00	0.00
13	0.15	9.4	0.52	0.75	0.70	0.84	0.57	0.25	0.05	0.00	0.00	0.00
14	0.16	0.92	0.53	0.73	0.72	0.83	0.56	0.27	0.04	0.00	0.00	0.00
15	0.17	0.79	0.51	0.73	0.72	0.82	0.54	0.24	0.03	0.00	0.00	0.00
16	0.17	0.82	0.52	0.73	0.71	0.81	0.53	0.23	0.01	0.00	0.00	0.00
17	0.18	0.75	0.53	0.73	0.71	0.81	0.52	0.22	0.01	0.00	0.00	0.00
18	0.19	0.71	0.55	0.73	0.73	0.81	0.56	0.22	0.01	0.00	0.00	0.00
19	0.19	0.67	0.56	0.73	0.83	0.81	0.52	0.22	0.01	0.00	0.00	0.00
20	0.20	0.68	0.57	0.73	0.74	0.80	0.50	0.22	0.01	0.00	0.00	0.01
21	0.20	0.68	0.57	0.73	1.2	0.80	0.42	0.22	0.00	0.00	0.00	0.08
22	0.20	0.60	0.56	0.73	0.91	0.80	0.39	0.22	0.00	0.00	0.00	0.14
23	0.19	0.57	0.58	0.73	13	0.79	0.40	0.22	0.00	0.00	0.00	0.17
24	0.19	0.59	0.61	0.75	4.8	0.76	0.38	0.21	0.00	0.00	0.00	0.17
25	0.19	0.59	0.65	0.76	0.84	0.76	0.35	0.21	0.00	0.00	0.00	0.17
26	0.19	0.55	2.2	0.73	2.0	0.77	0.32	0.22	0.00	0.00	0.00	0.17
27	0.20	0.53	0.82	0.73	2.0	0.77	0.31	0.20	0.00	0.00	0.00	0.17
28	0.22	0.55	0.77	0.71	0.80	0.77	0.30	0.17	0.00	0.00	0.00	0.14
29	0.23	0.52	0.78	0.71	0.76	0.78	0.30	0.17	0.00	0.00	0.00	0.15
30	0.23	0.53	0.77	0.71	---	0.78	0.36	0.18	0.00	0.00	0.00	0.16
31	0.23	---	0.77	0.70	---	0.77	---	0.17	---	0.00	0.00	---
TOTAL	5.25	29.02	19.39	23.00	40.67	54.51	16.73	7.34	1.00	0.00	0.00	1.53
MEAN	0.17	0.97	0.63	0.74	1.40	1.76	0.56	0.24	0.03	0.00	0.00	0.05
MAX	0.23	9.4	2.2	0.80	13	21	0.88	0.38	0.14	0.00	0.00	0.17
MIN	0.07	0.26	0.48	0.70	0.69	0.75	0.30	0.17	0.00	0.00	0.00	0.00
AC-FT	10	58	38	46	81	108	33	15	2.0	0.00	0.00	3.0

## MOJAVE RIVER BASIN

## 10263000 MOJAVE RIVER AT AFTON, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.71	0.92	2.56	12.4	40.1	16.2	2.65	0.63	0.37	0.63	1.25	0.81
MAX	2.97	2.29	63.9	347	876	415	56.4	1.80	1.58	3.83	18.0	5.46
(WY)	1993	1981	1966	1969	1993	1978	1969	1931	1981	1999	1984	1998
MIN	0.00	0.00	0.21	0.34	0.55	0.22	0.20	0.10	0.00	0.00	0.00	0.00
(WY)	1967	1969	1978	1976	2001	1975	1977	1977	1976	1966	1966	1966

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	136.78		198.44			
ANNUAL MEAN	0.37		0.54		6.41	
HIGHEST ANNUAL MEAN					100	1969
LOWEST ANNUAL MEAN					0.22	1975
HIGHEST DAILY MEAN	9.4	Nov 13	21	Mar 3	10000	Feb 20 1993
LOWEST DAILY MEAN	0.00	Jun 17	0.00	Jun 21	0.00	Jun 28 1961
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 28	0.00	Jun 21	0.00	Jul 14 1961
MAXIMUM PEAK FLOW			47	Mar 2	18000	Jan 26 1969
MAXIMUM PEAK STAGE			4.48	Mar 2	12.40	Jan 26 1969
ANNUAL RUNOFF (AC-FT)	271		394		4650	
10 PERCENT EXCEEDS	0.65		0.80		1.6	
50 PERCENT EXCEEDS	0.40		0.27		0.70	
90 PERCENT EXCEEDS	0.00		0.00		0.03	



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 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1923 to current year. Monthly discharge only for June 1938 to January 1939, published in WSP 1314. Prior to October 1954, published as "Rock Creek near Valyermo."

WATER TEMPERATURE: Water years 1962–79.

REVISED RECORDS.—WSP 1314: 1938–39. WSP 1564: 1932, 1937, 1939(M). WSP 1927: Drainage area.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 4,050 ft above NGVD 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.—Records fair through April and poor thereafter. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,300 ft<sup>3</sup>/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow, maximum gage height, 7.70 ft, Jan. 25, 1969; minimum daily, 0.70 ft<sup>3</sup>/s, Nov. 5, 1951.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s, or maximum, from rating curve extended above 379 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1730	159	2.74	Feb. 26	0545	142	2.68

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.5	4.2	6.0	4.3	13	13	7.7	e4.0	4.3	e3.6	e2.7
2	4.9	5.4	4.2	6.9	4.5	15	14	7.4	e4.0	4.4	e3.5	e2.6
3	4.9	5.2	4.3	7.0	5.0	14	14	7.2	e3.9	4.1	e3.5	e2.6
4	4.7	5.1	4.1	7.3	4.6	14	15	7.1	e3.9	4.2	e3.4	e2.7
5	4.1	5.0	4.1	7.0	4.5	13	14	6.9	e4.0	4.4	e3.3	e2.7
6	4.0	4.7	4.2	6.8	4.3	13	13	6.8	e4.1	5.0	e3.3	2.6
7	4.0	4.5	4.1	6.4	4.1	14	13	6.6	e4.0	5.1	e3.3	2.8
8	4.0	4.3	3.9	5.9	4.2	16	12	6.3	e4.1	5.0	e3.2	2.7
9	3.8	4.3	3.6	5.9	4.3	18	11	6.1	4.2	4.7	e3.2	2.9
10	3.9	4.1	3.6	5.9	4.3	20	11	6.1	4.2	4.8	e3.1	3.0
11	4.0	4.0	3.6	5.8	4.3	21	10	6.1	4.1	4.8	e3.0	2.9
12	3.8	4.3	3.6	5.8	4.3	20	10	6.0	4.2	4.5	e3.0	2.9
13	3.8	4.0	3.6	5.5	4.3	20	10	5.8	e4.1	4.7	e3.1	2.7
14	3.7	3.9	3.6	5.5	4.3	20	10	5.5	e4.1	4.7	e3.5	2.7
15	3.7	3.9	3.8	5.4	4.3	19	11	5.2	e4.1	e4.9	e3.4	e2.8
16	3.7	3.9	3.9	5.4	4.2	20	10	5.0	e4.1	e4.8	e3.0	e2.8
17	3.9	3.9	3.8	5.3	4.1	19	11	5.0	e4.1	e4.8	2.8	e2.8
18	4.2	3.9	3.6	5.1	4.8	17	11	5.0	e4.0	e4.7	2.7	e2.7
19	4.3	3.9	3.6	5.1	4.9	16	10	4.9	e4.0	e4.6	e2.7	e2.7
20	3.9	3.9	3.6	5.1	4.7	16	9.5	4.9	e4.0	e4.6	e2.7	2.8
21	4.0	3.9	3.6	5.2	4.6	16	9.0	4.8	e4.1	e4.4	e2.7	2.8
22	4.0	3.9	3.6	5.1	11	17	8.9	4.8	e4.2	e4.4	e2.7	2.9
23	4.0	3.9	3.6	4.8	9.4	17	8.8	4.5	e4.2	e4.3	e2.7	2.8
24	3.8	4.0	3.6	4.6	7.5	16	8.4	4.4	e4.2	e4.3	e2.8	2.9
25	3.9	4.1	3.5	4.6	8.6	14	7.9	4.4	e4.3	e4.2	e2.8	2.7
26	3.9	4.1	2.3	4.6	7.8	14	7.5	4.4	e4.2	e4.2	e2.8	e2.6
27	3.5	4.2	1.1	4.6	2.9	13	7.4	4.2	e4.3	e4.3	e2.7	e2.6
28	3.2	4.3	8.4	4.3	1.7	12	7.4	4.0	e4.3	e4.2	e2.7	e2.6
29	3.3	4.1	7.0	4.3	1.3	12	7.7	3.9	e4.4	e4.1	e2.8	2.5
30	4.4	4.2	6.3	4.3	---	12	7.8	3.9	e4.4	e4.0	e2.7	2.5
31	5.2	---	5.8	4.3	---	13	---	e4.1	---	e3.8	e2.7	---
TOTAL	125.2	128.4	187.9	169.8	266.4	494	313.3	169.0	123.8	139.3	93.4	82.0
MEAN	4.04	4.28	6.06	5.48	9.19	15.9	10.4	5.45	4.13	4.49	3.01	2.73
MAX	5.2	5.5	3.5	7.3	7.8	21	15	7.7	4.4	5.1	3.6	3.0
MIN	3.2	3.9	3.6	4.3	4.1	1.2	7.4	3.9	3.9	3.8	2.7	2.5
AC-FT	248	255	373	337	528	980	621	335	246	276	185	163

e Estimated.

## ANTELOPE VALLEY

## 10263500 BIG ROCK CREEK NEAR VALYERMO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.06	7.19	10.0	17.8	30.2	36.8	30.1	27.3	18.4	10.7	7.75	6.12
MAX	19.0	116	67.0	245	303	432	144	120	91.4	42.2	26.5	19.7
(WY)	1984	1966	1947	1969	1980	1978	1978	1941	1978	1983	1983	1983
MIN	1.05	1.09	1.49	1.76	2.39	2.40	2.67	2.35	1.61	1.15	1.09	1.01
(WY)	1952	1952	2003	2003	1951	1951	1951	1951	1961	1961	1961	1961

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1923 - 2004	
ANNUAL TOTAL	4175.6		2292.5			
ANNUAL MEAN	11.4		6.26		17.3	
HIGHEST ANNUAL MEAN					90.9	
LOWEST ANNUAL MEAN					1.91	
HIGHEST DAILY MEAN	405	Feb 12	78	Feb 26	3300	Mar 2 1938
LOWEST DAILY MEAN	1.5	Jan 1	2.5	Sep 29	0.70	Nov 5 1951
ANNUAL SEVEN-DAY MINIMUM	1.6	Jan 1	2.6	Sep 24	0.87	Nov 3 1951
MAXIMUM PEAK FLOW			159	Dec 25	8300	Mar 2 1938
MAXIMUM PEAK STAGE			2.74	Dec 25	7.70	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	8280		4550		12510	
10 PERCENT EXCEEDS	20		13		36	
50 PERCENT EXCEEDS	7.0		4.3		7.1	
90 PERCENT EXCEEDS	2.1		2.8		2.6	

10263630 BIG ROCK CREEK ABOVE PALLETT CREEK, NEAR VALYERMO, CA

LOCATION.—Lat 34°27'36", long 117°51'43", in NE 1/4 SW 1/4 sec.6, T.4 N., R.9 W., Los Angeles County, Hydrologic Unit 18090206, on right bank, 300 ft upstream from confluence with Pallett Creek, and 1.4 mi northwest of Valyermo.

DRAINAGE AREA.—34.4 mi<sup>2</sup>.

PERIOD OF RECORD.—August 2002 to current year.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 3,555 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Natural flow affected by pumping along creek. This station is designated by the Los Angeles County Department of Public Works as station F394-R.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,230 ft<sup>3</sup>/s, Feb. 12, 2003, gage height, 3.32 ft, from rating curve extended above 121 ft<sup>3</sup>/s on basis of critical-depth computations; minimum daily, 0.06 ft<sup>3</sup>/s, Nov. 4–6, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 70 ft<sup>3</sup>/s, or maximum, from rating curve extended above 121 ft<sup>3</sup>/s as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1845	242	1.97	Feb. 26	0530	410	2.28
Feb. 22	0715	75	1.71				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	3.3	3.2	2.9	2.2	e9.0	8.2	9.1	5.8	2.9	3.3	2.0
2	3.9	3.3	3.4	2.7	2.3	e8.0	8.3	8.8	5.7	2.9	3.3	2.0
3	4.0	3.3	3.5	2.5	2.5	e7.1	9.2	8.5	5.7	3.0	3.3	1.9
4	3.9	3.3	3.4	2.5	2.5	6.0	9.9	8.3	5.4	3.3	3.2	1.9
5	3.9	3.3	3.3	2.5	2.5	5.5	9.9	7.8	5.3	3.3	3.1	2.0
6	3.8	3.3	3.3	2.5	2.5	5.3	9.9	7.6	5.1	3.3	3.0	1.9
7	3.8	3.3	3.3	2.5	2.5	5.3	9.9	7.4	5.0	3.3	3.0	1.9
8	3.8	3.0	3.3	2.4	2.5	6.3	9.8	7.4	4.8	3.3	2.9	1.9
9	3.8	2.9	3.3	2.3	2.5	8.6	9.9	7.4	4.6	3.3	2.9	1.9
10	3.8	2.9	3.3	2.3	2.5	11	9.6	7.4	4.2	3.3	2.9	1.7
11	3.8	2.9	3.3	2.3	2.5	14	9.8	7.4	4.2	3.3	2.9	1.5
12	3.8	3.0	3.3	2.3	2.5	12	9.9	7.4	4.2	3.3	2.9	1.4
13	3.7	2.9	3.3	2.3	2.5	13	9.9	7.4	4.2	3.2	2.8	1.4
14	3.3	2.9	3.3	2.3	2.5	12	10	7.1	3.8	3.2	2.8	1.6
15	3.3	2.8	3.2	2.3	2.5	13	11	6.9	3.6	3.1	2.7	1.7
16	3.3	2.7	3.0	2.2	2.5	15	11	6.9	3.6	3.5	2.5	1.7
17	3.3	2.9	3.0	2.2	2.5	15	11	6.7	3.5	3.4	2.4	1.6
18	3.3	2.9	2.9	2.2	2.9	13	11	6.6	3.5	3.4	2.3	1.6
19	3.2	2.9	2.9	2.2	2.9	6.7	11	6.4	3.4	3.3	2.3	1.7
20	3.2	2.8	2.9	2.1	3.1	6.6	11	6.4	3.3	3.3	2.3	1.9
21	3.2	2.6	2.9	1.9	3.6	6.6	11	6.2	3.2	3.2	2.3	1.9
22	3.2	2.9	2.9	1.9	15	6.8	11	7.6	3.4	3.2	2.3	1.9
23	3.2	2.9	2.9	1.9	3.2	6.7	11	7.4	3.4	3.1	2.3	1.9
24	3.2	2.9	3.0	1.9	2.5	6.5	11	7.3	3.2	3.1	2.2	1.9
25	3.1	2.9	51	2.0	9.3	6.8	10	7.4	3.1	3.1	2.3	2.1
26	3.0	2.9	8.3	2.0	105	7.4	9.9	7.0	3.1	3.0	2.2	2.2
27	2.9	3.3	2.9	2.0	e22	7.4	9.7	6.6	3.1	2.9	2.2	2.2
28	2.9	3.3	2.8	2.2	e14	7.0	9.4	6.6	3.0	3.0	2.2	2.2
29	2.8	3.3	2.6	2.2	e10	7.4	9.5	6.6	3.0	3.5	2.2	2.2
30	2.9	3.3	2.6	2.2	---	7.4	9.6	6.3	3.0	3.5	2.1	2.2
31	2.9	---	2.8	2.2	---	7.9	---	6.0	---	3.6	2.1	---
TOTAL	106.1	90.9	149.1	69.9	235.5	270.3	302.3	223.9	120.4	100.1	81.2	55.9
MEAN	3.42	3.03	4.81	2.25	8.12	8.72	10.1	7.22	4.01	3.23	2.62	1.86
MAX	4.0	3.3	51	2.9	105	15	11	9.1	5.8	3.6	3.3	2.2
MIN	2.8	2.6	2.6	1.9	2.2	5.3	8.2	6.0	3.0	2.9	2.1	1.4
AC-FT	210	180	296	139	467	536	600	444	239	199	161	111

e Estimated.

## 10263630 BIG ROCK CREEK ABOVE PALLETT CREEK, NEAR VALYERMO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.80	1.74	2.63	1.41	15.8	12.9	11.7	12.7	7.09	5.50	3.72	2.13
MAX	3.42	3.03	4.81	2.25	23.8	17.0	13.4	18.2	10.2	7.78	4.82	4.25
(WY)	2004	2004	2004	2004	2003	2003	2003	2003	2003	2003	2003	2003
MIN	0.17	0.45	0.46	0.56	8.12	8.72	10.1	7.22	4.01	3.23	2.62	0.28
(WY)	2003	2003	2003	2003	2004	2004	2004	2004	2004	2004	2004	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	3346.32		1805.6			
ANNUAL MEAN	9.17		4.93		6.62	
HIGHEST ANNUAL MEAN					8.31 2003	
LOWEST ANNUAL MEAN					4.93 2004	
HIGHEST DAILY MEAN	420	Feb 12	105	Feb 26	420	Feb 12 2003
LOWEST DAILY MEAN	0.19	Feb 10	1.4	Sep 12	0.06	Nov 4 2002
ANNUAL SEVEN-DAY MINIMUM	0.35	Jan 22	1.6	Sep 11	0.07	Oct 31 2002
MAXIMUM PEAK FLOW			410	Feb 26	1230	Feb 12 2003
MAXIMUM PEAK STAGE			2.28	Feb 26	3.32	Feb 12 2003
ANNUAL RUNOFF (AC-FT)	6640		3580		4800	
10 PERCENT EXCEEDS	15		9.8		13	
50 PERCENT EXCEEDS	4.2		3.3		3.3	
90 PERCENT EXCEEDS	0.66		2.2		0.39	

10263665 PALLETT CREEK AT BIG ROCK CREEK, NEAR VALYERMO, CA

LOCATION.—Lat 34°27'38", long 117°51'50", in NE 1/4 SW 1/4 sec.6, T.4 N., R.9 W., Los Angeles County, Hydrologic Unit 18090206, on left bank, on upstream side of Valyermo Road Bridge, 150 ft upstream from mouth, and 1.4 mi northwest of Valyermo.

DRAINAGE AREA.—15.1 mi<sup>2</sup>.

PERIOD OF RECORD.—November 2001 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 3,550 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. No regulation or diversion upstream from station. This station is designated by the Los Angeles County Department of Public Works as station F122-R.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 65 ft<sup>3</sup>/s, Feb. 12, 2003, gage height, 4.80 ft; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 40 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0615	15	4.07

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.14	0.22	0.29	0.34	0.24	0.42	0.29	0.15	0.01	0.00	0.00	0.00
2	0.15	0.22	0.29	0.33	0.26	0.41	0.28	0.16	0.01	0.00	0.00	0.00
3	0.14	0.23	0.31	0.32	0.27	0.39	0.26	0.16	0.01	0.00	0.00	0.00
4	0.13	0.24	0.32	0.32	0.27	0.40	0.26	0.15	0.01	0.00	0.00	0.00
5	0.12	0.24	0.32	0.32	0.27	0.39	0.25	0.16	0.00	0.00	0.00	0.00
6	0.12	0.24	0.33	0.32	0.27	0.39	0.24	0.17	0.00	0.00	0.00	0.00
7	0.12	0.24	0.34	0.29	0.27	0.37	0.24	0.16	0.00	0.00	0.00	0.00
8	0.12	0.24	0.34	0.29	0.27	0.37	0.24	0.16	0.00	0.00	0.00	0.00
9	0.12	0.24	0.34	0.29	0.29	0.37	0.22	0.14	0.00	0.00	0.00	0.00
10	0.12	0.24	0.34	0.29	0.29	0.37	0.21	0.13	0.00	0.00	0.00	0.00
11	0.12	0.24	0.34	0.28	0.27	0.39	0.20	0.13	0.00	0.00	0.00	0.00
12	0.12	0.27	0.34	0.27	0.29	0.40	0.19	0.13	0.00	0.00	0.00	0.00
13	0.12	0.27	0.34	0.28	0.28	0.38	0.17	0.12	0.00	0.00	0.00	0.00
14	0.12	0.27	0.34	0.29	0.27	0.37	0.17	0.11	0.00	0.00	0.00	0.00
15	0.13	0.27	0.34	0.29	0.28	0.37	0.17	0.11	0.00	0.00	0.00	0.00
16	0.17	0.27	0.34	0.27	0.28	0.37	0.19	0.11	0.00	0.00	0.00	0.00
17	0.17	0.27	0.34	0.27	0.28	0.37	0.20	0.09	0.00	0.00	0.00	0.00
18	0.17	0.27	0.32	0.27	0.30	0.37	0.20	0.09	0.00	0.00	0.00	0.00
19	0.17	0.27	0.33	0.27	0.30	0.37	0.18	0.08	0.00	0.00	0.00	0.00
20	0.17	0.27	0.34	0.25	0.29	0.35	0.17	0.08	0.00	0.00	0.00	0.00
21	0.17	0.27	0.34	0.24	0.29	0.34	0.17	0.07	0.00	0.00	0.00	0.00
22	0.17	0.27	0.34	0.24	0.30	0.33	0.17	0.07	0.00	0.00	0.00	0.00
23	0.17	0.29	0.34	0.24	0.28	0.32	0.16	0.06	0.00	0.00	0.00	0.00
24	0.17	0.29	0.34	0.24	0.27	0.32	0.17	0.04	0.00	0.00	0.00	0.00
25	0.17	0.29	0.35	0.22	0.28	0.32	0.17	0.04	0.00	0.00	0.00	0.00
26	0.18	0.29	0.34	0.22	3.4	0.31	0.17	0.04	0.00	0.00	0.00	0.00
27	0.20	0.29	0.34	0.24	0.63	0.29	0.16	0.03	0.00	0.00	0.00	0.00
28	0.20	0.29	0.34	0.24	0.51	0.29	0.16	0.03	0.00	0.00	0.00	0.00
29	0.20	0.29	0.34	0.23	0.47	0.29	0.16	0.03	0.00	0.00	0.00	0.00
30	0.21	0.29	0.34	0.23	---	0.29	0.15	0.02	0.00	0.00	0.00	0.00
31	0.22	---	0.34	0.24	---	0.28	---	0.02	---	0.00	0.00	---
TOTAL	4.80	7.88	10.34	8.43	11.97	11.00	5.97	3.04	0.04	0.00	0.00	0.00
MEAN	0.15	0.26	0.33	0.27	0.41	0.35	0.20	0.10	0.00	0.00	0.00	0.00
MAX	0.22	0.29	0.35	0.34	3.4	0.42	0.29	0.17	0.01	0.00	0.00	0.00
MIN	0.12	0.22	0.29	0.22	0.24	0.28	0.15	0.02	0.00	0.00	0.00	0.00
AC-FT	9.5	16	21	17	24	22	12	6.0	0.08	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	0.08	0.13	0.33	0.30	0.64	0.37	0.29	0.20	0.09	0.05	0.05	0.06
MAX	0.15	0.26	0.65	0.63	0.99	0.50	0.44	0.31	0.16	0.13	0.16	0.19
(WY)	2004	2004	2002	2002	2003	2002	2002	2002	2003	2003	2003	2003
MIN	0.00	0.00	0.00	0.00	0.41	0.24	0.20	0.10	0.00	0.00	0.00	0.00
(WY)	2003	2003	2003	2003	2004	2003	2004	2004	2004	2004	2002	2002

SUMMARY STATISTICS FOR 2003 CALENDAR YEAR FOR 2004 WATER YEAR WATER YEARS 2002 - 2004

ANNUAL TOTAL	90.81	63.47	
ANNUAL MEAN	0.25	0.17	0.18
HIGHEST ANNUAL MEAN			0.19 2003
LOWEST ANNUAL MEAN			0.17 2004
HIGHEST DAILY MEAN	18 Feb 12	3.4 Feb 26	18 Feb 12 2003
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Jun 5	0.00 Jul 5 2002
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Jun 5	0.00 Jul 5 2002
MAXIMUM PEAK FLOW		15 Feb 26	65 Feb 12 2003
MAXIMUM PEAK STAGE		4.07 Feb 26	4.80 Feb 12 2003
ANNUAL RUNOFF (AC-FT)	180	126	130
10 PERCENT EXCEEDS	0.30	0.34	0.30
50 PERCENT EXCEEDS	0.17	0.17	0.15
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 10264000 LITTLE ROCK CREEK ABOVE LITTLE ROCK RESERVOIR, NEAR LITTLEROCK, CA

LOCATION.—Lat 34°27'50", long 118°01'05", in SW 1/4 NE 1/4 sec.3, T.4 N., R.11 W., Los Angeles County, Hydrologic Unit 18090206, on right bank, 0.3 mi upstream from Santiago Canyon Creek, 0.4 mi upstream from Little Rock Reservoir, and 4.6 mi south of Littlerock.

DRAINAGE AREA.—49.0 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1930 to February 1938, May to September 1938, April 1939 to September 1977, October 1978 to September 1979, January 2002 to current year. Prior to January 2002, published as "Little Rock Creek near Little Rock."

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 3,310 ft above NAVD of 1988, from topographic map. Prior to May 1943, at site 400 ft downstream at different datum. May 1943 to September 1977 and October 1978 to September 1979, at site 100 ft upstream at different datum. Records prior to January 2002 were furnished by the Los Angeles County Department of Public Works and reviewed by the U.S. Geological Survey.

REMARKS.—Records good. No regulation or diversion upstream from station. This station is designated by the Los Angeles County Department of Public Works as station L1-R.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,900 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 14.40 ft, site and datum then in use, from rating curve extended above 750 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow, maximum gage height, 15.62 ft, Feb. 12, 2003; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 17,000 ft<sup>3</sup>/s, estimated, Mar. 2, 1938, gage height unknown.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended above 275 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2045	335	12.12	Feb. 26	0730	473	12.54

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	3.5	1.6	13	11	3.4	0.94	0.00	0.00	0.00
2	0.00	0.00	0.00	3.2	1.8	17	10	3.1	0.88	0.00	0.00	0.00
3	0.00	0.00	0.00	5.7	4.5	20	11	3.0	0.82	0.00	0.00	0.00
4	0.00	0.00	0.00	5.0	3.2	20	13	2.7	0.78	0.00	0.00	0.00
5	0.00	0.00	0.00	4.4	2.5	20	11	2.4	0.73	0.00	0.00	0.00
6	0.00	0.00	0.00	4.0	2.2	22	9.8	2.3	0.68	0.00	0.00	0.00
7	0.00	0.00	0.00	3.6	2.1	32	8.6	2.2	0.64	0.00	0.00	0.00
8	0.00	0.00	0.00	3.3	2.1	45	7.7	2.1	0.62	0.00	0.00	0.00
9	0.00	0.00	0.34	3.1	2.0	50	7.1	2.0	0.59	0.00	0.00	0.00
10	0.00	0.00	0.77	2.9	2.0	51	6.8	2.0	0.58	0.00	0.00	0.00
11	0.00	0.00	0.96	2.8	2.0	51	6.3	2.0	0.55	0.00	0.00	0.00
12	0.00	0.00	1.1	2.6	2.0	46	5.9	2.0	0.52	0.00	0.00	0.00
13	0.00	0.00	1.1	2.3	2.0	43	5.8	1.9	0.49	0.00	0.00	0.00
14	0.00	0.00	1.3	2.2	1.9	38	5.5	1.8	0.44	0.00	0.00	0.00
15	0.00	0.00	1.3	2.1	2.0	36	5.3	1.6	0.39	0.00	0.00	0.00
16	0.00	0.00	1.3	2.0	1.9	37	5.3	1.5	0.35	0.00	0.00	0.00
17	0.00	0.00	1.3	2.0	2.0	34	5.4	1.5	0.32	0.00	0.00	0.00
18	0.00	0.00	1.4	1.9	3.0	31	6.0	1.4	0.28	0.00	0.00	0.00
19	0.00	0.00	1.4	1.8	8.7	29	5.8	1.4	0.24	0.00	0.00	0.00
20	0.00	0.00	1.5	1.8	6.5	26	5.5	1.4	0.20	0.00	0.00	0.00
21	0.00	0.00	1.4	1.9	6.7	25	5.2	1.5	0.16	0.00	0.00	0.00
22	0.00	0.00	1.4	2.0	13	25	5.0	1.5	0.11	0.00	0.00	0.00
23	0.00	0.00	1.5	1.8	18	24	4.6	1.5	0.08	0.00	0.00	0.00
24	0.00	0.00	1.5	1.8	12	22	4.5	1.5	0.04	0.00	0.00	0.00
25	0.00	0.00	42	1.8	11	19	4.3	1.4	0.01	0.00	0.00	0.00
26	0.00	0.00	42	1.7	173	18	4.0	1.3	0.00	0.00	0.00	0.00
27	0.00	0.00	14	1.7	35	16	3.8	1.2	0.00	0.00	0.00	0.00
28	0.00	0.00	7.9	1.7	18	14	3.6	1.1	0.00	0.00	0.00	0.00
29	0.00	0.00	5.9	1.7	14	13	3.5	1.1	0.00	0.00	0.00	0.00
30	0.00	0.00	4.8	1.7	---	12	3.6	1.1	0.00	0.00	0.00	0.00
31	0.00	---	4.1	1.6	---	11	---	1.0	---	0.00	0.00	---
TOTAL	0.00	0.00	140.27	79.6	356.7	860	194.9	55.9	11.44	0.00	0.00	0.00
MEAN	0.00	0.00	4.52	2.57	12.3	27.7	6.50	1.80	0.38	0.00	0.00	0.00
MAX	0.00	0.00	42	5.7	173	51	13	3.4	0.94	0.00	0.00	0.00
MIN	0.00	0.00	0.00	1.6	1.6	11	3.5	1.0	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	278	158	708	1710	387	111	23	0.00	0.00	0.00

10264000 LITTLE ROCK CREEK ABOVE LITTLE ROCK RESERVOIR, NEAR LITTLEROCK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.58	7.68	16.3	19.9	41.2	39.2	37.7	19.1	4.55	1.12	0.40	0.87
MAX	4.91	172	132	192	267	253	179	105	22.4	6.51	3.89	23.5
(WY)	1935	1966	1947	1969	1941	1941	1958	1941	1944	1944	1969	1939
MIN	0.00	0.00	0.00	0.73	1.13	1.45	0.83	0.45	0.01	0.00	0.00	0.00
(WY)	1931	1932	1951	1951	1951	2002	2002	2002	2002	1934	1931	1931

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	4900.26		1698.81			
ANNUAL MEAN	13.4		4.64		15.8	
HIGHEST ANNUAL MEAN					71.3 1941	
LOWEST ANNUAL MEAN					0.60 1951	
HIGHEST DAILY MEAN	1030	Feb 12	173	Feb 26	2730	Jan 23 1943
LOWEST DAILY MEAN	0.00	Aug 1	0.00	Oct 1	0.00	Oct 1 1930
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 1	0.00	Oct 1	0.00	Oct 1 1930
MAXIMUM PEAK FLOW			473 Feb 26		5900 Jan 25 1969	
MAXIMUM PEAK STAGE			12.54 Feb 26		15.62 Feb 12 2003	
ANNUAL RUNOFF (AC-FT)	9720		3370		11480	
10 PERCENT EXCEEDS	28		13		35	
50 PERCENT EXCEEDS	1.2		0.58		2.5	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 10264100 SANTIAGO CANYON CREEK ABOVE LITTLE ROCK CREEK, NEAR LITTLEROCK, CA

LOCATION.—Lat 34°28'02", long 118°01'17", in NE 1/4 NW 1/4 sec.3, T.4 N., R.11 W., Los Angeles County, Hydrologic Unit 18090206, on right bank, 750 ft upstream from mouth, and 4.3 mi south of Littlerock.

DRAINAGE AREA.—11.3 mi<sup>2</sup>.

PERIOD OF RECORD.—January 2002 to current year.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 3,300 ft above NAVD of 1988, from topographic map.

REMARKS.—Records good. No regulation or diversion upstream from station. This station is designated by the Los Angeles County Department of Public Works as station F125-R.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 52 ft<sup>3</sup>/s, Feb. 12, 2003, gage height, 2.84 ft, from rating curve extended above 12.8 ft<sup>3</sup>/s; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 75 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0845	21	2.62

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.34	0.04	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	1.1	0.02	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	1.0	0.03	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	5.6	0.05	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	1.4	0.03	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.32	0.02	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	7.45	8.72	0.09	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	0.26	0.28	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	5.6	1.1	0.04	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	15	17	0.2	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	0.00	0.00	0.00	0.00	0.44	0.51	0.30	0.15	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	1.07	1.24	0.90	0.44	0.00	0.00	0.00	0.00
(WY)	2003	2003	2003	2003	2003	2003	2003	2003	2002	2002	2002	2002
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	2003	2003	2003	2003	2002	2002	2002	2002	2002	2002	2002	2002

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 2002 - 2004

ANNUAL TOTAL	108.64	16.26	
ANNUAL MEAN	0.30	0.04	0.17
HIGHEST ANNUAL MEAN			0.30 2003
LOWEST ANNUAL MEAN			0.04 2004
HIGHEST DAILY MEAN	13 Feb 12	5.6 Feb 26	13 Feb 12 2003
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Jan 19 2002
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Jan 19 2002
MAXIMUM PEAK FLOW		21 Feb 26	52 Feb 12 2003
MAXIMUM PEAK STAGE		2.62 Feb 26	2.84 Feb 12 2003
ANNUAL RUNOFF (AC-FT)	215	32	124
10 PERCENT EXCEEDS	0.69	0.00	0.39
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00



10264682 MESCAL CREEK NEAR PINON HILLS, CA

LOCATION.—Lat 34°25'32", long 117°42'43", in NE 1/4 NE 1/4 sec.21, T.4 N., R.8 W., Los Angeles County, Hydrologic Unit 18090206, on left bank, 75 ft east of Mescal Canyon Motorway, 2.7 mi south of Fort Tejon Road, and 3.8 mi southwest of Pinon Hills.

DRAINAGE AREA.—5.41 mi<sup>2</sup>.

PERIOD OF RECORD.—October 2001 to current year.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 4,800 ft above NAVD of 1988, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Slight regulation of low flow by Jackson Lake, managed by the U.S. Forest Service for recreational use. One small diversion upstream from station for domestic use. This station is designated by the Los Angeles County Department of Public Works as station F395-R.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 247 ft<sup>3</sup>/s, Sept. 3, 2003, gage height, 4.66 ft, from rating curve extended above 4.2 ft<sup>3</sup>/s on basis of slope-conveyance and critical depth studies; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 15 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1745	23	3.16

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	e0.62	e0.28	0.09	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	e0.48	e0.40	0.08	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	e0.40	e0.45	0.08	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	e0.39	e0.97	0.07	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	e0.37	e0.90	0.07	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	e0.35	e0.88	0.07	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	e0.35	e0.85	0.06	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.34	e0.82	0.06	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.21	0.85	0.05	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.23	0.79	0.04	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.24	0.72	0.06	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.44	0.68	0.06	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.49	0.66	0.04	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.32	0.64	0.03	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	e0.27	0.62	0.01	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	e0.25	0.61	0.01	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	e0.78	0.59	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	e0.70	0.54	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	e0.55	0.51	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	e0.46	0.48	0.01	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	e0.42	0.47	0.01	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	e0.40	0.46	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	e0.37	0.43	0.00	0.01	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	e0.33	0.25	0.01	0.06	0.00	0.00	0.00
25	0.00	0.00	2.8	0.00	0.00	e0.31	0.01	0.00	0.07	0.00	0.00	0.00
26	0.00	0.00	e0.13	0.00	3.8	e0.29	0.04	0.01	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	1.4	e0.28	0.08	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	1.1	e0.27	0.09	0.01	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	e0.75	e0.27	0.11	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	e0.25	0.11	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	e0.24	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	2.93	0.00	7.05	11.67	15.29	0.93	0.14	0.00	0.00	0.00
MEAN	0.00	0.00	0.09	0.00	0.24	0.38	0.51	0.03	0.00	0.00	0.00	0.00
MAX	0.00	0.00	2.8	0.00	3.8	0.78	0.97	0.09	0.07	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.21	0.01	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	5.8	0.00	14	23	30	1.8	0.3	0.00	0.00	0.00

e Estimated.

## ANTELOPE VALLEY

## 10264682 MESCAL CREEK NEAR PINON HILLS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.01	0.03	0.00	0.25	0.35	0.20	0.07	0.05	0.00	0.00	0.22
MAX	0.00	0.02	0.09	0.00	0.51	0.69	0.51	0.18	0.13	0.01	0.00	0.67
(WY)	2003	2002	2004	2002	2003	2003	2004	2003	2003	2003	2003	2003
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	2003	2003	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 2002 - 2004
ANNUAL TOTAL	71.23	38.01	
ANNUAL MEAN	0.20	0.10	0.15
HIGHEST ANNUAL MEAN			0.19 2003
LOWEST ANNUAL MEAN			0.10 2004
HIGHEST DAILY MEAN	20 Sep 3	3.8 Feb 26	20 Sep 3 2003
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 17 2001
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Oct 17 2001
MAXIMUM PEAK FLOW		23 Dec 25	247 Sep 3 2003
MAXIMUM PEAK STAGE		3.16 Dec 25	4.66 Sep 3 2003
ANNUAL RUNOFF (AC-FT)	141	75	105
10 PERCENT EXCEEDS	0.24	0.40	0.29
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 10265125 MAMMOTH CREEK AT TWIN LAKES, NEAR MAMMOTH LAKES, CA

LOCATION.—Lat 37°37'26", long 119°00'17", in SW 1/4 SW 1/4 sec.4, T.4 S., R.27 E., [Mono County](#), Hydrologic Unit 18090102, 2.7 mi southwest of Mammoth Lakes, and 19.1 mi west of Tom's Place.

DRAINAGE AREA.—10.6 mi<sup>2</sup>.

PERIOD OF RECORD.—August 2001 to current year.

CHEMICAL DATA.—August 2001 to current year.

SEDIMENT DATA.—August 2001 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, unfltrd, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, unfltrd, field, std units (00400)	Specific conductance, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)
OCT										
29...	0945	5.6	<2.0	552	9.1	105	7.5	155	7.5	16.5
JAN										
28...	1000	6.4	3.5	553	6.7	65	7.2	138	1.0	17.0
APR										
28...	0940	10	3.5	550	9.6	107	7.6	134	6.0	18.0
JUL										
28...	0940	10	<2.0	560	8.4	119	8.6	82	17.0	10.3

Date	Calcium water, unfltrd recoverable, mg/L (00916)	Magnesium water, fltrd, mg/L (00925)	Magnesium, unfltrd recoverable, mg/L (00927)	Chloride, fltrd, mg/L (00940)	Residue on evapor. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, unfltrd mg/L as N (00625)	Nitrite + nitrate, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)
OCT										
29...	17.5	5.38	5.29	.67	97	.40	.003	.001	.003	.03
JAN										
28...	17.1	4.55	4.66	.63	99	.22	.023	.002	.004	.037
APR										
28...	14.9	5.01	4.88	.51	97	.19	.002	.001	.002	.038
JUL										
28...	8.81	2.27	2.26	<.20	53	.20	.004	.001	.005	.018

Date	Fecal coliform, M-FC 0.7u MF col/100 mL (31625)	Aluminum, water, fltrd, recoverable, ug/L (01106)	Aluminum, unfltrd recoverable, ug/L (01105)	Antimony, water, fltrd, ug/L (01095)	Antimony, water, unfltrd, ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd, ug/L (01002)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recoverable, ug/L (01012)	Boron, water, fltrd, ug/L (01020)
OCT										
29...	--	<2	35	<.20	<.2	e2	3	<.06	<.06	--
JAN										
28...	--	e1	3	<.20	<.2	2	2	<.06	<.06	--
APR										
28...	--	e1	6	<.20	<.2	<2	2	<.06	<.06	--
JUL										
28...	K1	4	5	<.20	<.2	3	3	<.06	<.06	e4.0

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

e Estimated.

K Results based on colony count outside the acceptance range (non-ideal colony count).

## 10265125 MAMMOTH CREEK AT TWIN LAKES, NEAR MAMMOTH LAKES, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, fltrd, ug/L (01030)	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover- able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)
OCT 29...	<.04	<.04	<.8	<.8	.089	.155	e.2	e.3	68	250
JAN 28...	<.04	<.04	<.8	<.8	.119	.140	e.2	<.6	116	320
APR 28...	<.04	<.04	<.8	<.8	.179	.189	e.2	<.6	71	340
JUL 28...	<.04	<.04	<.8	<.8	.081	.100	<.4	<.6	132	160

Date	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover- able, ug/L (71900)	Molyb- denum, water, fltrd, ug/L (01060)	Molyb- denum, water, unfltrd recover- able, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)
OCT 29...	<.08	.16	14.0	24	<.02	<.02	1.7	1.7	.23	.38	<.4
JAN 28...	<.08	e.04	29.5	30	<.02	e.01	2.4	2.4	.31	.29	<.4
APR 28...	<.08	e.04	33.4	33	<.02	<.02	1.9	1.8	.36	.24	<.4
JUL 28...	<.08	e.04	5.0	7	e.01	<.02	2.3	2.3	.25	.39	<.4

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recover- able, ug/L (01077)	Thall- ium, water, fltrd, ug/L (01057)	Thall- ium, water, unfltrd ug/L (01059)	Vanad- ium, water, fltrd, ug/L (01085)	Vanad- ium, water, unfltrd ug/L (01087)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
OCT 29...	<.4	<.2	<.16	<.04	<.2	.3	M	e.5	<2	6	.09
JAN 28...	<.4	<.2	<.16	<.04	<.2	.8	M	1.4	<2	2	.03
APR 28...	<.4	<.2	<.16	<.04	<.2	.7	M	.8	<2	4	.11
JUL 28...	e.3	<.2	<.16	<.04	<.2	.7	M	e.3	<2	3	.09

&lt; Actual value is known to be less than the value shown.

e Estimated.

M Presence of material verified, but not quantified.

## 10265127 MAMMOTH CREEK TRIBUTARY BELOW MILL CITY, NEAR MAMMOTH LAKES, CA

LOCATION.—Lat 37°37'21", long 118°59'35", in SE 1/4 SE 1/4 sec.4, T.4 S., R.27 E., Mono County, Hydrologic Unit 18090102, 2.3 mi south of the intersection of Highway 203 and Old Mammoth Road, in Mammoth Lakes.

DRAINAGE AREA.—0.27 mi<sup>2</sup>.

PERIOD OF RECORD.—October 2003 to July 2004.

CHEMICAL DATA.—October 2003 to July 2004.

SEDIMENT DATA.—October 2003 to July 2004.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, unfiltered, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, unfiltered, field, std units (00400)	Specific conductance, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, filtered, mg/L (00915)	
OCT											
29...	1115	e.31	<2.0	558	9.4	104	7.7	123	6.0	17.3	
JAN											
28...	1100	e.20	3.1	559	10.7	100	7.6	72	.0	19.8	
APR											
28...	1025	.80	3.4	558	9.6	100	7.8	86	4.0	14.3	
JUL											
28...	1045	.80	<2.0	565	9.3	109	7.3	115	9.0	17.7	
Date		Calcium water, unfiltered, recoverable, mg/L (00916)	Magnesium, water, unfiltered, recoverable, mg/L (00925)	Magnesium, water, unfiltered, recoverable, mg/L (00927)	Chloride, water, filtered, mg/L (00940)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, unfiltered, mg/L as N (00625)	Nitrite + nitrate, water, filtered, mg/L as N (00631)	Nitrite water, filtered, mg/L as N (00613)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L (00665)
OCT											
29...	17.5	1.28	1.33	.87	86	.07	.019	.001	.022	.029	
JAN											
28...	20.2	1.42	1.44	.46	90	.05	.071	.001	.025	.032	
APR											
28...	12.5	1.07	1.11	.41	72	.20	.122	.001	.013	.033	
JUL											
28...	16.3	1.12	1.12	.35	87	.07	.051	.001	.029	.041	
Date		Fecal coliform, M-FC 0.7u MF/100 mL (31625)	Aluminum, water, unfiltered, recoverable, ug/L (01106)	Aluminum, water, unfiltered, recoverable, ug/L (01105)	Antimony, water, filtered, ug/L (01095)	Antimony, water, unfiltered, ug/L (01097)	Arsenic water, filtered, ug/L (01000)	Arsenic water, unfiltered, ug/L (01002)	Beryllium, water, filtered, ug/L (01010)	Beryllium, water, unfiltered, recoverable, ug/L (01012)	Boron, water, filtered, ug/L (01020)
OCT											
29...	--	5	51	e.15	e.1	30	29	<.06	<.06	--	
JAN											
28...	--	4	20	e.18	e.2	34	31	<.06	<.06	--	
APR											
28...	--	12	152	e.14	e.1	15	21	<.06	<.06	--	
JUL											
28...	53	7	62	e.17	e.1	29	30	<.06	<.06	e4.6	

e Estimated.

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

## 10265127 MAMMOTH CREEK TRIBUTARY BELOW MILL CITY, NEAR MAMMOTH LAKES, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Cadmium	Cadmium	Chrom-	Chrom-	Cobalt	Cobalt	Copper,	Copper,	Iron,	Iron,	
	water, fltrd, ug/L (01025)	water, unfltrd, ug/L (01027)	ium, water, fltrd, ug/L (01030)	ium, water, unfltrd, recover- able, ug/L (01034)	water, fltrd, ug/L (01035)	water, unfltrd, recover- able, ug/L (01037)	water, fltrd, ug/L (01040)	water, unfltrd, recover- able, ug/L (01042)	water, fltrd, ug/L (01046)	water, unfltrd, recover- able, ug/L (01045)	
OCT											
29...	<.04	<.04	<.8	<.8	.045	.070	e.3	.6	<6	20	
JAN											
28...	<.04	<.04	<.8	<.8	.047	.073	e.3	e.5	<6	20	
APR											
28...	<.04	.04	<.8	<.8	.055	.165	e.4	e.6	e5	160	
JUL											
28...	<.04	<.04	<.8	<.8	.049	.118	<.4	.7	<6	60	
Date	Lead,	Lead,	Mangan-	Mangan-	Mercury	Mercury	Molyb-	Molyb-	Nickel,	Nickel,	Selen-
	water, fltrd, ug/L (01049)	water, unfltrd, recover- able, ug/L (01051)	ese, water, fltrd, ug/L (01056)	ese, water, unfltrd, recover- able, ug/L (01055)	water, fltrd, ug/L (71890)	water, unfltrd, recover- able, ug/L (71900)	denum, water, fltrd, ug/L (01060)	denum, water, unfltrd, recover- able, ug/L (01062)	water, fltrd, ug/L (01065)	water, unfltrd, recover- able, ug/L (01067)	ium, water, fltrd, ug/L (01145)
OCT											
29...	<.08	.19	.5	1	e.01	.06	1.2	1.2	.20	.35	<.4
JAN											
28...	<.08	e.06	e.1	1	<.02	.04	1.2	1.2	.25	.38	e.3
APR											
28...	<.08	.42	.4	7	<.02	.30	.8	.8	.30	.32	e.3
JUL											
28...	<.08	.21	e.1	3	<.02	.17	1.3	1.3	.30	.55	e.3
Date	Selen-	Silver,	Silver,	Thall-	Thall-	Vanad-	Vanad-	Zinc,	Zinc,	Sus-	Sus-
	ium, water, unfltrd, ug/L (01147)	water, fltrd, ug/L (01075)	water, unfltrd, recover- able, ug/L (01077)	ium, water, fltrd, ug/L (01057)	ium, water, unfltrd, ug/L (01059)	ium, water, fltrd, ug/L (01085)	ium, water, unfltrd, ug/L (01087)	water, fltrd, ug/L (01090)	water, unfltrd, recover- able, ug/L (01092)	ended, sedi- ment concen- tration mg/L (80154)	ended sedi- ment dis- charge, tons/d (80155)
OCT											
29...	e.3	<.2	<.16	<.04	<.2	.2	M	1.4	e2	2	<.01
JAN											
28...	e.3	<.2	<.16	<.04	<.2	.4	M	1.7	e2	5	<.01
APR											
28...	<.4	<.2	<.16	<.04	<.2	.4	M	1.6	3	19	.04
JUL											
28...	.6	<.2	<.16	<.04	<.2	.3	<1.0	1.0	2	9	.02

&lt; Actual value is known to be less than the value shown.

e Estimated.

M Presence of material verified, but not quantified.

## 10265128 MAMMOTH CREEK AT OLD MAMMOTH ROAD, AT MAMMOTH LAKES, CA

LOCATION.—Lat 37°38'07", long 118°57'53", in NE 1/4 NW 1/4 sec.2, T.4 S., R.27 E., Mono County, Hydrologic Unit 18090102, 0.85 mi south of the intersection of Highway 203 and Old Mammoth Road, and 16.5 mi west of Tom's Place.

DRAINAGE AREA.—13.4 mi<sup>2</sup>.

PERIOD OF RECORD.—August 2001 to September 2002, October 2003 to September 2004.

CHEMICAL DATA.—August 2001 to September 2002, October 2003 to September 2004.

SEDIMENT DATA.—August 2001 to September 2002, October 2003 to September 2004.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltrd, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	
OCT	29...	1215	6.8	<2.0	567	9.0	105	8.0	197	9.0	15.5
JAN	28...	1210	8.0	2.7	569	10.7	101	8.4	183	1.0	15.9
APR	28...	1145	15	2.5	569	9.1	103	8.1	165	8.0	16.1
JUL	28...	1230	9.7	<2.0	574	7.5	104	8.1	121	17.0	11.0

Date	Calcium water, unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Chloride, water, fltrd, mg/L (00940)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	
OCT	29...	17.4	8.19	8.20	.69	127	.15	.002	.001	.052	.069
JAN	28...	16.7	7.26	7.89	.78	136	.11	.055	.002	.053	.085
APR	28...	13.9	6.88	6.99	.80	117	.24	.018	.001	.047	.092
JUL	28...	9.16	4.29	4.32	e.19	77	.17	.009	.001	.038	.059

Date	Fecal coliform, M-FC 0.7u MF/100 mL (31625)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, water, unfltrd recoverable, ug/L (01105)	Antimony, water, fltrd, ug/L (01095)	Antimony, water, unfltrd, ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd, ug/L (01002)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recoverable, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	
OCT	29...	--	e2	39	<.20	<.2	4	4	<.06	<.06	--
JAN	28...	--	e1	21	<.20	<.2	2	3	<.06	<.06	--
APR	28...	--	3	33	<.20	<.2	3	5	<.06	<.06	--
JUL	28...	44	3	16	<.20	<.2	3	5	<.06	<.06	e6.6

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

e Estimated.

## 10265128 MAMMOTH CREEK AT OLD MAMMOTH ROAD, AT MAMMOTH LAKES, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, fltrd, ug/L (01030)	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover- able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)
OCT 29...	<.04	<.04	<.8	<.8	.071	.138	e.3	.7	30	180
JAN 28...	<.04	<.04	<.8	<.8	.068	.161	<.4	<.6	57	280
APR 28...	<.04	<.04	<.8	<.8	.081	.198	e.3	e.5	62	400
JUL 28...	<.04	<.04	<.8	<.8	.064	.132	e.2	e.5	88	180

Date	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover- able, ug/L (71900)	Molyb- denum, water, fltrd, ug/L (01060)	Molyb- denum, water, unfltrd recover- able, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)
OCT 29...	<.08	.17	32.9	58	<.02	.02	2.2	2.1	.24	.43	<.4
JAN 28...	<.08	e.04	32.7	87	<.02	.03	2.3	2.4	.29	.31	<.4
APR 28...	<.08	.09	30.3	124	<.02	.06	2.0	2.0	.32	.33	<.4
JUL 28...	<.08	.06	13.7	49	<.02	.04	2.5	2.4	.28	.47	<.4

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recover- able, ug/L (01077)	Thall- ium, water, fltrd, ug/L (01057)	Thall- ium, water, unfltrd ug/L (01059)	Vanad- ium, water, fltrd, ug/L (01085)	Vanad- ium, water, unfltrd ug/L (01087)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
OCT 29...	<.4	<.2	<.16	<.04	<.2	.3	M	.9	e1	4	.07
JAN 28...	<.4	<.2	<.16	<.04	<.2	.9	M	.6	e1	4	.09
APR 28...	<.4	<.2	<.16	<.04	<.2	.8	M	1.2	3	8	.33
JUL 28...	e.3	<.2	<.16	<.04	<.2	.6	<1.0	e.5	e1	5	.13

&lt; Actual value is known to be less than the value shown.

e Estimated.

M Presence of material verified, but not quantified.



## 10265130 MAMMOTH CREEK AT HIGHWAY 395, NEAR MAMMOTH LAKES, CA

LOCATION.—Lat 37°38'17", long 118°54'28", in SE 1/4 SE 1/4 sec.32, T.3 S., R.28 E., Mono County, Hydrologic Unit 18090102, at Highway 395 southbound bridge.

DRAINAGE AREA.—33.8 mi<sup>2</sup>.

PERIOD OF RECORD.—August 2001 to current year. Water years 1987–93 published in U.S. Geological Survey Open-File Report 96-382. Water years 1994–96 published in U.S. Geological Survey Open-File Report 00-230. Unpublished data for water years 1997–2000 in the files of the U.S. Geological Survey.

CHEMICAL DATA.—August 2001 to current year.

SEDIMENT DATA.—August 2001 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltrd lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	
OCT												
29...	1400	6.6	<2.0	579	8.8	101	8.0	143	9.0	10.9	12.7	
JAN												
28...	1345	9.7	2.9	582	10.6	96	8.5	158	.5	13.7	14.1	
APR												
28...	1230	13	2.6	578	8.8	103	8.2	145	10.0	12.8	12.2	
JUL												
28...	1330	13	2.1	588	7.9	107	7.9	85	17.0	8.31	7.31	
Date		Magnesium, water, unfltrd recoverable, mg/L (00925)	ANC, wat unfltrd titr., field, mg/L as CaCO3 (00419)	Bicarbonate, wat unfltrd titr., field, mg/L (00450)	Chloride, water, fltrd, mg/L (00940)	Residue evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	
OCT												
29...	5.43	5.34	--	--	.72	94	.12	.002	.001	.043	.056	
JAN												
28...	6.30	6.03	--	--	.67	117	.08	.066	.002	.041	.060	
APR												
28...	6.09	6.04	71	87	.72	105	.27	.011	.001	.039	.077	
JUL												
28...	2.69	2.68	--	--	e.20	53	.19	.031	.001	.024	.046	
Date		Fecal coliform, M-FC 0.7u MF 100 mL (31625)	Aluminum, water, unfltrd recoverable, ug/L (01106)	Aluminum, water, unfltrd, ug/L (01105)	Antimony, water, fltrd, ug/L (01095)	Antimony, water, unfltrd, ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd, ug/L (01002)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recoverable, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)
OCT												
29...	--	2	40	<.20	<.2	3	3	<.06	<.06	--	<.04	
JAN												
28...	--	2	16	<.20	<.2	3	3	<.06	<.06	--	<.04	
APR												
28...	--	3	79	<.20	<.2	4	5	<.06	<.06	--	<.04	
JUL												
28...	79	5	65	<.20	<.2	3	3	<.06	<.06	e3.8	<.04	

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

e Estimated.

## 10265130 MAMMOTH CREEK AT HIGHWAY 395, NEAR MAMMOTH LAKES, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, fltrd, ug/L (01030)	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Cobalt water, unfltrd recover- able, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)
OCT 29...	<.04	<.8	<.8	.040	.080	<.4	e.4	12	70	<.08	.15
JAN 28...	e.02	<.8	<.8	.039	.082	<.4	e.3	28	110	<.08	e.03
APR 28...	e.02	<.8	<.8	.049	.178	e.2	e.4	37	340	<.08	.16
JUL 28...	<.04	<.8	<.8	.042	.132	<.4	e.5	29	190	<.08	.16

Date	Lithium water, fltrd, ug/L (01130)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover- able, ug/L (71900)	Molyb- denum, water, fltrd, ug/L (01060)	Molyb- denum, water, unfltrd recover- able, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)
OCT 29...	--	7.8	18	<.02	.02	4.7	4.7	.20	.32	<.4	<.4
JAN 28...	28.1	1.1	18	<.02	.03	3.9	3.9	.23	.28	<.4	<.4
APR 28...	--	4.6	124	<.02	.12	3.6	3.5	.28	.33	<.4	<.4
JUL 28...	--	5.0	53	e.01	.09	4.5	4.4	.20	.34	<.4	e.3

Date	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recover- able, ug/L (01077)	Thall- ium, water, fltrd, ug/L (01057)	Thall- ium, water, unfltrd ug/L (01059)	Vanad- ium, water, fltrd, ug/L (01085)	Vanad- ium, water, unfltrd ug/L (01087)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
OCT 29...	<.2	<.16	<.04	<.2	.4	M	e.4	e1	2	.04
JAN 28...	<.2	<.16	<.04	<.2	.8	M	.6	<2	10	.26
APR 28...	<.2	<.16	<.04	<.2	.8	M	e.4	2	9	.32
JUL 28...	<.2	<.16	<.04	<.2	.7	M	e.5	e2	7	.25

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

e Estimated.

M Presence of material verified, but not quantified.

## 10265150 HOT CREEK AT FLUME, NEAR MAMMOTH, CA

LOCATION.—Lat 37°40'08", long 118°49'00", in SW 1/4 SE 1/4 sec.19, T.3 S., R.29 E., [Mono County](#), Hydrologic Unit 18090102, on right bank, 2.6 mi north of Whitmore Hot Springs, and 8.4 mi east of Mammoth.

DRAINAGE AREA.—68.3 mi<sup>2</sup>.

PERIOD OF RECORD.—November 1982 to current year. Unpublished daily discharge for water years 1982–85 available in files of the U.S. Geological Survey. Daily discharge for calendar year 1986 published in WRIR 89-4033 as "Hot Creek Flume." Daily discharge for calendar years 1987–93 published in OFR 96-382 as "Hot Creek Flume." Daily discharge for calendar years 1994–96 published in OFR 00-230 as "Hot Creek Flume."

SPECIFIC CONDUCTANCE: Water years 1983–88, 1999–2004. Unpublished record for water years 1983–85, 1999–2004 available in files of the U.S. Geological Survey. Water year 1986 published in WRIR 89-4033. Water years 1987–88 published in OFR 96-382.

WATER TEMPERATURE: Water years 1983–89, 1999–2004. Unpublished record for water years 1983–85, 1989, 1999–2004 available in files of the U.S. Geological Survey. Water year 1986 published in WRIR 89-4033. Water years 1987–88 published in OFR 96-382.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 6,950 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. Minor diversions for domestic and agricultural use upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 433 ft<sup>3</sup>/s, Jan. 2, 1997, gage height, 4.38 ft; minimum daily, 29 ft<sup>3</sup>/s, several days in 1992.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 80 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jun 4	0745	83	1.60

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	40	40	42	41	43	45	46	73	54	46	43
2	41	39	40	40	42	43	44	46	75	56	46	42
3	41	40	39	40	41	43	44	47	78	56	45	41
4	41	39	40	41	42	42	45	48	81	56	44	42
5	41	41	47	41	42	42	45	47	81	55	44	42
6	41	41	46	41	42	43	45	47	78	55	44	41
7	41	41	45	41	42	44	45	54	78	52	44	41
8	41	41	40	41	41	44	44	64	81	51	44	42
9	40	43	39	42	42	45	44	56	79	50	45	43
10	40	42	41	42	42	46	44	55	74	50	44	43
11	40	40	40	42	42	46	44	57	69	50	44	41
12	41	40	38	42	41	47	45	57	68	49	44	40
13	41	42	40	42	41	47	45	54	60	49	45	40
14	41	41	41	42	42	49	45	55	60	48	45	43
15	40	42	39	42	42	51	45	57	69	49	45	41
16	40	41	39	42	42	52	44	57	74	48	45	40
17	40	41	39	42	43	52	46	58	74	49	44	40
18	40	41	40	42	44	52	46	58	72	51	43	40
19	40	41	41	42	43	51	47	60	70	50	44	40
20	40	41	42	42	43	47	46	66	66	49	44	41
21	40	41	42	42	42	46	45	63	65	48	44	41
22	39	38	41	41	42	46	44	56	64	48	44	41
23	39	38	41	42	43	46	45	55	64	48	44	40
24	39	39	42	42	42	46	45	56	63	48	43	40
25	39	40	41	42	41	45	45	57	61	47	44	40
26	39	39	42	41	41	45	45	59	60	47	43	40
27	39	39	41	42	43	44	45	56	58	47	43	39
28	39	40	40	42	43	44	45	66	55	47	44	39
29	39	41	41	42	43	44	44	78	54	47	44	40
30	39	41	41	42	---	44	45	78	53	46	43	40
31	39	---	41	42	---	44	---	71	---	46	43	---
TOTAL	1241	1213	1269	1291	1220	1423	1346	1784	2057	1546	1368	1226
MEAN	40.0	40.4	40.9	41.6	42.1	45.9	44.9	57.5	68.6	49.9	44.1	40.9
MAX	41	43	47	42	44	52	47	78	81	56	46	43
MIN	39	38	38	40	41	42	44	46	53	46	43	39
AC-FT	2460	2410	2520	2560	2420	2820	2670	3540	4080	3070	2710	2430

## 10265150 HOT CREEK AT FLUME, NEAR MAMMOTH, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	45.4	45.0	42.5	45.3	43.3	44.7	47.1	68.1	94.3	80.2	59.7	50.8
MAX	68.3	64.6	57.7	94.7	58.2	55.2	60.4	113	159	214	135	92.7
(WY)	1999	1999	1996	1997	1997	1997	1996	1996	1995	1995	1995	1995
MIN	31.8	32.4	29.6	31.9	32.7	35.0	35.4	38.4	44.5	38.4	35.6	32.6
(WY)	1995	1995	1993	1993	1993	1992	1992	1991	1992	1990	1994	1994

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	18292		16984			
ANNUAL MEAN	50.1		46.4		55.6	
HIGHEST ANNUAL MEAN					79.1 1995	
LOWEST ANNUAL MEAN					37.5 1992	
HIGHEST DAILY MEAN	131	Jun 5	81	Jun 4	309	Jan 3 1997
LOWEST DAILY MEAN	38	Nov 22	38	Nov 22	29	Nov 23 1992
ANNUAL SEVEN-DAY MINIMUM	39	Oct 22	39	Oct 22	29	Dec 8 1992
MAXIMUM PEAK FLOW			83	Jun 4	433	Jan 2 1997
MAXIMUM PEAK STAGE			1.60	Jun 4	4.38	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	36280		33690		40260	
10 PERCENT EXCEEDS	66		58		87	
50 PERCENT EXCEEDS	42		43		46	
90 PERCENT EXCEEDS	40		40		34	

## 10265360 HILTON CREEK AT LAKE CROWLEY, CA

LOCATION.—Lat 37°34'46", long 118°44'26", in SW 1/4 SE 1/4 sec.23, T.4 S., R.29 E., [Mono County](#), Hydrologic Unit 18090102, 6.5 mi southeast of Tom's Place, and 10.7 mi east of Mammoth Lakes.

DRAINAGE AREA.—13.0 mi<sup>2</sup>.

PERIOD OF RECORD.—August 2001 to current year.

CHEMICAL DATA: August 2001 to current year.

SEDIMENT DATA: November 2001 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltrd lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)
OCT										
30...	1040	1.2	<2.0	585	9.8	103	7.3	54	6.0	.75
JAN										
29...	1405	2.0	5.0	596	10.7	99	7.2	35	2.0	.21
APR										
26...	1550	3.4	<2.0	602	7.8	100	7.4	33	16.0	.28
JUL										
27...	1520	6.5	<2.0	599	7.4	105	7.5	24	20.5	e.13

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Fecal coliform, M-FC water, 0.7u MF col/100 mL (31625)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT									
30...	63	.03	.004	.002	.017	.024	--	11	.04
JAN									
29...	29	.08	.045	.001	.001	.007	--	1	.01
APR									
26...	34	.25	.005	.002	.001	.017	--	8	.07
JUL									
27...	24	.14	.005	.001	.001	.015	K16	9	.16

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

e Estimated.

K Results based on colony count outside the acceptance range (non-ideal colony count).

## 10265702 ROCK CREEK ABOVE DIVERSION, NEAR TOM'S PLACE, CA

LOCATION.—Lat 37°33'00", long 118°41'08", unsurveyed, T.5 S., R.30 E., Mono County, Hydrologic Unit 18090102, 0.8 mi southwest of Tom's Place and 16.5 mi southeast of Mammoth Lakes.

DRAINAGE AREA.—35.6 mi<sup>2</sup>.

PERIOD OF RECORD.—August 2001 to current year.

CHEMICAL DATA: August 2001 to current year.

SEDIMENT DATA: November 2001 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltrd lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)
OCT										
30...	0950	7.4	<2.0	569	11.2	107	7.5	55	1.5	.60
JAN										
27...	1630	9.3	5.2	575	--	--	7.4	50	1.5	.49
APR										
26...	1500	19	<2.0	586	9.0	104	7.3	41	10.0	.43
JUL										
27...	1400	28	<2.0	590	8.1	105	7.1	26	15.5	e.17

Date	Residue evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Fecal coliform, M-FC, 0.7u MF, 100 mL (31625)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT									
30...	44	.13	.003	.001	.006	.013	--	4	.08
JAN									
27...	41	.06	.029	.001	.001	.011	--	1	.03
APR									
26...	41	.15	.005	.001	.001	.011	--	2	.10
JUL									
27...	26	.08	.008	.001	.001	.009	K2	6	.45

## CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking downstrm ft from 1 bank (00009)
APR										
26...*	1510	.92	.50	586	9.0	104	7.2	41	10.0	1.20
26...*	1511	.92	.50	586	9.0	104	7.2	41	10.0	2.20
26...*	1512	.92	.50	586	9.0	104	7.3	41	10.0	3.20
26...*	1513	.92	.50	586	9.0	104	7.3	41	10.0	4.20
26...*	1514	.92	.50	586	9.0	104	7.3	41	10.0	5.20
26...*	1515	.92	.50	586	9.0	104	7.3	41	10.0	6.20
26...*	1516	.92	.50	586	9.0	104	7.3	41	10.0	7.20
26...*	1517	.92	.50	586	9.0	104	7.3	41	10.0	8.20

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

e Estimated.

K Results based on colony count outside the acceptance range (non-ideal colony count).

\* Instantaneous discharge at the time of cross-sectional measurement: Apr. 26, 19 ft<sup>3</sup>/s.

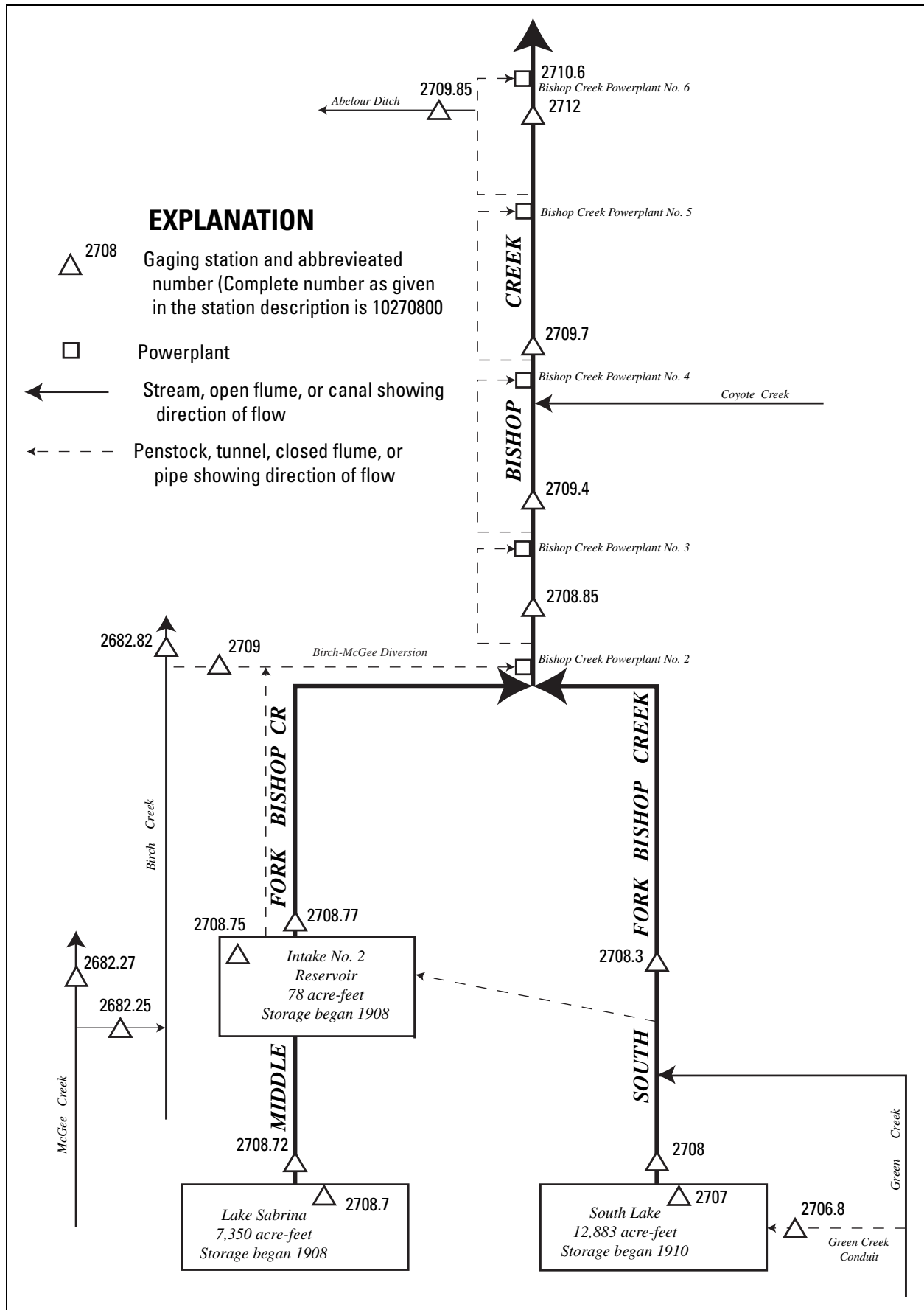


Figure 15. Diversions and storage in Bishop Creek Basin.

## 10268225 MCGEE CREEK DIVERSION NEAR BISHOP, CA

LOCATION.—Lat 37°16'32", long 118°37'09", unsurveyed, T.8 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, on left bank, 5 ft downstream from outlet of diversion pipe, 80 ft upstream from tributary to Birch Creek, and 13.5 mi southwest of Bishop.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and Cipolletti weir. Elevation of gage is 8,630 ft above NGVD of 1929, from topographic map.

REMARKS.—Records not computed for the winter months. Flow limited by size of diversion pipe from McGee Creek. Water flows down Birch Creek and then is diverted to Bishop Creek Powerplant No. 2 Conduit via Birch–McGee Creek Diversion (station 10270900). See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	---	---	---	---	---	---	---	6.2	7.7	5.1	2.4
2	6.2	---	---	---	---	---	---	---	6.7	7.3	4.8	2.3
3	5.8	---	---	---	---	---	---	---	7.3	7.2	4.5	2.1
4	5.4	---	---	---	---	---	---	---	7.8	7.4	4.3	1.8
5	4.9	---	---	---	---	---	---	---	8.4	8.0	4.1	1.6
6	4.4	---	---	---	---	---	---	---	8.8	8.7	3.8	1.5
7	4.0	---	---	---	---	---	---	---	8.9	9.9	3.7	1.5
8	3.4	---	---	---	---	---	---	3.0	8.9	11	3.8	1.5
9	2.5	---	---	---	---	---	---	3.1	8.9	9.9	3.7	1.5
10	0.66	---	---	---	---	---	---	3.2	8.9	9.4	3.8	1.4
11	0.35	---	---	---	---	---	---	3.0	8.7	8.7	3.8	1.4
12	0.26	---	---	---	---	---	---	3.0	8.7	8.2	3.8	1.5
13	0.19	---	---	---	---	---	---	2.9	8.7	8.1	4.0	1.4
14	0.12	---	---	---	---	---	---	2.9	8.8	8.3	3.7	1.3
15	0.05	---	---	---	---	---	---	3.0	8.9	8.3	3.5	1.2
16	---	---	---	---	---	---	---	3.0	8.9	7.9	3.3	1.2
17	---	---	---	---	---	---	---	3.2	6.4	8.2	3.1	1.1
18	---	---	---	---	---	---	---	3.2	3.7	7.7	3.2	1.1
19	---	---	---	---	---	---	---	3.3	3.7	7.4	3.3	1.1
20	---	---	---	---	---	---	---	3.4	3.7	7.3	3.5	0.95
21	---	---	---	---	---	---	---	3.5	3.7	7.5	3.7	0.86
22	---	---	---	---	---	---	---	3.6	6.3	7.4	3.6	0.84
23	---	---	---	---	---	---	---	3.8	8.6	6.9	3.1	0.84
24	---	---	---	---	---	---	---	4.0	9.3	6.9	2.9	0.80
25	---	---	---	---	---	---	---	4.5	10	6.6	2.8	0.74
26	---	---	---	---	---	---	---	4.3	10	6.4	2.7	0.74
27	---	---	---	---	---	---	---	4.6	9.7	6.2	2.6	0.74
28	---	---	---	---	---	---	---	5.5	9.3	6.1	2.5	0.74
29	---	---	---	---	---	---	---	5.5	8.9	5.8	2.5	0.74
30	---	---	---	---	---	---	---	5.6	8.3	5.6	2.4	0.74
31	---	---	---	---	---	---	---	5.8	---	5.4	2.5	---
TOTAL	---	---	---	---	---	---	---	---	235.1	237.4	108.1	37.63
MEAN	---	---	---	---	---	---	---	---	7.84	7.66	3.49	1.25
MAX	---	---	---	---	---	---	---	---	10	11	5.1	2.4
MIN	---	---	---	---	---	---	---	---	3.7	5.4	2.4	0.74
AC-FT	---	---	---	---	---	---	---	---	466	471	214	75







## 10270680 GREEN CREEK CONDUIT OUTLET NEAR BISHOP, CA

LOCATION.—Lat 37°10'14", long 118°33'50", unsurveyed, T.9 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, on right bank, 75 ft downstream from outlet of diversion pipe, 0.1 mi upstream from South Lake, and 16.2 mi southwest of Bishop.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 9,800 ft above NGVD of 1929, from topographic map. Prior to June 2001, at same site at different datum.

REMARKS.—Records not computed for the winter months. Flow limited by size of diversion pipe from Green Creek. Water is used for power development downstream from South Lake. See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	---	---	---	---	---	---	---	0.51	1.1	0.10	0.00
2	---	---	---	---	---	---	---	---	0.49	1.1	0.06	0.00
3	---	---	---	---	---	---	---	---	0.46	0.99	0.02	0.00
4	---	---	---	---	---	---	---	---	1.3	0.93	0.00	0.00
5	---	---	---	---	---	---	---	---	2.0	0.88	0.00	0.00
6	---	---	---	---	---	---	---	---	2.0	0.83	0.00	0.00
7	---	---	---	---	---	---	---	---	1.2	0.79	0.00	0.00
8	---	---	---	---	---	---	---	---	0.89	0.75	0.00	0.00
9	---	---	---	---	---	---	---	---	0.32	0.71	0.00	0.00
10	---	---	---	---	---	---	---	---	0.28	0.70	0.00	0.00
11	---	---	---	---	---	---	---	0.49	0.24	0.67	0.00	0.00
12	---	---	---	---	---	---	---	0.46	0.21	0.63	0.00	0.00
13	---	---	---	---	---	---	---	0.45	0.18	0.56	0.00	0.00
14	---	---	---	---	---	---	---	0.55	0.16	0.53	0.02	0.00
15	---	---	---	---	---	---	---	0.68	0.13	0.53	0.06	0.00
16	---	---	---	---	---	---	---	0.71	0.12	0.56	0.09	0.00
17	---	---	---	---	---	---	---	0.71	0.12	0.58	0.05	0.00
18	---	---	---	---	---	---	---	0.63	0.10	0.60	0.00	0.00
19	---	---	---	---	---	---	---	0.59	0.08	0.59	0.02	0.00
20	---	---	---	---	---	---	---	0.55	0.07	0.56	0.07	0.00
21	---	---	---	---	---	---	---	0.51	0.75	0.53	0.09	0.00
22	---	---	---	---	---	---	---	0.44	1.7	0.52	0.08	0.00
23	---	---	---	---	---	---	---	0.43	1.9	0.47	0.07	0.00
24	---	---	---	---	---	---	---	0.46	1.7	0.41	0.04	0.00
25	---	---	---	---	---	---	---	0.47	1.6	0.33	0.00	0.00
26	---	---	---	---	---	---	---	0.39	1.6	0.23	0.00	0.00
27	---	---	---	---	---	---	---	0.39	1.5	0.23	0.00	0.00
28	---	---	---	---	---	---	---	0.52	1.3	0.23	0.00	0.00
29	---	---	---	---	---	---	---	0.51	1.2	0.20	0.00	0.00
30	---	---	---	---	---	---	---	0.49	1.2	0.15	0.00	0.00
31	---	---	---	---	---	---	---	0.51	---	0.12	0.00	---
TOTAL	---	---	---	---	---	---	---	---	25.31	18.01	0.77	0.00
MEAN	---	---	---	---	---	---	---	---	0.84	0.58	0.02	0.00
MAX	---	---	---	---	---	---	---	---	2.0	1.1	0.10	0.00
MIN	---	---	---	---	---	---	---	---	0.07	0.12	0.00	0.00
AC-FT	---	---	---	---	---	---	---	---	50	36	1.5	0.00

## 10270700 SOUTH LAKE NEAR BISHOP, CA

LOCATION.—Lat 37°10'21", long 118°33'52", unsurveyed, T.9 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, near spillway, at right abutment of Hillside Dam, on South Fork Bishop Creek, and 16.0 mi southwest of Bishop.

DRAINAGE AREA.—12.9 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—Reservoir is formed on natural lake by rock-fill dam completed in 1910. Usable capacity, 12,883 acre-ft, between elevations 9,621.20 ft, invert of outlet tunnel, and 9,751.31 ft, crest of spillway. Water is received from Green Creek via Green Creek Conduit (station 10270680). Figures given represent usable contents. Water is used for power development downstream. See schematic diagram of Bishop Creek Basin.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 13,038 acre-ft, Aug. 4, 1993, elevation, 9,752.21 ft; minimum, 280 acre-ft, Apr. 18–25, 1993, elevation unknown.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 12,100 acre-ft, July 30–Sept. 1, maximum elevation, 9,746.77 ft, Aug. 23–25; minimum, 4,590 acre-ft, Apr. 24, elevation, 9,690.63 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Aug. 5, 1981)

9,621.2	0	9,650	1,493	9,690	4,533	9,730	9,392
9,630	417	9,670	2,820	9,710	6,654	9,756	13,704

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11200	9880	8780	7810	6840	5400	4690	4760	6830	10600	12100	12100
2	11100	9850	8760	7790	6800	5370	4690	4810	6970	10600	12100	12000
3	11100	9800	8710	7750	6740	5330	4690	4890	7130	10700	12100	12000
4	11100	9760	8690	7740	6690	5280	4680	4990	7290	10700	12100	11900
5	11100	9730	8650	7720	6640	5240	4680	5080	7480	10800	12100	11900
6	11000	9690	8620	7700	6590	5190	4670	5160	7660	10900	12100	11800
7	11000	9650	8580	7670	6520	5140	4670	5220	7850	11000	12100	11800
8	10900	9620	8600	7640	6470	5100	4670	5290	7980	11000	12100	11700
9	10900	9570	8570	7620	6430	5060	4670	5350	8080	11100	12100	11700
10	10900	9540	8530	7580	e9840	5030	4660	5410	8170	11200	12100	11600
11	10800	9500	8490	7550	e9840	5000	4660	5460	8240	11200	12100	11500
12	10800	9470	8480	7520	6260	4970	4660	5510	8320	11300	12100	11500
13	10700	9440	8450	7480	6210	4930	4660	5560	8430	11300	12100	11400
14	10700	9400	8400	7460	6160	4900	4660	5620	8570	11400	12100	11300
15	10700	9360	8360	7420	6110	4880	4650	5680	8710	11500	12100	11300
16	10600	9340	8330	7390	6060	4850	4640	5740	8860	11500	12100	11200
17	10600	9310	8290	7360	6010	4830	4620	5810	9000	11600	12100	11200
18	10500	9270	8250	7320	5950	4810	4610	5860	9140	11600	12100	11100
19	10500	9250	8210	7290	5910	4790	4610	5920	9270	11700	12100	11000
20	10500	9210	8160	7260	5850	4780	4610	5980	9400	11800	12100	11000
21	10400	9150	8120	7210	5800	4770	4600	6030	9520	11800	12100	10900
22	10400	9110	8090	7190	5750	4770	4600	6090	9670	11900	12100	10900
23	10300	9080	8050	7160	5700	4770	4600	6140	9820	11900	12100	10800
24	10300	9050	8020	7130	5660	4770	4590	6200	9950	11900	12100	10800
25	10300	9010	8000	7090	e5660	4760	4600	6250	10100	12000	12100	10700
26	10200	8970	7960	7050	5580	4750	4610	6310	10200	12000	12100	10700
27	10200	8940	7930	7020	5530	4730	4640	6380	10300	12000	12100	10600
28	10100	8910	7900	6980	5490	4730	4670	6460	10400	12000	12100	10500
29	10100	8870	7880	6950	5450	4720	4690	6530	10500	12000	12100	10500
30	10000	8830	7840	6920	---	4720	4720	6620	10500	12100	12100	10400
31	9980	---	7820	6870	---	4710	---	6710	---	12100	12100	---
MAX	11200	9880	8780	7810	9840	5400	4720	6710	10500	12100	12100	12100
MIN	9980	8830	7820	6870	5450	4710	4590	4760	6830	10600	12100	10400
a	9733.74	9726.34	9719.30	9711.86	9699.06	9691.80	9691.87	9710.50	9737.20	9746.54	9746.57	9736.65
b	-1220	-1150	-1010	-950	-1420	-740	+10	+1990	+3790	+1600	0	-1700

CAL YR 2003 MAX 12500 MIN 2040 b +3480  
WTR YR 2004 MAX 12100 MIN 4590 b -800

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 10270800 SOUTH FORK BISHOP CREEK BELOW SOUTH LAKE, NEAR BISHOP, CA

LOCATION.—Lat 37°10'38", long 118°33'44", unsurveyed, T.9 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, on right bank, near weir on Weir Lake, 0.3 mi downstream from South Lake, and 15.7 mi southwest of Bishop.

DRAINAGE AREA.—13.4 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and sharp-crested weir. Elevation of gage is 9,580 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by South Lake (station 10270700). Green Creek Conduit (station 10270680) diverts water into basin at South Lake. Water is used for power development downstream. See schematic diagram of Bishop Creek Basin.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 142 ft<sup>3</sup>/s, July 31, 1995, gage height, 1.44 ft; minimum daily, 6.7 ft<sup>3</sup>/s, Apr. 4, 1994.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	25	22	21	22	30	19	16	16	15	15	15
2	18	25	23	21	29	30	19	16	16	15	15	25
3	19	25	22	20	32	30	19	16	17	15	15	34
4	19	25	22	20	32	30	19	16	16	15	15	34
5	19	24	22	20	32	30	19	16	16	15	15	34
6	19	24	21	20	32	30	18	15	16	15	15	34
7	19	24	21	20	32	30	17	15	17	15	15	35
8	21	24	22	21	31	30	18	16	18	15	15	33
9	22	23	22	21	31	26	19	15	18	15	15	35
10	26	23	22	21	31	24	19	15	18	14	15	39
11	26	22	22	21	31	24	19	16	18	14	15	39
12	25	23	22	21	31	24	19	15	18	14	15	39
13	23	23	22	21	31	24	19	16	18	14	15	42
14	24	23	23	21	31	24	19	16	17	14	15	41
15	25	22	25	21	31	24	19	16	16	15	15	35
16	25	22	25	21	31	23	19	16	16	15	15	30
17	25	22	25	21	31	20	19	16	16	15	15	29
18	25	22	25	21	31	20	19	16	16	15	15	29
19	24	22	24	21	31	20	17	16	17	15	15	33
20	25	22	23	21	31	17	15	16	17	14	15	31
21	24	22	23	21	31	17	15	16	17	14	15	32
22	24	e22	23	21	31	17	15	16	17	14	15	32
23	25	23	23	22	31	16	15	16	16	15	15	30
24	25	23	23	22	30	16	15	16	15	15	15	30
25	25	23	22	22	31	18	15	16	15	15	15	29
26	25	23	21	23	30	18	15	16	15	15	15	29
27	25	23	23	23	30	19	16	16	15	15	14	29
28	25	23	23	22	30	18	16	16	15	15	14	33
29	24	23	23	22	30	18	16	16	15	15	14	31
30	25	23	23	22	---	18	16	16	15	15	14	31
31	25	---	22	22	---	19	---	16	---	15	14	---
TOTAL	719	693	704	657	888	704	524	491	492	457	460	972
MEAN	23.2	23.1	22.7	21.2	30.6	22.7	17.5	15.8	16.4	14.7	14.8	32.4
MAX	26	25	25	23	32	30	19	16	18	15	15	42
MIN	18	22	21	20	22	16	15	15	15	14	14	15
AC-FT	1430	1370	1400	1300	1760	1400	1040	974	976	906	912	1930

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	24.8	24.3	25.2	24.1	27.9	27.1	25.9	21.3	17.5	29.5	36.3	31.4		
MAX	41.6	41.1	44.1	40.0	54.2	61.6	57.4	36.7	28.8	61.4	87.7	47.6		
(WY)	1998	1998	2002	2002	1993	1997	1996	1996	1996	1995	1995	1998		
MIN	10.8	10.6	9.98	7.59	7.45	7.75	7.74	10.6	7.70	9.45	14.0	17.0		
(WY)	1991	1991	1991	1991	1991	1991	1992	1994	1991	1991	2002	2001		

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1991 - 2004	
ANNUAL TOTAL	7159		7761			
ANNUAL MEAN	19.6		21.2		26.3	
HIGHEST ANNUAL MEAN					38.7	
LOWEST ANNUAL MEAN					12.4	
HIGHEST DAILY MEAN	39	Aug 24	42	Sep 13	139	Jul 31 1995
LOWEST DAILY MEAN	14	Jan 11	14	Jul 10	6.7	Apr 4 1994
ANNUAL SEVEN-DAY MINIMUM	14	Feb 16	14	Jul 8	6.9	Apr 9 1991
MAXIMUM PEAK FLOW			47		142	Jul 31 1995
MAXIMUM PEAK STAGE			0.70		1.44	Jul 31 1995
ANNUAL RUNOFF (AC-FT)	14200		15390		19030	
10 PERCENT EXCEEDS	25		31		47	
50 PERCENT EXCEEDS	18		21		22	
90 PERCENT EXCEEDS	14		15		12	

e Estimated.

## 10270830 SOUTH FORK BISHOP CREEK BELOW SOUTH FORK DIVERSION DAM, NEAR BISHOP, CA

LOCATION.—Lat 37°14'27", long 118°33'52", in SE 1/4 NW 1/4 sec.22, T.8 S., R.31 E., [Inyo County](#), Hydrologic Unit 18090102, Inyo National Forest, on left bank, at diversion dam and aqueduct, and 10.5 mi southwest of Bishop.

DRAINAGE AREA.—27.8 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1994 to September 2002 (low-flow records only), October 2002 to current year. Unpublished records prior to October 1994 available in files of Southern California Edison Co.

GAGE.—Acoustic-velocity meter. Elevation of gage is 7,130 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by South Lake (station 10270700). Most of the water is diverted by South Fork Diversion Dam to Intake No. 2 Reservoir (station 10270875) for power development downstream. South Fork Diversion Dam spill bypasses this station. See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.7	7.6	9.0	8.9	8.0	7.5	11	11	11	13	10
2	11	7.6	7.6	9.0	8.9	8.0	7.5	11	11	10	13	11
3	11	7.7	7.5	e8.5	8.3	7.9	7.5	11	11	10	13	10
4	11	7.8	7.5	8.4	7.5	7.9	7.6	11	11	10	13	10
5	11	7.8	7.5	8.9	7.7	7.8	7.6	11	11	10	13	11
6	11	7.8	7.5	9.0	7.7	7.8	7.5	11	11	11	13	11
7	11	7.8	7.5	9.0	7.6	7.7	7.5	11	11	11	13	11
8	11	7.8	7.5	e8.9	7.7	8.0	7.5	11	10	11	13	3.4
9	11	7.7	7.6	e8.9	7.7	8.0	7.5	11	11	11	13	0.00
10	11	7.6	7.6	9.0	7.6	7.9	7.5	11	11	11	13	0.00
11	11	7.5	7.6	9.0	7.5	7.8	7.5	11	11	11	13	0.00
12	11	7.6	7.5	e8.9	7.4	7.7	2.4	11	11	11	13	0.00
13	11	7.6	7.5	e8.9	7.5	7.7	5.5	10	11	11	13	0.00
14	11	7.5	7.6	e8.9	7.4	7.7	7.6	10	11	11	13	0.00
15	11	7.5	7.6	e8.9	7.4	7.6	7.5	10	10	11	13	0.00
16	11	7.5	7.4	8.9	7.4	7.6	7.5	10	10	11	13	0.00
17	11	7.5	7.5	8.9	7.7	7.5	7.5	11	11	11	13	0.00
18	11	7.5	7.5	8.9	7.7	7.3	7.5	11	11	11	13	0.00
19	11	7.5	7.5	8.9	7.6	7.3	7.4	11	11	11	13	0.00
20	11	7.5	7.5	8.9	7.6	7.2	7.4	11	11	11	13	0.00
21	11	7.5	7.6	8.8	7.6	7.3	7.5	11	11	11	13	0.00
22	11	7.5	7.7	8.8	7.6	7.4	9.5	11	10	12	13	0.00
23	11	7.5	e8.5	8.8	7.6	7.6	11	11	10	12	13	0.00
24	11	7.5	e10	8.8	7.6	7.7	10	11	11	13	13	0.00
25	11	7.5	10	8.8	7.5	7.5	10	11	11	13	13	0.00
26	11	7.5	10	8.8	7.6	7.7	11	11	10	13	13	0.00
27	11	7.5	e12	8.8	8.2	7.6	11	11	10	13	13	0.00
28	11	7.5	13	8.8	8.3	7.6	11	11	11	13	13	0.00
29	11	7.7	11	8.9	8.1	7.6	11	11	11	13	13	0.00
30	11	7.7	9.1	8.9	---	7.6	11	11	10	13	13	0.00
31	10	---	9.1	8.9	---	7.5	---	11	---	13	12	---
TOTAL	340	227.9	258.6	274.8	224.9	237.5	246.0	337	322	355	402	77.40
MEAN	11.0	7.60	8.34	8.86	7.76	7.66	8.20	10.9	10.7	11.5	13.0	2.58
MAX	11	7.8	13	9.0	8.9	8.0	11	11	11	13	13	11
MIN	10	7.5	7.4	8.4	7.4	7.2	2.4	10	10	10	12	0.00
AC-FT	674	452	513	545	446	471	488	668	639	704	797	154

e Estimated.

## 10270870 LAKE SABRINA NEAR BISHOP, CA

LOCATION.—Lat 37°12'44", long 118°36'42", unsurveyed, T.8 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, in valve house, at base of dam, on Middle Fork Bishop Creek, and 15.8 mi southwest of Bishop.

DRAINAGE AREA.—16.5 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—Reservoir is formed on natural lake by rock-fill dam completed in 1908. Usable capacity, 7,350 acre-ft, between elevations 9,068.42 ft, invert of outlet, and 9,131.62 ft, crest of spillway. Figures given represent usable contents. Water is used for power development downstream. See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 7,598 acre-ft, July 10, 1995, elevation, 9,132.89 ft; no storage on several days in 1994 and 2000.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 7,050 acre-ft, July 8, elevation, 9,130.07; minimum, 2 acre-ft, Sept. 4–30, elevation unknown.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Aug. 12, 1981)

9,068.42	0	9,080	15	9,100	1,926	9,120	5,196
9,070	1	9,090	558	9,110	3,501	9,135	7,912

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5840	5280	4770	4410	4020	3180	2470	2020	3380	6860	4580	200
2	5830	5250	4740	4410	4010	3170	2440	2070	3510	6880	4420	129
3	5810	5240	4720	4410	3970	3140	2420	2120	3670	6910	4260	40
4	5800	5210	4700	4400	3940	3120	2410	2210	3850	6920	4100	2
5	5780	5190	4700	4400	3910	3090	2400	2290	4030	6940	3930	e2
6	5770	5180	4690	4390	3880	3060	2390	2370	4220	6970	3770	e2
7	5750	5160	4670	4380	3840	3040	2370	2430	4360	7030	3600	e2
8	5740	5140	4670	4380	3800	3000	2360	2480	4460	7050	3440	e2
9	5720	5140	4660	4370	3770	2970	2350	2540	4550	7040	3300	e2
10	5710	5120	4640	4360	3740	2940	2340	2590	4620	7020	3150	e2
11	5680	5110	4640	4340	3700	2900	2330	2630	4680	6970	3010	e2
12	5660	5100	4610	4330	3670	2870	2320	2660	4730	6890	2870	e2
13	5640	5090	4600	4320	3630	2840	2310	2700	4810	6830	2740	e2
14	5630	5070	4580	4300	3600	2810	2280	2740	4930	6760	2600	e2
15	5610	5060	4570	4300	3560	2780	2260	2770	5080	6710	2480	e2
16	5590	5040	4560	4280	3530	2750	2230	2800	5230	6640	2340	e2
17	5570	5030	4550	4250	3500	2710	2210	2850	5360	6590	2180	e2
18	5560	5020	4530	4240	3470	2670	2190	2880	5500	6540	2010	e2
19	5540	5000	4520	4220	3440	2640	2170	2900	5630	6480	1840	e2
20	5520	4980	4510	4210	3410	2620	2140	2930	5760	6400	1690	e2
21	5500	4960	4510	4200	3380	2610	2110	2950	5880	6300	1540	e2
22	5480	4940	4480	4180	3350	2600	2080	2970	6020	6180	1390	e2
23	5470	4920	4460	4160	3320	2590	2040	2980	6160	6020	1240	e2
24	5450	4910	4460	4150	3290	2590	2000	3000	6280	5860	1100	e2
25	5430	4880	4460	4140	3280	2570	1980	3020	6400	5700	963	e2
26	5410	4860	4440	4120	3270	2550	1980	3040	6510	5550	813	e2
27	5390	4850	4430	4110	3240	2530	1990	3080	6610	5390	681	e2
28	5370	4830	4420	4090	3220	2500	2010	3140	6690	5230	569	e2
29	5350	4810	4420	4070	3200	2480	2020	3190	6760	5070	457	e2
30	5340	4780	4410	4060	---	2480	2020	3230	6820	4910	357	e2
31	5310	---	4400	4040	---	2470	---	3290	---	4750	270	---
MAX	5840	5280	4770	4410	4020	3180	2470	3290	6820	7050	4580	200
MIN	5310	4780	4400	4040	3200	2470	1980	2020	3380	4750	270	2
a	9120.64	9117.62	9115.39	9113.23	9108.14	9103.58	9100.63	9108.71	9128.85	9117.40	9087.18	
b	-550	-530	-380	-360	-840	-730	-450	+1270	+3530	-2070	-4480	-268
CAL YR 2003	MAX 7450	MIN 979	b +980									
WTR YR 2004	MAX 7050	MIN 2	b -5858									

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre feet.

## 10270872 MIDDLE FORK BISHOP CREEK BELOW LAKE SABRINA, NEAR BISHOP, CA

LOCATION.—Lat 37°12'50", long 118°36'34", unsurveyed, T.8 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, on right bank, 800 ft downstream from Lake Sabrina Dam, and 15.6 mi southwest of Bishop.

DRAINAGE AREA.—16.7 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and sharp-crested weir. Elevation of gage is 9,050 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Lake Sabrina (station 10270870). Water is used for power development downstream. See schematic diagram of Bishop Creek Basin.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 270 ft<sup>3</sup>/s, July 10, 1995, gage height, 2.15 ft; minimum daily, 6.5 ft<sup>3</sup>/s, Mar. 19–27, 1991.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	15	15	15	14	22	22	30	26	29	110	78
2	18	15	15	15	20	22	24	27	23	31	108	76
3	18	15	15	15	24	22	24	26	18	35	108	73
4	18	15	15	15	24	22	24	19	17	36	106	47
5	18	15	15	15	24	22	24	18	19	38	105	24
6	18	15	15	15	24	22	24	16	23	38	104	18
7	17	15	15	15	23	22	24	17	43	34	103	16
8	17	15	15	15	23	24	24	18	49	57	102	15
9	17	15	15	14	23	25	25	20	31	69	98	14
10	16	15	16	14	23	26	25	21	22	68	95	14
11	16	15	15	14	23	26	25	18	24	72	91	13
12	16	15	15	14	23	26	25	20	24	79	91	12
13	16	15	15	14	23	25	30	23	24	78	92	11
14	16	14	14	14	23	25	31	26	23	81	94	11
15	16	14	14	14	23	25	31	32	23	81	97	11
16	16	14	14	14	23	25	26	28	24	81	108	11
17	16	14	14	14	22	30	26	27	21	80	115	10
18	16	14	14	14	22	30	26	29	18	80	113	9.6
19	16	14	14	14	22	27	27	31	19	86	111	9.4
20	16	14	14	14	22	24	27	31	20	91	107	9.4
21	15	14	14	14	22	24	28	31	21	93	105	9.2
22	15	15	16	14	22	24	30	31	21	111	103	9.1
23	15	15	16	14	22	22	30	35	20	122	101	9.4
24	15	15	16	14	22	21	34	35	21	120	95	9.4
25	15	15	16	14	22	22	31	35	20	119	91	9.0
26	15	15	16	14	22	22	27	33	21	117	88	8.8
27	15	15	16	14	22	24	26	33	22	116	87	8.6
28	15	15	16	14	22	27	24	30	22	115	86	7.8
29	15	15	16	14	22	26	23	29	25	113	84	7.6
30	15	15	16	14	---	19	27	34	27	112	82	7.6
31	15	---	16	14	---	18	---	36	---	111	80	---
TOTAL	500	442	468	442	646	741	794	839	711	2493	3060	568.9
MEAN	16.1	14.7	15.1	14.3	22.3	23.9	26.5	27.1	23.7	80.4	98.7	19.0
MAX	18	15	16	15	24	30	34	36	49	122	115	78
MIN	15	14	14	14	14	18	22	16	17	29	80	7.6
AC-FT	992	877	928	877	1280	1470	1570	1660	1410	4940	6070	1130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	21.6	19.7	18.2	20.4	25.5	24.0	21.9	23.1	38.7	72.6	55.3	32.4		
MAX	40.9	36.4	30.3	35.2	46.1	43.1	41.1	43.4	91.1	147	107	49.4		
(WY)	1998	1999	1999	1994	1997	2000	1996	1996	1997	1995	1995	1995		
MIN	11.8	8.56	10.2	7.63	7.11	6.91	10.4	9.28	9.14	22.6	33.8	19.0		
(WY)	1991	1993	1993	1991	1991	1991	1993	1994	1994	2002	1992	2004		

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1991 - 2004	
ANNUAL TOTAL	9595		11704.9			
ANNUAL MEAN	26.3		32.0		31.2	
HIGHEST ANNUAL MEAN					47.8	
LOWEST ANNUAL MEAN					18.4	
HIGHEST DAILY MEAN					244	
LOWEST DAILY MEAN	109	Jun 19	122	Jul 23	6.5	Jul 21 1998
ANNUAL SEVEN-DAY MINIMUM	14	Mar 27	7.6	Sep 29	6.5	Mar 19 1991
MAXIMUM PEAK FLOW	14	Mar 27	8.4	Sep 24	6.5	Mar 19 1991
MAXIMUM PEAK STAGE			1.27	Jul 22	2.15	Jul 10 1995
ANNUAL RUNOFF (AC-FT)	19030		23220		22590	
10 PERCENT EXCEEDS	57		91		61	
50 PERCENT EXCEEDS	18		22		22	
90 PERCENT EXCEEDS	15		14		12	



## 10270875 INTAKE NO. 2 RESERVOIR NEAR BISHOP, CA

LOCATION.—Lat 37°14'53", long 118°34'53", in SE 1/4 SW 1/4 sec.16, T.8 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, in outlet structure, 50 ft upstream from Bishop Creek Dam, on Middle Fork Bishop Creek, and 13.0 mi southwest of Bishop.

DRAINAGE AREA.—31.6 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—Reservoir is formed by rock-fill dam completed in 1908. Capacity, 78 acre-ft, between elevations 8,077 ft, invert of outlet, and 8,098.81 ft, crest of spillway, all of which are available for release. Water is received from South Fork Bishop Creek via conduit on right bank. Most of the water is diverted through conduit to Bishop Creek Powerplant No. 2 for power development on Bishop Creek. Figures given represent total contents at 2400 hours. See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 101 acre-ft, July 9, 1995, elevation, 8,100.67 ft; no storage many days in 2002 and 2004.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 88 acre-ft, June 7, 8, maximum elevation, 8,099.73 ft, June 7; no storage Sept. 9–30.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Aug. 12, 1981)

8,077	0	8,086	5	8,094	32	8,102	120
8,082	1	8,090	12	8,098	68		

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	77	73	72	74	71	64	69	70	69	80	73
2	68	77	73	73	76	74	68	71	76	69	80	78
3	70	76	72	73	72	74	72	78	72	76	79	69
4	72	74	71	71	75	74	76	70	73	72	79	60
5	72	75	77	72	76	74	79	76	72	75	78	57
6	71	76	73	72	77	74	78	70	82	78	77	51
7	68	75	71	71	72	73	72	65	88	74	74	47
8	68	75	74	72	73	75	68	63	88	75	70	25
9	67	76	77	72	75	75	68	63	85	76	64	0
10	70	72	76	73	75	72	71	71	85	71	63	0
11	72	71	74	74	75	72	75	71	84	67	61	0
12	75	73	73	74	75	72	66	65	85	69	69	0
13	72	74	73	73	75	72	73	63	85	67	76	0
14	71	74	75	73	72	73	69	69	86	72	76	0
15	72	73	77	74	72	76	68	76	86	78	75	0
16	74	72	76	74	72	72	70	70	82	78	81	0
17	75	72	80	74	72	72	74	68	77	79	81	0
18	75	72	78	73	72	78	74	66	70	75	80	0
19	76	72	73	73	71	73	73	68	66	79	80	0
20	76	72	72	72	71	69	72	69	70	80	80	0
21	75	72	69	71	70	71	80	68	75	80	80	0
22	75	72	70	72	69	75	72	66	77	83	79	0
23	75	74	72	75	68	73	65	71	67	83	78	0
24	75	75	75	75	67	70	74	73	73	82	70	0
25	74	76	76	72	69	76	76	75	75	82	66	0
26	74	76	72	74	73	74	77	69	71	82	66	0
27	74	76	68	77	72	70	77	70	70	82	68	0
28	73	75	e69	76	72	71	74	72	68	81	70	0
29	72	75	78	74	72	78	74	65	68	81	70	0
30	71	74	73	75	---	72	74	64	70	81	69	0
31	72	---	72	75	---	64	---	70	---	80	72	---
MAX	76	77	80	77	77	78	80	78	88	83	81	78
MIN	66	71	68	71	67	64	64	63	66	67	61	0
a	8098.34	8098.52	8098.40	8098.66	8098.34	8097.66	8098.50	8098.20	8098.14	8099.09	8098.38	
b	+5	+2	-2	+3	-3	-8	+10	-4	0	+10	-8	-72

CAL YR 2003 MAX 90 MIN 65 b -1  
WTR YR 2004 MAX 88 MIN 0 b -67

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 10270877 MIDDLE FORK BISHOP CREEK BELOW INTAKE NO. 2 RESERVOIR, NEAR BISHOP, CA

LOCATION.—Lat 37°15'16", long 118°34'39", unsurveyed, T.8 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, on left bank, 0.1 mi upstream from bridge on South Lake Road, 0.7 mi downstream from Bishop Creek Dam, 0.9 mi upstream from confluence with South Fork Bishop Creek, and 12.6 mi southwest of Bishop.

DRAINAGE AREA.—31.9 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year (low-flow records only). Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 7,830 ft above NGVD of 1929, from topographic map.

REMARKS.—No records computed above 30 ft<sup>3</sup>/s. Flow regulated by Intake No. 2 Reservoir (station 10270875), where most of the water is diverted to Bishop Creek Powerplant No. 2. Water is used for power development downstream. See schematic diagram of Bishop Creek Basin.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	8.8	8.0	7.8	7.8	8.0	11	12	12	25	12
2	11	11	8.8	8.0	7.9	7.9	8.0	11	12	12	22	12
3	11	11	8.8	e8.0	8.0	8.0	8.1	11	12	12	19	12
4	11	11	8.8	e8.0	8.0	8.0	8.3	11	12	13	17	12
5	11	10	e8.8	e7.9	8.0	8.0	8.4	11	12	13	---	12
6	11	8.7	e8.8	7.8	8.0	8.0	10	11	---	13	13	12
7	11	8.8	9.0	7.8	8.0	8.0	8.2	11	---	13	12	12
8	11	8.8	8.5	7.8	7.9	8.0	8.1	10	---	13	12	15
9	11	8.8	8.1	7.8	7.8	8.0	8.1	---	---	13	12	---
10	11	9.0	8.1	7.8	7.8	8.0	8.1	18	---	12	12	22
11	11	8.9	8.0	7.8	7.9	8.0	8.1	14	---	12	12	21
12	11	8.8	8.0	7.8	8.0	8.0	8.1	12	---	12	12	20
13	11	8.8	8.0	7.8	8.0	8.0	8.1	12	---	12	12	19
14	11	8.8	8.0	7.8	8.0	8.0	8.1	12	---	12	12	19
15	11	8.8	e8.0	7.8	7.9	8.0	8.1	12	---	12	12	18
16	11	8.8	e8.0	7.8	7.8	8.0	8.1	12	---	13	---	18
17	11	8.8	e8.0	7.8	7.8	8.0	8.1	12	---	16	---	18
18	11	8.8	e8.0	7.8	8.0	8.0	8.1	12	13	13	27	17
19	11	8.8	e8.0	7.8	8.0	8.0	8.1	12	12	13	23	17
20	11	8.8	e8.0	7.8	8.0	8.0	8.1	12	12	18	22	17
21	11	8.8	8.0	7.8	8.0	7.8	8.2	12	12	20	19	17
22	11	8.8	8.0	7.8	8.0	7.8	---	12	13	---	18	17
23	11	8.8	8.0	7.8	8.0	8.0	14	12	13	---	15	17
24	11	8.8	8.0	7.8	7.9	7.8	14	12	12	---	13	17
25	11	8.8	e8.0	7.8	7.9	7.9	14	12	13	---	12	16
26	11	8.8	e8.0	7.8	7.8	8.3	12	12	13	---	12	16
27	11	8.8	e8.0	7.8	8.0	8.2	11	12	12	---	12	16
28	11	8.8	e8.0	7.8	7.9	8.1	11	12	12	---	12	15
29	11	8.8	e8.0	7.8	7.8	8.1	11	12	12	---	12	15
30	11	8.8	e8.0	7.8	---	e8.1	11	12	12	---	12	15
31	11	---	8.0	7.8	---	8.1	---	12	---	27	12	---
TOTAL	341	274.2	254.5	242.7	229.9	247.9	---	---	---	---	---	---
MEAN	11.0	9.14	8.21	7.83	7.93	8.00	---	---	---	---	---	---
MAX	11	11	9.0	8.0	8.0	8.3	---	---	---	---	---	---
MIN	11	8.7	8.0	7.8	7.8	7.8	---	---	---	---	---	---
AC-FT	676	544	505	481	456	492	---	---	---	---	---	---

e Estimated.

## 10270885 BISHOP CREEK BELOW INTAKE NO. 3 DIVERSION DAM, NEAR BISHOP, CA

LOCATION.—Lat 37°16'27", long 118°34'17", in NE 1/4 NE 1/4 sec.9, T.8 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, on left bank, 125 ft downstream from dam, 0.7 mi downstream from confluence of South Fork and Middle Fork Bishop Creek, and 9.5 mi southwest of Bishop.

DRAINAGE AREA.—64.5 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1994 to current year (low-flow records only). Unpublished records prior to October 1994 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 7,130 ft above NGVD of 1929, from topographic map.

REMARKS.—No records computed above 20 ft<sup>3</sup>/s. Flow regulated by Intake No. 3 Reservoir, where most of the water is diverted to Bishop Creek Powerplant No. 3. Water is used for power development downstream. See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	15	15	15	15	16	---	17	17	14	16
2	15	15	15	15	15	15	16	---	17	17	12	16
3	15	15	15	15	15	15	17	---	17	17	15	16
4	15	15	15	15	15	15	18	---	17	17	20	16
5	15	15	15	15	15	15	17	---	17	17	---	16
6	15	15	15	15	15	15	18	---	19	17	19	16
7	15	15	15	15	15	15	16	---	---	17	18	16
8	15	15	15	15	15	15	16	15	---	17	17	16
9	15	15	15	15	15	15	16	15	---	17	17	---
10	15	15	16	15	15	15	16	15	---	17	17	16
11	15	15	16	15	15	15	17	14	16	18	e16	16
12	15	15	16	15	15	15	---	14	16	18	17	16
13	15	15	15	15	15	15	---	16	16	e16	16	16
14	15	15	15	15	15	15	---	15	17	16	16	16
15	14	15	15	15	15	15	16	15	19	15	16	16
16	15	15	15	15	15	16	16	15	18	15	17	16
17	14	15	15	15	15	15	16	15	17	---	16	16
18	14	15	15	15	15	15	16	15	18	15	16	16
19	14	15	15	15	15	15	17	15	17	15	16	16
20	14	15	15	15	15	15	16	15	18	15	---	16
21	14	15	15	15	15	15	---	15	19	15	20	16
22	15	15	15	15	15	15	---	14	19	---	16	16
23	14	15	15	15	15	15	15	14	18	---	16	16
24	15	15	15	15	15	15	17	14	17	---	16	16
25	15	15	15	15	15	15	16	15	17	---	16	16
26	15	15	15	15	15	15	16	17	17	---	16	16
27	15	15	15	15	15	15	17	17	17	---	16	16
28	15	15	15	15	15	16	14	16	16	---	16	16
29	15	16	15	16	15	16	14	16	16	20	16	16
30	15	15	15	15	---	16	---	17	16	18	16	16
31	15	---	15	15	---	16	---	17	---	16	16	---
TOTAL	458	451	468	466	435	470	---	---	---	---	---	---
MEAN	14.8	15.0	15.1	15.0	15.0	15.2	---	---	---	---	---	---
MAX	15	16	16	16	15	16	---	---	---	---	---	---
MIN	14	15	15	15	15	15	---	---	---	---	---	---
AC-FT	908	895	928	924	863	932	---	---	---	---	---	---

e Estimated.

## 10270900 BIRCH-MCGEE DIVERSION TO BISHOP CREEK POWERPLANT NO. 2, NEAR BISHOP, CA

LOCATION.—Lat 37°16'26", long 118°34'45", in NW 1/4 NE 1/4 sec.9, T.8 S., R.31 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, in conduit, 100 ft upstream from penstock to Bishop Creek Powerplant No. 2, and 11.9 mi southwest of Bishop.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Acoustic-velocity meter. Elevation of gage is 7,950 ft above NGVD of 1929, from topographic map.

REMARKS.—Conduit diverts water from Birch Creek and discharges into penstock to Bishop Creek Powerplant No. 2. Birch Creek receives water from McGee Creek via McGee Creek Diversion (station 10268225). See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	3.9	3.6	2.8	2.6	2.5	1.4	3.0	12	21	14	7.7
2	10	4.0	3.6	2.7	2.6	2.5	0.49	3.0	14	20	13	7.5
3	9.9	4.0	3.6	2.7	2.6	2.5	0.53	3.0	15	19	13	7.4
4	9.4	4.0	3.2	2.7	2.6	2.5	0.84	3.0	13	19	12	7.0
5	9.0	3.9	3.5	2.7	2.6	2.4	0.69	3.1	11	20	12	6.7
6	8.5	3.9	3.0	2.7	2.6	2.5	0.58	3.1	9.6	21	11	6.4
7	8.0	3.8	2.9	2.7	2.6	2.6	0.70	4.8	9.5	23	11	6.3
8	7.5	3.9	2.9	2.7	2.5	2.6	0.89	6.4	9.2	24	11	6.2
9	6.5	3.9	2.8	2.6	2.5	2.7	1.0	6.5	8.9	24	11	6.1
10	4.7	3.9	2.7	2.7	2.5	2.7	1.1	6.5	11	22	11	6.1
11	4.4	3.8	2.8	2.6	2.5	2.6	1.2	6.3	16	21	11	6.1
12	4.3	3.9	2.8	2.6	2.5	2.7	1.2	6.2	21	20	11	6.1
13	4.2	3.9	2.8	2.6	2.5	2.7	1.1	6.1	21	20	11	5.9
14	4.2	3.9	2.8	2.6	2.5	2.7	1.2	6.1	14	20	10	5.8
15	4.1	3.9	2.8	2.6	2.5	2.8	1.2	6.2	20	20	10	5.8
16	4.0	3.9	2.7	2.6	2.6	2.8	2.2	6.3	19	19	9.9	5.6
17	4.0	3.9	2.7	2.6	2.6	2.8	3.0	6.5	18	20	9.5	5.5
18	4.0	3.9	2.7	2.6	2.6	3.0	2.9	6.6	19	19	9.5	5.5
19	4.0	3.8	2.7	2.6	2.5	3.1	2.9	6.8	18	19	9.6	5.6
20	4.0	3.8	2.7	2.6	2.5	3.1	2.9	7.0	18	19	9.9	5.4
21	3.9	3.8	2.7	2.6	2.5	3.1	2.9	7.1	17	18	10	5.2
22	3.9	3.8	2.7	2.6	2.5	3.2	2.9	7.5	17	18	9.9	5.3
23	3.9	3.8	2.7	2.6	2.5	3.1	2.9	7.9	17	17	9.3	5.2
24	4.0	3.8	2.8	2.6	2.5	2.9	2.9	7.9	19	17	8.9	5.0
25	4.0	3.7	2.8	2.5	2.5	2.8	3.0	8.5	27	17	8.7	5.0
26	3.9	3.7	2.8	2.5	2.5	2.7	3.0	8.1	25	16	8.5	4.9
27	4.0	3.7	2.7	2.6	2.5	2.7	2.9	8.5	24	16	8.4	4.9
28	3.9	3.7	2.6	2.5	2.4	2.7	2.9	10	22	15	8.1	4.9
29	3.9	3.7	2.9	2.5	2.4	2.8	2.9	9.8	21	15	8.0	4.9
30	3.6	3.6	2.7	2.5	---	2.7	2.9	10	21	15	7.8	4.9
31	3.8	---	2.7	2.6	---	2.7	---	11	---	14	7.8	---
TOTAL	167.5	115.2	89.4	81.1	73.3	85.2	57.22	202.8	507.2	588	315.8	174.9
MEAN	5.40	3.84	2.88	2.62	2.53	2.75	1.91	6.54	16.9	19.0	10.2	5.83
MAX	10	4.0	3.6	2.8	2.6	3.2	3.0	11	27	24	14	7.7
MIN	3.6	3.6	2.6	2.5	2.4	2.4	0.49	3.0	8.9	14	7.8	4.9
AC-FT	332	228	177	161	145	169	113	402	1010	1170	626	347

## 10270940 BISHOP CREEK BELOW INTAKE NO. 4 DIVERSION DAM, NEAR BISHOP, CA

LOCATION.—Lat 37°18'10", long 118°31'45", in NW 1/4 NW 1/4 sec.36, T.7 S., R.32 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, on left bank, 300 ft downstream from dam, 1.6 mi upstream from Coyote Creek, and 7.5 mi southwest of Bishop.

DRAINAGE AREA.—72.7 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1994 to current year (low-flow records only). Unpublished records prior to October 1994 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 6,310 ft above NGVD of 1929, from topographic map.

REMARKS.—No records computed above 20 ft<sup>3</sup>/s. Flow regulated by Intake No. 4 Reservoir, where most of the water is diverted to Bishop Creek Powerplant No. 4. Water is used for power development downstream. See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	6.0	6.1	6.4	5.6	5.2	5.6	6.7	6.4	6.8	---	6.9
2	6.2	6.0	6.1	6.4	5.6	5.3	5.6	6.7	6.6	6.8	---	6.9
3	6.2	6.0	6.2	6.4	5.4	5.2	5.6	6.7	6.4	6.7	---	12
4	6.2	6.0	6.3	6.4	5.3	5.3	5.6	6.7	6.4	6.8	---	6.9
5	6.2	6.0	6.3	6.4	5.3	5.3	5.7	6.6	6.5	6.8	---	6.9
6	6.2	6.0	6.2	6.5	5.3	5.3	5.7	7.0	7.2	6.7	---	6.9
7	6.2	6.1	6.3	6.6	5.3	5.4	5.7	---	---	6.6	19	6.9
8	6.2	6.0	6.0	6.6	5.3	5.5	5.6	6.6	---	---	18	6.9
9	6.2	6.0	6.2	6.6	5.3	5.5	5.6	6.9	---	15	14	---
10	6.2	6.0	6.3	6.6	5.4	5.6	5.6	6.6	6.4	15	8.1	6.9
11	6.2	6.0	6.4	6.6	5.4	5.6	5.6	6.6	5.4	15	6.9	6.9
12	6.2	6.0	6.4	6.6	5.3	5.5	---	6.6	5.6	15	6.9	6.9
13	6.2	6.1	6.4	6.6	5.4	5.6	---	6.6	5.6	14	6.9	6.9
14	6.2	6.0	6.4	6.6	5.4	5.6	---	6.6	5.6	---	8.6	6.9
15	6.1	6.0	6.4	6.6	5.4	5.6	11	6.6	9.3	13	7.9	6.9
16	6.1	6.0	6.4	6.6	5.4	5.6	8.0	6.6	6.4	---	12	6.9
17	6.1	6.1	6.4	6.6	5.4	5.6	6.6	6.6	6.1	17	---	6.9
18	6.1	6.1	6.8	6.6	5.4	5.6	6.6	6.6	6.1	18	---	6.9
19	6.1	6.2	6.4	6.6	5.4	5.6	6.6	6.6	6.1	19	---	6.9
20	6.1	6.1	6.4	6.6	5.3	5.7	6.6	6.6	6.1	---	---	6.9
21	6.1	6.2	6.4	6.6	5.3	5.7	6.7	6.6	6.1	---	---	6.9
22	6.1	6.0	6.4	---	5.3	5.7	7.8	6.6	6.1	---	---	6.9
23	6.1	5.9	6.4	8.4	5.4	5.7	6.7	6.6	6.1	---	17	6.9
24	6.1	5.9	6.4	5.7	5.4	5.7	6.7	6.6	6.1	---	15	6.9
25	6.1	6.1	6.4	5.7	5.3	5.7	6.7	6.5	6.1	---	7.7	6.9
26	6.1	6.1	6.4	5.7	5.3	5.7	6.7	6.4	6.1	---	6.9	6.9
27	6.1	6.1	6.4	5.7	5.2	5.7	6.7	6.4	6.1	---	6.9	6.9
28	6.1	6.1	6.4	5.6	5.2	5.7	6.7	6.7	6.3	---	6.9	6.9
29	6.2	6.1	6.4	5.6	5.2	5.7	6.7	6.4	6.7	---	6.9	6.9
30	6.2	6.1	6.4	5.6	---	5.6	6.7	6.4	6.7	---	6.9	6.9
31	6.0	---	6.4	5.6	---	5.6	---	6.4	---	---	6.9	---
TOTAL	190.6	181.3	196.8	---	155.2	172.1	---	---	---	---	---	---
MEAN	6.15	6.04	6.35	---	5.35	5.55	---	---	---	---	---	---
MAX	6.2	6.2	6.8	---	5.6	5.7	---	---	---	---	---	---
MIN	6.0	5.9	6.0	---	5.2	5.2	---	---	---	---	---	---
AC-FT	378	360	390	---	308	341	---	---	---	---	---	---

## 10270970 BISHOP CREEK BELOW INTAKE NO. 5 DIVERSION DAM, NEAR BISHOP, CA

LOCATION.—Lat 37°19'27", long 118°29'57", in NE 1/4 SE 1/4 sec.9, T.7 S., R.32 E., Inyo County, Hydrologic Unit 18090102, Inyo National Forest, on left bank, 400 ft downstream from dam, 1.0 mi downstream from Coyote Creek, and 6.0 mi southwest of Bishop.

DRAINAGE AREA.—100 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1994 to current year (low-flow records only). Unpublished records prior to October 1994 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 5,280 ft above NGVD of 1929, from topographic map.

REMARKS.—No records computed above 30 ft<sup>3</sup>/s. Flow regulated by Intake No. 5 Reservoir, where most of the water is diverted to Bishop Creek Powerplant No. 5. Water is used for power development downstream. See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	19	19	19	20	19	19	20	20	---	20
2	19	19	19	19	20	20	20	19	20	20	---	20
3	20	19	19	19	20	20	20	20	20	20	26	20
4	20	19	19	20	20	20	20	19	20	20	25	20
5	19	19	19	19	20	20	20	20	20	20	---	20
6	20	19	19	19	19	20	20	20	21	20	21	20
7	20	19	19	20	19	20	20	20	---	20	20	20
8	20	19	19	20	19	20	20	20	---	21	20	20
9	20	19	19	19	19	20	20	20	---	20	20	---
10	19	19	19	20	20	20	20	20	---	20	20	20
11	19	19	19	20	19	20	20	20	---	19	20	20
12	19	19	19	19	20	20	---	20	---	20	20	20
13	19	19	19	20	20	20	---	20	---	20	20	20
14	19	19	19	20	20	20	---	20	---	---	20	20
15	19	20	19	20	20	20	---	21	---	19	20	20
16	19	20	19	19	20	20	21	21	---	19	---	20
17	19	20	19	20	20	20	20	20	---	21	---	20
18	19	19	---	20	20	20	20	20	---	20	---	20
19	19	19	20	20	20	20	---	20	19	20	---	20
20	19	19	19	20	20	20	20	21	19	20	---	19
21	19	19	19	20	20	20	19	21	19	22	---	19
22	19	19	19	---	20	20	19	22	20	---	---	20
23	19	19	19	19	20	20	19	21	20	---	---	20
24	19	19	20	19	20	20	19	21	20	---	---	20
25	19	19	20	19	20	20	19	21	20	---	21	20
26	19	19	20	19	20	20	19	20	20	---	---	20
27	19	19	19	19	20	20	19	20	20	---	---	20
28	19	19	19	19	20	20	19	21	20	---	20	20
29	19	19	20	20	20	20	19	22	20	---	20	20
30	19	19	20	20	---	20	19	21	20	---	20	20
31	19	---	19	19	---	19	---	22	---	---	20	---
TOTAL	595	573	---	---	574	619	---	632	---	---	---	---
MEAN	19.2	19.1	---	---	19.8	20.0	---	20.4	---	---	---	---
MAX	20	20	---	---	20	20	---	22	---	---	---	---
MIN	19	19	---	---	19	19	---	19	---	---	---	---
AC-FT	1180	1140	---	---	1140	1230	---	1250	---	---	---	---

## 10270985 ABELOUR DITCH NEAR BISHOP, CA

LOCATION.—Lat 37°20'30", long 118°28'41", in SE 1/4 NE 1/4 sec.17, T.7 S., R.32 E., [Inyo County](#), Hydrologic Unit 18090102, on left bank, 400 ft upstream from Highway 168 road crossing, 0.6 mi downstream from outlet in penstock to Bishop Creek Powerplant No. 6, and 4.8 mi west of Bishop.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 4,750 ft above NGVD of 1929, from topographic map.

REMARKS.—Ditch diverts water from Bishop Creek Powerplant No. 6 Penstock for irrigation and domestic use. See schematic diagram of [Bishop Creek Basin](#).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 3.3 ft<sup>3</sup>/s, May 7, 1995; no flow Nov. 3, 4, 1998, Nov. 2, 3, 1999, Nov. 6, 7, 2000, Oct. 30–Nov. 8, 2001.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	e2.0	2.0	2.0	2.0	2.0	1.8	2.0	1.9	2.1	1.9	2.5
2	1.9	e2.0	2.0	2.0	2.0	2.0	1.8	2.0	1.9	2.1	1.9	2.5
3	1.9	e2.0	2.0	e2.0	1.9	2.0	1.8	2.0	1.8	2.1	1.8	2.5
4	1.9	e2.0	2.0	e2.0	2.0	2.0	1.8	2.0	1.8	2.1	1.8	2.5
5	1.9	e2.0	2.0	2.1	2.0	2.0	1.8	2.0	1.8	2.1	2.1	2.5
6	1.9	2.0	2.0	2.0	2.0	2.0	1.8	2.0	1.8	2.1	2.0	2.5
7	1.9	2.0	2.0	2.0	2.0	2.0	1.8	2.0	2.0	2.0	1.9	2.4
8	1.9	2.0	2.0	2.0	2.0	2.0	1.8	2.0	2.3	1.9	1.9	2.5
9	1.9	2.0	2.0	2.0	2.0	2.0	0.51	2.0	2.4	1.8	1.9	2.5
10	1.9	2.0	2.0	2.0	2.0	1.9	0.04	2.0	2.6	1.8	1.9	2.5
11	1.9	2.0	2.0	2.0	2.0	1.9	0.03	2.0	2.4	1.8	1.8	2.5
12	1.9	2.0	2.0	2.0	2.0	1.9	0.03	2.0	2.3	1.8	1.9	2.5
13	1.9	2.0	2.0	2.0	2.0	1.9	0.02	2.0	2.3	1.8	1.8	2.5
14	1.9	2.0	2.0	2.0	2.0	1.9	0.02	2.0	2.2	1.8	1.8	2.5
15	e1.9	2.0	2.0	2.0	2.0	1.9	1.2	2.0	2.0	1.8	1.8	2.7
16	e1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.8	1.8	2.1	2.8
17	e1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.8	1.8	2.5	2.8
18	e1.9	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.8	2.5	2.8
19	e1.9	2.0	1.9	2.0	2.0	1.8	1.9	2.0	1.9	1.8	2.5	2.8
20	e1.9	2.0	2.0	2.0	2.0	1.8	1.8	2.0	2.0	1.8	2.5	2.8
21	e1.9	2.0	2.0	2.0	2.0	1.8	1.8	2.0	1.9	1.9	2.5	2.8
22	e1.9	2.0	2.0	2.0	2.0	1.8	1.8	2.0	1.7	1.9	2.5	2.8
23	e1.9	2.0	2.0	2.0	2.0	1.8	1.8	2.0	1.8	1.9	2.5	2.8
24	e2.0	2.0	2.0	2.0	2.0	1.8	1.9	2.0	2.0	1.9	2.5	2.8
25	e2.0	2.0	2.0	2.0	2.0	1.8	1.9	2.0	2.0	1.9	2.5	2.8
26	e2.0	2.0	e2.0	2.0	2.0	1.8	1.9	2.0	2.0	1.9	2.5	2.8
27	e2.0	2.0	e2.0	2.0	2.0	1.8	1.9	2.0	2.0	1.9	2.5	2.8
28	e2.0	2.0	e2.0	2.0	2.0	1.8	1.8	1.9	2.1	1.9	2.5	2.8
29	e2.0	2.0	e2.0	2.0	2.0	1.8	1.9	1.9	2.1	1.9	2.5	2.5
30	e2.0	2.0	2.0	2.0	---	1.8	2.1	1.9	2.1	1.9	2.5	2.1
31	e2.0	---	2.0	2.0	---	1.8	---	1.9	---	1.9	2.5	---
TOTAL	59.7	60.0	61.9	62.1	57.9	58.5	44.75	61.6	60.6	59.0	67.8	78.6
MEAN	1.93	2.00	2.00	2.00	2.00	1.89	1.49	1.99	2.02	1.90	2.19	2.62
MAX	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.6	2.1	2.5	2.8
MIN	1.9	2.0	1.9	2.0	1.9	1.8	0.02	1.9	1.7	1.8	1.8	2.1
AC-FT	118	119	123	123	115	116	89	122	120	117	134	156

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	1.98	1.74	1.86	1.93	1.91	1.90	1.94	2.03	2.10	2.11	2.18	2.19		
MAX	2.32	2.20	2.01	2.30	2.11	2.06	2.41	2.42	2.47	2.62	2.73	2.62		
(WY)	2000	1994	1998	1997	1997	1997	1996	1995	1993	1995	1996	2004		
MIN	1.45	1.04	1.64	1.75	1.70	1.70	1.49	1.80	1.84	1.81	1.85	1.89		
(WY)	2002	1997	2001	2000	2000	1991	2004	2001	2002	2003	1991	1991		

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1991 - 2004	
ANNUAL TOTAL	702.5		732.45			
ANNUAL MEAN	1.92		2.00		1.99	
HIGHEST ANNUAL MEAN					2.19	
LOWEST ANNUAL MEAN					1.85	
HIGHEST DAILY MEAN					3.3	
LOWEST DAILY MEAN	1.5		0.02		0.00	
ANNUAL SEVEN-DAY MINIMUM	1.6		0.26		0.00	
ANNUAL RUNOFF (AC-FT)	1390		1450		1440	
10 PERCENT EXCEEDS	2.0		2.5		2.4	
50 PERCENT EXCEEDS	1.9		2.0		2.0	
90 PERCENT EXCEEDS	1.8		1.8		1.7	

e Estimated.

## 10271200 BISHOP CREEK ABOVE POWERPLANT NO. 6, NEAR BISHOP, CA

LOCATION.—Lat 37°21'00", long 118°27'42", in SE 1/4 SE 1/4 sec.9, T.7 S., R.32 E., Inyo County, Hydrologic Unit 18090102, on left bank, adjacent to Powerplant No. 6 tailrace, and 3.8 mi west of Bishop.

DRAINAGE AREA.—104 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. If records for Bishop Creek Powerplant No. 6 Conduit (station 10271060) are combined with this record, a record equivalent to that published October 1936 to September 1990 as "Bishop Creek below Powerplant No. 6, near Bishop", can be obtained. Monthly and yearly mean discharge prior to October 1969, published in WSP 2127.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 4,510 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated for power development by South Lake, Lake Sabrina, and Intake No. 2 Reservoir (stations 10270700, 10270870, and 10270875, respectively), combined capacity, 20,311 acre-ft, and five powerplants. Water is diverted into basin via Birch-McGee Diversion (station 10270900). Water is diverted out of basin via Abelour Ditch (station 10270985) for irrigation and domestic use. Diversion to Bishop Creek Powerplant No. 6 (station 10271060) bypasses this station and is published as a line item below. See schematic diagram of Bishop Creek Basin.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1394.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 453 ft<sup>3</sup>/s, July 23, 1998, gage height, 3.77 ft; no flow on many days in July and August 1992.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.84	0.70	0.68	0.68	0.40	1.3	1.6	1.3	0.94	1.5	21	41
2	1.0	0.70	1.1	0.56	0.45	1.7	1.1	1.3	0.87	1.6	18	42
3	1.1	0.70	1.1	0.54	0.45	1.6	1.1	1.3	0.81	1.5	15	61
4	1.1	0.70	1.2	0.66	0.42	1.5	1.1	1.1	0.81	1.5	14	41
5	1.1	0.70	0.87	0.53	0.46	1.3	1.1	1.1	0.66	1.6	31	10
6	1.1	0.64	0.87	0.51	0.49	1.3	1.1	1.1	1.0	1.5	17	4.9
7	1.1	0.55	0.78	0.46	0.45	1.3	1.0	1.1	37	1.4	12	3.6
8	1.1	0.55	0.70	0.51	0.46	1.3	0.87	1.1	127	2.8	11	11
9	1.0	0.55	0.70	0.50	0.44	1.3	0.82	1.1	127	5.7	8.5	21
10	0.98	0.55	0.70	0.45	0.44	1.3	0.74	1.0	105	5.2	2.0	5.5
11	0.87	0.55	0.70	0.47	0.46	1.3	0.81	1.0	57	5.0	0.40	7.5
12	0.93	0.70	0.81	0.47	0.45	1.3	37	1.1	3.6	4.7	0.25	6.6
13	0.91	0.81	0.52	0.47	0.44	1.3	72	1.1	3.3	4.4	0.25	7.2
14	0.87	0.70	0.55	0.47	0.44	1.3	88	1.1	3.3	6.1	0.25	7.3
15	0.87	0.70	0.64	0.47	0.51	1.3	49	1.1	3.5	5.0	0.26	43
16	0.88	0.70	0.67	0.46	0.39	1.3	3.3	1.1	2.8	7.1	29	61
17	0.87	0.64	0.61	0.47	0.43	1.3	3.3	1.1	1.9	8.4	79	60
18	0.87	0.55	0.56	0.45	0.43	1.3	3.3	1.1	1.8	11	77	60
19	0.87	0.55	0.55	0.47	0.42	1.0	5.5	1.1	1.6	9.4	76	63
20	0.87	0.59	0.55	0.46	0.43	1.5	1.8	1.1	1.6	13	75	63
21	0.87	0.53	0.81	0.47	0.45	1.6	1.6	1.1	1.5	16	75	63
22	0.87	0.54	0.56	0.43	0.43	1.6	1.6	1.1	1.3	22	74	63
23	0.87	0.55	0.61	0.43	0.49	1.6	1.6	1.1	1.3	43	70	61
24	0.87	0.55	0.70	0.43	0.76	1.6	1.5	1.1	1.3	40	68	60
25	0.87	0.55	0.86	0.41	1.5	1.6	1.3	1.1	1.3	38	62	59
26	0.87	0.54	0.66	0.42	1.7	1.6	1.3	1.1	1.3	35	55	59
27	1.6	0.51	0.60	0.43	1.4	1.6	1.3	1.1	1.3	33	52	58
28	1.6	0.52	0.73	0.43	1.3	1.6	1.2	1.1	1.3	30	50	61
29	0.64	0.51	0.61	0.43	1.3	1.3	1.2	1.1	1.3	27	49	60
30	0.55	0.51	0.55	0.42	---	1.3	1.3	1.1	1.3	25	47	60
31	0.63	---	0.55	0.39	---	1.5	---	1.1	---	23	43	---
TOTAL	29.47	18.14	22.10	14.75	18.19	43.7	288.44	34.5	494.69	430.4	1131.91	1223.6
MEAN	0.95	0.60	0.71	0.48	0.63	1.41	9.61	1.11	16.5	13.9	36.5	40.8
MAX	1.6	0.81	1.2	0.68	1.7	1.7	88	1.3	127	43	79	63
MIN	0.55	0.51	0.52	0.39	0.39	1.0	0.74	1.0	0.66	1.4	0.25	3.6
AC-FT	58	36	44	29	36	87	572	68	981	854	2250	2430
a	3840	3780	3990	3820	4690	5010	4350	5490	6000	8410	6740	2110

a Diversion, in acre-feet, to Bishop Creek Powerplant No. 6 (station 10271060), provided by Southern California Edison Co.



## 10271200 BISHOP CREEK ABOVE POWERPLANT NO. 6, NEAR BISHOP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.21	12.8	7.42	6.36	3.04	5.99	7.94	10.7	27.6	60.4	29.3	7.94
MAX	37.4	68.1	79.1	38.6	14.9	53.1	66.0	44.9	86.7	240	171	40.8
(WY)	1998	2002	2002	1997	2002	2002	2002	2002	1997	1995	1995	2004
MIN	0.11	0.19	0.19	0.17	0.21	0.19	0.18	0.12	0.06	0.04	0.05	0.08
(WY)	1993	1991	1993	1993	1993	1992	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1991 - 2004	
ANNUAL TOTAL	1147.14		3749.89			
ANNUAL MEAN	3.14		10.2		15.8	
HIGHEST ANNUAL MEAN					43.2 1995	
LOWEST ANNUAL MEAN					0.35 1992	
HIGHEST DAILY MEAN	75	Jun 20	127	Jun 8	420	Jul 24 1998
LOWEST DAILY MEAN	0.45	Jul 15	0.25	Aug 12	0.00	Jul 27 1992
ANNUAL SEVEN-DAY MINIMUM	0.49	May 6	0.42	Jan 26	0.00	Jul 27 1992
MAXIMUM PEAK FLOW			180	Jun 8	453	Jul 23 1998
MAXIMUM PEAK STAGE			2.29	Jun 8	3.77	Jul 23 1998
ANNUAL RUNOFF (AC-FT)	2280		7440		11480	
ANNUAL DIVERSION (AC-FT) a	59680		58680			
10 PERCENT EXCEEDS	5.4		48		59	
50 PERCENT EXCEEDS	1.1		1.1		1.5	
90 PERCENT EXCEEDS	0.56		0.46		0.19	

a Diversion, in acre-feet, to Bishop Creek Powerplant No. 6 (station 10271060), provided by Southern California Edison Co.

## 10287060 LUNDY LAKE NEAR LEE VINING, CA

LOCATION.—Lat 38°01'56", long 119°13'11", in NW 1/4 SE 1/4 sec.16, T.2 N., R.25 E., Mono County, Hydrologic Unit 18090101, near right abutment of spillway of Lundy Lake Dam, on Mill Creek, and 7.6 mi northwest of Lee Vining.

DRAINAGE AREA.—16.3 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—Reservoir is formed on natural lake by rock-fill dam completed in 1910. Usable capacity, 4,113 acre-ft, between elevations 7,766.43 ft, invert of outlet, and 7,807.81 ft, crest of spillway. Figures given represent usable contents. Water is used for power development and irrigation downstream.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1390.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 4,191 acre-ft, July 22, 1998, elevation, 7,808.40 ft; minimum, 327 acre-ft, estimated, Mar. 27, 28, 2002, elevation unknown.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 2,420 acre-ft, Oct. 1, elevation, 7,793.91 ft; minimum, 547 acre-ft, May 18, elevation, 7,774.40 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Aug. 17, 1981)

7,766.43	0	7,780	1,027	7,800	3,126	7,810	4,406
7,770	213	7,790	2,001				

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2420	1940	1730	1640	1570	1440	1360	850	826	1530	1610	1440
2	2400	1930	1720	1640	1580	1430	1350	864	854	1530	1600	1430
3	2380	1930	1720	1640	1570	1420	1340	905	903	1540	1600	1430
4	2360	1920	1710	1640	1560	1420	1320	934	944	1530	1590	1410
5	2340	1910	1720	1640	1560	1410	1310	929	997	1540	1590	1400
6	2320	1910	1710	1650	1550	1410	1290	940	1060	1550	1590	1390
7	2300	1900	1720	1640	1550	1400	1280	901	1110	1560	1580	1380
8	2280	1890	1710	1640	1540	1400	1270	874	1150	1560	1580	1400
9	2260	1890	1700	1640	1540	1400	1250	839	1150	1560	1580	1390
10	2240	1880	1710	1630	1530	1400	1240	811	1120	1550	1570	1380
11	2220	1870	1700	1630	1530	1400	1230	785	1100	1550	1570	1380
12	2190	1870	1700	1630	1520	1400	1220	723	1070	1540	1570	1380
13	2170	1860	1690	1630	1510	1400	1230	689	1070	1560	1570	1360
14	2150	1860	1690	1620	1500	1400	1190	655	1100	1560	1550	1350
15	2140	1850	1680	1620	1500	1400	1160	633	1160	1570	1560	1360
16	2120	1840	1680	1620	1500	1400	1110	602	1180	1590	1560	1350
17	2100	1840	1670	1620	1500	1410	1060	593	1240	1600	1560	1350
18	2090	1830	1670	1620	1490	1410	1010	547	1280	1610	1550	1330
19	2070	1820	1670	1610	1480	1420	985	552	1290	1620	1550	1340
20	2060	1820	1660	1610	1480	1430	968	571	1320	1620	1530	1330
21	2040	1800	1660	1610	1470	1440	949	580	1350	1640	1530	1320
22	2020	1800	1650	1610	1470	1450	934	572	1380	1640	1530	1330
23	2010	1790	1650	1600	1460	1460	921	574	1400	1650	1520	1330
24	2000	1780	1660	1600	1460	1450	909	577	1430	1660	1520	1330
25	2000	1770	1660	1600	1460	1440	895	566	1470	1660	1510	1320
26	1990	1760	1620	1590	1460	1440	881	582	1480	1650	1500	1320
27	1980	1760	1620	1590	1460	1420	871	603	1490	1650	1480	1310
28	1980	1750	1630	1580	1450	1410	868	662	1510	1640	1480	1310
29	1970	1740	1630	1580	1440	1400	859	703	1520	1640	1470	1310
30	1950	1740	1630	1580	---	1390	852	734	1530	1630	1460	1300
31	1940	---	1630	1570	---	1380	---	775	---	1620	1460	---
MAX	2420	1940	1730	1650	1580	1460	1360	940	1530	1660	1610	1440
MIN	1940	1740	1620	1570	1440	1380	852	547	826	1530	1460	1300
a	7789.46	7787.42	7786.39	7785.77	7784.43	7783.77	7778.02	7777.13	7785.35	7786.26	7784.59	7782.96
b	-500	-200	-110	-60	-130	-60	-528	-77	+755	+90	-160	-160
CAL YR 2003	MAX 3910	MIN 345	b -10									
WTR YR 2004	MAX 2420	MIN 547	b -1140									

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

10287069 MILL CREEK FLUME BELOW LUNDY LAKE, NEAR LEE VINING, CA

LOCATION.—Lat 38°01'59", long 119°12'56", in SE 1/4 NE 1/4 sec.16, T.2 N., R.25 E., Mono County, Hydrologic Unit 18090101, on left bank, 20 ft upstream from Deer Creek, 70 ft downstream from road culvert, 1,400 ft downstream from Lundy Lake Dam, and 7.5 mi northwest of Lee Vining.

DRAINAGE AREA.—18.1 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year (low flow records only). If records for Upper Conway Ditch and Lundy Powerplant Tailrace (stations 10287145 and 10287195) are combined with this record, a record equivalent to that published October 1942 to September 1990 as "Mill Creek below Lundy Lake, near Mono Lake" can be obtained. Monthly and yearly mean discharges prior to October 1969, published in WSP 2127.

GAGE.—Water-stage recorder and 5-ft Cipolletti weir (since May 12, 1992) set in Parshall flume. Elevation of gage is 7,760 ft above NGVD of 1929, from topographic map.

REMARKS.—Records not computed above 15 ft<sup>3</sup>/s. Flow regulated by Lundy Lake (station 10287060). Most of the water is diverted at Lundy Lake via Lundy Powerplant to Upper Conway Ditch and Lundy Powerplant Tailrace for power development and irrigation.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1390.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	0.93	0.52	---	---	---	---	---	---	---	---	---
2	2.6	0.93	0.43	---	---	---	---	---	---	---	---	---
3	2.6	0.93	0.38	---	---	---	---	---	---	---	---	---
4	2.6	0.93	0.11	---	---	---	---	---	---	---	---	---
5	2.4	0.93	---	---	---	---	---	---	---	---	---	---
6	2.4	0.93	---	---	---	---	---	---	---	---	---	---
7	2.4	0.93	---	---	---	---	---	---	---	---	---	---
8	2.2	0.93	---	---	---	---	---	---	---	---	---	---
9	2.2	0.93	---	---	---	---	---	---	---	---	---	---
10	2.1	0.93	---	---	---	---	---	---	---	---	---	---
11	2.0	0.93	---	---	---	---	---	---	---	---	---	---
12	1.9	0.87	---	---	---	---	---	---	---	---	---	---
13	1.9	0.80	---	---	---	---	---	---	---	---	---	---
14	1.9	0.80	---	---	---	---	---	---	---	---	---	---
15	1.8	0.80	---	---	---	---	---	---	---	---	---	---
16	1.7	0.80	---	---	---	---	---	---	---	---	---	---
17	1.7	0.80	---	---	---	---	---	---	---	---	---	---
18	1.7	0.80	---	---	---	---	---	---	---	---	---	---
19	1.5	0.80	---	---	---	---	---	---	---	---	---	---
20	1.5	0.73	---	---	---	---	---	---	---	---	---	---
21	1.5	0.64	---	---	---	---	---	---	---	---	---	---
22	1.4	0.64	---	---	---	---	---	---	---	---	---	---
23	1.4	0.64	---	---	---	---	---	---	---	---	---	---
24	1.3	0.64	---	---	---	---	---	---	---	---	---	---
25	1.2	0.64	---	---	---	---	---	---	---	---	---	---
26	1.2	0.64	---	---	---	---	---	---	---	---	---	---
27	1.2	0.59	---	---	---	---	---	---	---	---	---	---
28	1.2	0.56	---	---	---	---	---	---	---	---	---	---
29	1.1	0.56	---	---	---	---	---	---	---	---	---	---
30	0.98	0.56	---	---	---	---	---	---	---	---	---	---
31	0.96	---	---	---	---	---	---	---	---	---	---	---
TOTAL	55.34	23.54	---	---	---	---	---	---	---	---	---	---
MEAN	1.79	0.78	---	---	---	---	---	---	---	---	---	---
MAX	2.8	0.93	---	---	---	---	---	---	---	---	---	---
MIN	0.96	0.56	---	---	---	---	---	---	---	---	---	---
AC-FT	110	47	---	---	---	---	---	---	---	---	---	---
a	0	0	0	0	0	0	0	194	697	228	0	0
b	831	578	594	576	561	964	1700	2770	2990	1780	960	655

CAL YR 2003 a 1060 b 14130  
WTR YR 2004 a 1120 b 14960

a Diversion, in acre-feet, to Upper Conway Ditch (station 10287145), provided by Southern California Edison Co.  
b Diversion, in acre-feet, to Lundy Powerplant Tailrace (station 10287195), provided by Southern California Edison Co.

## 10287260 WAUGH LAKE NEAR JUNE LAKE, CA

LOCATION.—Lat 37°45'04", long 119°10'52", unsurveyed, T.2 S., R.25 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, near outlet, at base of Rush Creek Meadows Dam, on Rush Creek, and 6.0 mi southwest of town of June Lake.

DRAINAGE AREA.—15.3 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—No records computed during the winter months. Reservoir is formed by concrete dam completed in 1925. Total capacity, 5,277 acre-ft, between elevations 9,368.60 ft, invert of outlet, and 9,415.61 ft, crest of spillway, all of which are available for release. Figures given represent total contents at 2400 hours. Water is used for power development downstream.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1389.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Aug. 18, 1981)

9,375	0	9,390	1,283	9,400	2,670	9,410	4,277
9,380	148	9,395	1,948	9,405	3,447	9,418	5,727
9,385	681						

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	3650	5340	5260	4490
2	---	---	---	---	---	---	---	---	3950	5340	5250	4330
3	---	---	---	---	---	---	---	---	4300	5350	5240	4170
4	---	---	---	---	---	---	---	---	4620	5350	5230	4010
5	---	---	---	---	---	---	---	---	4960	5360	5220	3850
6	---	---	---	---	---	---	---	---	5280	5370	5210	3690
7	---	---	---	---	---	---	---	---	5440	5360	5200	3530
8	---	---	---	---	---	---	---	---	5410	5350	5190	3380
9	---	---	---	---	---	---	---	---	5380	5340	5180	3220
10	---	---	---	---	---	---	---	---	5370	5330	5170	3070
11	---	---	---	---	---	---	---	---	5390	5320	5160	2920
12	---	---	---	---	---	---	---	---	5410	5320	5160	2780
13	---	---	---	---	---	---	---	---	175	5450	5320	2630
14	---	---	---	---	---	---	---	---	414	5460	5320	2400
15	---	---	---	---	---	---	---	---	627	5460	5320	e2200
16	---	---	---	---	---	---	---	---	845	5440	5330	e2000
17	---	---	---	---	---	---	---	---	1060	5430	5330	e1800
18	---	---	---	---	---	---	---	---	1220	5400	5330	e1600
19	---	---	---	---	---	---	---	---	1360	5400	5320	e1400
20	---	---	---	---	---	---	---	---	1480	5410	5320	e1200
21	---	---	---	---	---	---	---	---	1570	5410	5320	e1000
22	---	---	---	---	---	---	---	---	1700	5410	5310	e800
23	---	---	---	---	---	---	---	---	1850	5410	5310	e600
24	---	---	---	---	---	---	---	---	1980	5400	5310	e400
25	---	---	---	---	---	---	---	---	2110	5400	5300	e200
26	---	---	---	---	---	---	---	---	2240	5390	5300	e0
27	---	---	---	---	---	---	---	---	2500	5380	5300	e0
28	---	---	---	---	---	---	---	---	2800	5370	5290	e0
29	---	---	---	---	---	---	---	---	2950	5360	5280	e0
30	---	---	---	---	---	---	---	---	3140	5350	5280	e0
31	---	---	---	---	---	---	---	---	3380	---	5270	---
MAX	---	---	---	---	---	---	---	---	5460	5370	5320	4490
MIN	---	---	---	---	---	---	---	---	3650	5270	4660	0
a	---	---	---	---	---	---	---	---	9404.61	9416.00	9415.58	9412.21
b	---	---	---	---	---	---	---	---	+1970	-80	-610	-4660

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.



## 10287280 GEM LAKE NEAR JUNE LAKE, CA

LOCATION.—Lat 37°45'07", long 119°08'25", unsurveyed, T.2 S., R.26 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, in valve house, 100 ft downstream from left abutment of dam, on Rush Creek, and 4.0 mi southwest of town of June Lake.

DRAINAGE AREA.—22.0 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—Reservoir is formed on natural lake by concrete dam completed in 1916. Usable capacity, 17,798 acre-ft, between elevations 8,964.33 ft, invert of outlet, and 9,053.64 ft, crest of upper spillway. Figures given represent usable contents. Water is used for power development downstream.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1389.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 17,763 acre-ft, June 19, 2000, elevation, 9,053.51 ft; minimum, 128 acre-ft, several days in 2000, elevation, 8,970.38 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 17,200 acre-ft, Sept. 20, elevation, 9,051.36 ft; minimum, 3,460 acre-ft, Mar. 17, 18, minimum elevation, 8,995.76 ft, Mar. 17.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Sept. 1, 1981)

8,980	441	8,990	2,300	9,010	6,547	9,040	14,023
8,985	1,348	9,000	4,345	9,025	10,121	9,055	18,187

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15500	13000	10600	e8520	6400	4400	3700	6830	12000	16800	16000	14800
2	15400	12900	10600	e8460	6360	4340	3680	7140	12100	16800	15900	14900
3	15400	12800	10500	e8390	6290	4260	3660	7500	12200	16800	15700	14900
4	15300	12700	10400	e8320	6210	4190	3660	7880	12300	16800	15500	15000
5	15200	12700	10400	e8260	6150	4120	3730	8280	12400	16800	15400	15100
6	15200	12600	10300	e8190	6080	4040	3800	8620	12500	16900	15200	15200
7	15100	12500	10200	e8130	6010	3960	3860	8990	12600	16900	15000	15300
8	15000	12400	10100	e8070	5930	3890	3970	9310	12900	16900	14900	15400
9	14900	12400	10100	e8000	5860	3820	4110	9650	13100	16800	14700	15500
10	14800	12300	10000	e7940	5780	3770	4260	9990	13200	16700	14600	15500
11	14700	12200	9940	e7870	5710	3700	4420	10300	13300	16700	14400	15600
12	14700	12100	9860	e7810	5640	3640	4580	10600	13500	16600	14300	15700
13	14600	12100	9800	e7740	5560	3580	4720	10700	13700	16500	14200	15800
14	14500	12000	9740	e7680	5480	3540	4810	10800	13900	16600	14100	15900
15	14400	11900	9660	e7610	5400	3480	4880	10900	14200	16600	14100	16200
16	14300	11800	9580	7540	5350	3470	4930	11000	14500	16700	14100	16500
17	14200	11800	e9520	7480	5270	3460	4970	11100	14700	16700	14100	16700
18	14100	11700	e9450	7400	5220	3460	5000	11100	15000	16800	14100	16900
19	14100	11600	e9380	7330	5140	3470	5030	11200	15100	16800	14100	17100
20	14000	11500	e9310	7270	5070	3500	5060	11300	15300	16800	14100	17200
21	13900	11400	e9250	7190	4990	3550	5080	11300	15500	16900	14100	17100
22	13800	11300	e9180	7110	4930	3600	5110	11400	15600	16900	14100	17000
23	13700	11300	e9110	7040	4850	3660	5150	11500	15800	16900	14200	16900
24	13600	11200	e9050	6980	4780	3700	5230	11400	16000	16900	14200	16800
25	13600	11100	e8980	6890	4760	3720	5360	11300	16100	16900	14200	16800
26	13500	11000	e8920	6830	4700	3710	5560	11400	16300	16900	14300	16700
27	13400	11000	e8850	6760	4620	3690	5830	11500	16400	16800	14300	16600
28	13300	10900	e8780	6690	4540	3660	6120	11600	16500	16600	14400	16500
29	13200	10800	e8720	6620	4470	3670	6310	11700	16600	16500	14500	16400
30	13100	10700	e8650	6540	---	3690	6560	11800	16700	16300	14500	16300
31	13000	---	e8590	6470	---	3700	---	11900	---	16200	14600	---
MAX	15500	13000	10600	8520	6400	4400	6560	11900	16700	16900	16000	17200
MIN	13000	10700	8590	6470	4470	3460	3660	6830	12000	16200	14100	14800
a	9036.34	9027.33		9009.67	9000.60	8996.92	9010.08	9032.00	9049.89	9047.86	9042.32	9048.47
b	-2600	-2300	-2110	-2120	-2000	-770	+2860	+5340	+4800	-500	-1600	+1700
CAL YR 2003	MAX 17600	MIN 2540	b -250									
WTR YR 2004	MAX 17200	MIN 3460	b +700									

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

10287281 RUSH CREEK BELOW GEM LAKE, NEAR JUNE LAKE, CA

LOCATION.—Lat 37°45'05", long 119°08'26", unsurveyed, T.2 S., R.26 E., [Mono County](#), Hydrologic Unit 18090101, Inyo National Forest, in valve house, 100 ft downstream from left abutment of dam on Rush Creek, and 4.0 mi southwest of town of June Lake.

DRAINAGE AREA.—22.0 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records prior to October 1999 available in files of Southern California Edison Co.

GAGE.—Acoustic-velocity meter. Elevation of gage is 8,979 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Gem Lake (station 10287280) 100 ft upstream.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1389.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7.1 ft<sup>3</sup>/s, June 16–22, 2003; no flow for several days in April 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.3	1.2	e1.2	e1.2	e2.0	e1.8	2.7	3.5	1.3	1.3	1.3
2	1.2	1.2	1.2	e1.2	e1.2	e2.0	e1.8	2.7	3.6	1.3	1.4	1.3
3	1.3	1.2	1.2	e1.2	e1.2	e2.0	e1.8	2.8	2.3	1.3	1.4	1.3
4	1.3	1.2	1.2	e1.2	e1.2	e2.0	1.8	2.9	1.2	1.3	1.4	1.3
5	1.3	1.2	1.2	e1.2	e1.2	e2.0	1.8	3.0	1.2	1.3	1.4	1.3
6	1.3	1.2	1.2	e1.2	e1.2	e2.0	1.8	3.0	1.2	1.3	1.4	1.3
7	1.3	1.2	1.2	e1.2	e1.2	e2.0	1.9	3.1	1.3	1.3	1.4	1.3
8	1.3	1.2	1.2	e1.2	e1.2	e2.0	1.9	3.2	1.3	1.3	1.3	1.3
9	1.3	1.2	1.2	e1.2	e1.2	e2.0	1.9	3.2	1.3	1.3	1.3	1.3
10	1.3	1.2	1.2	e1.2	e1.2	e2.0	2.0	3.3	1.3	1.3	1.3	1.3
11	1.2	1.2	1.2	e1.2	e1.2	e2.0	2.0	3.3	1.3	1.3	1.3	1.4
12	1.2	1.3	1.2	e1.2	e1.6	e2.0	2.1	3.4	1.3	1.3	1.3	1.4
13	1.2	1.3	1.2	e1.2	e2.0	e2.0	2.1	3.4	1.3	1.3	1.3	1.4
14	1.2	1.3	1.2	e1.2	e2.0	e2.0	2.2	3.4	1.3	1.3	1.3	1.4
15	1.2	1.3	1.2	e1.2	e2.0	e2.0	2.2	3.4	1.3	1.3	1.3	1.4
16	1.2	1.3	1.2	e1.2	e2.0	e2.0	2.2	3.4	1.3	1.3	1.3	1.4
17	1.2	1.2	e1.2	e1.2	e2.0	e2.0	2.2	3.4	1.3	1.3	1.3	1.4
18	1.2	1.2	e1.2	e1.2	e2.0	e2.0	2.2	3.4	1.4	1.3	1.3	1.4
19	1.2	1.2	e1.2	e1.2	e2.0	e2.0	2.3	3.5	1.3	1.3	1.3	1.4
20	1.2	1.2	e1.2	e1.2	e2.0	e2.0	2.3	3.5	1.4	1.3	1.3	1.4
21	1.2	1.2	e1.2	e1.2	e2.0	e2.0	2.3	3.5	1.4	1.3	1.3	1.4
22	1.2	1.2	e1.2	e1.2	e2.0	e2.0	2.3	3.5	1.3	1.3	1.3	1.4
23	1.2	1.2	e1.2	e1.2	e2.0	e1.9	2.3	3.5	1.3	1.3	1.3	1.4
24	1.2	1.2	e1.2	e1.2	e2.0	e1.8	2.3	3.0	1.3	1.3	1.3	1.4
25	1.3	1.2	e1.2	e1.2	e2.0	e1.8	2.3	3.1	1.3	1.3	1.3	1.4
26	1.3	1.2	e1.2	e1.2	e2.0	e1.8	2.4	3.5	1.3	1.3	1.3	1.3
27	1.3	1.3	e1.2	e1.2	e2.0	e1.8	2.4	3.5	1.3	1.3	1.4	1.3
28	1.3	1.2	e1.2	e1.2	e2.0	e1.8	2.5	3.5	1.3	1.3	1.4	1.3
29	1.3	1.2	e1.2	e1.2	e2.0	e1.8	2.6	3.5	1.3	1.3	1.4	1.3
30	1.3	1.2	e1.2	e1.2	---	e1.8	2.6	3.5	1.3	1.3	1.4	1.3
31	1.3	---	e1.2	e1.2	---	e1.8	---	3.5	---	1.3	1.4	---
TOTAL	38.7	36.7	37.2	37.2	48.8	60.3	64.3	101.6	44.5	40.3	41.4	40.5
MEAN	1.25	1.22	1.20	1.20	1.68	1.95	2.14	3.28	1.48	1.30	1.34	1.35
MAX	1.3	1.3	1.2	1.2	2.0	2.0	2.6	3.5	3.6	1.3	1.4	1.4
MIN	1.2	1.2	1.2	1.2	1.2	1.8	1.8	2.7	1.2	1.3	1.3	1.3
AC-FT	77	73	74	74	97	120	128	202	88	80	82	80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
MEAN	1.25	1.20	1.21	1.21	1.31	1.28	1.87	2.35	1.25	1.26	1.27				
MAX	1.30	1.24	1.22	1.22	1.68	1.95	2.14	3.28	3.94	1.30	1.34	1.35			
(WY)	2002	2002	2002	2003	2004	2004	2004	2004	2003	2002	2004	2004			
MIN	1.20	1.15	1.20	1.20	1.20	1.19	0.43	1.27	1.24	1.20	1.20	1.20			
(WY)	2001	2000	2001	2001	2001	2000	2000	2000	2000	2000	2000	2000			

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	532.1		591.5			
ANNUAL MEAN	1.46		1.62		1.46	
HIGHEST ANNUAL MEAN					1.62	2004
LOWEST ANNUAL MEAN					1.31	2001
HIGHEST DAILY MEAN	7.1	Jun 16	3.6	Jun 2	7.1	Jun 16 2003
LOWEST DAILY MEAN	1.2	Jan 1	1.2	Oct 1	0.00	Apr 5 2000
ANNUAL SEVEN-DAY MINIMUM	1.2	Jan 3	1.2	Oct 11	0.00	Apr 5 2000
MAXIMUM PEAK FLOW			3.6		7.1	Jun 17 2003
ANNUAL RUNOFF (AC-FT)	1060		1170		1060	
10 PERCENT EXCEEDS	1.3		2.4		1.9	
50 PERCENT EXCEEDS	1.2		1.3		1.3	
90 PERCENT EXCEEDS	1.2		1.2		1.2	

e Estimated.

## 10287285 AGNEW LAKE NEAR JUNE LAKE, CA

LOCATION.—Lat 37°45'30", long 119°07'52", unsurveyed, T.2 S., R.26 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, in boat house, at left abutment of dam on Rush Creek, and 3.3 mi southwest of town of June Lake.

DRAINAGE AREA.—23.3 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—Reservoir is formed on natural lake by concrete dam completed in 1916. Usable capacity, 810 acre-ft, between elevations 8,470.00 ft, invert of outlet, and 8,495.88 ft, crest of spillway. Figures given represent usable contents. Water is used for power development downstream.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1389.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 913 acre-ft, estimated, June 3–10, 2003, elevation unknown; minimum, 22 acre-ft, Feb. 28, 1991, elevation, 8,470.97 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 817 acre-ft, several days in June, maximum elevation, 8,496.06 ft, June 2–5; minimum, 30 acre-ft, Oct. 27–Dec. 4, minimum elevation, 8,471.28 ft, many days October–December and February.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Aug. 25, 1981)

8,470	0	8,480	260	8,490	587	8,498	896
8,475	122	8,485	415				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	768	30	30	39	31	32	50	60	817	815	795	796
2	766	30	30	39	32	32	49	67	817	815	795	797
3	768	30	30	39	31	32	49	78	817	815	783	800
4	768	30	30	39	31	32	52	91	817	815	784	799
5	769	30	38	39	30	32	52	106	817	815	784	800
6	767	30	36	39	30	35	50	121	817	816	784	801
7	770	30	34	39	30	40	48	136	812	811	784	801
8	735	30	32	39	30	43	50	151	812	809	785	802
9	693	30	32	39	30	47	50	167	815	807	785	801
10	652	30	32	39	30	52	49	184	815	806	786	801
11	612	30	34	39	30	53	50	198	814	805	786	802
12	573	30	34	39	30	53	51	211	816	803	786	801
13	533	30	34	40	31	53	48	225	816	801	788	800
14	493	30	35	40	32	53	48	240	817	800	789	800
15	454	30	35	43	32	54	47	257	817	800	790	792
16	412	30	35	35	32	55	46	273	817	801	791	789
17	374	30	34	34	32	55	46	292	816	802	791	788
18	335	30	34	34	32	57	45	306	815	802	792	787
19	298	30	34	33	32	56	44	322	815	802	795	786
20	261	30	34	33	32	55	44	336	815	801	797	787
21	225	30	34	33	32	54	43	350	817	802	798	788
22	183	30	33	33	32	55	42	365	814	802	797	791
23	144	30	34	33	32	54	42	380	815	802	796	791
24	107	30	34	32	32	54	42	556	813	803	799	791
25	69	30	35	32	33	54	42	685	815	802	797	793
26	37	30	34	32	33	53	43	700	815	801	795	793
27	30	30	33	32	32	52	45	717	815	801	799	793
28	30	30	32	32	32	52	47	741	814	801	799	793
29	30	30	35	32	32	52	50	761	814	799	799	796
30	30	30	35	32	---	52	54	780	814	798	796	796
31	30	---	35	31	---	52	---	801	---	797	795	---
MAX	770	30	38	43	33	57	54	801	817	816	799	802
MIN	30	30	30	31	30	32	42	60	812	797	783	786
a	8471.28	8471.28	8471.51	8471.35	8471.38	8472.20	8472.31	8495.64	8495.98	8495.54	8495.51	8495.53
b	-739	0	+5	-4	+1	+20	+2	+747	+13	-17	-2	+1

CAL YR 2003 MAX 913 MIN 30 b -132  
WTR YR 2004 MAX 817 MIN 30 b +27

a Elevation, in feet, at end of month.  
b Change in contents, in acre-feet.



## 10287289 RUSH CREEK FLUME BELOW AGNEW LAKE, NEAR JUNE LAKE, CA

LOCATION.—Lat 37°45'33", 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, on left bank, 600 ft downstream from Agnew Lake Dam, and 3.4 mi southwest of town of June Lake.

DRAINAGE AREA.—23.3 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. If records for Rush Creek Powerplant Tailrace (station 10287300) are combined with this record, a record equivalent to that published October 1951 to September 1990 as "Rush Creek below Agnew Lake" (station 10287290) can be obtained. Monthly and yearly mean discharges prior to October 1969, published in WSP 2127.

GAGE.—Water-stage recorder and Parshall flume. A 4-ft Cipolletti weir is set in the Parshall flume at times. Elevation of gage is 8,440 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated for power development by Waugh, Gem, and Agnew Lakes (stations 10287260, 10287280, and 10287285, respectively). Most of the water is diverted at either Gem or Agnew Lakes to Rush Creek Powerplant Tailrace via Rush Creek Powerplant. Undocumented release to Rush Creek bypassed this gage Oct. 8 to May 13.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1389.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 441 ft<sup>3</sup>/s, July 30, 1995, gage height, 4.90 ft; no flow for many days in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	---	---	---	---	---	---	---	6.2	3.8	3.0	2.3
2	2.3	---	---	---	---	---	---	---	15	4.3	3.0	2.8
3	2.1	---	---	---	---	---	---	---	14	4.8	2.6	2.0
4	2.1	---	---	---	---	---	---	---	12	4.4	2.1	2.1
5	2.1	---	---	---	---	---	---	---	12	3.6	2.1	2.1
6	2.1	---	---	---	---	---	---	---	13	3.9	2.1	2.1
7	2.1	---	---	---	---	---	---	---	12	5.6	2.1	2.1
8	---	---	---	---	---	---	---	---	10	4.4	2.1	2.1
9	---	---	---	---	---	---	---	---	7.1	4.6	2.1	2.3
10	---	---	---	---	---	---	---	---	7.1	3.7	2.0	2.2
11	---	---	---	---	---	---	---	---	7.4	3.4	1.8	2.1
12	---	---	---	---	---	---	---	---	6.4	3.9	1.8	3.1
13	---	---	---	---	---	---	---	---	7.9	3.9	1.8	2.2
14	---	---	---	---	---	---	---	2.3	7.7	3.2	1.8	2.1
15	---	---	---	---	---	---	---	2.3	8.3	3.0	1.9	2.1
16	---	---	---	---	---	---	---	2.3	7.8	3.0	2.1	2.0
17	---	---	---	---	---	---	---	2.2	7.6	3.0	2.1	2.2
18	---	---	---	---	---	---	---	2.2	7.6	3.1	2.1	5.4
19	---	---	---	---	---	---	---	2.3	6.1	3.0	2.1	2.8
20	---	---	---	---	---	---	---	2.3	6.3	3.0	2.1	1.9
21	---	---	---	---	---	---	---	2.3	5.6	3.0	2.1	2.0
22	---	---	---	---	---	---	---	2.3	6.9	3.0	2.5	2.0
23	---	---	---	---	---	---	---	2.3	5.4	3.0	2.2	2.0
24	---	---	---	---	---	---	---	2.5	5.7	3.0	2.1	2.0
25	---	---	---	---	---	---	---	2.8	4.1	3.0	e2.1	2.0
26	---	---	---	---	---	---	---	2.9	4.7	3.0	e2.1	2.0
27	---	---	---	---	---	---	---	2.9	4.7	3.0	2.1	2.0
28	---	---	---	---	---	---	---	2.9	4.9	3.0	2.1	2.0
29	---	---	---	---	---	---	---	3.0	4.6	3.1	2.1	2.0
30	---	---	---	---	---	---	---	2.9	4.3	3.0	2.1	2.1
31	---	---	---	---	---	---	---	3.0	---	3.2	2.1	---
TOTAL	---	---	---	---	---	---	---	---	232.4	108.9	66.4	68.1
MEAN	---	---	---	---	---	---	---	---	7.75	3.51	2.14	2.27
MAX	---	---	---	---	---	---	---	---	15	5.6	3.0	5.4
MIN	---	---	---	---	---	---	---	---	4.1	3.0	1.8	1.9
AC-FT	---	---	---	---	---	---	---	---	461	216	132	135
a	2690	2140	2210	2200	2080	2270	1130	857	823	2730	2610	2400

e Estimated.

a Diversion, in acre-feet, to Rush Creek Powerplant Tailrace (station 10287300), provided by Southern California Edison Co.

## MONO LAKE BASIN

## 10287289 RUSH CREEK FLUME BELOW AGNEW LAKE, NEAR JUNE LAKE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.93	2.02	1.10	1.28	1.07	1.17	1.53	1.69	19.7	35.3	8.13	1.31
MAX	3.06	4.89	2.31	4.72	2.18	2.45	2.99	3.89	81.8	218	89.8	2.47
(WY)	1996	1999	2000	1997	2002	2002	1996	1998	1995	1995	1995	2000
MIN	0.09	0.39	0.23	0.27	0.19	0.13	0.04	0.05	0.05	0.03	0.00	0.02
(WY)	1995	1994	1991	1991	1991	1995	1994	1994	1992	1994	1994	1994

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1991 - 2004
ANNUAL MEAN			6.86
HIGHEST ANNUAL MEAN			33.6 1995
LOWEST ANNUAL MEAN			0.41 1994
HIGHEST DAILY MEAN			397 Jul 30 1995
LOWEST DAILY MEAN			0.00 Oct 27 1990
ANNUAL SEVEN-DAY MINIMUM			0.00 Mar 12 1991
MAXIMUM PEAK FLOW			441 Jul 30 1995
MAXIMUM PEAK STAGE			4.90 Jul 30 1995
ANNUAL RUNOFF (AC-FT)			4970
ANNUAL DIVERSION (AC-FT) a	29950	24140	
10 PERCENT EXCEEDS			4.2
50 PERCENT EXCEEDS			1.4
90 PERCENT EXCEEDS			0.10

a Diversion, in acre-feet, to Rush Creek Powerplant Tailrace (station 10287300), provided by Southern California Edison Co.

10287650 SADDLEBAG LAKE NEAR LEE VINING, CA

LOCATION.—Lat 37°57'56", long 119°16'18", unsurveyed, T.1 N., R.24 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, near left abutment of dam, on Lee Vining Creek, and 8.2 mi west of Lee Vining.

DRAINAGE AREA.—4.55 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

REVISED RECORDS.—WDR CA-98-1: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—Reservoir is formed on natural lake by rock-fill dam completed in 1921. Usable capacity, 9,789 acre-ft, between elevations 10,048.80 ft, invert of outlet, and 10,090.40 ft, crest of spillway. At times, a cofferdam 600 ft upstream affects the storage below about 800 acre-ft, due to the constriction of flow past the cofferdam. Figures given represent usable contents. Water is used for power development downstream.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1388.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 9,454 acre-ft, Aug. 24, 25, 1995, elevation, 10,089.26 ft; minimum, 558 acre-ft, Apr. 5, 23, 24, 27, 1995, elevation, 10,051.84 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 6,250 acre-ft, Oct. 1, elevation, 10,077.52 ft; minimum, 2,450 acre-ft, Apr. 11, elevation, 10,061.34 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Feb. 8, 1985)

10,050	217	10,060	2,172	10,080	6,890	10,091	9,970
10,055	1,163	10,070	4,392				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6250	5580	5060	e4520	e3920	3270	2560	2800	3760	5090	5520	5540
2	6220	5560	5040	e4520	e3900	3250	2550	2810	3830	5110	5520	5540
3	6200	5550	5020	e4580	e3880	3220	2540	2830	3900	5130	5520	5530
4	6180	5530	4990	4560	e3860	3190	2520	2850	3970	5150	5520	5520
5	6160	5510	4990	4530	e3830	3160	2500	2870	4050	5140	5510	5510
6	6130	5490	4990	4510	e3810	3130	2490	2890	4120	5200	5510	5490
7	6110	5480	4980	4490	e3790	3100	2480	2900	4180	5220	5500	5480
8	6090	5470	4960	4470	e3770	3070	2470	2920	4240	5250	5500	5470
9	6070	5460	4940	4450	e3750	3040	2460	2940	4260	5270	5500	5460
10	6040	5440	4930	4420	e3720	3010	2460	2960	4290	5290	5500	5450
11	6010	5420	4920	4400	e3700	2980	2450	2980	4310	5300	5500	5440
12	5980	5410	4890	4370	e3680	2950	e2460	3000	4340	5310	5510	5420
13	5960	5390	4870	4350	e3660	2920	e2480	3020	4390	5320	5520	5410
14	5940	5370	4860	4330	3630	2890	e2500	3060	4450	5340	5520	5400
15	5910	5350	4840	4300	3600	2870	e2520	3100	4510	5350	5560	5390
16	5890	5340	4820	4280	3580	2840	e2530	3140	4570	5370	5560	5370
17	5870	5320	4790	4250	3560	2820	e2550	3180	4620	5390	5560	5360
18	5860	5300	4770	4230	3560	2790	e2570	3220	4670	5410	5560	5340
19	5840	5280	4750	e4210	3530	2780	e2580	3250	4720	5420	5560	5330
20	5820	5270	4730	e4190	3500	2760	e2600	3280	4760	5440	5580	5320
21	5800	5240	4710	e4160	3470	2740	e2620	3310	4800	5450	5580	5310
22	5790	5220	4680	e4140	3440	2730	e2640	3340	4830	5460	5590	5290
23	5760	5210	4680	e4120	3410	2710	e2660	3360	4870	5470	5580	5280
24	5740	5190	4700	e4100	3380	2700	e2670	3390	4910	5480	5580	5270
25	5720	5160	4690	e4080	3390	2700	e2690	3420	4940	5490	5570	5260
26	5700	5150	4670	e4050	3390	2680	e2710	3450	4980	5500	5560	5240
27	5680	5130	4650	e4030	3350	2660	2720	3490	5010	5510	5560	5230
28	5670	5110	4620	e4100	3320	2640	2740	3570	5030	5510	5560	5220
29	5640	5090	4640	e3990	3290	2630	2760	3610	5060	5520	5560	5200
30	5620	5080	4620	e3970	---	2600	2780	3650	5080	5520	5560	5190
31	5600	---	e4520	e3940	---	2590	---	3710	---	5520	5550	---
MAX	6250	5580	5060	4580	3920	3270	2780	3710	5080	5520	5590	5540
MIN	5600	5080	4520	3940	3290	2590	2450	2800	3760	5090	5500	5190
a	10074.97	10072.85	---	---	10065.21	10061.98	10062.86	10067.04	10072.84	10074.65	10074.77	10073.32
b	-500	-520	-560	-580	-650	-700	+190	+930	+1370	+440	+30	-360
CAL YR 2003	MAX 6540	MIN 1740	b +640									
WTR YR 2004	MAX 6250	MIN 2450	b -910									

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 10287655 LEE VINING CREEK BELOW SADDLEBAG LAKE, NEAR LEE VINING, CA

LOCATION.—Lat 37°57'52", long 119°16'20", in SE 1/4 SE 1/4 sec.12, T.1 N., R.24 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, on left bank, 500 ft downstream from Saddlebag Lake Dam, and 8.1 mi west of Lee Vining.

DRAINAGE AREA.—4.43 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1997 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 10,050 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Saddlebag Lake (station 10287650) 500 ft upstream.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1388.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 33 ft<sup>3</sup>/s, Mar. 23, 1998, gage height, 2.99 ft; minimum daily, 3.0 ft<sup>3</sup>/s, May 31, 2001, July 15–17, 2003.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	10	9.5	e14	e17	e18	17	e3.6	3.4	3.7	3.8	3.9
2	13	10	9.5	e14	e18	e19	16	e3.6	3.4	3.7	3.8	3.9
3	13	10	12	e14	e18	e19	17	e3.7	3.5	3.7	3.8	5.8
4	13	10	14	14	e18	e19	17	e3.7	3.4	3.7	3.8	6.7
5	13	9.9	14	14	e18	e18	16	e3.7	3.5	3.7	3.8	6.7
6	13	9.9	14	14	e18	e18	16	e3.7	3.4	3.7	3.8	6.8
7	13	9.9	14	14	e18	e18	16	e3.8	3.5	3.7	3.8	6.8
8	12	9.9	14	14	e19	e18	16	e3.8	3.5	3.7	3.8	6.8
9	12	9.9	14	e14	e19	e18	16	e3.9	3.4	3.7	3.8	6.7
10	13	9.8	14	e14	e19	e18	16	e3.9	3.5	3.7	3.8	6.7
11	12	9.8	14	e14	e19	e18	16	e4.0	3.4	3.7	3.8	6.7
12	12	9.8	14	e14	e19	17	16	e3.5	3.5	3.7	3.8	6.7
13	12	9.8	15	e14	e19	17	16	3.1	3.5	3.7	3.8	6.7
14	12	9.8	15	e14	19	17	16	3.1	3.5	3.8	3.8	6.7
15	13	9.7	15	e15	19	17	16	3.1	3.5	3.8	3.9	6.7
16	10	9.8	14	e15	19	17	16	3.1	3.5	3.8	3.9	6.7
17	7.7	9.8	14	e15	19	17	e17	3.2	3.5	3.8	3.8	6.7
18	7.7	9.6	14	e15	19	17	e17	3.2	3.5	3.8	3.8	6.6
19	7.7	9.8	14	e15	18	17	e17	3.2	3.6	3.8	3.8	6.7
20	9.0	9.7	14	e15	18	17	e17	3.2	3.6	3.8	3.9	6.6
21	10	9.6	14	e16	18	17	e17	3.2	3.6	3.8	3.8	6.7
22	10	9.6	14	e16	18	17	e17	3.2	3.6	3.8	3.9	6.7
23	10	9.8	14	e16	18	17	e17	3.2	3.6	3.7	3.9	6.6
24	10	9.7	14	e16	18	17	e17	3.2	3.6	3.8	3.9	6.6
25	10	9.7	14	e16	18	17	e17	3.2	3.6	3.8	3.8	6.6
26	10	9.7	14	e16	18	17	e17	3.2	3.7	3.8	3.9	6.6
27	10	9.6	e14	e17	18	17	e10	3.3	3.7	3.8	3.8	6.6
28	10	9.5	e14	e17	18	17	e3.5	3.3	3.7	3.8	3.8	6.6
29	10	9.6	e14	e17	e18	17	e3.6	3.3	3.7	3.8	3.9	6.6
30	10	9.6	e14	e17	---	17	e3.6	3.3	3.7	3.8	3.9	6.5
31	10	---	e14	e17	---	17	---	3.3	---	3.8	3.9	---
TOTAL	341.1	293.3	426.0	467	532	541	449.7	105.8	106.1	116.4	118.8	193.7
MEAN	11.0	9.78	13.7	15.1	18.3	17.5	15.0	3.41	3.54	3.75	3.83	6.46
MAX	13	10	15	17	19	19	17	4.0	3.7	3.8	3.9	6.8
MIN	7.7	9.5	9.5	14	17	17	3.5	3.1	3.4	3.7	3.8	3.9
AC-FT	677	582	845	926	1060	1070	892	210	210	231	236	384

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

	1998	1999	2000	2003	2004	2004	1998	1999	2000	2003	2004	
MEAN	9.87	10.4	12.9	14.3	14.1	14.1	11.7	6.30	6.75	6.62	6.59	8.10
MAX	13.6	13.8	15.6	15.3	18.3	17.5	22.6	10.5	11.1	10.8	10.2	10.0
(WY)	1999	1999	2000	2003	2004	2004	1998	1999	1998	2000	1999	1998
MIN	6.87	8.33	9.15	10.7	11.0	9.92	6.63	3.26	3.37	3.36	3.12	6.46
(WY)	2003	2003	1998	2002	1999	1999	2003	2001	2002	2003	2001	2004

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	3219.8		3690.9			
ANNUAL MEAN	8.82		10.1		10.1	
HIGHEST ANNUAL MEAN					12.2 1998	
LOWEST ANNUAL MEAN					8.34 2002	
HIGHEST DAILY MEAN	17	Jan 30	19	Feb 8	33	Mar 24 1998
LOWEST DAILY MEAN	3.0	Jul 15	3.1	May 13	3.0	May 31 2001
ANNUAL SEVEN-DAY MINIMUM	3.1	Jul 15	3.1	May 13	3.1	Jul 15 2003
MAXIMUM PEAK FLOW			Unknown		33	Mar 23 1998
MAXIMUM PEAK STAGE			Unknown		2.99	Mar 23 1998
ANNUAL RUNOFF (AC-FT)	6390		7320		7330	
10 PERCENT EXCEEDS	15		18		15	
50 PERCENT EXCEEDS	9.6		9.9		10	
90 PERCENT EXCEEDS	3.4		3.5		3.5	

e Estimated.

10287700 TIOGA LAKE NEAR LEE VINING, CA

LOCATION.—Lat 37°55'41", long 119°15'01", in SE 1/4 SE 1/4 sec.19, T.1 N., R.25 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, at left abutment of dam, on Glacier Creek, and 7.4 mi west of Lee Vining.

DRAINAGE AREA.—3.67 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—No records computed during the winter months. Reservoir is formed on natural lake by rock-fill dam completed in 1928. Usable capacity, 1,254 acre-ft, between elevations 9,626.72 ft, invert of outlet, and 9,650.28 ft, crest of spillway. Figures given represent usable contents. Water is used for power development downstream.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1388.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Aug. 19, 1981)

9,626.72	0	9,635	356	9,646	962	9,652	1,383
9,630	131	9,640	609				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	913	308	---	---	---	---	---	1030	1270	1260	1260
2	1170	891	291	---	---	---	---	---	1070	1270	1260	1260
3	1160	873	276	---	---	---	---	---	1110	1270	1260	1260
4	1160	858	258	---	---	---	---	---	1150	1270	1260	1260
5	1160	839	248	---	---	---	---	---	1190	1270	1260	1260
6	1150	821	e230	---	---	---	---	---	1230	1270	1260	1260
7	1150	795	e215	---	---	---	---	---	1260	1270	1260	1260
8	1140	769	e200	---	---	---	---	---	1270	1270	1260	1260
9	1140	748	e190	---	---	---	---	---	1270	1270	1260	1260
10	1140	723	180	---	---	---	---	---	1270	1260	1260	1260
11	1140	700	168	---	---	---	---	---	1270	1260	1260	1260
12	1130	680	157	---	---	---	---	---	1270	1260	1260	1260
13	1120	654	145	---	---	---	---	472	1270	1270	1270	1260
14	1120	634	139	---	---	---	---	505	1280	1270	1270	1260
15	1120	609	129	---	---	---	---	538	1270	1260	1270	1260
16	1110	588	122	---	---	---	---	572	1270	1270	1270	1260
17	1110	566	---	---	---	---	---	606	1270	1270	1270	1260
18	1110	543	---	---	---	---	---	637	1270	1270	1270	1260
19	1100	524	---	---	---	---	---	664	1270	1270	1270	1260
20	1100	501	---	---	---	---	---	688	1270	1270	1270	1260
21	1080	484	---	---	---	---	---	710	1270	1270	1270	1260
22	1070	459	---	---	---	---	---	733	1270	1260	1260	1260
23	1050	443	---	---	---	---	---	758	1270	1270	1260	1260
24	1040	422	---	---	---	---	---	780	1270	1270	1260	1260
25	1020	407	---	---	---	---	---	801	1270	1270	1260	1260
26	1010	388	---	---	---	---	---	824	1270	1270	1260	1260
27	1000	368	---	---	---	---	---	857	1270	1260	1260	1260
28	988	353	---	---	---	---	---	905	1270	1270	1260	1260
29	966	336	---	---	---	---	---	934	1270	1260	1260	1260
30	943	321	---	---	---	---	---	964	1270	1270	1260	1260
31	924	---	---	---	---	---	---	997	---	1260	1260	---
MAX	1170	913	---	---	---	---	---	---	1280	1270	1270	1260
MIN	924	321	---	---	---	---	---	---	1030	1260	1260	1260
a	9645.41	9634.27	---	---	---	---	---	9646.55	9650.46	9650.42	9650.41	9650.41
b	-246	-603	---	---	---	---	---	---	+273	-10	0	0

WTR YR 2004 b +90

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 10287720 GLACIER CREEK BELOW TIOGA LAKE, NEAR LEE VINING, CA

LOCATION.—Lat 37°55'41", long 119°15'01", in SE 1/4 SE 1/4 sec.19, T.1 N., R.25 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, on left bank, 300 ft downstream from Tioga Lake Dam, and 7.3 mi west of Lee Vining.

DRAINAGE AREA.—3.67 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1997 to current year. Unpublished records prior to October 1997 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 9,620 ft above NGVD of 1929, from topographic map.

REMARKS.—Records not computed for the winter months. Flow regulated by Tioga Lake (station 10287700) 300 ft upstream.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1388. Contents not rounded to U.S. Geological Survey standards.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	12	---	---	---	---	---	---	2.8	6.1	4.9	2.8
2	3.4	12	---	---	---	---	---	---	2.8	6.1	4.6	2.8
3	3.4	11	---	---	---	---	---	---	2.8	6.7	4.4	2.0
4	3.4	11	---	---	---	---	---	---	2.8	6.5	4.5	2.1
5	3.4	11	---	---	---	---	---	---	2.8	7.3	4.2	2.3
6	3.4	13	---	---	---	---	---	---	2.8	9.1	4.0	2.4
7	3.4	15	---	---	---	---	---	---	3.2	9.7	4.0	2.3
8	3.4	15	---	---	---	---	---	---	9.2	8.5	3.8	2.3
9	3.5	15	---	---	---	---	---	---	11	7.4	3.5	2.2
10	3.5	14	---	---	---	---	---	---	9.2	6.2	3.3	2.1
11	3.5	14	---	---	---	---	---	---	8.9	5.5	3.2	2.2
12	3.5	14	---	---	---	---	---	7.0	9.4	5.2	3.6	2.4
13	3.6	14	---	---	---	---	---	2.1	12	5.0	4.6	1.8
14	3.5	13	---	---	---	---	---	2.1	17	5.1	5.2	1.6
15	3.5	13	---	---	---	---	---	2.2	16	5.3	7.5	2.0
16	3.6	13	---	---	---	---	---	2.3	14	6.0	8.2	2.0
17	3.6	13	---	---	---	---	---	2.4	14	6.6	6.1	2.4
18	3.6	12	---	---	---	---	---	2.4	14	6.8	5.3	2.1
19	3.7	12	---	---	---	---	---	2.4	11	6.7	5.0	1.5
20	6.4	12	---	---	---	---	---	2.4	11	6.7	5.0	1.4
21	8.9	---	---	---	---	---	---	2.4	12	6.6	6.4	1.7
22	8.8	---	---	---	---	---	---	2.5	12	6.6	6.1	2.0
23	8.9	---	---	---	---	---	---	2.5	11	6.5	4.9	2.0
24	8.8	---	---	---	---	---	---	2.5	9.6	6.4	4.7	2.0
25	8.8	---	---	---	---	---	---	2.5	9.4	6.2	4.7	2.0
26	8.8	---	---	---	---	---	---	2.5	8.3	6.1	3.6	1.9
27	8.8	---	---	---	---	---	---	2.6	7.8	5.9	3.3	1.8
28	8.7	---	---	---	---	---	---	2.7	7.5	5.8	3.3	1.9
29	10	---	---	---	---	---	---	2.7	6.9	5.5	3.2	1.8
30	12	---	---	---	---	---	---	2.7	6.5	5.3	3.0	2.0
31	12	---	---	---	---	---	---	2.7	---	5.3	2.9	---
TOTAL	177.2	---	---	---	---	---	---	---	267.7	198.7	141.0	61.8
MEAN	5.72	---	---	---	---	---	---	---	8.92	6.41	4.55	2.06
MAX	12	---	---	---	---	---	---	---	17	9.7	8.2	2.8
MIN	3.4	---	---	---	---	---	---	---	2.8	5.0	2.9	1.4
AC-FT	351	---	---	---	---	---	---	---	531	394	280	123

10287760 ELLERY LAKE NEAR LEE VINING, CA

LOCATION.—Lat 37°56'08", long 119°13'50", in SW 1/4 NW 1/4 sec.21, T.1 N., R.25 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, in valve house, at base of Rhinedollar Dam, on Lee Vining Creek, and 6.3 mi west of town of Lee Vining.

DRAINAGE AREA.—16.7 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Southern California Edison Co.).

REMARKS.—Reservoir is formed on natural lake by rock-fill dam completed in 1927. Usable capacity, 493 acre-ft, between elevations 9,478.53 ft, invert of outlet, and 9,492.53 ft, crest of spillway. Radial gates are occasionally closed, which increases elevation to 9,496.53 ft and capacity to 749 acre-ft. Lake receives water from Saddlebag and Tioga Lakes (stations 10287650 and 10287700) and releases it via Poole Powerplant Conduit (station 10287762) to Poole Powerplant. Figures given represent usable contents.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1388.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 677 acre-ft, Jan. 2, 1997, elevation, 9,495.43 ft; minimum, 161 acre-ft, Oct. 22, 2001, elevation, 9,486.46 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 504 acre-ft, May 4, elevation, 9,492.70 ft; minimum, 379 acre-ft, June 9, elevation, 9,490.59 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Southern California Edison Co., dated Aug. 18, 1981)

	9,485	96	9,489	290	9,493	522	9,497	780				
RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004												
DAILY OBSERVATION AT 2400 HOURS												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	451	e441	e480	470	456	459	412	453	493	468	391	382
2	462	e442	e480	456	456	465	423	492	470	468	390	381
3	473	e443	487	458	454	467	433	493	463	480	391	381
4	481	e444	490	458	455	467	450	504	461	472	392	386
5	482	449	483	458	456	468	483	501	467	468	392	389
6	483	458	462	459	458	467	483	475	472	469	390	392
7	488	473	449	459	454	467	471	427	445	468	388	396
8	497	481	453	456	452	470	463	392	386	461	385	399
9	498	480	458	453	451	474	470	402	379	444	383	401
10	498	475	465	450	449	478	480	416	422	430	383	404
11	500	468	470	446	449	473	475	401	473	425	387	406
12	496	467	476	442	458	468	475	394	495	422	396	408
13	499	473	481	442	468	465	471	418	476	430	390	410
14	499	476	480	445	480	470	453	474	486	446	386	410
15	497	479	483	447	485	477	435	488	475	459	413	412
16	499	481	478	449	486	468	422	474	442	472	425	413
17	491	482	477	452	485	447	414	465	445	479	421	416
18	490	484	473	454	480	445	405	476	453	475	412	417
19	487	483	468	455	474	448	397	455	451	465	401	416
20	486	484	463	457	476	456	389	434	452	456	404	417
21	488	481	455	458	473	471	414	407	458	447	415	419
22	487	480	452	459	470	483	391	394	465	443	419	421
23	486	e480	453	463	463	471	398	396	470	440	415	421
24	483	e480	455	463	455	455	415	408	476	436	411	423
25	475	e480	457	465	440	445	446	422	467	432	408	424
26	467	e480	461	467	433	436	486	440	441	427	395	424
27	458	e480	465	468	436	422	481	491	432	424	393	424
28	451	e480	467	463	444	410	468	472	430	424	390	423
29	443	e480	478	461	454	404	451	431	446	415	387	424
30	440	e480	485	460	---	403	442	452	465	401	384	426
31	e440	---	474	456	---	403	---	488	---	393	383	---
MAX	500	484	490	470	486	483	486	504	495	480	425	426
MIN	440	441	449	442	433	403	389	392	379	393	383	381
a			9492.21	9491.92	9491.88	9491.02	9491.68	9492.43	9492.06	9490.84	9490.66	9491.40
b	0	+40	-6	-18	-2	-51	+39	+46	-23	-72	-10	+43
CAL YR 2003	MAX 588	MIN 350	b +34									
WTR YR 2004	MAX 504	MIN 379	b -14									

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 10287770 LEE VINING CREEK BELOW RHINEDOLLAR DAM, NEAR LEE VINING, CA

LOCATION.—Lat 37°56'10", long 119°13'48", in SW 1/4 NW 1/4 sec.21, T.1 N., R.25 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, on left bank, 100 ft downstream from Rhinedollar Dam Spillway, and 6.3 mi west of Lee Vining.

DRAINAGE AREA.—16.7 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records prior to October 1990 available in files of Southern California Edison Co.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 9,450 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1994, at datum 1.00 ft lower.

REMARKS.—Flow regulated for power development by Saddlebag, Tioga, and Ellery Lakes (stations 10287650, 10287700, and 10287760, respectively). Most of the water is diverted at Ellery Lake to Poole Powerplant via Poole Powerplant Conduit intake (station 10287762).

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1388.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 310 ft<sup>3</sup>/s, July 9, 1995, gage height, 4.63 ft, maximum gage height, 5.52 ft, Mar. 22, 1993 (backwater from snow); no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.3	0.00	0.00	0.00	0.00
5	e12	0.00	0.00	0.00	0.00	0.00	0.00	4.2	0.00	0.00	0.00	0.00
6	e14	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00
7	e14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	e14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	e16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	e16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	e17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	e17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00
13	e17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00
14	e17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	e17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
16	e16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	e15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	e14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	e14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	e7.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	237.10	0.00	0.00	0.00	0.00	0.00	0.00	8.19	0.63	0.00	0.00	0.00
MEAN	7.65	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.02	0.00	0.00	0.00
MAX	17	0.00	0.00	0.00	0.00	0.00	0.00	4.2	0.32	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	470	0.00	0.00	0.00	0.00	0.00	0.00	16	1.2	0.00	0.00	0.00
a	673	1440	1450	1160	1240	2100	2750	4340	4820	2410	1030	611

e Estimated.

a Diversion, in acre-feet, to Poole Powerplant Conduit (station 10287762), provided by Southern California Edison Co.



10287770 LEE VINING CREEK BELOW RHINEDOLLAR DAM, NEAR LEE VINING, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.91	0.20	0.00	1.38	0.42	0.36	1.08	8.46	27.1	17.8	1.02	0.77
MAX	7.65	1.49	0.00	19.3	5.40	2.62	14.1	41.1	58.1	130	9.89	5.53
(WY)	2004	2000	1991	1997	1996	1992	1996	1997	1995	1995	1995	2000
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1992	1991	1991	1991	1992	1991	1991	1994	1992	1991	1991	1991

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1991 - 2004	
ANNUAL TOTAL	2284.27		245.92			
ANNUAL MEAN	6.26		0.67		5.06	
HIGHEST ANNUAL MEAN					17.3 1995	
LOWEST ANNUAL MEAN					0.27 1994	
HIGHEST DAILY MEAN	136	May 30	17	Oct 11	271	Jul 9 1995
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1990
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 21	0.00	Oct 1 1990
MAXIMUM PEAK FLOW					310 Jul 9 1995	
MAXIMUM PEAK STAGE					5.52 Mar 22 1993	
ANNUAL RUNOFF (AC-FT)	4530		488		3660	
ANNUAL DIVERSION (AC-FT) a	22020		24010			
10 PERCENT EXCEEDS	14		0.00		6.7	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

a Diversion, in acre-feet, to Poole Powerplant Conduit (station 10287762), provided by Southern California Edison Co.

## 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 Lake.

DRAINAGE AREA.—310 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1936 to current year.

REVISED RECORDS.—WSP 1245: 1937–1938. WSP 1928: Drainage area.

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

REMARKS.—Flow regulated by Morena Reservoir, capacity, 50,210 acre-ft, and Barrett Lake (station 11011000), capacity, 44,760 acre-ft. Water diverted from Barrett Lake through San Diego and Dulzura Conduits to Lower Otay Lake (station 11014550).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,700 ft<sup>3</sup>/s, Feb. 21, 1980, gage height, 11.15 ft, from rating curve extended above 8,700 ft<sup>3</sup>/s; no flow for part of each year.

EXTREMES FOR CURENT YEAR.—No flow for entire water year.

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.08	0.71	2.29	17.6	49.0	66.0	33.5	11.8	4.27	1.32	1.02	1.03
MAX	66.0	18.8	40.5	605	1200	1443	676	296	99.5	47.5	24.4	57.4
(WY)	1994	1984	1984	1993	1980	1983	1941	1983	1980	1980	1980	1993
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1937	1937	1950	1951	1951	1951	1955	1947	1940	1939	1938	1937

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1937 - 2004	
ANNUAL TOTAL	89.42		0.00			
ANNUAL MEAN	0.24		0.00		15.6	
HIGHEST ANNUAL MEAN					243 1983	
LOWEST ANNUAL MEAN					0.00 1956	
HIGHEST DAILY MEAN	14	Mar 16	0.00	Oct 1	8430	Feb 21 1980
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1936
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1936
MAXIMUM PEAK FLOW					11700	Feb 21 1980
MAXIMUM PEAK STAGE					11.15	Feb 21 1980
ANNUAL RUNOFF (AC-FT)	177		0.00		11320	
10 PERCENT EXCEEDS	0.35		0.00		8.9	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 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 mi<sup>2</sup>, of which 3 mi<sup>2</sup> are in Mexico.

PERIOD OF RECORD.—October 1936 to current year.

REVISED RECORDS.—WSP 1635: 1937–38(M), 1940(M). WSP 1928: Drainage area.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 2,178.92 ft above NGVD of 1929. Prior to Dec. 1, 1954, at datum 1 ft higher.

REMARKS.—Records good. Peaks are attenuated by small conservation reservoir 1 mi upstream since August 1956. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,580 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 6.86 ft, from rating curve extended above 340 ft<sup>3</sup>/s; no flow for part of some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.11	0.04	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.15	0.06	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.14	0.09	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.13	0.10	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.11	0.09	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.10	0.08	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.10	0.07	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.10	0.06	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.10	0.06	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.10	0.06	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.10	0.06	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.09	0.06	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.08	0.07	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.07	0.09	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.07	0.08	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.06	0.08	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.06	0.08	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.02	0.05	0.08	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.24	0.05	0.06	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.14	0.05	0.05	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.11	0.04	0.04	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.12	0.04	0.02	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.13	0.04	0.01	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.11	0.03	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.02	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.03	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.99	2.49	1.81	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	0.03	0.08	0.06	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	0.24	0.15	0.10	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	2.0	4.9	3.6	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2004, BY WATER YEAR (WY)

	0.75	1.38	2.46	5.34	7.63	11.0	7.07	3.34	1.69	0.89	0.81	0.62
MEAN	0.75	1.38	2.46	5.34	7.63	11.0	7.07	3.34	1.69	0.89	0.81	0.62
MAX	14.3	20.7	25.7	140	74.5	153	121	52.2	30.4	20.1	26.5	16.5
(WY)	1984	1984	1984	1993	1980	1983	1983	1983	1983	1983	1983	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1937	1949	1949	1957	1957	1956	1957	1957	1950	1947	1946	1947

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1937 - 2004	
ANNUAL TOTAL	16.15		5.29			
ANNUAL MEAN	0.04		0.01		3.56	
HIGHEST ANNUAL MEAN					39.6	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	1.5	Jul 30	0.24	Feb 23	745	Jan 16 1993
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1936
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1936
MAXIMUM PEAK FLOW			0.47		1580	Jan 16 1993
MAXIMUM PEAK STAGE			1.29		6.86	Jan 16 1993
ANNUAL RUNOFF (AC-FT)	32		10		2580	
10 PERCENT EXCEEDS	0.13		0.08		8.5	
50 PERCENT EXCEEDS	0.00		0.00		0.10	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 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 Lake, 1.4 mi downstream from Dulzura Creek, and 5.5 mi south of Jamul.

DRAINAGE AREA.—70.1 mi<sup>2</sup>.

PERIOD OF RECORD.—April 1940 to December 1940, April 1941 to September 1978, October 1985 to current year.

REVISED RECORDS.—WSP 1565: 1952, 1954. WSP 1715: 1944, 1946. WDR CA-93-1: Drainage area. WDR CA-94-1: Datum of gage.

GAGE.—Water-stage recorder and broad-crested weir control with low-water venturi-type flume. Datum of gage is 511.89 ft above NGVD of 1929. Prior to Oct. 1, 1951, at datum 1.00 ft higher.

REMARKS.—Records poor. No regulation upstream from station. Water is diverted from Cottonwood Creek at Barrett Lake (station 11011000) 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, 5,870 ft<sup>3</sup>/s, Mar. 5, 1995, gage height, 7.59 ft, present datum, from rating curve extended above 1,200 ft<sup>3</sup>/s, on basis of critical-depth computations; no flow for many days most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended above 1,200 ft<sup>3</sup>/s on basis of critical-depth computations:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	unknown	693	3.91	Feb. 22	1400	980	4.12
Feb. 3	0245	182	3.38	Feb. 26	1045	139	3.23
Feb. 18	1900	499	3.78	Apr. 2	0130	332	3.63

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	e0.00	0.00	e0.79	1.2	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	e0.00	0.00	e14	e47	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	e0.00	16	e0.90	e8.0	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	e0.00	0.72	e0.65	e0.90	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	e0.00	0.38	e0.42	e0.20	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	e0.00	0.14	e0.36	0.11	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.11	e0.34	0.11	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.11	e0.30	0.11	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.06	e0.27	0.11	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.05	0.26	0.08	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.24	0.05	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.24	0.05	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.22	0.02	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	20	0.22	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	e4.0	0.22	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.64	0.22	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.64	0.22	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	146	0.23	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	e82	0.22	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	e4.0	0.22	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	e105	0.00	0.71	0.22	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	e10	0.00	e10	0.22	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	e0.15	0.00	e0.97	0.22	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	e0.01	0.00	e0.90	0.19	0.02	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	e0.00	0.00	e0.85	0.16	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	e0.00	0.00	---	0.12	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	e0.00	0.00	---	0.11	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	115.16	0.00	288.28	22.66	57.96	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	3.71	0.00	9.94	0.73	1.93	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	105	0.00	146	14	47	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	228	0.00	572	45	115	0.00	0.00	0.00	0.00	0.00

e Estimated.

## 11014000 JAMUL CREEK NEAR JAMUL, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.09	9.07	9.72	17.2	19.4	28.0	18.7	14.8	14.6	12.4	10.8	8.53
MAX	40.2	45.6	62.5	415	188	254	101	49.1	49.6	51.7	44.4	37.4
(WY)	1948	1946	1946	1993	1998	1995	1958	1954	1952	1995	1995	1947
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1950	1951	1951	1958	1961	1959	1955	1956	1953	1950	1949	1949

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	219.43		484.06			
ANNUAL MEAN	0.60		1.32		14.0	
HIGHEST ANNUAL MEAN					55.2 1995	
LOWEST ANNUAL MEAN					0.00 1961	
HIGHEST DAILY MEAN	105	Dec 25	146	Feb 22	2320	Jan 16 1993
LOWEST DAILY MEAN	0.00	Jan 8	0.00	Oct 1	0.00	Jul 17 1949
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 3	0.00	Oct 1	0.00	Jul 17 1949
MAXIMUM PEAK FLOW			980	Feb 22	5870	Mar 5 1995
MAXIMUM PEAK STAGE			4.12	Feb 22	7.59	Mar 5 1995
ANNUAL RUNOFF (AC-FT)	435		960		10140	
10 PERCENT EXCEEDS	0.97		0.22		38	
50 PERCENT EXCEEDS	0.00		0.00		0.24	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11014550 LOWER OTAY LAKE NEAR CHULA VISTA, CA

LOCATION.—Lat 32°36'33", long 116°55'38", in NE 1/4 NE 1/4 sec.13, T.18 S., R.1 E., San Diego County, Hydrologic Unit 18070304, on right bank, 30 ft west of right end of Savage Dam on Otay River, and 9.0 mi east of Chula Vista.

DRAINAGE AREA.—99.0 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1945 to September 1959 (published with Otay River at Savage Dam, station 11014500); October 1972 to September 1993, May to September 2004. Prior to October 1987 monthend contents only. Monthend gage heights October 1936 to September 1945, in files of San Diego County Department of Sanitation and Flood Control

REVISED RECORDS.—WDR CA-73-1: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929. Prior to October 1987, nonrecording gage at same site.

REMARKS.—Records fair. Reservoir is formed by gravity section concrete and masonry dam, built in 1919. 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 Lake (station 11011000) to Dulzura Creek, where water is carried to the reservoir by Jamul Creek (station 11014000). Reservoir storage includes supplemental Colorado River water. Water used for municipal supply by city of San Diego.

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 (May 12 to September 30, only).—Maximum contents observed, 39,360 acre-ft, May 12, elevation, 474.74 ft; minimum observed, 29,350 acre-ft, Sept. 30, elevation, 463.04 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on table dated Apr. 3, 1956)

430	10,090	445	17,340	460	27,060	480	44,500
435	12,250	450	20,280	470	35,100	489	54,460
440	14,660						

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	37970	36050	34080	32000
2	---	---	---	---	---	---	---	---	37960	36020	33850	31900
3	---	---	---	---	---	---	---	---	37880	35920	33840	31830
4	---	---	---	---	---	---	---	---	37770	35870	33690	31760
5	---	---	---	---	---	---	---	---	37680	35750	33660	31770
6	---	---	---	---	---	---	---	---	37710	35710	33590	31660
7	---	---	---	---	---	---	---	---	37570	35640	33480	31470
8	---	---	---	---	---	---	---	---	37670	35620	33460	31380
9	---	---	---	---	---	---	---	---	37420	35480	33400	31320
10	---	---	---	---	---	---	---	---	37400	35460	33420	31250
11	---	---	---	---	---	---	---	---	37290	35450	33230	31230
12	---	---	---	---	---	---	---	39180	37260	35310	33160	31090
13	---	---	---	---	---	---	---	39160	37180	35200	33450	31010
14	---	---	---	---	---	---	---	39060	37100	35190	33370	31020
15	---	---	---	---	---	---	---	39000	37080	35020	33360	30830
16	---	---	---	---	---	---	---	38990	37090	35010	33290	30720
17	---	---	---	---	---	---	---	38880	37000	34930	33150	30660
18	---	---	---	---	---	---	---	38840	36900	34870	33080	30510
19	---	---	---	---	---	---	---	38860	36850	34790	32990	30420
20	---	---	---	---	---	---	---	38660	36820	34690	32920	30330
21	---	---	---	---	---	---	---	38580	36710	34600	32870	30310
22	---	---	---	---	---	---	---	38490	36790	34560	32830	30130
23	---	---	---	---	---	---	---	38480	36590	34480	32760	30010
24	---	---	---	---	---	---	---	38400	36560	34390	32680	29940
25	---	---	---	---	---	---	---	38350	36450	34350	32570	29810
26	---	---	---	---	---	---	---	38240	36430	34350	32510	29740
27	---	---	---	---	---	---	---	38190	36340	34350	32430	29760
28	---	---	---	---	---	---	---	38140	36420	34230	32310	29560
29	---	---	---	---	---	---	---	38210	36180	34140	32260	29450
30	---	---	---	---	---	---	---	38020	36150	34080	32180	29430
31	---	---	---	---	---	---	---	38080	---	34020	32200	---
MAX	---	---	---	---	---	---	---	---	37970	36050	34080	32000
MIN	---	---	---	---	---	---	---	---	36150	34020	32180	29430
a	---	---	---	---	---	---	---	473.37	471.21	468.76	466.59	463.14
b	---	---	---	---	---	---	---	---	-1930	-1948	-2002	-2720

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1905 to September 1927 (monthly discharge only for some months, published in WSP 1315-B), October 1956 to current year. Prior to October 1927, records unadjusted for diversion. October 1956 to September 1977, both unadjusted records and combined records of river plus diversion (station 11015001) were published. No diversion since November 1976.

REVISED RECORD.—WSP 1315-B: 1922(M). WDR CA-73-1: Drainage area.

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

REMARKS.—Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,200 ft<sup>3</sup>/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 ft<sup>3</sup>/s, or maximum, from rating curve extended above 1,150 ft<sup>3</sup>/s, on basis of slope area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	unknown	861	7.98

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	e0.00	0.03	1.9	0.23	0.15	0.03	0.00	0.00	0.00
2	0.00	0.00	0.00	e0.00	0.09	3.2	0.29	0.15	0.02	0.00	0.00	0.00
3	0.00	0.00	0.00	e0.00	0.69	5.7	0.28	0.15	0.02	0.00	0.00	0.00
4	0.00	0.00	0.00	e0.00	0.24	3.4	0.28	0.15	0.02	0.00	0.00	0.00
5	0.00	0.00	0.00	e0.00	0.14	2.1	0.26	0.14	0.02	0.00	0.00	0.00
6	0.00	0.00	0.00	e0.00	0.12	1.6	0.23	0.14	0.02	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.11	1.3	0.23	0.14	0.02	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.10	1.1	0.23	0.12	0.03	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.09	0.84	0.23	0.11	0.03	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.09	0.57	0.23	0.12	0.03	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.09	0.52	0.23	0.12	0.02	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.08	0.47	0.23	0.12	0.02	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.08	0.45	0.23	0.11	0.01	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.13	0.44	0.23	0.09	0.01	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.11	0.42	0.21	0.09	0.01	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.10	0.36	0.20	0.09	0.01	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.10	0.36	0.24	0.09	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.32	0.35	0.25	0.09	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	1.8	0.34	0.22	0.09	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.48	0.31	0.20	0.08	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.67	0.30	0.20	0.08	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	3.9	0.30	0.20	0.08	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	19	0.30	0.20	0.09	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	7.7	0.28	0.20	0.09	0.00	0.00	0.00	0.00
25	0.00	0.00	e88	0.08	3.7	0.26	0.20	0.08	0.00	0.00	0.00	0.00
26	0.00	0.00	e6.0	0.00	7.9	0.26	0.20	0.07	0.00	0.00	0.00	0.00
27	0.00	0.00	e0.10	0.00	8.1	0.26	0.19	0.07	0.00	0.00	0.00	0.00
28	0.00	0.00	e0.00	0.01	4.6	0.24	0.18	0.07	0.00	0.00	0.00	0.00
29	0.00	0.00	e0.00	0.00	2.6	0.21	0.16	0.07	0.00	0.00	0.00	0.00
30	0.00	0.00	e0.00	0.00	---	0.22	0.16	0.05	0.00	0.00	0.00	0.00
31	0.00	---	e0.00	0.04	---	0.23	---	0.04	---	0.00	0.00	---
TOTAL	0.00	0.00	94.10	0.13	63.16	28.59	6.62	3.13	0.32	0.00	0.00	0.00
MEAN	0.00	0.00	3.04	0.00	2.18	0.92	0.22	0.10	0.01	0.00	0.00	0.00
MAX	0.00	0.00	88	0.08	19	5.7	0.29	0.15	0.03	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.03	0.21	0.16	0.04	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	187	0.3	125	57	13	6.2	0.6	0.00	0.00	0.00

e Estimated.

## SWEETWATER RIVER BASIN

## 11015000 SWEETWATER RIVER NEAR DESCANSO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.19	1.36	4.32	11.6	26.4	35.1	18.4	7.36	2.83	0.79	0.42	0.29
MAX	3.53	24.0	83.5	304	336	382	138	68.5	25.5	8.68	8.45	6.16
(WY)	1984	1966	1967	1993	1980	1983	1983	1983	1983	1980	1983	1978
MIN	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00
(WY)	1957	1957	1957	1961	1961	1961	1961	1961	1959	1957	1957	1957

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	212.36		196.05			
ANNUAL MEAN	0.58		0.54		9.00	
HIGHEST ANNUAL MEAN					71.2 1983	
LOWEST ANNUAL MEAN					0.00 1961	
HIGHEST DAILY MEAN	88	Dec 25	88	Dec 25	2500	Feb 20 1980
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1956
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1956
MAXIMUM PEAK FLOW			861 Dec 25		8600 Mar 5 1995	
MAXIMUM PEAK STAGE			7.98 Dec 25		13.22 Mar 5 1995	
ANNUAL RUNOFF (AC-FT)	421		389		6520	
10 PERCENT EXCEEDS	1.1		0.30		11	
50 PERCENT EXCEEDS	0.00		0.00		0.23	
90 PERCENT EXCEEDS	0.00		0.00		0.00	



## 11020600 EL CAPITAN LAKE NEAR LAKESIDE, CA

LOCATION.—Lat 32°52'56", long 116°48'30", in SE 1/4 NE 1/4 sec.7, T.15 S., R.2 E., San Diego County, Hydrologic Unit 18070304, on left bank, 100 ft upstream from El Capitan Dam on San Diego River, and 7.0 mi east of Lakeside.

DRAINAGE AREA.—188 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1936 to September 1966 (published with San Diego River at El Capitan Dam, station 11020500), October 1972 to September 1993, March to September 2004. Monthend contents only October 1972 to September 1987. 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.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by city of San Diego). Prior to October 1987, nonrecording gage at same site.

REMARKS.—Reservoir is formed by hydraulic fill-rock embankment, completed in 1935. Capacity of reservoir at spillway level, 112,810 acre-ft, elevation, 750.00 ft. Dead storage below lowest outlet, 59 acre-ft, elevation, 574.00 ft. Reservoir storage includes supplemental Colorado River water. No significant diversion upstream from reservoir. Inflow partly regulated by Cuyamaca Reservoir, capacity, 11,740 acre-ft. Water is released as required for municipal use and irrigation.

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 (March 20 to September 30, only).—Maximum contents observed, 36,160 acre-ft, Apr. 23, elevation, 679.82 ft; minimum observed, 20,590 acre-ft, Sept. 30, elevation, 655.94 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on table dated May 25, 1956)

600	1,450	630	7,820	660	20,650	720	71,790
610	2,820	640	11,310	680	33,780	740	97,790
620	4,940	650	15,530	700	50,730	753	117,550

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	34850	36040	35300	31570	27530	23770
2	---	---	---	---	---	---	35130	36020	35190	31430	27400	23640
3	---	---	---	---	---	---	35350	36010	35060	31300	27280	23520
4	---	---	---	---	---	---	35560	35990	34940	31180	27150	23410
5	---	---	---	---	---	---	35670	35970	34820	31040	27020	23300
6	---	---	---	---	---	---	35680	35960	34710	30910	26900	23170
7	---	---	---	---	---	---	35650	35940	34580	30780	26770	23060
8	---	---	---	---	---	---	35670	35930	34460	30640	26640	22940
9	---	---	---	---	---	---	35710	35900	34330	30500	26510	22820
10	---	---	---	---	---	---	35740	35900	34190	30360	26400	22710
11	---	---	---	---	---	---	35750	35870	34070	30240	26270	22600
12	---	---	---	---	---	---	35760	35860	33950	30110	26150	22500
13	---	---	---	---	---	---	35750	35820	33810	29970	26020	22400
14	---	---	---	---	---	---	35760	35750	33690	29840	25900	22300
15	---	---	---	---	---	---	e35800	35660	33560	29710	25770	22180
16	---	---	---	---	---	---	e35820	35600	33440	29580	25650	22080
17	---	---	---	---	---	---	35850	35570	33310	29450	25530	21980
18	---	---	---	---	---	---	35950	35560	33180	29310	25400	21880
19	---	---	---	---	---	---	36020	35540	33060	29180	25280	21770
20	---	---	---	---	---	33870	36070	35520	32940	29040	25160	21660
21	---	---	---	---	---	33870	36120	35510	32810	28920	25040	21560
22	---	---	---	---	---	33930	36150	35510	32690	28780	24920	21440
23	---	---	---	---	---	34010	36150	35480	32560	28660	24810	21340
24	---	---	---	---	---	34110	36140	35470	32440	28540	24690	21270
25	---	---	---	---	---	34200	36120	35450	32320	28410	24570	21150
26	---	---	---	---	---	34280	36120	35440	32190	28290	24460	21040
27	---	---	---	---	---	34380	36090	35420	32060	28170	24340	20940
28	---	---	---	---	---	34460	36080	35420	31940	28040	24230	20810
29	---	---	---	---	---	34520	36060	35400	31820	27920	24130	20700
30	---	---	---	---	---	34570	36050	35400	31690	27790	24010	20590
31	---	---	---	---	---	34670	---	35390	---	27660	23890	---
MAX	---	---	---	---	---	---	36150	36040	35300	31570	27530	23770
MIN	---	---	---	---	---	---	34850	35390	31690	27660	23890	20590
a	---	---	---	---	---	677.82	679.68	678.79	673.72	667.76	661.71	655.94
b	---	---	---	---	---	---	+1380	-660	-3700	-4030	-3770	-3300

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1946 to September 1961 (published with San Vicente Creek at San Vicente Dam, at Foster, station 11022000), October 1972 to September 1998, April to September 2004. Monthend contents only October 1972 to September 1987.

REVISED RECORDS.—WSP 1928: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is NGVD of 1929, from topographic map. Prior to October 1987, nonrecording gage at same site.

REMARKS.—Reservoir is formed by concrete-gravity dam, constructed 1941–43 by city of San Diego; storage began during construction period. 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 upstream from reservoir. Water is released as required for municipal use.

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 (April 17 to September 30, only).—Maximum contents observed, 81,060 acre-ft, May 3, elevation, 641.25 ft; minimum observed, 61,400 acre-ft, Sept. 30, elevation, 620.88 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on table provided by city of San Diego, dated Feb. 18, 1944)

610	51,870	630	69,920	650	90,230	654	94,600
620	60,610	640	79,800				

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	80960	78610	75720	70510	65450
2	---	---	---	---	---	---	---	81020	78530	75590	70340	65280
3	---	---	---	---	---	---	---	81050	78430	75460	70160	65120
4	---	---	---	---	---	---	---	81030	78330	75340	69990	64990
5	---	---	---	---	---	---	---	81020	78270	75210	69800	64870
6	---	---	---	---	---	---	---	80960	78210	75050	69620	64710
7	---	---	---	---	---	---	---	80890	78140	74900	69430	64550
8	---	---	---	---	---	---	---	80830	78040	74740	69260	64380
9	---	---	---	---	---	---	---	80760	77990	74560	69090	64210
10	---	---	---	---	---	---	---	80680	77920	74380	68900	64050
11	---	---	---	---	---	---	---	80560	77840	74200	68720	63920
12	---	---	---	---	---	---	---	80440	77760	74020	68550	63850
13	---	---	---	---	---	---	---	80320	77670	73830	68370	63750
14	---	---	---	---	---	---	---	80210	77590	73660	68190	63620
15	---	---	---	---	---	---	---	80090	77510	73490	68020	63520
16	---	---	---	---	---	---	---	79980	77400	73310	67840	63400
17	---	---	---	---	---	---	---	80000	79840	77300	73130	67660
18	---	---	---	---	---	---	---	80050	79750	77190	72960	67480
19	---	---	---	---	---	---	---	80130	79670	77070	72780	67310
20	---	---	---	---	---	---	---	80230	79590	76990	72600	67130
21	---	---	---	---	---	---	---	80310	79500	76870	72420	66950
22	---	---	---	---	---	---	---	80390	79430	76770	72250	66780
23	---	---	---	---	---	---	---	80490	79340	76660	72060	66630
24	---	---	---	---	---	---	---	80580	79260	76540	71900	66490
25	---	---	---	---	---	---	---	80690	79180	76420	71730	66360
26	---	---	---	---	---	---	---	80750	79100	76310	71560	66230
27	---	---	---	---	---	---	---	80780	79020	76190	71390	66110
28	---	---	---	---	---	---	---	80830	78940	76070	71220	66010
29	---	---	---	---	---	---	---	80880	78850	75960	71050	65910
30	---	---	---	---	---	---	---	80920	78790	75840	70870	65770
31	---	---	---	---	---	---	---	78690	---	70690	65620	---
MAX	---	---	---	---	---	---	---	81050	78610	75720	70510	65450
MIN	---	---	---	---	---	---	---	78690	75840	70690	65620	61400
a	---	---	---	---	---	---	---	641.11	638.92	636.08	630.81	625.46
b	---	---	---	---	---	---	---	-2230	-2850	-5150	-5070	-4420

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 11022200 LOS COCHES CREEK NEAR LAKESIDE, CA

LOCATION.—Lat 32°50'10", long 116°53'58", in 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1983 to current year.

REVISED RECORDS.—WDR CA-86-1: Drainage area.

GAGE.—Water-stage recorder, concrete control, and crest-stage gage. Elevation of gage is 560 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,090 ft<sup>3</sup>/s, Mar. 5, 1995, gage height, 9.74 ft, from rating curve extended above 209 ft<sup>3</sup>/s, on basis of critical-depth computations; minimum daily, 0.04 ft<sup>3</sup>/s, several days in 1997.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 75 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1945	88	4.15	Feb. 22	1415	609	8.08
Feb. 3	1815	82	4.07	Feb. 26	2315	112	4.48

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.27	0.39	0.24	0.38	0.30	1.4	3.5	0.47	0.23	0.16	0.18	0.17
2	0.27	0.22	0.24	1.5	0.29	17	4.9	0.45	0.24	0.17	0.20	0.18
3	0.27	0.21	0.25	2.9	17	2.2	0.86	0.46	0.25	0.19	0.21	0.21
4	0.26	0.22	0.25	0.47	2.9	1.5	0.73	0.38	0.29	0.21	0.21	0.19
5	0.25	0.22	0.25	0.38	0.65	1.2	0.67	0.38	0.27	0.22	0.20	0.18
6	0.24	0.22	0.26	0.33	0.51	1.1	0.64	0.37	0.26	0.22	0.19	0.19
7	0.22	0.21	0.29	0.31	0.45	1.0	0.61	0.40	0.25	0.21	0.20	0.19
8	0.20	0.21	0.43	0.28	0.41	0.97	0.61	0.42	0.25	0.21	0.21	0.19
9	0.19	0.21	0.27	0.28	0.39	0.90	0.60	0.39	0.24	0.21	0.23	0.19
10	0.20	0.22	0.28	0.28	0.37	0.91	0.62	0.35	0.25	0.23	0.27	0.21
11	0.22	0.24	0.69	0.28	0.37	0.83	0.59	0.33	0.26	0.21	0.30	0.21
12	0.20	8.1	0.35	0.27	0.35	0.83	0.59	0.33	0.27	0.25	0.32	0.22
13	0.19	0.25	0.30	0.27	0.34	0.81	0.57	0.32	0.29	0.29	0.33	0.23
14	0.19	0.22	0.32	0.27	0.39	0.77	0.57	0.31	0.27	0.26	0.34	0.24
15	0.20	0.22	0.30	0.28	0.35	0.80	0.58	0.31	0.18	0.26	0.31	0.29
16	0.20	0.31	0.30	0.28	0.34	0.76	0.57	0.40	0.18	0.25	0.29	0.31
17	0.19	0.23	0.31	0.28	0.34	0.72	4.3	0.46	0.19	0.27	0.30	0.35
18	0.19	0.21	0.32	0.27	7.6	0.71	0.84	0.41	0.20	0.29	0.32	0.28
19	0.19	0.22	0.32	0.29	1.8	0.68	0.61	0.34	0.19	0.24	0.30	0.29
20	0.19	0.24	0.33	0.29	3.6	0.67	0.59	0.26	0.19	0.18	0.24	0.30
21	0.20	0.22	0.33	0.30	1.4	0.73	0.57	0.25	0.18	0.20	0.17	0.33
22	0.21	0.22	0.33	0.31	e120	0.84	0.55	0.25	0.19	0.22	0.14	0.29
23	0.20	0.22	0.50	0.33	e80	0.83	0.53	0.26	0.18	0.23	0.13	0.29
24	0.19	0.23	0.54	0.29	2.1	0.78	0.50	0.26	0.17	0.23	0.14	0.21
25	0.20	0.24	17	0.50	1.6	0.81	0.48	0.27	0.15	0.26	0.14	0.15
26	0.20	0.25	3.0	0.31	24	0.77	0.46	0.27	0.16	0.20	0.16	0.17
27	0.24	0.23	0.60	0.35	12	0.76	0.45	0.27	0.16	0.17	0.18	0.19
28	0.26	0.24	0.50	0.37	1.9	0.72	0.48	0.27	0.16	0.18	0.21	0.20
29	0.25	0.24	0.48	1.0	1.5	0.66	0.48	0.27	0.16	0.18	0.20	0.22
30	0.25	0.24	0.45	0.31	---	0.65	0.49	0.27	0.16	0.18	0.15	0.28
31	0.24	---	0.41	0.32	---	1.0	---	0.24	---	0.18	0.16	---
TOTAL	6.77	14.90	30.44	14.28	283.25	44.31	28.54	10.42	6.42	6.76	6.93	6.95
MEAN	0.22	0.50	0.98	0.46	9.77	1.43	0.95	0.34	0.21	0.22	0.22	0.23
MAX	0.27	8.1	17	2.9	120	17	4.9	0.47	0.29	0.29	0.34	0.35
MIN	0.19	0.21	0.24	0.27	0.29	0.65	0.45	0.24	0.15	0.16	0.13	0.15
AC-FT	13	30	60	28	562	88	57	21	13	13	14	14

e Estimated.

## SAN DIEGO RIVER BASIN

## 11022200 LOS COCHES CREEK NEAR LAKESIDE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.41	1.08	1.64	4.08	5.70	5.13	2.61	1.23	0.71	0.36	0.25	0.26
MAX	1.37	4.58	6.09	40.2	28.3	31.1	13.5	6.25	3.67	1.31	0.69	0.64
(WY)	1988	1984	1985	1993	1998	1995	1998	1998	1995	1995	1998	1998
MIN	0.07	0.17	0.32	0.46	0.50	0.55	0.45	0.25	0.16	0.10	0.08	0.08
(WY)	1998	1993	1990	2004	2002	2002	1989	1984	1996	1996	1996	1996

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1984 - 2004	
ANNUAL TOTAL	305.99		459.97			
ANNUAL MEAN	0.84		1.26		1.94	
HIGHEST ANNUAL MEAN					6.77 1993	
LOWEST ANNUAL MEAN					0.37 2002	
HIGHEST DAILY MEAN	20	Feb 25	120	Feb 22	248	Mar 5 1995
LOWEST DAILY MEAN	0.18	Aug 11	0.13	Aug 23	0.04	Oct 26 1997
ANNUAL SEVEN-DAY MINIMUM	0.19	Oct 13	0.15	Aug 21	0.04	Oct 31 1997
MAXIMUM PEAK FLOW			609	Feb 22	1090	Mar 5 1995
MAXIMUM PEAK STAGE			8.08	Feb 22	9.74	Mar 5 1995
ANNUAL RUNOFF (AC-FT)	607		912		1400	
10 PERCENT EXCEEDS	0.79		0.84		3.0	
50 PERCENT EXCEEDS	0.39		0.28		0.48	
90 PERCENT EXCEEDS	0.22		0.19		0.16	

## 11022480 SAN DIEGO RIVER AT MAST ROAD, NEAR SANTEE, CA

LOCATION.—Lat 32°50'25", long 117°01'30", in Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, near right bank, at Mast Road Bridge, 0.7 mi upstream from Old Mission Dam, 2.8 mi west of Santee, and 14.2 mi downstream from El Capitan Reservoir.

DRAINAGE AREA.—368 mi<sup>2</sup>.

PERIOD OF RECORD.—May 1912 to December 1915, April 1916 to current year. Monthly discharge only for some periods and yearly estimates only for 1924–25, published in WSP-1315-B. Prior to September 1981 published as "near Santee" (station 11022500).

REVISED RECORDS.—WSP 1565: 1955–56. WSP 1635: 1922, 1926(M), 1927. WSP 1928: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 300 ft above NGVD of 1929, from topographic map. Prior to Nov. 10, 1920, nonrecording gage at site 0.7 mi downstream at different datum. Nov. 10, 1920, to Jan. 19, 1982, at site 2.6 mi downstream at different datum.

REMARKS.—Records fair except for discharges above 200 ft<sup>3</sup>/s and estimated daily discharges, which are poor. Flow regulated by Cuyamaca Reservoir, capacity, 11,740 acre-ft, El Capitan Reservoir (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, 45,400 ft<sup>3</sup>/s, Feb. 16, 1927, gage height, 18.1 ft, site and datum then in use, from floodmarks, on basis of slope-area measurement of peak flow; no flow for many days some years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 70,200 ft<sup>3</sup>/s, Jan. 27, 1916, gage height, 25.1 ft, site and datum in use prior to Nov. 10, 1920, from floodmarks, based on slope-conveyance computation of peak flow.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	11	4.9	7.6	5.5	28	8.3	3.1	2.1	1.3	0.76	0.55
2	1.5	2.8	5.3	13	5.3	136	48	3.0	2.2	1.3	0.92	0.59
3	1.5	2.6	5.0	67	119	34	e12	2.9	2.3	1.3	0.78	0.57
4	2.2	3.0	5.0	11	19	25	e12	2.8	2.2	1.2	0.78	0.59
5	2.2	2.6	5.5	11	11	23	e11	2.8	2.1	1.2	0.85	0.56
6	2.5	2.6	4.6	9.1	10	21	e9.8	2.8	2.1	1.2	0.93	0.60
7	2.8	2.6	5.5	8.3	9.6	19	e8.5	2.9	2.0	1.4	0.71	0.64
8	1.7	3.0	12	7.5	8.7	17	e7.3	2.8	2.0	1.3	0.78	0.65
9	1.6	3.6	4.2	7.3	7.7	16	e6.3	2.6	2.1	1.2	0.72	0.69
10	1.6	3.7	3.8	8.1	7.1	15	5.9	2.6	2.2	1.1	0.69	0.70
11	1.6	4.9	8.3	8.5	6.1	14	6.4	2.6	2.0	1.1	0.74	0.73
12	1.5	149	5.7	8.2	5.6	13	10	2.7	1.9	1.1	0.75	0.70
13	1.4	12	3.9	8.3	5.1	13	5.5	2.7	1.9	0.99	0.72	0.74
14	1.5	7.7	3.9	9.6	5.4	12	5.6	2.5	1.9	0.95	0.64	0.72
15	1.5	5.9	3.8	8.6	5.0	12	7.7	2.4	2.0	0.89	0.65	0.81
16	1.4	14	3.7	8.0	4.4	12	7.3	2.3	1.9	0.91	0.63	0.87
17	1.8	6.0	3.7	7.1	4.2	11	52	2.2	1.9	0.89	0.65	0.76
18	1.5	6.2	4.1	6.5	57	11	10	2.2	1.9	0.89	0.67	0.74
19	1.5	5.7	4.2	6.1	13	10	6.5	2.1	1.9	0.86	0.67	0.73
20	1.7	6.2	3.8	6.0	8.4	9.4	5.7	2.2	1.8	0.88	0.70	0.71
21	1.9	6.3	3.7	6.1	9.3	8.6	5.2	2.5	1.7	0.87	0.66	0.67
22	1.8	6.1	3.9	6.2	448	8.4	4.8	2.2	1.7	0.84	0.61	0.62
23	1.6	5.7	3.8	6.2	417	8.3	4.4	2.2	1.7	0.89	0.60	0.60
24	1.5	5.9	4.0	6.5	91	8.2	4.2	2.2	1.6	0.87	0.60	0.60
25	1.5	5.9	168	11	55	8.1	3.8	2.1	1.5	0.83	0.67	0.62
26	1.5	5.0	43	6.1	257	7.9	3.6	2.2	1.5	0.81	0.62	0.65
27	1.7	5.0	19	5.9	142	7.8	3.3	2.2	1.4	0.84	0.63	0.73
28	1.7	5.7	11	6.4	42	7.8	3.2	2.3	1.4	0.89	0.64	0.73
29	1.9	5.4	11	6.1	34	7.7	3.2	2.4	1.4	0.82	0.62	0.80
30	1.9	4.9	9.7	6.2	---	7.6	3.1	2.2	1.3	0.82	0.59	0.83
31	1.9	---	8.7	6.6	---	7.6	---	2.1	---	0.80	0.57	---
TOTAL	53.4	311.0	386.7	300.1	1812.4	539.4	284.6	76.8	55.6	31.24	21.55	20.50
MEAN	1.72	10.4	12.5	9.68	62.5	17.4	9.49	2.48	1.85	1.01	0.70	0.68
MAX	2.8	149	168	67	448	136	52	3.1	2.3	1.4	0.93	0.87
MIN	1.4	2.6	3.7	5.9	4.2	7.6	3.1	2.1	1.3	0.80	0.57	0.55
AC-FT	106	617	767	595	3590	1070	565	152	110	62	43	41

e Estimated.

## SAN DIEGO RIVER BASIN

## 11022480 SAN DIEGO RIVER AT MAST ROAD, NEAR SANTEE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.18	6.05	20.6	31.6	92.1	78.4	47.1	17.5	4.72	2.97	2.67	1.88
MAX	20.8	78.8	728	410	1871	683	1324	379	181	156	139	38.3
(WY)	1988	1986	1922	1993	1927	1941	1941	1915	1980	1980	1980	1980
MIN	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1913	1913	1913	1951	1951	1951	1951	1913	1913	1912	1913	1913

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1912 - 2004	
ANNUAL TOTAL	4920.0		3893.29			
ANNUAL MEAN	13.5		10.6		25.2	
HIGHEST ANNUAL MEAN					219	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	362	Feb 25	448	Feb 22	27300	Feb 16 1927
LOWEST DAILY MEAN	1.4	Aug 2	0.55	Sep 1	0.00	Jun 19 1912
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 16	0.57	Aug 30	0.00	Jun 19 1912
MAXIMUM PEAK FLOW			1720	Feb 22	45400	Feb 16 1927
MAXIMUM PEAK STAGE			9.20	Feb 22	18.10	Feb 16 1927
ANNUAL RUNOFF (AC-FT)	9760		7720		18260	
10 PERCENT EXCEEDS	18		12		27	
50 PERCENT EXCEEDS	5.0		2.8		1.7	
90 PERCENT EXCEEDS	1.5		0.71		0.00	

## 11023000 SAN DIEGO RIVER AT FASHION VALLEY, AT SAN DIEGO, CA

LOCATION.—Lat 32°45'54", long 117°10'04", in 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 Reservoir.

DRAINAGE AREA.—429 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1912 to January 1916 published as "San Diego River at San Diego" (monthly discharge only, published in WSP 1315-B), January 1982 to current year. Records for Oct. 1, 1981, to Jan. 17, 1982, published in WDR CA-82-1, are in error and should not be used.

WATER TEMPERATURE: Water year 1984.

SEDIMENT DATA: Water year 1984.

REVISED RECORDS.—See PERIOD OF RECORD.

GAGE.—Water-stage recorder. Elevation of gage is 20 ft above NGVD of 1929, from topographic map. See WSP 1315-B for history of changes for period October 1912 to January 1916.

REMARKS.—Records good. Flow regulated by Cuyamaca Reservoir, capacity, 11,740 acre-ft; El Capitan Reservoir (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, 75,000 ft<sup>3</sup>/s, Jan. 27, 1916, gage height, 19.3 ft, site and datum then in use, estimated on basis of upstream station, San Diego River near Santee; no flow at times during some years. Maximum discharge recorded since storage began in El Capitan Reservoir and San Vicente Reservoir, 9,430 ft<sup>3</sup>/s, Mar. 6, 1995, gage height, 13.47 ft, from rating curve extended above 5,800 ft<sup>3</sup>/s.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	8.7	5.7	15	9.6	50	9.0	4.2	2.4	1.3	1.1	1.0
2	2.1	9.6	5.3	16	9.6	135	45	4.3	2.2	1.3	1.2	1.1
3	2.0	5.1	5.3	111	124	116	31	3.9	2.1	1.4	1.1	1.00
4	2.0	3.9	5.3	56	97	58	20	3.3	2.0	1.4	1.0	0.98
5	2.2	3.6	5.3	24	38	35	14	3.2	1.8	1.4	1.3	1.1
6	2.3	3.3	5.5	16	21	30	11	3.2	1.8	1.3	1.3	1.2
7	2.5	3.0	6.7	14	16	28	9.1	2.9	1.8	1.2	1.4	1.2
8	2.7	3.1	19	13	15	25	8.3	2.8	1.8	1.1	1.4	1.2
9	2.5	3.0	13	12	13	23	8.1	2.2	1.8	1.3	1.4	1.2
10	2.5	3.1	9.3	11	12	21	7.8	2.4	1.7	1.3	1.1	1.3
11	2.5	3.1	9.0	11	11	19	7.8	2.6	1.6	1.4	1.1	1.4
12	2.5	42	9.7	11	11	19	7.5	2.3	1.7	1.3	1.1	1.3
13	2.4	64	8.2	10	10	18	7.1	2.4	1.7	1.2	0.94	1.2
14	2.3	33	7.8	9.8	8.9	17	7.5	2.5	1.6	1.1	1.0	1.1
15	2.3	16	7.9	9.8	8.9	15	7.5	2.5	1.7	1.1	1.1	1.1
16	2.3	12	7.3	9.9	8.6	15	7.2	2.4	1.7	1.1	1.2	1.1
17	2.1	11	6.5	9.6	8.1	15	26	2.5	1.7	1.0	1.1	1.2
18	2.3	9.1	5.7	11	26	14	48	2.4	1.6	1.1	0.94	1.3
19	2.3	8.8	5.3	10	80	14	30	2.3	1.6	1.1	0.94	1.4
20	2.3	7.4	5.4	9.4	36	13	17	2.1	1.7	1.1	0.95	1.4
21	2.1	6.6	5.7	9.1	19	13	12	2.3	1.9	1.1	0.90	1.2
22	2.0	6.2	5.6	9.1	141	13	10	2.3	2.0	1.0	1.1	1.1
23	1.9	6.1	5.3	9.0	850	12	8.2	2.6	1.8	1.1	1.2	1.1
24	1.9	6.1	5.9	8.8	210	11	7.7	2.7	1.6	1.1	1.1	1.1
25	2.0	5.9	69	14	106	11	6.9	2.2	1.6	0.92	1.1	1.1
26	2.2	5.8	239	15	320	11	6.3	2.1	1.5	0.94	1.0	1.3
27	2.3	6.2	87	12	333	9.8	5.7	2.6	1.5	0.91	0.97	1.4
28	2.7	6.3	37	11	129	9.5	5.2	2.7	1.5	0.91	0.89	1.5
29	2.8	6.5	23	10	70	9.4	4.7	2.6	1.3	0.93	0.99	1.5
30	3.0	6.5	18	9.2	---	8.7	4.3	2.6	1.4	0.91	1.0	1.4
31	2.8	---	16	9.0	---	8.3	---	2.5	---	0.97	1.0	---
TOTAL	72.0	315.0	664.7	505.7	2741.7	796.7	399.9	83.6	52.1	35.29	33.92	36.48
MEAN	2.32	10.5	21.4	16.3	94.5	25.7	13.3	2.70	1.74	1.14	1.09	1.22
MAX	3.0	64	239	111	850	135	48	4.3	2.4	1.4	1.4	1.5
MIN	1.9	3.0	5.3	8.8	8.1	8.3	4.3	2.1	1.3	0.91	0.89	0.98
AC-FT	143	625	1320	1000	5440	1580	793	166	103	70	67	72

## SAN DIEGO RIVER BASIN

## 11023000 SAN DIEGO RIVER AT FASHION VALLEY, AT SAN DIEGO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.84	25.2	39.5	86.5	113	127	44.4	16.0	6.32	2.89	2.31	3.17
MAX	31.2	144	143	683	668	777	242	135	21.3	8.93	9.47	20.0
(WY)	1987	1986	1985	1993	1998	1983	1983	1983	1983	1983	1983	1986
MIN	0.62	0.87	5.06	6.51	8.93	8.38	7.69	2.45	1.30	0.25	0.54	0.03
(WY)	1990	1990	2001	2000	2002	1984	1989	1996	1985	1985	1985	1984

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1982 - 2004	
ANNUAL TOTAL	8583.5		5737.09			
ANNUAL MEAN	23.5		15.7		38.8	
HIGHEST ANNUAL MEAN					125 1983	
LOWEST ANNUAL MEAN					7.39 2002	
HIGHEST DAILY MEAN	618	Mar 16	850	Feb 23	4760	Mar 3 1983
LOWEST DAILY MEAN	1.5	Aug 28	0.89	Aug 28	0.00	Sep 7 1984
ANNUAL SEVEN-DAY MINIMUM	1.7	Aug 24	0.93	Jul 25	0.00	Sep 13 1984
MAXIMUM PEAK FLOW			1220	Feb 23	9430	Mar 6 1995
MAXIMUM PEAK STAGE			9.68	Feb 23	13.47	Mar 6 1995
ANNUAL RUNOFF (AC-FT)	17030		11380		28090	
10 PERCENT EXCEEDS	40		24		68	
50 PERCENT EXCEEDS	5.7		3.2		6.6	
90 PERCENT EXCEEDS	2.0		1.1		0.89	



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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1964 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 260 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. Flow partly regulated by several conservation reservoirs upstream from station. Pumping from wells along stream for irrigation. Flow augmented by reclaimed water from Poway area.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,750 ft<sup>3</sup>/s, Feb. 21, 1980, gage height, 10.26 ft, from rating curve extended above 1,400 ft<sup>3</sup>/s; maximum gage height, 10.92 ft, Jan. 4, 1995; no flow at times in 1968, 1972, and 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 800 ft<sup>3</sup>/s, or maximum, from rating curve extended above 2,130 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 23	0145	976	7.19

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	12	2.5	4.1	4.0	4.7	15	2.7	2.8	2.2	2.2	2.4
2	2.4	3.6	2.8	9.8	6.4	88	79	2.2	2.8	2.3	2.0	2.4
3	3.0	5.2	3.0	39	141	12	17	2.0	2.7	2.3	1.8	2.2
4	3.1	7.4	3.3	6.2	37	6.4	5.3	2.0	2.7	1.9	2.2	1.9
5	2.8	2.7	2.9	4.7	5.6	5.8	4.4	2.0	2.6	1.8	2.2	1.6
6	3.0	3.4	2.8	4.7	3.8	4.4	5.3	2.0	2.4	2.4	2.3	1.6
7	2.9	3.4	3.7	4.6	3.2	4.2	6.0	2.1	2.5	2.6	2.4	1.8
8	2.9	2.7	17	4.3	2.9	3.7	13	2.1	2.8	2.4	1.9	2.0
9	2.8	6.2	3.8	4.2	3.0	3.8	7.2	2.2	2.6	2.3	2.0	2.3
10	3.0	4.9	2.8	4.2	2.8	3.7	3.2	2.2	2.4	2.0	2.0	2.3
11	3.0	2.7	8.2	4.7	2.9	3.6	2.9	2.3	2.5	1.8	2.1	2.1
12	2.7	116	11	4.2	2.6	3.8	2.9	2.3	2.3	3.0	2.1	2.2
13	2.8	8.8	3.4	4.3	2.7	3.8	3.0	2.4	1.9	1.7	2.2	2.6
14	2.8	4.0	2.7	4.3	2.6	3.6	3.0	2.5	1.9	1.6	2.1	2.3
15	3.1	3.3	3.1	4.3	2.5	3.5	3.4	2.5	2.1	1.6	2.1	2.2
16	2.4	15	3.1	4.5	2.5	3.6	3.1	2.4	2.2	1.7	2.3	2.3
17	2.4	6.4	2.7	4.6	2.7	3.5	35	2.4	2.3	1.6	2.0	2.5
18	2.3	4.6	2.8	4.1	62	3.5	12	2.6	2.5	1.5	2.4	6.9
19	2.3	7.2	3.0	4.2	31	3.7	3.9	2.7	2.4	1.6	2.2	7.2
20	2.2	2.7	3.2	4.3	4.6	3.5	3.2	2.9	2.6	1.6	2.3	2.9
21	2.2	3.6	3.2	4.8	3.7	3.4	2.7	2.8	2.8	1.7	2.3	2.0
22	2.1	2.7	3.0	4.3	222	3.9	2.6	2.9	2.7	1.8	2.0	2.6
23	2.3	2.8	3.6	4.3	318	3.7	2.6	2.8	2.6	2.0	2.1	2.5
24	2.3	2.4	3.9	4.2	19	3.6	2.4	2.9	2.5	1.9	2.1	2.1
25	2.3	2.8	106	7.1	8.0	3.4	2.3	2.9	2.3	1.8	2.1	1.9
26	2.2	2.9	53	4.7	188	4.0	2.3	3.2	2.1	1.9	2.1	2.1
27	2.6	2.6	7.2	4.5	21	3.7	2.2	3.0	1.9	1.6	2.2	2.0
28	3.0	2.6	5.1	5.7	8.6	3.3	2.3	3.3	2.1	1.7	2.1	2.0
29	2.7	2.8	4.7	4.8	5.6	3.2	2.4	3.5	2.2	1.9	2.0	2.0
30	2.9	2.5	4.7	4.5	---	3.4	2.5	2.9	2.2	2.0	2.4	1.6
31	3.2	---	4.3	4.4	---	3.6	---	3.0	---	2.0	2.3	---
TOTAL	82.0	249.9	286.5	182.6	1119.7	212.0	252.1	79.7	72.4	60.2	66.5	74.5
MEAN	2.65	8.33	9.24	5.89	38.6	6.84	8.40	2.57	2.41	1.94	2.15	2.48
MAX	3.2	116	106	39	318	88	79	3.5	2.8	3.0	2.4	7.2
MIN	2.1	2.4	2.5	4.1	2.5	3.2	2.2	2.0	1.9	1.5	1.8	1.6
AC-FT	163	496	568	362	2220	421	500	158	144	119	132	148

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	1.96	6.78	9.25	23.3	34.7	32.2	9.76	3.40	1.72	1.26	1.17	1.72
MAX	11.7	28.7	51.6	233	277	213	50.0	22.0	6.58	3.25	3.59	13.9
(WY)	2001	1986	1966	1993	1998	1983	1998	1998	1998	1999	1998	1997
MIN	0.03	0.10	0.23	0.23	0.41	0.75	0.27	0.14	0.06	0.01	0.02	0.03
(WY)	1976	1978	1974	1976	1965	1965	1977	1974	1974	1977	1975	1975

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1965 - 2004
ANNUAL TOTAL	4432.5	2738.1	
ANNUAL MEAN	12.1	7.48	10.5
HIGHEST ANNUAL MEAN			39.4 1998
LOWEST ANNUAL MEAN			0.80 1965
HIGHEST DAILY MEAN	416 Feb 12	318 Feb 23	1400 Mar 1 1978
LOWEST DAILY MEAN	1.8 Jun 17	1.5 Jul 18	0.00 May 16 1968
ANNUAL SEVEN-DAY MINIMUM	1.9 Jun 27	1.6 Jul 14	0.00 Jul 18 1977
MAXIMUM PEAK FLOW		976 Feb 23	4750 Feb 21 1980
MAXIMUM PEAK STAGE		7.19 Feb 23	10.92 Jan 4 1995
ANNUAL RUNOFF (AC-FT)	8790	5430	7590
10 PERCENT EXCEEDS	8.8	7.0	11
50 PERCENT EXCEEDS	3.2	2.8	1.7
90 PERCENT EXCEEDS	2.2	2.0	0.29

## 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, 4.5 mi north of Ramona, and 5.0 mi downstream from Sutherland Reservoir.

DRAINAGE AREA.—112 mi<sup>2</sup>.

PERIOD OF RECORD.—February 1912 to February 1923 (monthly discharge only for November and December 1919), October 1943 to current year.

REVISED RECORDS.—WSP 1928: Drainage area.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 847.88 ft above NGVD of 1929 (levels by city of San Diego Water Department). See WSP 1315-B for history of changes prior to Feb. 3, 1923.

REMARKS.—Records good. Flow regulated by Sutherland Reservoir, capacity, 29,680 acre-ft, since July 1954. Some small diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 28,400 ft<sup>3</sup>/s, Jan. 27, 1916, gage height, 14.0 ft, datum then in use, from rating curve extended above 1,500 ft<sup>3</sup>/s, on basis of slope-conveyance study of peak flow, maximum gage height, 14.25 ft, Feb. 21, 1980; no flow at times in some years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	1.9	2.2	0.01	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	7.1	15	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.81	4.0	1.7	0.01	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.04	2.5	1.1	0.02	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.03	1.8	0.74	0.03	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.02	1.4	0.53	0.03	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.02	1.0	0.39	0.03	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.02	0.69	0.31	0.03	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.02	0.54	0.22	0.02	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.02	0.50	0.17	0.02	0.00	0.00	0.00	0.00
11	0.00	0.00	0.84	0.00	0.03	0.41	0.11	0.02	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.03	0.37	0.09	0.02	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.03	0.30	0.07	0.02	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.05	0.23	0.07	0.01	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.06	0.21	0.06	0.01	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.06	0.18	0.05	0.01	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.06	0.15	0.45	0.01	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	1.1	0.14	0.17	0.01	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.68	0.14	0.07	0.01	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.07	0.12	0.04	0.01	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.07	0.12	0.04	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	7.4	0.11	0.03	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	13	0.10	0.01	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.01	1.9	0.09	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.87	0.01	0.80	0.08	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.09	0.00	23	0.11	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	7.0	0.09	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	3.8	0.06	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	2.6	0.04	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.04	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.06	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	1.80	0.02	62.72	24.58	23.62	0.33	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.06	0.00	2.16	0.79	0.79	0.01	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.87	0.01	23	7.1	15	0.03	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	3.6	0.04	124	49	47	0.7	0.00	0.00	0.00	0.00

## 11025500 SANTA YSABEL CREEK NEAR RAMONA, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1954, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.76	4.16	28.3	106	70.6	72.7	38.9	27.8	9.07	2.83	1.53	.98
MAX	16.9	17.3	330	1690	345	249	153	221	47.0	15.6	10.5	8.63
(WY)	1917	1947	1922	1916	1916	1922	1922	1915	1915	1915	1916	1916
MIN	.000	.000	.000	1.70	3.54	6.37	4.75	1.10	.037	.000	.000	.000
(WY)	1948	1949	1951	1948	1912	1951	1951	1947	1951	1946	1921	1921

## SUMMARY STATISTICS

## WATER YEARS 1912 - 1954

ANNUAL MEAN	30.7
HIGHEST ANNUAL MEAN	206 1916
LOWEST ANNUAL MEAN	1.77 1951
HIGHEST DAILY MEAN	14100 Jan 27 1916
LOWEST DAILY MEAN	.00 Aug 16 1912
ANNUAL SEVEN-DAY MINIMUM	.00 Sep 17 1912
MAXIMUM PEAK FLOW	28400 Jan 27 1916
MAXIMUM PEAK STAGE	14.00 Jan 27 1916
ANNUAL RUNOFF (AC-FT)	22250
10 PERCENT EXCEEDS	50
50 PERCENT EXCEEDS	4.1
90 PERCENT EXCEEDS	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2004, BY WATER YEAR (WY)

MEAN	0.45	1.92	4.85	14.2	38.4	39.7	18.3	7.72	3.22	1.01	0.62	0.36
MAX	6.30	43.5	124	220	795	425	207	110	42.2	13.8	11.9	7.07
(WY)	1981	1966	1967	1993	1980	1980	1983	1983	1983	1980	1983	1980
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1955	1955	1955	1959	1961	1961	1961	1959	1956	1955	1955	1955

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1955 - 2004

ANNUAL TOTAL	371.66	113.07	
ANNUAL MEAN	1.02	0.31	10.7
HIGHEST ANNUAL MEAN			131 1980
LOWEST ANNUAL MEAN			0.00 1961
HIGHEST DAILY MEAN	32 Mar 16	23 Feb 26	6190 Feb 21 1980
LOWEST DAILY MEAN	0.00 Jan 6	0.00 Oct 1	0.00 Oct 1 1954
ANNUAL SEVEN-DAY MINIMUM	0.00 Jun 13	0.00 Oct 1	0.00 Oct 1 1954
MAXIMUM PEAK FLOW		92 Apr 1	10700 Feb 21 1980
MAXIMUM PEAK STAGE		3.31 Apr 1	14.25 Feb 21 1980
ANNUAL RUNOFF (AC-FT)	737	224	7780
10 PERCENT EXCEEDS	2.8	0.22	11
50 PERCENT EXCEEDS	0.00	0.00	0.10
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—December 1912 to September 1920, October 1946 to current year.

REVISED RECORDS.—WSP 1285: 1952. WSP 1928: Drainage area.

GAGE.—Water-stage recorder. Concrete control since October 1946. Datum of gage is 1,294.44 ft above NGVD of 1929. Prior to Oct. 1, 1946, at same site, at datum 1.78 ft lower.

REMARKS.—Records good. No regulation upstream from station. Land application of treated sewage effluent upstream from the gage beginning December 1972 contributes to low flows.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 15,200 ft<sup>3</sup>/s, Feb. 21, 1980, gage height, 14.39 ft, from rating curve extended above 166 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 4.56 ft and 14.39 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 250 ft<sup>3</sup>/s, or maximum, from rating curve extended above 955 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 14.39 ft:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 23	1000	32	1.88

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.37	0.07	0.03	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	2.0	0.32	0.02	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.18	1.4	0.25	0.01	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.16	0.68	0.14	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.02	0.40	0.10	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.01	0.28	0.12	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.01	0.21	0.07	0.01	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.01	1.5	0.06	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.01	0.45	0.06	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.01	0.19	0.16	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.01	0.12	0.08	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.01	0.12	0.04	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.01	0.13	0.04	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.03	0.11	0.04	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.03	0.15	0.04	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.03	0.22	0.03	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.06	0.14	0.09	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.18	0.12	0.12	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.24	0.08	0.08	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.08	0.07	0.07	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.07	0.07	0.10	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.67	0.07	0.10	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	16	0.07	e0.08	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	3.7	0.13	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.59	0.12	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	9.4	0.07	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	6.0	0.07	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.01	1.6	0.05	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.01	0.57	0.04	0.01	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.05	0.03	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.05	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.02	39.69	9.53	2.30	0.07	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	1.37	0.31	0.08	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.01	16	2.0	0.32	0.03	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.04	79	19	4.6	0.1	0.00	0.00	0.00	0.00

e Estimated.

## 11028500 SANTA MARIA CREEK NEAR RAMONA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.05	0.41	1.27	22.0	23.8	24.5	6.22	2.14	0.53	0.07	0.09	0.03
MAX	0.45	10.9	26.5	545	443	288	63.2	31.0	7.66	1.28	4.03	0.22
(WY)	1987	1966	1967	1916	1980	1983	1998	1915	1983	1983	1983	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1914	1916	1920	1920	1951	1951	1950	1949	1920	1913	1913	1913

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1913 - 2004	
ANNUAL TOTAL	170.16		51.61			
ANNUAL MEAN	0.47		0.14		6.78	
HIGHEST ANNUAL MEAN					78.2	1993
LOWEST ANNUAL MEAN					0.00	1951
HIGHEST DAILY MEAN	46	Mar 16	16	Feb 23	4960	Jan 27 1916
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Dec 17 1912
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Dec 17 1912
MAXIMUM PEAK FLOW			32	Feb 23	15200	Feb 21 1980
MAXIMUM PEAK STAGE			1.88	Feb 23	14.39	Feb 21 1980
ANNUAL RUNOFF (AC-FT)	338		102		4910	
10 PERCENT EXCEEDS	0.33		0.12		2.7	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA

LOCATION.—Lat 33°13'05", long 117°21'34", in SE 1/4 SW 1/4 sec.13, T.11 S., R.5 W., San Diego County, Hydrologic Unit 18070303, on left 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 mi<sup>2</sup>.

PERIOD OF RECORD.—April 1912 to September 1914 (published as "near Oceanside"), January 1916, October 1929 to January 1942,

October 1946 to current year. Discharge measurements only Oct. 1, 1992, to Aug. 16, 1993, and Nov. 10, 1997, to Apr. 28, 1998.

CHEMICAL DATA: Water years 1978–92.

BIOLOGICAL DATA: Water years 1978–81.

SPECIFIC CONDUCTANCE: Water years 1978–81.

WATER TEMPERATURE: Water years 1971–81.

SEDIMENT DATA: Water years 1969–93.

REVISED RECORDS.—WSP 2128: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 20 ft above NGVD 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. October 1929 to Nov. 9, 1981, at site 0.8 mi downstream at different datum.

REMARKS.—Records fair. Gage out of operation for channel work from Nov. 10, 1997, to Apr. 28, 1998. Flow regulated by Lake Henshaw, capacity, 194,300 acre-ft, since 1923. Several diversions for irrigation and domestic use upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 95,600 ft<sup>3</sup>/s, Jan. 27, 1916, from hydrograph based on discharge measurements; no flow for several months in some years. Since regulation by Lake Henshaw, maximum discharge, 25,700 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 21.70 ft, on basis of slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.61	0.08	8.3	24	19	111	23	8.4	3.0	0.28	0.00	0.00
2	0.46	0.24	8.2	24	19	109	32	8.1	2.6	0.18	0.00	0.00
3	0.40	0.20	8.3	34	29	97	34	7.5	2.4	0.08	0.00	0.00
4	0.33	0.34	8.8	28	29	96	31	8.2	2.0	0.02	0.00	0.00
5	0.30	0.62	8.8	28	31	87	28	9.6	2.1	0.00	0.00	0.00
6	0.30	0.89	9.0	27	30	77	25	8.9	2.0	0.34	0.00	0.00
7	0.36	1.0	9.1	27	28	70	23	8.0	1.9	0.41	0.00	0.00
8	0.44	1.2	9.9	25	26	66	22	7.7	1.9	0.10	0.00	0.00
9	0.67	1.5	9.3	24	24	61	21	7.5	1.7	0.00	0.00	0.00
10	0.70	1.8	9.5	25	23	58	19	7.1	1.6	0.00	0.00	0.00
11	0.57	2.0	10	24	22	55	19	6.8	1.4	0.00	0.00	0.00
12	0.28	2.9	9.9	24	22	51	18	6.6	1.3	0.00	0.00	0.00
13	0.16	3.9	9.4	23	21	49	17	6.4	1.3	0.00	0.00	0.00
14	0.10	4.0	9.6	22	20	47	16	6.2	1.1	0.00	0.00	0.00
15	0.09	4.0	10	22	20	45	15	6.0	1.3	0.00	0.00	0.00
16	0.06	4.6	10	21	20	44	14	5.6	1.3	0.00	0.00	0.00
17	0.05	4.8	10	20	20	43	14	5.2	1.3	0.00	0.00	0.00
18	0.00	5.0	11	20	20	42	15	5.0	1.3	0.00	0.00	0.00
19	0.00	5.4	11	20	21	39	14	4.7	1.0	0.00	0.00	0.00
20	0.06	5.6	11	20	21	38	15	4.6	1.0	0.00	0.00	0.00
21	0.26	5.9	11	20	22	36	15	4.4	1.0	0.00	0.00	0.00
22	0.65	6.3	11	19	45	36	14	4.1	1.3	0.00	0.00	0.00
23	0.81	6.3	12	19	101	35	13	4.0	1.3	0.00	0.00	0.00
24	0.72	6.5	12	20	78	33	12	3.9	1.1	0.00	0.00	0.00
25	0.59	7.1	19	21	64	31	11	3.8	1.1	0.00	0.00	0.00
26	0.40	7.3	28	21	156	33	11	3.7	0.72	0.00	0.00	0.00
27	0.08	7.2	23	20	236	30	10	3.5	0.54	0.00	0.00	0.00
28	0.04	7.4	25	21	203	29	9.6	3.5	0.65	0.00	0.00	0.00
29	0.03	7.7	26	20	141	27	9.0	3.7	0.63	0.00	0.00	0.00
30	0.13	7.9	27	19	---	25	8.7	3.5	0.38	0.00	0.00	0.00
31	0.05	---	26	19	---	24	---	3.0	---	0.00	0.00	---
TOTAL	9.70	119.67	411.1	701	1511	1624	528.3	179.2	42.22	1.41	0.00	0.00
MEAN	0.31	3.99	13.3	22.6	52.1	52.4	17.6	5.78	1.41	0.05	0.00	0.00
MAX	0.81	7.9	28	34	236	111	34	9.6	3.0	0.41	0.00	0.00
MIN	0.00	0.08	8.2	19	19	24	8.7	3.0	0.38	0.00	0.00	0.00
AC-FT	19	237	815	1390	3000	3220	1050	355	84	2.8	0.00	0.00

## 11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.56	8.43	19.5	44.1	97.0	132	53.6	28.0	13.9	7.08	5.30	3.20
MAX	54.6	144	196	451	1858	1211	432	346	293	207	213	85.9
(WY)	1984	1984	1979	1980	1980	1995	1980	1980	1980	1980	1980	1980
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1930	1930	1930	1930	1930	1930	1930	1931	1931	1930	1930	1930

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	12409.66		5127.60			
ANNUAL MEAN	34.0		14.0		34.1	
HIGHEST ANNUAL MEAN					415	1980
LOWEST ANNUAL MEAN					0.00	1931
HIGHEST DAILY MEAN	525	Mar 17	236	Feb 27	11300	Mar 3 1938
LOWEST DAILY MEAN	0.00	Oct 18	0.00	Oct 18	0.00	Oct 1 1929
ANNUAL SEVEN-DAY MINIMUM	0.05	Oct 14	0.00	Jul 9	0.00	Oct 1 1929
MAXIMUM PEAK FLOW			262	Feb 26	25700	Jan 16 1993
MAXIMUM PEAK STAGE			8.99	Feb 26	21.70	Jan 16 1993
ANNUAL RUNOFF (AC-FT)	24610		10170		24670	
10 PERCENT EXCEEDS	88		31		55	
50 PERCENT EXCEEDS	10		4.9		1.8	
90 PERCENT EXCEEDS	0.44		0.00		0.00	

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004

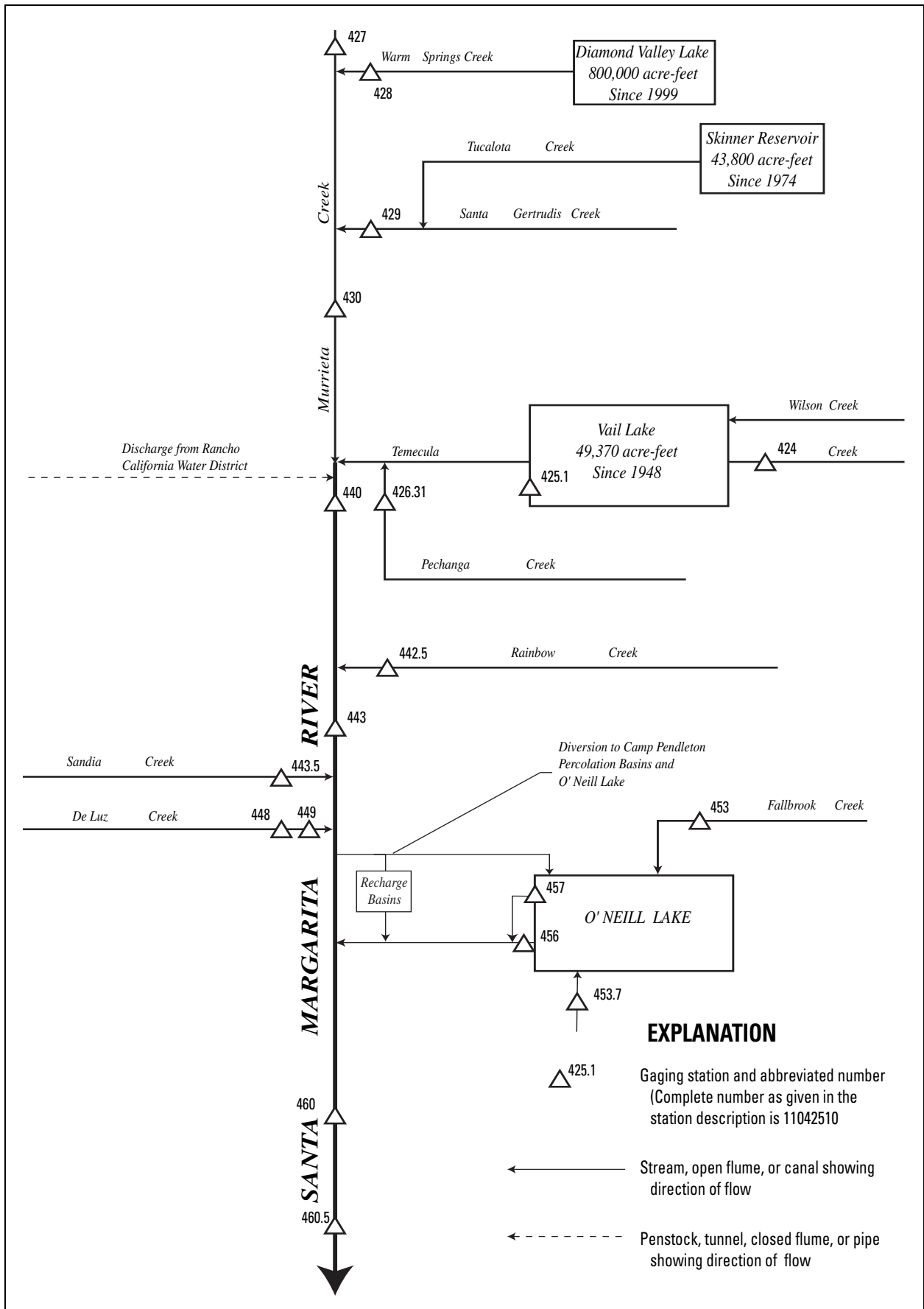


Figure 16. Diversions and storage in Santa Margarita River Basin.



## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—August 1957 to current year.

REVISED RECORDS.—WDR CA-89-1: 1958(P), 1966(M), 1979(M), 1980(M), 1986(M). WSP 1928: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,590 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. No regulation upstream from station. Pumping upstream from station for irrigation of less than 1,000 acres. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,100 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 14.6 ft, from floodmark, from rating curve extended above 1,200 ft<sup>3</sup>/s, on basis of critical depth computation; no flow for several days in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	1730	37	2.35

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.22	0.53	0.76	1.1	1.2	3.2	1.2	0.43	0.26	0.08	0.06	0.04
2	0.26	0.54	0.76	1.1	1.2	3.6	1.4	0.38	0.24	0.09	0.08	0.02
3	0.30	0.58	0.71	1.2	1.6	4.9	1.5	0.34	0.23	0.08	0.12	0.01
4	0.33	0.58	0.70	1.3	1.7	3.9	1.4	0.34	0.22	0.05	0.10	0.06
5	0.33	0.55	0.71	1.3	1.4	3.4	1.4	0.33	0.20	0.04	0.01	0.06
6	0.34	0.48	0.74	1.3	1.3	3.0	1.3	0.31	0.20	0.07	0.04	0.04
7	0.33	0.46	0.79	1.2	1.3	2.7	1.2	0.32	0.27	0.17	0.03	0.03
8	0.31	0.44	0.77	1.2	1.3	2.5	1.1	0.32	0.36	0.19	0.04	0.02
9	0.30	0.44	0.76	1.2	1.3	2.3	1.1	0.31	0.34	0.19	0.01	0.02
10	0.32	0.47	0.76	1.2	1.2	2.0	1.1	0.33	0.32	0.17	0.02	0.03
11	0.37	0.48	0.79	1.1	1.2	1.9	1.0	0.39	0.27	0.14	0.01	0.05
12	0.34	1.0	0.80	1.1	1.2	1.9	0.94	0.41	0.22	0.10	0.01	0.04
13	0.32	0.89	0.84	1.1	1.2	1.9	0.85	0.39	0.19	0.07	0.03	0.06
14	0.34	0.77	0.79	1.1	1.2	1.8	0.83	0.34	0.17	0.06	0.10	0.08
15	0.39	0.80	0.77	1.1	1.2	1.7	0.83	0.30	0.23	0.09	0.09	0.08
16	0.39	0.84	0.76	1.1	1.2	1.6	0.82	0.31	0.17	0.11	0.07	0.16
17	0.37	0.80	0.76	1.1	1.2	1.6	0.87	0.36	0.17	0.09	0.06	0.17
18	0.35	0.80	0.76	1.1	1.3	1.6	1.0	0.39	0.20	0.05	0.06	0.17
19	0.32	0.82	0.76	1.2	1.8	1.5	1.2	0.38	0.20	0.04	0.03	0.18
20	0.29	0.79	0.77	1.2	1.9	1.4	1.0	0.37	0.25	0.03	0.05	0.15
21	0.28	0.78	0.77	1.2	1.8	1.4	0.95	0.38	0.26	0.03	0.06	0.11
22	0.27	0.79	0.77	1.2	2.2	1.4	0.91	0.38	0.21	0.03	0.01	0.11
23	0.28	0.76	0.79	1.2	3.9	1.4	0.78	0.39	0.16	0.03	0.04	0.12
24	0.32	0.76	0.79	1.2	3.3	1.4	0.71	0.41	0.14	0.04	0.01	0.11
25	0.34	0.76	0.99	1.2	2.6	1.4	0.61	0.41	0.18	0.03	0.04	0.09
26	0.35	0.79	1.6	1.2	12	1.4	0.55	0.42	0.09	0.03	0.02	0.08
27	0.36	0.76	1.9	1.2	11	1.4	0.49	0.40	0.11	0.02	0.05	0.07
28	0.36	0.72	1.5	1.2	5.6	1.4	0.44	0.41	0.17	0.02	0.12	0.09
29	0.39	0.69	1.4	1.2	3.9	1.2	0.47	0.46	0.13	0.02	0.09	0.17
30	0.45	0.73	1.5	1.2	---	1.2	0.46	0.38	0.22	0.03	0.07	0.22
31	0.48	---	1.4	1.2	---	1.1	---	0.29	---	0.04	0.06	---
TOTAL	10.40	20.60	28.67	36.5	73.2	63.1	28.41	11.38	6.38	2.23	1.59	2.64
MEAN	0.34	0.69	0.92	1.18	2.52	2.04	0.95	0.37	0.21	0.07	0.05	0.09
MAX	0.48	1.0	1.9	1.3	12	4.9	1.5	0.46	0.36	0.19	0.12	0.22
MIN	0.22	0.44	0.70	1.1	1.2	1.1	0.44	0.29	0.09	0.02	0.01	0.01
AC-FT	21	41	57	72	145	125	56	23	13	4.4	3.2	5.2

## SANTA MARGARITA RIVER BASIN

## 11042400 TEMECULA CREEK NEAR AGUANGA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.47	3.23	5.35	16.0	25.1	20.1	10.7	4.89	2.58	1.47	1.26	1.24
MAX	7.94	47.9	66.0	361	266	105	87.3	25.5	13.1	8.19	9.40	6.93
(WY)	1984	1966	1967	1993	1980	1991	1958	1998	1980	1980	1983	1980
MIN	0.00	0.00	0.00	0.09	0.70	0.41	0.34	0.16	0.07	0.00	0.00	0.00
(WY)	1958	1963	1963	1963	1965	1965	1961	1961	1966	1964	1957	1957

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	917.37		285.10			
ANNUAL MEAN	2.51		0.78		7.70	
HIGHEST ANNUAL MEAN					56.1	1993
LOWEST ANNUAL MEAN					0.28	1961
HIGHEST DAILY MEAN	72	Mar 16	12	Feb 26	3600	Jan 16 1993
LOWEST DAILY MEAN	0.02	Jul 14	0.01	Aug 5	0.00	Aug 1 1957
ANNUAL SEVEN-DAY MINIMUM	0.04	Aug 12	0.02	Aug 7	0.00	Aug 1 1957
MAXIMUM PEAK FLOW			37	Feb 26	8100	Jan 16 1993
MAXIMUM PEAK STAGE			2.35	Feb 26	14.60	Jan 16 1993
ANNUAL RUNOFF (AC-FT)	1820		565		5580	
10 PERCENT EXCEEDS	5.4		1.5		11	
50 PERCENT EXCEEDS	0.80		0.44		1.6	
90 PERCENT EXCEEDS	0.09		0.04		0.00	

11042510 VAIL LAKE NEAR TEMECULA, CA

LOCATION.—Lat 33°29'44", long 116°58'33", in Pauba Grant, Riverside County, Hydrologic Unit 18070302, near center of Vail Dam on Temecula Creek, 0.2 mi downstream from Arroyo Seco, and 10 mi east of Temecula.

DRAINAGE AREA.—320 mi<sup>2</sup>.

RESERVOIR-STORAGE RECORDS

PERIOD OF RECORD.—October 1960 to September 1985 (monthend contents only), October 1987 to current year. Prior to October 1977, published with Temecula Creek at Vail Dam.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by the U.S. Bureau of Reclamation). June 4, 1969, to September 1985, nonrecording gage.

REMARKS.—Reservoir is formed by concrete arch-type dam, completed in June 1949. Total capacity, 49,370 acre-ft, between elevations 1,352.5 ft, bottom of lowest outlet, and 1,470 ft, crest of spillway, all of which is available for release. There had been no spill from Nov. 13, 1948, date of closure, to Feb. 20, 1980, when a peak spill of about 8,000 ft<sup>3</sup>/s occurred (from theoretical discharge curve). Water is released down Temecula Creek for diversion about 1 mi downstream. Figures given, excluding extremes, represent total contents at 2400 hours. See schematic diagram of Santa Margarita River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents observed, 52,670 acre-ft, spilling, Feb. 21, 1980, elevation, 1,473.0 ft, from highwater mark; minimum observed, 1,038 acre-ft, Oct. 31, 1960, elevation, 1,379.44 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents observed, 17,980 acre-ft, Oct. 1, elevation, 1,432.69 ft; minimum observed, 15,850 acre-ft, Sept. 30, elevation, 1,429.04 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on table dated Dec. 22, 1953)

1,390	2,400	1,420	11,400	1,440	22,780	1,460	39,280
1,400	4,530	1,430	16,390	1,450	30,420	1,475	54,940
1,410	7,560						

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17960	17720	17660	17640	17660	17760	17670	17520	17200	e16880	e16510	16150
2	17960	17710	17650	17640	17670	17800	17670	17520	17190	e16880	e16500	16140
3	17950	17710	17660	17640	17710	17760	17670	17490	17180	e16870	e16490	16130
4	17940	17700	17660	17640	17700	17790	17660	17480	17170	e16860	e16480	16110
5	17930	17700	17660	17620	17700	17790	17660	17470	17160	e16850	e16470	16100
6	17930	17690	17650	17620	17680	17760	17660	17460	17150	e16840	e16460	16090
7	17920	17680	17650	17620	17690	17780	17650	17440	17140	e16830	e16450	16080
8	17910	17680	17650	17620	17670	17780	17650	17470	17130	e16820	e16440	16080
9	17900	17680	17650	17660	17700	17790	17650	17450	17110	e16810	e16430	16070
10	17900	17670	17650	17620	17690	17790	17650	17440	17110	e16800	e16420	16060
11	17890	17670	17650	17630	17650	17770	17640	17430	17090	e16790	e16410	16050
12	17880	17730	17640	17650	17670	17790	17630	17410	17080	e16780	e16380	16040
13	17870	17730	17640	17670	17680	17780	17620	17410	17080	e16770	e16380	16030
14	17860	17730	17640	17620	17640	17790	17610	17400	17110	e16760	e16370	16020
15	17860	17730	17610	17650	17640	17760	17600	17380	17050	e16740	e16360	16010
16	17850	17740	17610	17650	17650	17770	17600	17370	17040	e16730	e16350	16000
17	17830	17740	17610	17640	17690	17770	17590	17370	17070	e16710	e16340	16000
18	17830	17730	17610	17660	17660	17790	17600	17350	17030	e16700	e16320	15980
19	17830	17730	17610	17660	17680	17730	17590	17340	17020	e16690	e16310	15970
20	17820	17730	17600	17680	17690	17760	17590	17330	17040	e16680	e16300	15960
21	17800	17720	17610	17650	17680	17720	17580	17320	17040	e16660	e16280	15950
22	17800	17700	17600	17670	17690	17710	17580	17300	16990	e16650	e16270	15940
23	17800	17700	17610	17630	17740	17740	17570	17290	16980	e16640	e16260	15920
24	17790	17700	17610	17640	17700	17710	17560	17280	16970	e16630	e16250	15910
25	17780	17700	17640	17660	17740	17710	17560	17270	16960	e16630	e16230	15900
26	17760	17700	17640	17640	17770	17710	17550	17250	16950	e16610	e16230	15900
27	17760	17680	17640	17640	17740	17700	17550	17240	16940	e16610	e16220	15890
28	17740	17670	17640	17650	17770	17680	17550	17230	16920	e16580	e16210	15870
29	17740	17670	17640	17670	17740	17690	17530	17230	16910	e16560	e16190	15860
30	17730	17660	17640	17650	---	17680	17520	17220	e16890	e16540	e16180	15860
31	17720	---	17630	17660	---	17670	---	17210	---	e16520	e16170	---
MAX	17960	17740	17660	17680	17770	17800	17670	17520	17200	e16880	e16510	16150
MIN	17720	17660	17600	17620	17640	17670	17520	17210	16890	e16520	e16170	15860
a	1432.26	1432.16	1432.11	1432.16	1432.30	1432.18	1431.93	1431.40	1430.90	1430.25	1429.60	1429.05
b	-260	-60	-30	+30	+80	-70	-150	-310	-260	-380	-350	-310

CAL YR 2003 MAX 19390 MIN 17600 b -270  
WTR YR 2004 MAX 17980 MIN 15850 b -2120

e Estimated.  
a Elevation, in feet, at end of month.  
b Change in contents, in acre-feet.

## 11042510 VAIL LAKE NEAR TEMECULA, CA—Continued

## PRECIPITATION RECORDS

PERIOD OF RECORD.—October 2000 to current year.

INSTRUMENTATION.—Recording tipping-bucket rain gage since Oct. 1, 2000.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily rainfall, 0.67 in., Jan. 11, 2001; no rainfall for many days each year.

EXTREMES FOR CURRENT YEAR.—Maximum daily rainfall, 0.61 in., Feb. 26; no rainfall for many days.

## PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	e0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	e0.23	0.07	0.01	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.18	0.01	0.01	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00
14	0.00	0.00	0.00	e0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
16	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	e0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	e0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	e0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	e0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	e0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	e0.35	e0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	e0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	e0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	e0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	e0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.35	0.00	1.54	0.10	0.19	0.00	0.00	0.03	0.24	0.00
MAX	0.00	0.00	0.35	0.00	0.61	0.07	0.17	0.00	0.00	0.03	0.24	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

e Estimated.

11042631 PECHANGA CREEK NEAR TEMECULA, CA

LOCATION.—Lat 33°28'06", long 117°07'40", in Temecula Grant, Riverside County, Hydrologic Unit 18070302, on left bank, on upstream side of Highway S-16 Bridge, 0.4 mi upstream from Temecula Creek, and 2.1 mi southeast of Temecula.

DRAINAGE AREA.—13.8 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1987 to current year. Discharge measurements only, October 1991 to September 1992.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,010 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. No regulation or diversion upstream from station. See schematic diagram of Santa Margarita River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,120 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 8.12 ft, from rating curve extended above 400 ft<sup>3</sup>/s on basis of step-backwater analysis; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0730	46	3.25

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	1.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	5.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.57	0.00	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.02	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.57	0.00	5.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	1.1	0.00	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1989	1988	1988	1988	1988	1988	1988
MEAN	0.00	0.02	0.06	4.08	2.59	2.11	0.32	0.13	0.03	0.02	0.01	0.00
MAX	0.00	0.32	0.60	63.4	24.4	16.5	2.63	0.95	0.51	0.23	0.18	0.01
(WY)	1988	2002	2003	1993	1993	1995	1998	1993	1993	1993	1993	1993
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1989	1989	1990	1991	1992	1989	1989	1988	1988	1988	1988	1988

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1988 - 2004	
ANNUAL TOTAL	174.98		7.67			
ANNUAL MEAN	0.48		0.02		0.78	
HIGHEST ANNUAL MEAN					8.27	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	64	Mar 15	5.2	Feb 26	900	Jan 16 1993
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1987
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1987
MAXIMUM PEAK FLOW			46		3120	
MAXIMUM PEAK STAGE			3.25		8.12	
ANNUAL RUNOFF (AC-FT)	347		15		562	
10 PERCENT EXCEEDS	0.00		0.00		0.04	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11042700 MURRIETA CREEK NEAR MURRIETA, CA

LOCATION.—Lat 33°33'20", long 117°13'50", in Temecula Grant, [Riverside County](#), Hydrologic Unit 18070302, on left bank, at Vineyard Parkway crossing, and 1.0 mi northwest of Murrieta.

DRAINAGE AREA.—30.0 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1997 to current year.

GAGE.—Water-stage recorder, crest-stage gage, and concrete road crossing. Elevation of gage is 1,105 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. No regulation or diversion upstream from station. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,390 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 10.35 ft, from rating curve extended above 304 ft<sup>3</sup>/s; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 130 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1800	326	6.97	Mar. 2	0545	145	6.55
Feb. 26	0930	297	6.91				

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	1.6	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	35	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	1.2	7.4	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	1.3	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	8.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	4.2	0.00	93	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	7.6	0.00	0.00	0.00	0.00	0.62	0.00	0.00
28	0.00	0.00	0.00	0.00	3.0	0.00	0.00	0.00	0.00	0.15	0.00	0.00
29	0.00	0.00	0.00	0.00	1.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	45.20	0.00	132.42	46.23	0.00	0.00	0.00	0.77	0.96	0.00
MEAN	0.00	0.00	1.46	0.00	4.57	1.49	0.00	0.00	0.00	0.02	0.03	0.00
MAX	0.00	0.00	41	0.00	93	35	0.00	0.00	0.00	0.62	0.96	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	90	0.00	263	92	0.00	0.00	0.00	1.5	1.9	0.00

## 11042700 MURRIETA CREEK NEAR MURRIETA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.03	0.89	0.52	18.6	4.83	1.94	1.34	0.05	0.00	0.00	0.00
MAX	0.00	0.18	3.42	2.87	97.5	16.1	8.95	9.40	0.33	0.02	0.03	0.00
(WY)	1998	2001	1998	1998	1998	2003	1998	1998	1998	2004	2004	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1998	1998	1999	1999	1999	1999	1999	1999	1999	1998	1998	1998

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1998 - 2004
ANNUAL TOTAL	1211.16	225.58	
ANNUAL MEAN	3.32	0.62	2.25
HIGHEST ANNUAL MEAN			10.7 1998
LOWEST ANNUAL MEAN			0.00 1999
HIGHEST DAILY MEAN	342 Feb 25	93 Feb 26	530 Feb 23 1998
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1997
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1997
MAXIMUM PEAK FLOW		326 Dec 25	3390 Feb 23 1998
MAXIMUM PEAK STAGE		6.97 Dec 25	10.35 Feb 23 1998
ANNUAL RUNOFF (AC-FT)	2400	447	1630
10 PERCENT EXCEEDS	0.00	0.00	0.00
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 11042800 WARM SPRINGS CREEK NEAR MURRIETA, CA

LOCATION.—Lat 33°31'56", long 117°10'34", in Temecula Grant, [Riverside County](#), Hydrologic Unit 18070302, on left bank, at upstream end of Jefferson Road Bridge, 0.6 mi upstream from mouth, and 2.8 mi southeast of Murrieta.

DRAINAGE AREA.—55.4 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1987 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 1,040 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Gage out of operation for channel work from Nov. 5, 1991, to June 10, 1992. Rancho California Water District can discharge into creek from automated pump, approximately 0.1 mi upstream from station. Beginning in water year 1999, flows partly regulated by Diamond Valley Lake, capacity, 800,000 acre-ft. Diamond Valley Lake is used to store imported water. Construction of Diamond Valley Lake, beginning in 1996, permanently rerouted 2.4 mi<sup>2</sup> of drainage area in Goodhart Canyon out of the Warm Springs Creek Basin and into the Santa Ana River Basin. Compensatory releases to Warm Springs Creek from Diamond Valley Lake may occur at times. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,570 ft<sup>3</sup>/s, Jan. 17, 1993, gage height, 8.59 ft, from rating curve extended above 2,190 ft<sup>3</sup>/s; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2000	120	4.80	Feb. 22	1000	408	5.30
Feb. 3	0130	78	4.62	Feb. 26	0845	258	5.12

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.51	0.33	0.21	0.47	0.26	0.34	0.00	0.00	0.01	0.00	0.00
2	0.00	0.27	0.31	0.43	1.0	4.5	1.1	0.00	0.00	0.03	0.00	0.00
3	0.00	0.35	0.35	0.30	12	1.0	0.27	0.00	0.00	0.02	0.00	0.00
4	0.00	0.30	0.40	0.22	0.41	0.22	0.07	0.00	0.00	0.01	0.00	0.00
5	0.00	0.27	0.36	0.22	0.31	0.01	0.02	0.00	0.00	0.00	0.00	0.00
6	0.00	0.13	0.34	0.37	0.22	0.00	0.01	0.00	0.00	0.00	0.00	0.00
7	0.00	0.01	0.41	0.29	0.23	0.00	0.03	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.39	0.25	0.15	0.00	0.02	0.00	0.00	0.00	0.00	0.00
9	0.01	0.00	0.36	0.32	0.28	0.00	0.02	0.00	0.01	0.01	0.00	0.00
10	0.02	0.01	0.36	0.31	0.26	0.00	0.01	0.00	0.01	0.02	0.00	0.00
11	0.35	0.01	0.46	0.25	0.34	0.00	0.02	0.00	0.01	0.00	0.00	0.00
12	0.19	e0.24	0.42	0.25	0.26	0.00	0.00	0.00	0.01	0.00	0.00	0.00
13	0.20	e0.24	0.42	0.32	0.28	0.00	0.00	0.00	0.00	0.00	0.04	0.00
14	0.19	e0.24	0.47	0.31	0.26	0.00	0.00	0.00	0.00	0.01	0.02	0.00
15	0.23	e0.23	0.44	0.38	0.28	0.00	0.00	0.00	0.00	0.03	0.00	0.00
16	0.38	e0.23	0.41	0.33	0.29	0.00	0.00	0.00	0.00	0.03	0.00	0.01
17	0.39	e0.22	0.39	0.35	0.32	0.00	0.13	0.00	0.00	0.03	0.00	0.01
18	0.37	e0.21	0.37	0.30	2.5	0.00	0.01	0.00	0.00	0.02	0.00	0.01
19	0.39	0.20	0.35	0.35	1.2	0.00	0.01	0.00	0.01	0.00	0.00	0.01
20	0.38	0.19	0.47	0.49	0.34	0.00	0.01	0.00	0.00	0.00	0.00	0.01
21	0.34	0.20	0.41	0.37	0.45	0.00	0.01	0.00	0.01	0.00	0.00	0.00
22	0.31	0.21	0.42	0.36	51	0.00	0.01	0.00	0.03	0.00	0.00	0.00
23	0.36	0.27	0.47	0.35	22	0.00	0.01	0.01	0.04	0.00	0.00	0.01
24	0.50	0.23	0.44	0.34	3.5	0.00	0.00	0.01	0.02	0.02	0.00	0.01
25	0.48	0.24	18	0.33	2.2	0.00	0.00	0.03	0.03	0.00	0.00	0.01
26	0.36	0.30	2.7	0.36	71	0.00	0.00	0.00	0.01	0.00	0.01	0.00
27	0.39	0.22	0.30	0.44	10	0.02	0.00	0.01	0.00	0.00	0.01	0.00
28	0.43	0.22	0.25	0.44	0.74	0.00	0.00	0.01	0.04	0.00	0.00	0.00
29	0.42	0.24	0.26	0.44	0.49	0.00	0.00	0.02	0.03	0.00	0.01	0.01
30	0.61	0.25	0.32	0.45	---	0.00	0.00	0.00	0.00	0.00	0.00	0.07
31	0.51	---	0.25	0.48	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	7.81	6.24	31.63	10.61	182.78	6.01	2.10	0.09	0.26	0.24	0.09	0.16
MEAN	0.25	0.21	1.02	0.34	6.30	0.19	0.07	0.00	0.01	0.01	0.00	0.01
MAX	0.61	0.51	18	0.49	71	4.5	1.1	0.03	0.04	0.03	0.04	0.07
MIN	0.00	0.00	0.25	0.21	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	15	12	63	21	363	12	4.2	0.2	0.5	0.5	0.2	0.3

e Estimated.



11042800 WARM SPRINGS CREEK NEAR MURRIETA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.08	0.15	0.62	16.4	17.7	9.40	0.98	0.33	0.20	0.06	0.03	0.01
MAX	0.46	0.68	2.27	226	116	74.0	6.19	2.99	2.93	0.71	0.41	0.13
(WY)	1993	1997	1993	1993	1998	1991	1998	1998	1998	1998	1999	2000
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1989	1989	1990	2003	1989	1988	1989	1989	1988	1989	1988	1988

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1988 - 2004	
ANNUAL TOTAL	1445.89		248.02			
ANNUAL MEAN	3.96		0.68		3.76	
HIGHEST ANNUAL MEAN					27.6	1993
LOWEST ANNUAL MEAN					0.05	2002
HIGHEST DAILY MEAN	452	Feb 25	71	Feb 26	2070	Jan 16 1993
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1987
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1987
MAXIMUM PEAK FLOW			408	Feb 22	5570	Jan 17 1993
MAXIMUM PEAK STAGE			5.30	Feb 22	8.59	Jan 17 1993
ANNUAL RUNOFF (AC-FT)	2870		492		2720	
10 PERCENT EXCEEDS	0.47		0.43		0.70	
50 PERCENT EXCEEDS	0.00		0.01		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11042900 SANTA GERTRUDIS CREEK NEAR TEMECULA, CA

LOCATION.—Lat 33°31'28", long 117°09'50", in Temecula Grant, [Riverside County](#), Hydrologic Unit 18070302, on left bank, 0.85 mi upstream from Murrieta Creek, 1.65 mi downstream from Tualota Creek, and 2.2 mi northeast of Temecula.

DRAINAGE AREA.—90.2 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1987 to current year. Discharge measurements only, October 1991 to September 1992.

REVISED RECORDS.—WDR CA-94-1: Drainage area. WDR CA-96-1: 1993(M).

GAGE.—Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 1,045 ft above NGVD of 1929, from topographic map. Prior to Oct. 11, 1994, at site 800 ft upstream at different datum.

REMARKS.—Records fair. Flow partly regulated by Skinner Reservoir, capacity, 43,800 acre-ft. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,200 ft<sup>3</sup>/s, estimated, Jan. 16, 1993, gage height, 8.47 ft, site and datum then in use, based on critical depth computation; no flow for most of each year.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.45	6.1	2.3	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	10	1.1	2.2	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.15	0.00	1.2	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	8.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	8.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	2.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	1.0	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	2.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	16	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	3.4	0.00	61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.19	0.00	3.8	0.00	0.00	2.1	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	2.1	0.00	0.00	0.33	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	17.40	19.59	0.00	141.51	7.55	6.70	2.43	0.00	0.00	0.00	0.00
MEAN	0.00	0.58	0.63	0.00	4.88	0.24	0.22	0.08	0.00	0.00	0.00	0.00
MAX	0.00	8.7	16	0.00	61	6.1	2.3	2.1	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	35	39	0.00	281	15	13	4.8	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	0.02	0.36	0.87	10.9	13.0	9.53	5.16	2.35	0.01	0.04	0.01	0.04					
MAX	0.12	1.94	4.93	108	77.8	50.7	46.7	28.3	0.08	0.39	0.12	0.67					
(WY)	1994	1997	1998	1993	1998	1995	1993	1993	1999	1999	2002	1997					
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
(WY)	1988	1988	1990	1991	1988	1988	1989	1988	1988	1988	1988	1988					

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1988 - 2004

ANNUAL TOTAL	960.82	195.18		
ANNUAL MEAN	2.63	0.53	3.48	
HIGHEST ANNUAL MEAN			23.2	1993
LOWEST ANNUAL MEAN			0.01	1990
HIGHEST DAILY MEAN	265	Feb 25	1340	Jan 16 1993
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1 1987
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1 1987
MAXIMUM PEAK FLOW			282	Feb 26
MAXIMUM PEAK STAGE			2.61	Feb 26
ANNUAL RUNOFF (AC-FT)	1910		387	2520
10 PERCENT EXCEEDS	0.00		0.00	1.2
50 PERCENT EXCEEDS	0.00		0.00	0.00
90 PERCENT EXCEEDS	0.00		0.00	0.00

e Estimated.

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1924 to current year. Prior to September 1930 monthly discharges only, published in WSP 1315-B.

REVISED RECORDS.—WSP 1345: 1952. WSP 1635: 1932, 1937. WSP 1928: Drainage area. WDR CA-93-1: 1991 (P), 1992 (M).

GAGE.—Water-stage recorder. Concrete control since Aug. 30, 1981. Elevation of gage is 970 ft above NGVD of 1929, from topographic map. See WSP 1735 for history of changes prior to Dec. 16, 1938.

REMARKS.—Records poor. Flow partly regulated since 1974 by Skinner Reservoir, capacity, 43,800 acre-ft. Beginning in water year 1999, flows on Warm Springs Creek, a tributary to Murrieta Creek, are slightly regulated by Diamond Valley Lake, capacity, 800,000 acre-ft (see [station 11042800](#)). Pumping upstream from station for irrigation. Rancho California Water District can discharge into creek, approximately 0.1 mi upstream, to supplement low flow. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 25,000 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 17.24 ft, on basis of slope-area measurement of peak flow; no flow on Dec. 11, 1976, many days in 1989–93, and on Dec. 30, 1999.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,000 ft<sup>3</sup>/s, or maximum, from rating curve extended above 6,430 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 22	0945	1,080	4.95	Feb. 26	0915	2,080	6.57

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.20	0.11	0.10	3.8	e2.5	e2.0	e1.0	e0.50	e0.50	e0.11	0.03
2	0.05	0.04	0.11	e0.80	1.4	64	e8.0	e0.90	e0.60	e0.40	e0.10	0.03
3	e0.05	0.06	0.11	e2.0	61	26	e2.8	e0.90	e0.50	e0.30	e0.10	0.03
4	e0.05	0.06	0.11	0.12	5.1	6.3	e2.2	e1.0	e0.40	e0.40	e0.09	0.03
5	e0.05	0.06	0.11	0.11	1.2	2.8	e1.9	0.95	e0.40	e0.40	0.10	0.03
6	e0.05	0.06	0.11	0.11	0.69	e1.8	e1.3	0.89	e0.50	e0.50	0.08	0.03
7	e0.05	0.05	0.08	0.12	0.64	e1.1	e1.2	e0.90	e0.60	e0.30	0.09	0.03
8	e0.05	0.04	0.08	0.10	0.54	e0.90	e1.3	e1.0	e0.40	e0.40	e0.08	0.02
9	e0.05	0.06	0.11	0.10	0.59	e0.80	e1.4	e0.90	e0.60	e0.30	e0.08	0.03
10	e0.06	0.08	0.10	0.09	e0.60	0.78	e1.2	e0.90	e0.50	e0.30	e0.20	0.03
11	e0.06	0.10	0.11	0.08	e0.60	e0.75	e1.1	e0.80	e0.60	e0.40	e0.07	0.02
12	e0.06	e28	0.10	0.13	e0.60	e0.70	e1.6	e0.80	e0.60	e0.30	e0.07	0.02
13	e0.06	59	0.11	0.24	e0.60	e0.70	e1.4	e0.80	e0.50	e0.30	e0.07	0.02
14	e0.06	6.2	0.10	0.21	e0.65	e0.65	e1.5	e0.90	e0.70	e0.40	e0.06	0.02
15	e0.07	e1.0	0.10	e0.70	0.73	e0.65	e1.4	e0.80	e0.90	e0.30	e0.06	0.02
16	e0.07	e2.5	0.11	e0.50	0.73	e0.60	1.3	e0.80	e1.0	e0.20	e0.06	0.02
17	e0.07	e0.50	0.10	e0.45	0.75	e0.60	e3.6	e0.80	e1.2	e0.20	e0.05	0.02
18	0.08	e0.25	0.11	e0.40	e3.0	e0.90	e5.3	e0.90	e0.90	0.22	e0.05	0.02
19	0.09	e0.22	0.08	e0.40	e11	1.2	e1.6	e0.90	e0.80	e0.20	e0.05	0.02
20	0.07	e0.20	0.09	e0.45	0.99	e1.0	e1.4	e0.90	e0.70	0.24	e0.04	0.02
21	0.07	e0.19	0.08	e0.45	0.99	e1.0	e1.6	e0.80	e0.90	0.20	e0.04	0.02
22	0.05	e0.18	0.10	e0.50	273	e0.90	e1.3	e0.80	e0.60	0.21	e0.04	0.02
23	0.05	e0.17	0.13	e0.60	122	e0.80	e1.4	e0.80	e0.80	e0.15	0.03	0.02
24	0.05	e0.16	0.13	0.48	21	e0.80	e1.3	e0.90	e0.70	e0.15	0.03	0.02
25	0.04	e0.16	102	0.49	5.3	e0.70	e1.1	e0.80	e0.60	e0.14	0.04	0.02
26	0.04	0.17	108	0.46	558	e0.70	e1.5	e0.70	e0.60	e0.14	0.04	0.02
27	0.05	0.15	5.5	0.49	63	0.61	e1.5	e0.90	e0.40	e0.13	0.04	0.02
28	0.07	0.16	0.73	0.53	16	e1.6	e1.8	e0.70	e1.0	e0.13	0.04	0.03
29	0.06	0.15	0.18	0.56	e5.0	0.64	e2.0	e0.70	e0.50	e0.12	0.04	0.03
30	0.05	0.11	0.11	0.52	---	e0.70	e1.3	e0.60	e0.30	e0.12	0.03	0.03
31	0.09	---	0.11	0.53	---	0.44	---	e0.50	---	e0.11	0.03	---
TOTAL	1.81	100.28	219.11	12.82	1159.50	123.62	58.3	25.94	19.30	8.16	2.01	0.72
MEAN	0.06	3.34	7.07	0.41	40.0	3.99	1.94	0.84	0.64	0.26	0.06	0.02
MAX	0.09	59	108	2.0	558	64	8.0	1.0	1.2	0.50	0.20	0.03
MIN	0.04	0.04	0.08	0.08	0.54	0.44	1.1	0.50	0.30	0.11	0.03	0.02
AC-FT	3.6	199	435	25	2300	245	116	51	38	16	4.0	1.4

e Estimated.

## SANTA MARGARITA RIVER BASIN

## 11043000 MURRIETA CREEK AT TEMECULA, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1973, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.58	2.57	7.27	18.2	36.5	32.0	7.85	.92	.55	.41	.40	.65
MAX	1.87	47.3	63.2	289	604	479	167	9.65	1.73	1.20	1.23	9.40
(WY)	1969	1966	1941	1943	1969	1938	1958	1941	1941	1941	1941	1939
MIN	.10	.055	.11	.078	.20	.21	.18	.20	.13	.10	.092	.12
(WY)	1971	1970	1970	1970	1968	1965	1970	1968	1970	1970	1969	1970

## SUMMARY STATISTICS

## WATER YEARS 1931 - 1973

ANNUAL TOTAL	
ANNUAL MEAN	8.86
HIGHEST ANNUAL MEAN	56.9 1969
LOWEST ANNUAL MEAN	.39 1964
HIGHEST DAILY MEAN	7200 Mar 2 1938
LOWEST DAILY MEAN	.02 Jun 10 1969
ANNUAL SEVEN-DAY MINIMUM	.03 Nov 16 1969
MAXIMUM PEAK FLOW	17500 Jan 23 1943
MAXIMUM PEAK STAGE	13.80 Jan 23 1943
ANNUAL RUNOFF (AC-FT)	6420
10 PERCENT EXCEEDS	2.9
50 PERCENT EXCEEDS	.60
90 PERCENT EXCEEDS	.20

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

	2001	1997	1998	1993	1980	1978	1980	1980	1978	2002	2002	1976
MEAN	1.63	2.08	4.28	56.6	91.1	60.3	10.6	5.01	1.60	1.34	1.37	1.97
MAX	3.57	11.1	28.6	818	838	420	85.4	44.2	4.96	3.19	3.16	10.6
(WY)	2001	1997	1998	1993	1980	1978	1980	1980	1978	2002	2002	1976
MIN	0.06	0.00	0.00	0.12	0.55	0.09	0.07	0.19	0.08	0.08	0.06	0.02
(WY)	2004	1990	1990	2000	1977	1990	1989	1988	2003	2003	2003	2004

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1974 - 2004

ANNUAL TOTAL	7079.88	1731.57	
ANNUAL MEAN	19.4	4.73	19.5
HIGHEST ANNUAL MEAN			121 1993
LOWEST ANNUAL MEAN			1.02 1977
HIGHEST DAILY MEAN	1890 Feb 25	558 Feb 26	7790 Jan 16 1993
LOWEST DAILY MEAN	0.04 Sep 4	0.02 Sep 8	0.00 Dec 11 1976
ANNUAL SEVEN-DAY MINIMUM	0.05 Sep 1	0.02 Sep 11	0.00 Nov 28 1988
MAXIMUM PEAK FLOW		2080 Feb 26	25000 Jan 16 1993
MAXIMUM PEAK STAGE		6.57 Feb 26	17.24 Jan 16 1993
ANNUAL RUNOFF (AC-FT)	14040	3430	14100
10 PERCENT EXCEEDS	4.0	1.7	7.8
50 PERCENT EXCEEDS	0.10	0.40	1.0
90 PERCENT EXCEEDS	0.05	0.04	0.11

## 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—January 1923 to current year. Prior to October 1952, published as "Temecula Creek at Railroad Canyon."

REVISED RECORDS.—WSP 981: 1927(M). WSP 1928: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Concrete control since Nov. 3, 1966; buried by sand Nov. 19, 1985, uncovered by high flow in March 1991. Elevation of gage is 950 ft above NGVD of 1929. Prior to Nov. 3, 1966, at site 100 ft downstream at same datum.

REMARKS.—Records good except for daily discharges above 300 ft<sup>3</sup>/s and estimated daily discharges, which are poor. Flow partly regulated since November 1948 by Vail Lake (station 11042510) on Temecula Creek, and since 1974 by Skinner Reservoir. Rancho California Water District can discharge into Murrieta Creek, approximately 1.0 mi upstream, to supplement low flow. Beginning in water year 1999, flows on Warm Springs Creek, a tributary to Murrieta Creek, are slightly regulated by Diamond Valley Lake, capacity, 800,000 acre-ft (see station 11042800). See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 31,000 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 22.5 ft, from rating curve extended above 4,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; minimum daily, 0.16 ft<sup>3</sup>/s, Mar. 31, Apr. 1, 11, 1988.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	4.9	5.1	8.9	12	2.5	8.5	3.5	3.6	3.4	3.0	3.2
2	8.5	4.6	5.4	9.7	7.8	68	15	3.3	3.8	3.0	3.1	3.3
3	8.5	4.6	5.6	11	70	26	9.5	4.0	3.7	3.0	3.1	3.2
4	8.6	4.6	5.7	9.0	5.8	7.4	8.8	4.5	3.6	3.3	3.0	3.2
5	8.6	4.6	5.8	8.8	3.6	6.6	8.6	4.3	3.8	3.3	3.0	3.2
6	8.6	4.4	5.9	8.7	6.6	8.0	8.1	4.3	4.0	3.1	3.0	3.1
7	8.6	4.1	6.1	8.4	6.6	7.3	7.4	4.5	4.0	2.5	3.1	3.2
8	8.6	4.1	6.1	8.2	6.6	7.4	7.2	4.8	3.7	3.1	3.2	3.2
9	8.6	4.1	5.7	8.2	6.6	7.7	7.2	4.6	4.0	2.9	3.2	3.2
10	8.6	4.2	5.5	8.2	6.6	7.2	7.1	4.6	3.8	3.0	3.4	3.1
11	8.7	4.2	5.6	8.2	5.5	7.1	7.0	4.7	3.7	3.1	3.2	3.1
12	8.6	30	5.5	8.3	7.4	7.1	7.6	4.6	3.5	3.0	3.1	3.0
13	8.1	64	5.5	8.6	7.3	7.1	7.3	4.5	3.4	3.0	3.1	3.0
14	7.8	7.3	5.6	8.6	7.2	7.1	6.7	4.5	3.7	3.3	3.2	3.0
15	7.8	2.1	5.6	9.2	7.2	7.2	7.7	4.6	3.7	2.9	3.2	3.0
16	7.8	6.7	5.6	9.0	7.3	7.2	7.5	4.6	3.5	2.9	3.1	3.0
17	7.8	4.1	5.3	8.9	7.3	7.2	10	4.4	3.6	3.1	3.2	3.0
18	7.9	4.6	5.2	8.7	6.0	7.6	12	4.5	3.2	3.2	3.2	3.0
19	7.9	4.7	5.1	8.6	13	8.1	8.0	4.4	3.1	3.2	3.2	3.0
20	7.9	4.5	5.3	8.5	1.4	7.8	7.7	4.4	3.0	3.3	3.2	3.0
21	7.8	4.4	5.5	7.9	0.88	7.8	5.9	4.2	3.3	3.1	3.2	3.0
22	7.8	4.3	5.3	7.3	341	7.3	5.6	4.2	2.9	3.1	3.2	3.0
23	7.8	4.3	5.2	7.6	125	7.1	7.0	4.3	3.4	3.0	3.2	3.0
24	7.8	4.6	5.2	7.7	28	7.2	6.5	4.4	3.5	3.0	3.2	3.0
25	7.7	4.9	e120	7.6	6.1	6.9	6.3	4.3	3.4	2.9	3.2	3.0
26	7.7	4.8	113	7.4	669	7.3	7.5	4.2	3.4	3.0	3.2	3.0
27	7.6	4.9	7.5	7.3	67	7.5	7.8	4.5	3.0	3.0	3.2	3.0
28	7.7	4.9	1.2	7.2	17	8.6	8.0	4.4	4.0	3.0	3.3	3.0
29	7.7	4.9	0.66	7.1	5.1	7.2	7.6	4.4	3.2	3.0	3.2	3.0
30	7.8	4.9	0.58	7.1	---	7.3	5.9	4.3	3.1	3.0	3.2	3.0
31	6.1	---	5.4	7.1	---	7.0	---	3.9	---	3.1	3.2	---
TOTAL	249.4	223.3	380.74	257.0	1460.88	302.8	237.0	134.7	105.6	94.8	98.1	92.0
MEAN	8.05	7.44	12.3	8.29	50.4	9.77	7.90	4.35	3.52	3.06	3.16	3.07
MAX	8.7	64	120	11	669	68	15	4.8	4.0	3.4	3.4	3.3
MIN	6.1	2.1	0.58	7.1	0.88	2.5	5.6	3.3	2.9	2.5	3.0	3.0
AC-FT	495	443	755	510	2900	601	470	267	209	188	195	182

e Estimated.

## 11044000 SANTA MARGARITA RIVER NEAR TEMECULA, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1948, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.04	10.4	21.4	32.6	114	90.3	26.7	10.2	7.01	5.41	5.01	5.93
MAX	11.8	39.3	99.9	369	1205	1007	226	40.2	15.1	9.90	9.65	19.4
(WY)	1942	1945	1941	1943	1927	1938	1941	1941	1941	1941	1941	1939
MIN	3.77	3.11	4.97	8.03	7.59	5.90	4.19	3.62	3.12	1.55	1.90	2.31
(WY)	1925	1930	1930	1936	1925	1931	1928	1929	1929	1929	1926	1926

## SUMMARY STATISTICS

## WATER YEARS 1923 - 1948

ANNUAL MEAN	28.2
HIGHEST ANNUAL MEAN	101 1927
LOWEST ANNUAL MEAN	6.22 1925
HIGHEST DAILY MEAN	19900 Feb 16 1927
LOWEST DAILY MEAN	.90 Aug 9 1929
ANNUAL SEVEN-DAY MINIMUM	.99 Aug 8 1929
MAXIMUM PEAK FLOW	25000 Feb 16 1927
MAXIMUM PEAK STAGE	14.60 Feb 16 1927
ANNUAL RUNOFF (AC-FT)	20390
10 PERCENT EXCEEDS	21
50 PERCENT EXCEEDS	8.5
90 PERCENT EXCEEDS	3.5

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1973, BY WATER YEAR (WY)

MEAN	3.39	6.24	8.90	21.8	36.7	18.6	12.4	3.97	3.35	2.79	3.01	3.06
MAX	6.04	53.3	41.4	251	638	212	177	6.70	5.59	4.69	6.38	6.55
(WY)	1954	1966	1966	1952	1969	1952	1958	1949	1949	1949	1953	1953
MIN	2.05	2.22	2.69	2.73	2.54	2.57	2.35	2.39	2.19	1.51	1.28	1.45
(WY)	1967	1967	1965	1965	1965	1965	1972	1970	1973	1972	1972	1970

## SUMMARY STATISTICS

## WATER YEARS 1949 - 1973

ANNUAL MEAN	10.2
HIGHEST ANNUAL MEAN	62.5 1969
LOWEST ANNUAL MEAN	2.96 1964
HIGHEST DAILY MEAN	7730 Feb 25 1969
LOWEST DAILY MEAN	.30 Aug 18 1966
ANNUAL SEVEN-DAY MINIMUM	.67 Aug 17 1966
MAXIMUM PEAK FLOW	14600 Feb 25 1969
MAXIMUM PEAK STAGE	15.32 Feb 25 1969
ANNUAL RUNOFF (AC-FT)	7390
10 PERCENT EXCEEDS	7.3
50 PERCENT EXCEEDS	3.7
90 PERCENT EXCEEDS	2.2

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

MEAN	3.32	4.72	6.94	78.3	118	77.4	14.7	8.06	3.50	2.85	2.96	3.50
MAX	10.8	32.8	32.4	1255	1105	438	85.6	46.6	9.22	8.41	9.99	13.9
(WY)	1994	1986	1998	1993	1980	1978	1980	1980	2003	2003	1993	1976
MIN	1.25	0.27	0.33	0.59	1.84	0.36	0.32	0.58	0.72	0.58	0.91	1.33
(WY)	1982	1989	2000	2000	1989	1988	1989	1988	1984	1984	1984	1987

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1974 - 2004

ANNUAL TOTAL	10992.84	3636.32	
ANNUAL MEAN	30.1	9.94	26.5
HIGHEST ANNUAL MEAN			183 1993
LOWEST ANNUAL MEAN			2.17 1987
HIGHEST DAILY MEAN	2030 Feb 25	669 Feb 26	13000 Jan 16 1993
LOWEST DAILY MEAN	0.58 Dec 30	0.58 Dec 30	0.16 Mar 31 1988
ANNUAL SEVEN-DAY MINIMUM	4.2 Nov 5	2.9 Jul 7	0.18 Mar 31 1988
MAXIMUM PEAK FLOW		2600 Feb 26	31000 Jan 16 1993
MAXIMUM PEAK STAGE		6.82 Feb 26	22.50 Jan 16 1993
ANNUAL RUNOFF (AC-FT)	21800	7210	19220
10 PERCENT EXCEEDS	13	8.6	12
50 PERCENT EXCEEDS	8.6		2.9
90 PERCENT EXCEEDS	5.2	3.0	1.1



## SANTA MARGARITA RIVER BASIN

11044000 SANTA MARGARITA RIVER NEAR TEMECULA, CA—Continued

DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.7	8.8	9.2	7.4	8.8	8.0	8.2	6.4	8.4	7.4	9.2	8.0
2	9.1	7.7	9.3	7.3	8.6	7.3	8.9	6.9	8.4	7.4	9.3	6.9
3	8.4	7.7	8.6	7.3	7.5	7.0	8.6	6.8	8.4	7.5	7.5	6.6
4	8.6	8.2	8.8	7.4	7.4	6.8	8.5	7.2	8.3	7.5	7.3	6.8
5	8.9	8.4	8.5	7.4	7.4	6.8	8.8	7.0	8.3	7.4	7.6	6.8
6	9.2	8.8	8.5	7.6	7.3	6.8	9.2	6.7	8.8	7.5	7.8	6.8
7	9.6	9.0	8.6	7.4	7.2	6.2	9.1	6.5	8.8	7.7	7.9	6.9
8	9.7	9.3	8.5	7.4	7.2	6.6	9.1	6.5	8.9	7.7	7.8	6.9
9	9.7	9.0	8.5	7.3	7.0	6.6	8.9	6.8	8.7	7.5	7.7	6.8
10	9.2	8.4	8.4	7.3	7.2	6.5	8.9	6.8	8.6	7.2	7.6	6.7
11	8.8	8.2	8.2	7.1	6.8	6.2	8.6	6.7	8.5	7.3	7.4	6.7
12	8.8	7.9	8.2	7.0	6.6	6.1	8.7	6.6	8.5	7.4	7.5	6.7
13	8.9	7.9	8.0	6.8	6.6	5.9	8.6	6.7	8.5	7.3	7.4	6.7
14	9.1	8.0	7.9	6.6	6.5	6.0	8.5	6.6	8.4	7.5	7.5	6.8
15	8.9	8.0	7.8	6.5	6.3	5.7	8.6	6.4	8.3	7.4	7.5	6.7
16	9.0	8.0	8.0	6.5	6.4	5.5	8.4	6.8	8.4	7.5	7.4	6.8
17	9.5	7.8	8.2	6.7	6.2	5.4	8.5	7.6	8.2	7.3	7.3	6.7
18	8.6	7.7	8.6	6.5	6.2	5.0	8.4	7.7	8.1	7.2	7.2	6.6
19	8.9	8.1	8.4	7.0	6.0	5.6	8.4	7.6	8.0	7.0	7.2	6.5
20	9.5	7.8	8.5	6.8	6.3	5.5	8.6	7.4	8.1	7.0	7.1	6.5
21	9.2	5.4	8.5	7.0	6.4	5.7	8.9	7.7	8.2	7.0	7.3	6.5
22	9.5	5.2	8.8	7.0	6.9	5.8	9.0	7.6	8.3	7.1	7.3	6.6
23	9.8	7.6	8.9	7.0	6.9	6.0	8.9	7.7	8.3	7.1	7.4	6.6
24	11.0	8.1	9.1	7.2	6.8	6.0	9.0	7.7	8.4	7.2	7.4	6.7
25	10.2	7.4	9.1	7.2	6.9	5.9	9.1	7.8	9.3	8.1	7.4	6.8
26	9.3	7.5	8.7	7.3	7.3	5.7	9.1	7.6	9.4	7.9	7.5	6.7
27	9.5	8.0	8.2	7.1	7.5	6.0	9.2	7.9	9.2	7.9	7.5	6.6
28	9.0	7.9	8.1	6.6	7.3	5.8	9.1	7.7	9.2	7.9	7.6	6.1
29	8.8	8.1	8.5	7.4	7.6	6.0	8.3	7.6	9.1	7.8	7.1	6.3
30	8.9	7.6	8.5	7.8	7.6	6.1	8.2	7.5	9.2	7.7	7.2	6.7
31	---	---	8.6	7.7	---	---	8.4	7.5	9.3	8.0	---	---
MONTH	11.0	5.2	9.3	6.5	8.8	5.0	9.2	6.4	9.4	7.0	9.3	6.1



11044000 SANTA MARGARITA RIVER NEAR TEMECULA, CA—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.0	8.0	7.9	7.9	8.0	8.0	---	---	8.0	7.6	---	---
2	8.0	7.8	7.9	7.9	8.0	8.0	---	---	8.0	7.6	---	---
3	7.9	7.8	8.0	7.9	8.0	8.0	---	---	---	---	---	---
4	7.9	7.8	7.9	7.9	8.1	8.0	---	---	7.4	7.2	---	---
5	7.9	7.8	8.0	7.9	8.1	8.0	---	---	8.0	7.4	---	---
6	7.9	7.8	8.0	7.9	8.1	8.0	---	---	8.0	7.9	---	---
7	7.9	7.8	8.0	7.9	8.0	8.0	---	---	8.0	7.9	---	---
8	7.9	7.8	8.0	7.9	8.0	8.0	---	---	8.0	7.9	---	---
9	7.9	7.8	8.0	7.9	8.0	8.0	---	---	8.0	7.9	8.0	8.0
10	7.9	7.8	8.0	7.9	8.0	8.0	---	---	8.0	8.0	8.0	8.0
11	7.9	7.8	8.0	7.9	8.1	8.0	---	---	8.0	7.7	8.1	8.0
12	7.9	7.8	7.9	7.2	8.1	7.9	---	---	8.0	8.0	8.1	8.0
13	7.9	7.8	7.2	7.1	8.0	7.9	8.2	8.1	8.1	8.0	8.1	7.9
14	7.9	7.8	7.4	7.2	8.0	7.9	8.2	8.1	8.1	8.0	8.1	7.9
15	7.9	7.8	7.9	7.4	8.0	7.9	8.2	8.0	8.1	8.0	8.1	8.0
16	7.9	7.8	7.8	7.5	8.0	7.9	8.2	8.1	8.1	8.0	8.1	7.9
17	7.9	7.8	7.9	7.6	8.0	8.0	8.2	8.1	8.1	8.0	8.1	7.9
18	7.9	7.8	8.0	7.9	8.0	8.0	8.2	8.1	8.0	7.5	8.1	7.9
19	7.9	7.8	8.0	7.9	8.0	8.0	8.2	8.1	7.5	7.3	8.1	7.9
20	7.9	7.8	8.0	7.9	8.0	7.9	8.2	8.1	7.4	7.3	8.1	7.9
21	7.9	7.8	8.0	7.9	8.0	8.0	8.2	8.1	7.6	7.4	8.1	7.9
22	7.9	7.8	7.9	7.8	8.0	8.0	8.2	8.1	---	---	8.2	7.9
23	7.9	7.8	8.0	7.9	8.0	7.8	8.2	8.0	---	---	8.1	7.8
24	7.9	7.8	8.0	7.9	7.9	7.8	8.1	8.0	---	---	7.9	7.8
25	8.0	7.8	7.9	7.8	---	---	8.1	8.0	---	---	8.0	7.8
26	8.0	7.9	7.8	7.8	---	---	8.1	8.0	---	---	8.0	8.0
27	8.0	7.9	8.0	7.8	---	---	8.1	7.9	---	---	8.0	8.0
28	8.0	7.8	8.0	8.0	---	---	7.9	7.8	---	---	8.0	7.9
29	7.8	7.8	8.0	7.9	---	---	8.0	7.8	---	---	8.0	8.0
30	8.0	7.8	8.0	8.0	---	---	8.0	7.9	---	---	8.0	8.0
31	8.0	7.9	---	---	---	---	8.0	7.9	---	---	8.1	8.0
MONTH	8.0	7.8	8.0	7.1	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.8	8.1	7.9	8.0	7.9	7.9	7.6	7.9	7.8	7.8	7.7
2	7.9	7.6	8.1	7.9	8.0	7.9	7.9	7.8	7.9	7.7	7.8	7.7
3	7.8	7.6	8.1	7.9	8.0	7.9	8.0	7.8	7.9	7.7	7.8	7.7
4	7.8	7.7	8.0	7.9	8.0	7.9	8.0	7.8	7.9	7.7	7.8	7.7
5	7.9	7.8	8.1	7.9	8.0	7.9	8.0	7.8	7.8	7.7	7.9	7.7
6	7.9	7.8	8.1	7.9	8.0	7.9	8.0	7.8	7.9	7.7	7.8	7.6
7	7.9	7.9	8.1	7.9	8.0	7.8	8.1	7.8	7.9	7.7	7.8	7.7
8	8.0	7.9	8.1	7.9	7.9	7.9	8.0	7.7	7.9	7.7	7.9	7.7
9	8.0	7.9	8.1	7.9	8.0	7.9	8.1	7.8	7.9	7.7	7.8	7.7
10	8.0	7.9	8.1	7.9	8.0	7.9	8.1	7.8	7.9	7.7	7.8	7.7
11	8.0	7.9	8.1	8.0	7.9	7.9	8.0	7.8	7.9	7.7	7.8	7.7
12	8.0	7.9	8.2	8.0	7.9	7.8	8.0	7.8	7.9	7.7	7.8	7.7
13	8.0	7.9	8.2	8.0	7.9	7.8	8.1	7.8	7.9	7.7	7.8	7.7
14	8.0	7.8	8.2	8.0	7.9	7.8	8.1	7.7	7.9	7.7	7.8	7.6
15	8.1	7.9	8.2	8.0	7.9	7.8	8.0	7.7	8.0	7.7	7.8	7.7
16	8.1	7.9	8.2	8.0	7.9	7.8	8.0	7.7	8.0	7.8	7.7	7.6
17	8.0	7.8	8.2	8.0	7.8	7.7	7.9	7.8	8.0	7.8	7.7	7.6
18	7.9	7.6	8.2	8.0	7.8	7.6	7.9	7.8	8.0	7.8	7.7	7.6
19	8.0	7.8	8.1	8.0	7.7	7.6	7.9	7.8	8.0	7.8	7.7	7.6
20	8.0	7.8	8.2	7.9	7.7	7.6	8.0	7.7	8.0	7.8	7.7	7.6
21	8.1	7.5	8.2	8.0	7.7	7.6	8.0	7.8	8.0	7.8	7.7	7.6
22	8.2	7.5	8.2	8.0	7.7	7.6	8.0	7.8	8.0	7.8	7.7	7.6
23	8.2	7.9	8.2	8.0	7.6	7.6	8.0	7.8	8.0	7.8	7.7	7.6
24	8.3	7.9	8.2	8.0	7.8	7.6	7.9	7.7	8.0	7.8	7.8	7.6
25	8.2	7.9	8.2	7.8	7.8	7.7	7.9	7.7	8.0	7.8	7.8	7.6
26	8.1	7.9	8.0	7.8	7.8	7.7	7.9	7.7	7.9	7.7	7.8	7.6
27	8.1	7.8	8.1	7.8	7.8	7.7	7.9	7.6	7.9	7.7	7.7	7.6
28	7.9	7.8	8.0	7.9	7.8	7.6	7.8	7.6	7.9	7.7	7.7	7.5
29	8.0	7.8	8.0	7.9	7.7	7.6	7.9	7.7	7.9	7.7	7.6	7.5
30	8.1	7.9	8.0	8.0	7.8	7.6	7.9	7.8	7.9	7.7	7.8	7.6
31	---	---	8.0	7.9	---	---	7.9	7.8	7.9	7.7	---	---
MONTH	8.3	7.5	8.2	7.8	8.0	7.6	8.1	7.6	8.0	7.7	7.9	7.5

## 11044000 SANTA MARGARITA RIVER NEAR TEMECULA, CA—Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	808	801	950	897	936	927	---	---	1200	887	---	---
2	808	802	909	903	937	922	---	---	899	795	---	---
3	807	802	911	907	931	925	---	---	---	---	---	---
4	808	802	918	908	934	923	---	---	794	515	---	---
5	805	783	923	916	927	921	---	---	959	794	---	---
6	806	800	932	920	931	913	---	---	890	882	---	---
7	805	798	932	921	921	916	---	---	897	888	---	---
8	805	799	923	912	917	912	---	---	899	891	---	---
9	812	796	918	914	918	913	---	---	903	895	835	813
10	819	811	917	904	927	916	---	---	915	891	841	826
11	820	814	910	904	933	919	---	---	1340	885	835	826
12	820	813	1310	653	936	930	---	---	900	875	841	829
13	820	815	653	474	941	935	954	941	884	876	834	820
14	821	812	1160	635	943	935	945	943	884	872	828	821
15	818	813	1270	924	943	938	992	942	874	866	825	815
16	820	815	964	613	945	942	959	947	874	870	817	808
17	824	818	1170	902	952	945	948	943	879	868	820	808
18	825	820	914	902	956	948	946	940	1310	760	860	815
19	826	822	919	906	954	949	945	935	1030	635	860	842
20	827	822	923	913	959	949	943	938	977	838	849	838
21	829	824	929	893	955	951	948	938	1090	977	849	829
22	833	829	932	908	960	955	986	941	---	---	838	825
23	837	832	935	924	965	959	996	941	---	---	834	829
24	840	835	944	930	970	964	951	940	---	---	875	829
25	842	837	946	930	---	---	945	931	---	---	852	828
26	844	838	947	936	---	---	936	923	---	---	840	828
27	850	844	947	940	---	---	932	925	---	---	834	830
28	859	850	951	942	---	---	933	921	---	---	1040	829
29	865	859	947	941	---	---	929	920	---	---	839	828
30	876	865	942	936	---	---	926	918	---	---	838	828
31	897	873	---	---	---	---	922	918	---	---	831	824
MONTH	897	783	1310	474	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	856	706	963	880	887	866	1030	869	832	817	740	727
2	1010	760	918	895	894	875	1040	863	824	808	797	726
3	815	775	909	858	896	863	965	867	821	811	799	786
4	824	812	910	864	872	854	884	859	822	806	799	779
5	850	815	877	857	857	850	872	860	814	796	796	774
6	857	818	877	858	865	853	1050	860	805	791	790	771
7	851	822	917	854	1000	852	872	855	804	788	787	764
8	875	828	884	860	896	847	1020	862	798	780	785	763
9	872	828	870	853	978	861	864	848	795	780	792	766
10	862	829	870	856	883	851	876	857	955	780	792	774
11	835	817	871	856	907	863	880	858	826	771	788	769
12	911	817	863	854	892	864	872	852	802	774	786	770
13	857	820	865	850	881	860	858	846	796	786	789	771
14	1220	817	862	849	1020	857	1040	849	797	783	791	775
15	840	769	890	844	1040	894	865	843	795	786	799	776
16	837	814	857	828	1040	909	853	824	794	782	803	777
17	1000	753	862	846	1140	934	843	828	787	779	801	777
18	915	773	871	854	1100	914	839	831	788	779	796	781
19	791	780	879	862	995	914	852	838	791	779	788	778
20	802	787	883	860	956	918	987	844	793	780	789	778
21	1150	799	871	858	1100	885	885	843	797	787	794	780
22	1170	809	878	857	1040	868	961	842	796	787	794	779
23	820	804	870	857	998	877	863	834	796	787	791	781
24	826	812	866	850	999	868	843	829	792	768	797	782
25	819	808	870	854	971	866	840	828	794	772	790	776
26	851	808	875	854	967	876	831	825	799	777	795	724
27	821	804	930	861	877	849	835	823	791	774	834	786
28	904	810	881	859	1020	854	840	824	794	776	807	794
29	840	823	878	859	982	863	836	823	789	775	806	789
30	961	821	876	859	892	866	833	823	783	775	801	793
31	---	---	876	862	---	---	850	822	780	731	---	---
MONTH	1220	706	963	828	1140	847	1050	822	955	731	834	724

## 11044000 SANTA MARGARITA RIVER NEAR TEMECULA, CA—Continued

## TEMPERATURE, WATER, DEGREES C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	MONTH	MONTH	MONTH	MONTH
1	25.6	25.3	20.4	19.6	15.4	14.9	---	---	12.1	11.2	---	---				
2	25.4	25.2	19.8	19.4	15.3	14.8	---	---	12.0	11.4	---	---				
3	25.3	24.9	19.4	19.1	15.2	14.7	---	---	---	---	---	---				
4	24.9	24.6	19.1	18.7	15.2	14.6	---	---	11.8	10.2	---	---				
5	24.8	24.6	18.8	18.4	15.2	14.7	---	---	13.5	9.8	---	---				
6	24.8	24.5	18.6	18.2	15.1	14.6	---	---	11.9	11.1	---	---				
7	24.7	24.5	18.5	18.0	15.3	15.1	---	---	11.9	11.1	---	---				
8	24.6	24.3	18.4	17.9	15.2	15.0	---	---	11.9	11.0	---	---				
9	24.5	24.3	18.3	18.1	15.0	14.6	---	---	11.9	11.0	14.7	13.4				
10	24.5	24.3	18.3	18.1	14.7	14.5	---	---	11.8	11.0	15.1	13.7				
11	24.4	24.1	18.3	18.0	14.6	14.3	---	---	12.9	10.1	15.3	13.9				
12	24.4	24.1	18.1	14.5	14.3	14.0	---	---	11.8	10.8	15.3	14.3				
13	24.4	24.0	14.7	13.7	14.1	13.8	12.0	11.4	11.7	11.0	15.7	14.5				
14	24.3	23.9	15.1	13.1	14.0	13.7	12.1	11.6	11.5	10.9	15.9	14.6				
15	24.2	23.9	17.3	12.1	14.0	13.7	12.0	11.6	11.6	10.8	16.0	14.9				
16	23.9	23.5	17.5	14.5	13.7	13.3	12.1	11.7	11.7	11.0	16.3	15.0				
17	23.8	23.4	17.3	14.1	13.5	13.2	12.2	11.8	12.2	11.3	16.5	15.3				
18	23.9	23.4	17.6	16.8	13.3	13.1	12.0	11.6	13.5	11.4	16.7	15.5				
19	23.8	23.4	17.6	16.9	13.2	12.9	12.2	11.8	13.6	10.8	17.2	16.0				
20	23.8	23.4	17.4	16.8	13.3	12.8	12.2	11.9	13.9	12.4	17.5	16.0				
21	23.8	23.4	17.5	17.1	13.4	13.2	12.2	11.7	14.0	11.9	17.7	16.5				
22	23.7	23.3	17.3	16.6	13.3	12.9	12.1	11.4	---	---	17.9	16.7				
23	23.5	23.2	16.7	16.3	13.1	12.9	12.1	11.4	---	---	17.7	17.0				
24	23.4	23.0	16.4	16.0	13.2	12.8	11.7	11.3	---	---	17.9	17.1				
25	23.2	22.8	16.3	16.0	---	---	12.0	11.5	---	---	18.1	17.1				
26	23.0	22.7	16.2	15.9	---	---	11.9	11.4	---	---	17.9	17.3				
27	22.8	22.4	16.1	15.7	---	---	11.9	11.3	---	---	18.2	17.2				
28	22.4	21.9	16.0	15.6	---	---	12.1	11.6	---	---	19.7	17.2				
29	21.9	21.7	15.8	15.3	---	---	12.1	11.4	---	---	18.7	17.4				
30	21.7	21.2	15.6	15.1	---	---	12.0	11.4	---	---	18.6	17.5				
31	21.2	20.4	---	---	---	---	12.2	11.7	---	---	18.4	17.6				
MONTH	25.6	20.4	20.4	12.1	---	---	---	---	---	---	---	---				
1	18.0	15.9	21.2	18.5	21.0	19.6	23.2	21.5	22.9	21.8	20.4	18.7				
2	17.4	15.9	21.3	18.8	21.3	20.0	23.5	21.8	22.7	21.7	21.9	18.8				
3	18.2	17.1	20.6	19.2	21.5	20.1	23.7	22.2	22.6	21.6	22.4	21.6				
4	18.8	17.6	20.7	19.4	21.4	20.1	23.6	22.4	22.5	21.6	22.5	21.3				
5	18.9	17.9	20.6	19.3	21.4	20.2	24.0	22.6	22.4	21.4	22.5	21.3				
6	18.8	17.9	20.7	19.2	21.5	20.5	24.3	22.7	22.2	21.2	22.5	21.3				
7	19.1	17.9	20.6	19.4	20.9	20.6	24.2	22.7	22.3	21.2	22.6	21.3				
8	18.9	17.9	20.9	19.5	21.8	20.6	24.4	22.8	22.3	21.3	22.7	21.5				
9	19.2	18.0	20.7	19.4	21.6	20.5	24.5	22.9	22.5	21.5	22.6	21.7				
10	19.0	18.2	20.6	19.6	21.6	20.2	24.6	23.0	23.2	21.6	23.3	21.9				
11	19.3	18.3	20.7	19.6	22.1	20.4	24.6	23.0	22.8	21.8	23.2	21.9				
12	19.5	18.2	20.6	19.5	21.9	20.5	24.8	23.3	22.8	21.8	23.0	21.8				
13	19.4	18.3	20.9	19.6	21.9	20.6	25.1	23.6	22.9	22.0	22.9	21.8				
14	23.1	18.3	21.0	19.6	22.0	20.6	25.3	23.9	23.1	22.1	22.9	21.7				
15	19.6	18.2	20.8	19.6	22.4	20.8	25.2	23.9	23.2	22.3	23.0	21.9				
16	19.5	18.4	20.7	19.8	22.3	21.0	24.8	23.7	23.4	22.4	23.1	22.0				
17	18.6	17.6	20.8	19.8	23.2	21.2	24.8	23.7	23.6	22.6	23.2	22.2				
18	18.4	16.7	20.9	19.7	22.8	21.4	24.9	23.9	23.7	22.8	23.2	22.3				
19	19.1	17.8	21.0	19.8	22.3	21.4	25.1	24.2	23.9	22.9	23.1	22.4				
20	19.1	17.6	20.8	19.8	22.8	21.1	25.2	24.3	24.0	22.9	23.4	22.4				
21	21.3	17.8	20.6	19.7	22.8	21.2	25.3	24.2	23.4	22.6	23.4	22.3				
22	19.3	17.4	20.6	19.6	22.7	21.2	25.1	24.0	23.2	22.2	23.2	22.0				
23	19.6	17.8	20.6	19.6	22.9	21.3	24.8	23.8	23.1	22.0	23.0	21.7				
24	19.8	17.7	20.4	19.5	23.0	21.5	24.5	23.5	22.9	20.2	22.9	21.6				
25	19.6	18.0	20.4	19.4	23.3	21.5	24.4	23.4	21.0	19.3	22.9	21.6				
26	19.5	18.3	20.5	19.4	23.2	21.6	24.4	23.2	20.8	19.3	23.0	21.7				
27	19.5	18.4	20.8	19.2	22.9	21.6	23.9	22.8	21.0	19.5	23.2	21.7				
28	20.0	18.8	19.9	19.3	23.1	21.8	23.7	22.5	21.1	19.5	22.9	21.9				
29	19.4	18.7	20.2	19.1	23.4	21.8	23.2	22.3	21.0	19.3	22.3	21.6				
30	20.4	18.5	20.8	19.2	23.2	22.0	23.0	22.1	21.1	19.3	22.1	21.4				
31	---	---	20.9	19.5	---	---	23.0	22.0	20.4	18.8	---	---				
MONTH	23.1	15.9	21.3	18.5	23.4	19.6	25.3	21.5	24.0	18.8	23.4	18.7				

## SANTA MARGARITA RIVER BASIN

11044000 SANTA MARGARITA RIVER NEAR TEMECULA, CA—Continued

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Loca- tion in X-sect. looking dwnstrm ft from l bank (00009)
JUL								
28...	1542	735	8.0	97	7.7	831	23.1	3.00
28...	1544	735	8.0	97	7.7	831	23.1	6.00
28...	1545	735	8.1	99	7.7	831	23.2	9.00
28...	1547	735	8.2	100	7.7	831	23.3	12.0
28...	1548	735	8.3	101	7.7	832	23.3	15.0
28...	1550	735	8.5	104	7.7	830	23.4	18.0
28...	1551	735	8.6	105	7.7	831	23.3	21.0
28...	1552	735	8.5	104	7.7	832	23.2	24.0
28...	1554	735	8.4	103	7.7	832	23.3	27.0
28...	1556	735	8.4	102	7.7	833	23.2	30.0
28...	1558	735	8.2	100	7.7	832	23.2	33.0

\* Instantaneous discharge at time of cross-sectional measurement: July 28, 3.1 ft<sup>3</sup>/s.

11044250 RAINBOW CREEK NEAR FALLBROOK, CA

LOCATION.—Lat 33°24'27", long 117°12'00", in NW 1/4 SE 1/4 sec.9, T.9 S., R.3 W., San Diego County, Hydrologic Unit 18070302, on left bank, 1.0 mi upstream from the confluence with Santa Margarita River, and 3.4 mi northeast of Fallbrook.

DRAINAGE AREA.—10.3 mi<sup>2</sup>.

PERIOD OF RECORD.—November 1989 to current year.

REVISED RECORDS.—WDR CA-91-1: 1990(M).

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 540 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. No regulation upstream from station. Undetermined amount of water upstream from station used for irrigation by a local nursery. Natural flow affected by return flow from irrigated areas. Water is imported for domestic use and irrigation. See schematic diagram of Santa Margarita River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,000 ft<sup>3</sup>/s, estimated, Jan. 16, 1993, gage height unknown, on basis of slope-area measurement of peak flow, maximum recorded gage height, 8.35 ft, Feb. 23, 1998; minimum daily, 0.01 ft<sup>3</sup>/s, Sept. 22, Nov. 3, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended above 712 ft<sup>3</sup>/s:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2015	100	4.84	Feb. 26	0900	158	5.15

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.05	0.09	0.24	0.23	0.88	0.37	0.86	0.41	0.05	0.03	0.03
2	0.04	0.05	0.09	0.99	0.28	6.1	1.4	0.42	0.71	0.05	0.03	0.03
3	0.04	0.05	0.09	2.0	6.6	2.0	0.75	0.19	0.89	0.05	0.03	0.03
4	0.04	0.05	0.10	0.48	1.0	0.93	0.36	0.22	0.90	0.05	0.04	0.03
5	0.04	0.05	0.10	0.33	0.55	0.76	0.27	0.58	0.76	0.05	0.03	0.03
6	0.04	0.05	0.09	0.29	0.43	0.69	0.22	0.68	0.76	0.05	0.04	0.03
7	0.04	0.05	0.10	0.28	0.36	0.60	0.20	0.89	0.92	0.04	0.04	0.03
8	0.04	0.05	0.11	0.27	0.30	0.53	0.20	1.2	0.46	0.04	0.07	0.03
9	0.04	0.05	0.10	0.25	0.27	0.51	0.19	1.1	0.41	0.04	0.07	0.03
10	0.05	0.05	0.10	0.26	0.26	0.59	0.18	0.79	0.17	0.04	0.06	0.03
11	0.05	0.05	0.11	0.25	0.26	0.51	0.17	0.80	0.12	0.04	0.04	0.03
12	0.04	0.06	0.11	0.24	0.24	0.56	0.14	0.72	0.10	0.04	0.03	0.03
13	0.04	0.56	0.11	0.25	0.26	0.52	0.13	0.84	0.08	0.04	0.04	0.03
14	0.04	0.16	0.12	0.23	0.25	0.48	0.13	0.46	0.07	0.04	0.04	0.03
15	0.04	0.10	0.12	0.24	0.24	0.45	0.12	0.39	0.07	0.04	0.03	0.03
16	0.04	1.0	0.11	0.24	0.24	0.45	0.12	0.79	0.07	0.04	0.03	0.03
17	0.04	0.27	0.10	0.25	0.24	0.42	0.98	0.68	0.07	0.03	0.03	0.03
18	0.04	0.17	0.10	0.25	1.9	0.44	1.1	0.40	0.06	0.03	0.03	0.03
19	0.04	0.12	0.10	0.26	2.1	0.42	0.46	0.70	0.07	0.04	0.04	0.04
20	0.04	0.10	0.10	0.44	0.93	0.40	0.28	0.51	0.06	0.04	0.04	0.04
21	0.04	0.10	0.12	1.2	1.00	0.39	0.23	0.63	0.06	0.04	0.03	0.03
22	0.04	0.10	0.13	0.45	7.9	0.39	0.20	0.55	0.06	0.03	0.03	0.03
23	0.04	0.09	0.13	0.31	5.2	0.39	0.17	0.55	0.06	0.03	0.03	0.03
24	0.04	0.09	0.15	0.29	2.3	0.38	0.14	0.33	0.05	0.04	0.03	0.03
25	0.04	0.09	12	0.28	1.4	0.37	0.12	0.21	0.05	0.03	0.03	0.03
26	0.04	0.09	3.1	0.25	28	0.37	0.11	0.33	0.05	0.03	0.03	0.03
27	0.04	0.10	0.88	0.25	3.2	0.40	0.10	0.33	0.05	0.03	0.03	0.03
28	0.04	0.10	0.76	0.26	2.2	0.39	0.10	0.49	0.05	0.03	0.03	0.04
29	0.05	0.09	0.44	0.25	1.7	0.32	0.31	0.27	0.05	0.03	0.03	0.03
30	0.06	0.08	0.35	0.24	---	0.28	0.25	0.16	0.05	0.04	0.03	0.03
31	0.06	---	0.27	0.25	---	0.29	---	0.22	---	0.03	0.03	---
TOTAL	1.31	4.02	20.38	12.07	69.84	22.21	9.50	17.29	7.69	1.20	1.12	0.93
MEAN	0.04	0.13	0.66	0.39	2.41	0.72	0.32	0.56	0.26	0.04	0.04	0.03
MAX	0.06	1.0	12	2.0	28	6.1	1.4	1.2	0.92	0.05	0.07	0.04
MIN	0.04	0.05	0.09	0.23	0.23	0.28	0.10	0.16	0.05	0.03	0.03	0.03
AC-FT	2.6	8.0	40	24	139	44	19	34	15	2.4	2.2	1.8

## SANTA MARGARITA RIVER BASIN

## 11044250 RAINBOW CREEK NEAR FALLBROOK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.39	0.73	1.04	10.5	11.4	8.55	2.63	1.13	0.59	0.30	0.25	0.34
MAX	0.95	3.40	2.72	97.3	58.9	55.4	9.20	5.73	2.07	0.90	0.75	1.25
(WY)	1998	1997	1997	1993	1998	1995	1998	1998	1998	1990	1995	1995
MIN	0.03	0.13	0.20	0.25	0.22	0.18	0.10	0.08	0.04	0.03	0.03	0.02
(WY)	2003	2004	2000	2003	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	543.81		167.56			
ANNUAL MEAN	1.49		0.46		3.25	
HIGHEST ANNUAL MEAN					14.4	1993
LOWEST ANNUAL MEAN					0.14	2002
HIGHEST DAILY MEAN	74	Mar 15	28	Feb 26	800	Jan 16 1993
LOWEST DAILY MEAN	0.04	Aug 10	0.03	Jul 17	0.01	Sep 22 2002
ANNUAL SEVEN-DAY MINIMUM	0.04	Aug 10	0.03	Aug 21	0.02	Oct 28 2002
MAXIMUM PEAK FLOW			158	Feb 26	e8000	Jan 16 1993
MAXIMUM PEAK STAGE			5.15	Feb 26	8.35	Feb 23 1998
ANNUAL RUNOFF (AC-FT)	1080		332		2350	
10 PERCENT EXCEEDS	2.8		0.81		4.1	
50 PERCENT EXCEEDS	0.15		0.11		0.42	
90 PERCENT EXCEEDS	0.04		0.03		0.05	

e Estimated.

## 11044300 SANTA MARGARITA RIVER AT FALLBROOK PUBLIC UTILITY DISTRICT SUMP, NEAR FALLBROOK, CA

LOCATION.—Lat 33°24'49", long 117°14'25", in NW 1/4 NW 1/4 sec.7, T.9 S., R.4 W., [San Diego County](#), Hydrologic Unit 18070302, on left bank, 0.3 mi upstream from confluence with Sandia Creek, and 2.9 mi north of Fallbrook.

DRAINAGE AREA.—620 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1989 to current year.

DISSOLVED OXYGEN: Water years 2000–03.

pH: Water years 2000–03.

SPECIFIC CONDUCTANCE: Water years 2000–03.

WATER TEMPERATURE: Water years 2000–03.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 330 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Flow partly regulated since November 1948 by Vail Lake (station 11042510) and since 1974 by Skinner Reservoir. Flow in Warm Springs Creek, a tributary to Murrieta Creek, slightly regulated beginning in water year 1999 by Diamond Valley Lake, capacity, 800,000 acre-ft (see station 11042800). See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 34,000 ft<sup>3</sup>/s, estimated, based on regression equation and flood routing of upstream flows, Jan. 16, 1993, gage height, 15.89 ft; no flow several days in 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	7.9	6.3	8.1	20	14	8.7	7.1	4.7	2.6	2.1	2.5
2	7.8	6.9	6.3	12	16	48	15	4.3	4.2	3.1	1.9	2.5
3	8.1	6.4	7.2	18	74	50	14	3.6	4.6	2.7	2.1	2.0
4	8.3	5.7	7.3	14	26	19	e9.2	3.4	5.1	2.7	2.1	2.1
5	8.2	5.6	7.6	12	12	12	e9.0	4.4	5.0	2.8	2.1	2.3
6	8.1	5.4	8.0	12	10	12	e8.9	4.3	4.8	2.6	2.1	2.2
7	8.0	5.2	8.0	12	13	12	e8.7	4.4	5.0	2.8	2.0	2.1
8	7.9	4.9	8.6	12	13	11	8.6	5.0	5.7	2.3	2.5	2.3
9	8.3	4.7	8.0	12	12	11	8.4	5.5	4.5	2.4	2.1	2.4
10	9.0	5.1	7.9	12	12	11	8.4	5.4	4.2	3.7	2.1	2.5
11	8.2	4.7	8.0	12	12	11	8.0	4.6	3.5	4.1	1.9	2.3
12	8.2	6.7	8.6	12	11	11	7.7	5.0	3.5	3.6	2.5	2.0
13	7.6	61	8.2	12	13	11	7.5	5.8	3.4	2.8	3.1	2.2
14	6.7	26	9.0	13	13	11	7.1	5.2	3.3	2.7	3.4	2.8
15	6.7	8.9	8.9	13	13	11	7.3	4.6	3.5	2.1	3.9	3.1
16	7.1	8.8	7.3	14	13	11	8.1	5.3	3.7	2.1	4.0	3.7
17	6.7	9.6	6.7	14	13	11	9.8	5.7	3.5	1.8	3.6	3.8
18	6.6	7.2	7.0	14	14	11	16	5.0	3.2	1.9	3.9	3.5
19	7.1	6.9	7.4	15	19	12	12	4.8	3.5	2.3	3.9	3.2
20	6.5	6.7	7.8	14	13	12	8.9	4.7	3.7	2.4	3.5	4.1
21	6.2	6.1	8.0	17	9.5	11	8.4	4.8	3.5	2.3	3.2	3.3
22	6.3	5.3	8.0	14	186	12	7.3	4.7	3.4	2.3	3.6	3.3
23	6.7	4.6	8.0	14	153	11	5.1	4.8	3.0	2.2	3.5	3.3
24	6.6	4.6	8.0	15	54	9.8	6.3	5.1	2.9	3.0	3.3	3.3
25	6.7	5.2	26	14	25	8.8	6.2	4.4	3.0	2.4	3.4	3.9
26	6.4	5.4	169	14	662	8.6	5.5	4.6	2.8	2.7	2.8	4.8
27	6.5	5.9	29	14	115	9.3	6.2	5.0	3.0	2.7	3.2	4.4
28	6.9	5.6	11	14	39	8.8	7.3	6.1	2.8	2.7	2.9	3.5
29	7.4	5.7	6.2	14	20	8.7	8.2	6.7	2.9	2.6	2.8	4.9
30	8.3	6.6	4.6	14	---	7.4	8.3	6.0	2.7	2.6	2.8	4.1
31	8.9	---	3.9	15	---	7.8	---	5.0	---	2.9	2.5	---
TOTAL	229.2	259.3	435.8	416.1	1605.5	415.2	260.1	155.3	112.6	81.9	88.8	92.4
MEAN	7.39	8.64	14.1	13.4	55.4	13.4	8.67	5.01	3.75	2.64	2.86	3.08
MAX	9.0	61	169	18	662	50	16	7.1	5.7	4.1	4.0	4.9
MIN	6.2	4.6	3.9	8.1	9.5	7.4	5.1	3.4	2.7	1.8	1.9	2.0
AC-FT	455	514	864	825	3180	824	516	308	223	162	176	183

e Estimated.

## 11044300 SANTA MARGARITA RIVER AT FALLBROOK PUBLIC UTILITY DISTRICT SUMP, NEAR FALLBROOK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.22	7.56	12.6	138	170	93.8	23.6	15.8	8.01	5.24	4.68	4.82
MAX	15.7	24.4	37.1	1462	860	490	70.4	58.3	25.1	11.4	10.1	9.03
(WY)	1994	1997	1998	1993	1993	1991	1993	1998	1993	1993	1993	1993
MIN	3.57	1.48	1.66	3.19	6.10	2.50	4.51	5.01	2.43	2.11	1.00	1.22
(WY)	2003	1992	1990	2000	2002	1990	1990	2004	1997	1990	1990	1990

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	13927.0		4152.2			
ANNUAL MEAN	38.2		11.3		40.3	
HIGHEST ANNUAL MEAN					220	
LOWEST ANNUAL MEAN					5.23	
HIGHEST DAILY MEAN	2500	Feb 25	662	Feb 26	14300	Jan 16 1993
LOWEST DAILY MEAN	3.9	Dec 31	1.8	Jul 17	0.00	Aug 1 1990
ANNUAL SEVEN-DAY MINIMUM	5.1	Nov 5	2.1	Aug 1	0.05	Jul 31 1990
MAXIMUM PEAK FLOW			3110		34000	
MAXIMUM PEAK STAGE			5.34		15.89	
ANNUAL RUNOFF (AC-FT)	27620		8240		29170	
10 PERCENT EXCEEDS	25		14		30	
50 PERCENT EXCEEDS	11		6.5		6.2	
90 PERCENT EXCEEDS	6.7		2.5		2.5	



## 11044350 SANDIA CREEK NEAR FALLBROOK, CA

LOCATION.—Lat 33°25'28", long 117°14'54", in SW 1/4 NE 1/4 sec.1, T.9 S., R.4 W., San Diego County, Hydrologic Unit 18070302, on left bank, 1.05 mi north of intersection of Sandia and Rock Mountain Roads, 0.8 mi upstream from mouth, and 3.8 mi north of Fallbrook.

DRAINAGE AREA.—21.1 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1989 to current year.

REVISED RECORDS.—WDR CA-91-1: 1990(M).

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 380 ft above NGVD of 1929, from topographic map. Prior to Sept. 30, 1993, at site 0.65 mi downstream at different datum.

REMARKS.—Records fair. No regulation or diversion upstream from station. Natural flow affected by pumping and return flow from irrigated areas. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,100 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 17.60 ft, site and datum then in use, from floodmarks (may have been affected by backwater from the Santa Margarita River); no flow for many days in summer of 1996.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 75 ft<sup>3</sup>/s, or maximum, from rating curve extended above 536 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2100	188	3.07	Feb. 26	0845	346	3.52
Feb. 22	1045	173	3.03				

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	6.5	4.0	5.9	4.7	11	9.7	3.8	3.1	4.0	2.0	2.9
2	4.4	5.6	4.0	6.5	6.0	19	11	3.2	3.8	3.4	2.9	3.0
3	4.5	5.4	4.0	8.8	17	12	6.9	3.2	3.9	2.7	3.5	2.8
4	3.9	6.0	4.0	6.3	7.5	11	6.3	3.6	3.1	2.3	3.2	2.2
5	3.7	6.5	4.2	5.9	6.5	9.8	6.9	4.8	2.2	2.3	3.0	2.2
6	3.9	5.6	3.9	6.5	4.6	9.2	7.2	4.8	2.4	3.5	2.3	1.9
7	3.9	5.2	3.5	6.4	4.1	8.7	6.9	4.6	3.6	3.7	1.7	3.0
8	4.0	5.1	4.5	6.5	3.6	8.2	7.1	3.8	4.6	3.8	1.8	2.9
9	4.8	4.3	4.6	6.6	4.1	7.8	6.4	3.6	4.5	2.8	2.1	3.0
10	4.8	4.5	4.5	6.4	4.7	8.4	6.0	3.8	4.4	1.9	2.1	2.2
11	3.0	4.7	4.8	6.2	4.7	8.6	5.0	4.1	3.6	2.1	2.5	1.4
12	3.3	7.8	4.6	6.0	4.8	7.2	4.7	4.7	2.6	2.2	2.9	1.5
13	3.9	13	3.9	6.0	4.2	6.8	5.2	5.0	2.4	2.5	3.0	2.1
14	3.7	7.6	3.7	6.2	3.3	6.7	5.0	4.1	3.1	2.7	2.6	2.2
15	3.6	6.7	4.2	6.3	3.4	7.1	5.9	2.8	3.9	3.8	1.8	3.0
16	4.1	7.6	4.0	6.0	3.7	7.9	5.5	2.9	4.1	2.4	2.3	3.5
17	3.5	6.4	3.9	5.5	4.2	7.8	5.7	3.7	4.0	1.1	2.7	2.9
18	2.7	6.0	4.0	5.8	6.0	8.0	5.7	4.2	3.4	1.1	2.9	2.3
19	2.9	5.2	3.7	6.3	6.4	7.3	5.6	4.8	3.1	1.4	3.3	2.3
20	3.1	5.6	3.8	6.8	5.3	6.4	5.1	4.7	3.5	2.0	3.2	2.5
21	3.0	5.8	3.9	11	5.4	6.2	6.3	3.9	3.5	2.5	2.9	2.5
22	3.4	5.2	3.8	7.5	33	6.9	6.5	3.3	4.3	3.0	2.1	2.9
23	3.9	4.6	3.9	6.5	20	7.1	5.6	3.7	4.4	2.9	2.2	2.7
24	3.7	4.7	4.2	6.1	12	7.1	4.0	4.5	4.1	2.8	2.8	2.0
25	2.8	4.9	25	6.0	9.5	8.0	3.7	5.1	3.5	2.2	3.4	1.5
26	2.4	4.9	16	6.6	95	7.0	4.0	4.7	2.6	2.3	3.5	1.9
27	2.9	4.7	8.4	6.8	18	6.4	4.3	4.8	2.7	2.7	2.9	1.8
28	3.0	4.3	7.3	6.8	13	5.1	5.1	5.0	2.7	2.6	2.1	2.3
29	3.5	3.6	7.5	7.2	11	5.5	4.0	4.7	3.1	3.0	1.9	3.0
30	5.2	3.6	7.0	5.9	---	6.5	4.7	3.9	3.2	3.2	2.5	3.9
31	5.3	---	6.2	4.9	---	7.0	---	2.7	---	2.1	3.1	---
TOTAL	114.7	171.6	175.0	202.2	325.7	251.7	176.0	126.5	103.4	81.0	81.2	74.3
MEAN	3.70	5.72	5.65	6.52	11.2	8.12	5.87	4.08	3.45	2.61	2.62	2.48
MAX	5.3	13	25	11	95	19	11	5.1	4.6	4.0	3.5	3.9
MIN	2.4	3.6	3.5	4.9	3.3	5.1	3.7	2.7	2.2	1.1	1.7	1.4
AC-FT	228	340	347	401	646	499	349	251	205	161	161	147

## SANTA MARGARITA RIVER BASIN

## 11044350 SANDIA CREEK NEAR FALLBROOK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.85	2.95	4.18	26.7	27.4	21.8	10.5	6.35	4.20	2.33	1.53	1.48
MAX	3.70	5.72	9.48	237	128	79.8	28.0	18.3	9.49	5.64	3.74	3.87
(WY)	2004	2004	2003	1993	1993	1995	1995	1998	1998	2003	2003	2003
MIN	0.53	1.34	1.88	2.56	3.66	3.20	3.09	2.14	1.02	0.31	0.03	0.06
(WY)	1997	1992	1990	2000	2002	2002	2002	1999	1996	1996	1996	1996

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	3757.8		1883.3			
ANNUAL MEAN	10.3		5.15		9.19	
HIGHEST ANNUAL MEAN					36.8	
LOWEST ANNUAL MEAN					2.62	
HIGHEST DAILY MEAN	232	Feb 25	95	Feb 26	2000	Jan 16 1993
LOWEST DAILY MEAN	2.4	Oct 26	1.1	Jul 17	0.00	Jul 26 1996
ANNUAL SEVEN-DAY MINIMUM	3.2	Oct 21	1.9	Jul 16	0.00	Aug 14 1996
MAXIMUM PEAK FLOW			346	Feb 26	5100	Jan 16 1993
MAXIMUM PEAK STAGE			3.52	Feb 26	17.60	Jan 16 1993
ANNUAL RUNOFF (AC-FT)	7450		3740		6660	
10 PERCENT EXCEEDS	16		7.5		14	
50 PERCENT EXCEEDS	5.4		4.1		3.1	
90 PERCENT EXCEEDS	3.6		2.3		0.78	

## 11044800 DE LUZ CREEK NEAR DE LUZ, CA

LOCATION.—Lat 33°25'11", long 117°19'15", in SW 1/4 SE 1/4 sec.5, T.9 S., R.4 W., [San Diego County](#), Hydrologic Unit 18070302, on left bank, 4.85 mi upstream from mouth, and 1.2 mi south of De Luz.

DRAINAGE AREA.—33.0 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1992 to current year.

GAGE.—Water-stage recorder, concrete control, and crest-stage gage. Elevation of gage is 270 ft above NGVD of 1929, from topographic map. February 1951 to September 1965 and October 1989 to September 1991, at site 4.2 mi downstream (published as 11044900, "De Luz Creek near Fallbrook").

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 9,700 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 15.13 ft, on basis of flow-over-road computation; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended above 385 ft<sup>3</sup>/s, on basis of flow-over-road computation:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1900	102	5.39	Feb. 26	0815	620	6.82

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.49	0.02	e0.53	1.3	0.89	4.7	4.3	0.53	0.47	0.00	0.00	0.00
2	0.07	0.05	e0.43	2.9	0.89	35	6.4	0.45	0.35	0.00	0.00	0.00
3	0.39	0.07	0.63	3.3	18	18	4.9	0.32	0.28	0.00	0.00	0.00
4	0.79	0.11	e1.3	1.5	9.0	11	4.4	0.18	0.09	0.00	0.00	0.00
5	0.72	0.16	e1.0	1.0	1.9	9.1	4.2	0.22	0.08	0.00	0.00	0.00
6	0.48	0.21	e0.90	0.88	1.4	7.7	3.5	0.31	0.06	0.00	0.00	0.00
7	0.33	0.19	1.7	0.88	1.3	6.7	3.1	0.35	0.22	0.00	0.00	0.00
8	0.15	0.28	1.8	0.53	1.1	5.9	2.9	0.46	0.51	0.00	0.00	0.00
9	0.20	0.41	1.5	0.60	1.0	5.2	3.0	0.46	0.40	0.00	0.00	0.00
10	0.34	0.71	1.8	0.82	0.89	4.9	3.1	0.43	0.46	0.00	0.00	0.00
11	0.33	0.57	2.0	0.90	0.85	4.3	2.9	0.44	0.35	0.00	0.00	0.00
12	0.08	1.7	2.1	0.86	0.74	4.3	2.2	0.39	0.26	0.00	0.00	0.00
13	0.02	6.1	1.9	0.85	e0.72	4.2	2.0	0.30	0.31	0.00	0.00	0.00
14	0.01	2.8	0.87	0.85	e0.66	4.1	1.8	0.24	0.23	0.00	0.00	0.00
15	e0.00	2.2	1.4	0.89	e0.64	4.2	1.7	0.29	0.18	0.00	0.00	0.00
16	e0.00	2.7	1.2	0.73	e0.63	4.3	1.7	0.36	0.19	0.00	0.00	0.00
17	e0.00	1.9	1.0	0.93	e0.60	4.0	2.0	0.44	0.20	0.00	0.00	0.00
18	e0.00	1.8	0.64	1.0	e0.58	4.1	2.2	0.40	0.10	0.00	0.00	0.00
19	e0.00	1.2	0.56	1.2	0.75	3.8	2.1	0.44	0.19	0.00	0.00	0.00
20	e0.00	1.0	0.98	1.2	0.55	4.0	1.7	0.60	0.35	0.00	0.00	0.00
21	e0.00	1.3	1.2	2.1	0.69	4.5	1.4	0.54	0.32	0.00	0.00	0.00
22	e0.00	1.2	1.3	1.2	21	4.5	1.3	0.69	0.31	0.00	0.00	0.00
23	e0.00	0.94	1.5	1.3	45	4.5	1.2	0.47	0.22	0.00	0.00	0.00
24	e0.00	0.97	1.8	1.4	12	4.4	0.94	0.70	0.10	0.00	0.00	0.00
25	e0.00	0.99	15	1.4	7.2	4.4	0.96	0.87	0.00	0.00	0.00	0.00
26	e0.00	0.88	15	2.1	181	4.4	0.81	0.82	0.00	0.00	0.00	0.00
27	e0.00	0.72	3.2	1.4	26	4.4	0.69	0.72	0.00	0.00	0.00	0.00
28	e0.00	0.43	2.8	1.3	11	4.1	0.45	0.81	0.00	0.00	0.00	0.00
29	e0.00	1.1	4.6	0.81	7.1	3.8	0.59	1.1	0.00	0.00	0.00	0.00
30	0.02	e0.63	4.6	0.52	---	3.4	0.74	0.95	0.00	0.00	0.00	0.00
31	0.01	---	1.5	0.67	---	3.4	---	0.73	---	0.00	0.00	---
TOTAL	4.43	33.34	76.74	37.32	354.08	195.3	69.18	16.01	6.23	0.00	0.00	0.00
MEAN	0.14	1.11	2.48	1.20	12.2	6.30	2.31	0.52	0.21	0.00	0.00	0.00
MAX	0.79	6.1	15	3.3	181	35	6.4	1.1	0.51	0.00	0.00	0.00
MIN	0.00	0.02	0.43	0.52	0.55	3.4	0.45	0.18	0.00	0.00	0.00	0.00
AC-FT	8.8	66	152	74	702	387	137	32	12	0.00	0.00	0.00

e Estimated.

## SANTA MARGARITA RIVER BASIN

## 11044800 DE LUZ CREEK NEAR DE LUZ, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.28	0.92	2.64	46.7	54.6	32.7	10.3	6.31	2.64	0.86	0.32	0.13
MAX	1.07	3.42	10.1	365	252	189	37.2	37.0	10.2	5.01	2.38	0.84
(WY)	1993	1999	1997	1993	1998	1995	1998	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.05	0.33	0.60	0.64	0.26	0.00	0.00	0.00	0.00	0.00
(WY)	1995	1995	2000	2000	2002	2002	2002	2002	2002	1996	1994	1994

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1993 - 2004	
ANNUAL TOTAL	3335.45		792.63			
ANNUAL MEAN	9.14		2.17		13.0	
HIGHEST ANNUAL MEAN					53.9	
LOWEST ANNUAL MEAN					0.38	
HIGHEST DAILY MEAN	409	Mar 16	181	Feb 26	3220	Jan 16 1993
LOWEST DAILY MEAN	0.00	Aug 12	0.00	Oct 15	0.00	Aug 1 1994
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 12	0.00	Oct 15	0.00	Aug 1 1994
MAXIMUM PEAK FLOW			620	Feb 26	9700	Jan 16 1993
MAXIMUM PEAK STAGE			6.82	Feb 26	15.13	Jan 16 1993
ANNUAL RUNOFF (AC-FT)	6620		1570		9420	
10 PERCENT EXCEEDS	15		4.3		18	
50 PERCENT EXCEEDS	1.7		0.52		0.91	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11044900 DE LUZ CREEK NEAR FALLBROOK, CA

LOCATION.—Lat 33°22'11", long 117°19'18", in SE 1/4 NW 1/4 sec.29, T.9 S., R.4 W., San Diego County, Hydrologic Unit 18070302, on Camp Joseph H. Pendleton Naval Reservation, on right bank, 0.60 mi upstream from mouth and 4.2 mi west of Fallbrook.

DRAINAGE AREA.—47.5 mi<sup>2</sup>.

PERIOD OF RECORD.—February 1951 to September 1967, October 1989 to September 1990, April 2002 to February 2003, October 2003 to September 2004.

GAGE.—Water-stage recorder, concrete control, and crest-stage gage. Elevation of gage is 155 ft above NGVD of 1929, from topographic map. Prior to December 1958, at site 750 ft upstream at different datum. December 1958 to September 1965 and October 1989 to September 1990, at a site 200 ft upstream at different datum.

REMARKS.—Records poor. No regulation or diversion upstream from station. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,800 ft<sup>3</sup>/s, Apr. 1, 1958, gage height, 9.95 ft, site and datum then in use, from rating curve extended above 450 ft<sup>3</sup>/s; no flow for all or part of most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	unknown	unknown	7.58

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	e0.00	e0.00	41	0.71	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	e0.00	e0.33	29	2.6	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	e0.00	4.3	20	1.5	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	e0.00	0.06	9.4	0.95	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	e0.00	0.00	6.4	1.5	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	e0.00	0.00	e5.6	1.6	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	e0.00	0.00	4.7	1.1	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	e0.00	0.00	2.2	0.61	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	e0.00	0.00	0.58	0.41	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	e0.00	0.00	1.9	0.45	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	e0.00	0.00	1.8	0.39	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	e0.00	0.00	1.5	0.14	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	e0.00	0.00	1.4	0.12	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	e0.00	0.00	0.15	0.04	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	e0.00	0.00	0.61	0.01	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	e0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	e0.00	0.00	0.31	0.02	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	e0.00	0.00	0.07	0.15	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	e0.00	0.00	0.06	0.19	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	e0.00	0.00	0.08	0.20	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	e0.00	0.00	0.83	0.18	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	e0.00	84	0.39	0.08	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	e0.00	45	1.3	0.02	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	e0.00	23	0.05	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	e0.74	e0.00	26	0.04	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	e0.00	e0.00	336	0.05	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	e0.00	e0.00	183	0.15	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	e0.00	e0.00	101	0.05	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	e0.00	e0.00	61	0.12	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	e0.00	e0.00	---	0.08	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	e0.00	e0.00	---	0.33	---	0.00	---	0.00	---	---
TOTAL	0.00	0.00	0.74	0.00	863.69	130.98	12.97	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.02	0.00	29.8	4.23	0.43	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.74	0.00	336	41	2.6	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	1.5	0.00	1710	260	26	0.00	0.00	0.00	0.00	0.00

e Estimated.

## SANTA MARGARITA RIVER BASIN

## 11044900 DE LUZ CREEK NEAR FALLBROOK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.92	2.98	8.70	8.95	15.2	12.8	0.89	0.12	0.02	0.00	0.00
MAX	0.00	17.3	34.7	61.1	39.3	127	192	7.27	0.69	0.17	0.00	0.00
(WY)	1952	1966	1967	1952	1962	1958	1958	1958	1952	1967	1952	1963
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1952	1952	1954	1955	1961	1961	1961	1957	1955	1953	1952	1952

## SUMMARY STATISTICS

## FOR 2004 WATER YEAR

## WATER YEARS 1952 - 2004

ANNUAL TOTAL	1008.38		
ANNUAL MEAN	2.76	4.31	
HIGHEST ANNUAL MEAN		28.7	1958
LOWEST ANNUAL MEAN		0.00	1961
HIGHEST DAILY MEAN	336	Feb 26	920
LOWEST DAILY MEAN	0.00	Oct 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 1	0.00
MAXIMUM PEAK FLOW	unknown	Feb 26	2800
MAXIMUM PEAK STAGE	7.58	Feb 26	9.95
ANNUAL RUNOFF (AC-FT)	2000		3120
10 PERCENT EXCEEDS	0.42		3.0
50 PERCENT EXCEEDS	0.00		0.00
90 PERCENT EXCEEDS	0.00		0.00

## 11045300 FALLBROOK CREEK NEAR FALLBROOK, CA

LOCATION.—Lat 33°20'49", long 117°19'01", in SE 1/4 SE 1/4 sec.32, T.9 S., R.4 W., San Diego County, Hydrologic Unit 18070302, on Camp Joseph H. Pendleton Naval Reservation, on right bank, at culvert on DeLuz Road, 0.75 mi upstream from O'Neill Lake, and 4.5 mi southwest of Fallbrook.

DRAINAGE AREA.—6.97 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1993 to current year. Discharge records for October 1964 to September 1977 and October 1989 to September 1993 available in files of U.S. Marine Corps at Camp Pendleton.

GAGE.—Water-stage recorder, crest-stage gage, and concrete control with low-water Parshall flume. Elevation of gage is 190 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. Slight regulation by two small storage reservoirs upstream from station. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 895 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 9.73 ft, from rating curve extended above 140 ft<sup>3</sup>/s, on basis of culvert computation; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	1115	143	2.98

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.01	0.07	0.45	0.39	0.53	0.38	0.19	0.01	0.00	0.00	0.00
2	0.00	0.01	0.07	0.47	0.41	5.4	2.9	0.19	0.00	0.00	0.00	0.00
3	0.00	0.01	0.08	0.48	1.7	1.4	0.59	0.19	0.00	0.00	0.00	0.00
4	0.00	0.01	0.09	0.48	0.70	0.58	0.44	0.19	0.00	0.00	0.00	0.00
5	0.00	0.01	0.09	0.48	0.48	0.52	0.41	0.24	0.00	0.00	0.00	0.00
6	0.00	0.01	0.08	0.47	0.45	0.50	0.38	0.24	0.00	0.00	0.00	0.00
7	0.00	0.01	0.10	0.45	0.45	0.49	0.35	0.30	0.00	0.00	0.00	0.00
8	0.00	0.01	0.09	0.45	0.42	0.48	0.28	0.33	0.00	0.00	0.00	0.00
9	0.01	0.01	0.13	0.45	0.43	0.48	0.31	0.32	0.00	0.00	0.00	0.00
10	0.01	0.01	0.18	0.45	0.45	0.48	0.36	0.32	0.00	0.00	0.00	0.00
11	0.01	0.01	0.19	0.41	0.43	0.45	0.35	0.30	0.00	0.00	0.00	0.00
12	0.01	0.03	0.23	0.40	0.40	0.43	0.28	0.26	0.00	0.00	0.00	0.00
13	0.01	0.01	0.17	0.41	0.41	0.45	0.25	0.23	0.00	0.00	0.00	0.00
14	0.01	0.00	0.16	0.40	0.43	0.45	0.26	0.19	0.00	0.00	0.00	0.00
15	0.01	0.01	0.15	0.40	0.43	0.45	0.27	0.17	0.00	0.00	0.00	0.00
16	0.01	0.03	0.15	0.40	0.43	0.45	0.27	0.13	0.00	0.00	0.00	0.00
17	0.01	0.15	0.22	0.40	0.43	0.45	0.33	0.09	0.00	0.00	0.00	0.00
18	0.01	0.18	0.20	0.40	0.43	0.45	0.82	0.09	0.00	0.00	0.00	0.00
19	0.01	0.19	0.18	0.40	0.45	0.44	0.25	0.06	0.00	0.00	0.00	0.00
20	0.01	0.26	0.16	0.40	0.45	0.44	0.18	0.03	0.00	0.00	0.00	0.00
21	0.01	0.27	0.13	0.39	0.45	0.43	0.18	0.02	0.00	0.00	0.00	0.00
22	0.01	0.27	0.13	0.38	17	0.41	0.18	0.01	0.00	0.00	0.00	0.00
23	0.01	0.17	0.13	0.42	11	0.39	0.18	0.01	0.00	0.00	0.00	0.00
24	0.01	0.10	0.14	0.43	2.5	0.37	0.19	0.01	0.00	0.00	0.00	0.00
25	0.02	0.10	0.92	0.43	0.66	0.33	0.19	0.01	0.00	0.00	0.00	0.00
26	0.01	0.09	7.8	0.42	33	0.31	0.20	0.01	0.00	0.00	0.00	0.00
27	0.01	0.08	0.64	0.41	2.2	0.27	0.19	0.01	0.00	0.00	0.00	0.00
28	0.02	0.07	0.49	0.40	0.77	0.24	0.20	0.01	0.00	0.00	0.00	0.00
29	0.02	0.07	0.48	0.40	0.56	0.23	0.20	0.01	0.00	0.00	0.00	0.00
30	0.02	0.08	0.48	0.40	---	0.26	0.19	0.01	0.00	0.00	0.00	0.00
31	0.02	---	0.47	0.40	---	0.27	---	0.01	---	0.00	0.00	---
TOTAL	0.28	2.27	14.60	13.13	78.31	18.83	11.56	4.18	0.01	0.00	0.00	0.00
MEAN	0.01	0.08	0.47	0.42	2.70	0.61	0.39	0.13	0.00	0.00	0.00	0.00
MAX	0.02	0.27	7.8	0.48	33	5.4	2.9	0.33	0.01	0.00	0.00	0.00
MIN	0.00	0.00	0.07	0.38	0.39	0.23	0.18	0.01	0.00	0.00	0.00	0.00
AC-FT	0.6	4.5	29	26	155	37	23	8.3	0.02	0.00	0.00	0.00

## SANTA MARGARITA RIVER BASIN

## 11045300 FALLBROOK CREEK NEAR FALLBROOK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.10	0.66	1.02	3.54	6.24	4.14	1.79	0.87	0.42	0.19	0.09	0.07
MAX	0.40	3.35	3.20	18.5	35.9	23.8	5.63	3.28	1.50	0.82	0.41	0.41
(WY)	1999	1997	1997	1995	1998	1995	1998	1998	1995	1998	1995	1998
MIN	0.00	0.03	0.17	0.36	0.38	0.33	0.33	0.13	0.00	0.00	0.00	0.00
(WY)	2002	2000	2000	2003	2002	2002	2002	2004	2002	2002	2000	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1994 - 2004	
ANNUAL TOTAL	441.54		143.17			
ANNUAL MEAN	1.21		0.39		1.57	
HIGHEST ANNUAL MEAN					4.77 1998	
LOWEST ANNUAL MEAN					0.17 2002	
HIGHEST DAILY MEAN	86	Feb 25	33	Feb 26	256	Mar 5 1995
LOWEST DAILY MEAN	0.00	Sep 5	0.00	Oct 1	0.00	Sep 5 1994
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 5	0.00	Oct 1	0.00	Sep 5 1994
MAXIMUM PEAK FLOW			143	Feb 26	895	Feb 23 1998
MAXIMUM PEAK STAGE			2.98	Feb 26	9.73	Feb 23 1998
ANNUAL RUNOFF (AC-FT)	876		284		1140	
10 PERCENT EXCEEDS	0.73		0.46		2.0	
50 PERCENT EXCEEDS	0.28		0.07		0.40	
90 PERCENT EXCEEDS	0.01		0.00		0.00	



11045370 O'NEILL LAKE TRIBUTARY NEAR FALLBROOK, CA

LOCATION.—Lat 33°19'40", long 117°19'04", in NW 1/4 NE 1/4 sec.8, T.10 S., R.4 W., San Diego County, Hydrologic Unit 18070302, on Camp Joseph H. Pendleton Naval Reservation, on left bank, 0.4 mi northeast from dam on unnamed road, 200 ft upstream from O'Neill Lake, and 5.1 mi southwest of Fallbrook.

DRAINAGE AREA.—0.03 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1998 to February 2003, October 2003 to September 2004.

GAGE.—Water-stage recorder and sharp-crested weir. Elevation of gage is 115 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. See schematic diagram of Santa Margarita River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 32 ft<sup>3</sup>/s, Dec. 16, 2002, gage height, 3.72 ft, from rating curve developed using a standard 90° V-notch weir rating table; no flow for many days.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 25 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1845	26	3.61	Feb. 26	0815	28	3.65

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.04	0.01	0.02	0.01	0.19	0.72	0.02	0.07	0.01	0.01	0.07
2	0.00	0.02	0.01	0.14	0.58	1.7	0.42	0.01	0.06	0.01	0.02	0.03
3	0.00	0.02	0.01	0.07	0.59	0.23	0.10	0.00	0.07	0.03	0.03	0.01
4	0.01	0.03	0.01	0.03	0.03	0.09	0.06	0.00	0.07	0.00	0.04	0.03
5	0.01	0.01	0.01	0.02	0.02	0.06	0.02	0.01	0.05	0.01	0.04	0.00
6	0.01	0.01	0.01	0.02	0.02	0.04	0.05	0.02	0.05	0.02	0.03	0.00
7	0.01	0.01	0.01	0.01	0.02	0.03	0.01	0.03	0.07	0.02	0.04	0.05
8	0.01	0.01	0.02	0.02	0.02	0.03	0.01	0.02	0.06	0.00	0.00	0.03
9	0.01	0.00	0.01	0.01	0.03	0.03	0.01	0.00	0.04	0.01	0.02	0.02
10	0.02	0.01	0.02	0.02	0.03	0.02	0.02	0.01	0.03	0.02	0.04	0.00
11	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.04	0.00	0.00	0.04	0.01
12	0.02	0.17	0.01	0.01	0.03	0.02	0.02	0.06	0.02	0.00	0.05	0.00
13	0.01	0.39	0.01	0.02	0.03	0.02	0.04	0.07	0.01	0.01	0.05	0.00
14	0.01	0.01	0.02	0.01	0.03	0.02	0.19	0.07	0.00	0.02	0.06	0.02
15	0.02	0.02	0.02	0.01	0.03	0.02	0.03	0.06	0.02	0.02	0.01	0.03
16	0.02	0.13	0.01	0.01	0.03	0.03	0.00	0.06	0.02	0.02	0.03	0.02
17	0.25	0.02	0.01	0.01	0.03	0.02	0.06	0.07	0.04	0.02	0.05	0.01
18	0.01	0.02	0.01	0.01	0.09	0.06	0.04	0.08	0.01	0.00	0.05	0.03
19	0.01	0.01	0.01	0.01	0.04	0.02	0.00	0.08	0.04	0.01	0.03	0.00
20	0.00	0.01	0.01	0.01	0.02	0.05	0.02	0.08	0.04	0.02	0.04	0.01
21	0.05	0.01	0.02	0.01	0.02	0.02	0.01	0.08	0.01	0.02	0.05	0.03
22	0.01	0.01	0.01	0.01	1.5	0.02	0.02	0.07	0.06	0.02	0.00	0.02
23	0.01	0.01	0.02	0.01	3.1	0.04	0.01	0.07	0.07	0.03	0.02	0.01
24	0.02	0.05	0.02	0.01	0.33	0.02	0.02	0.09	0.05	0.04	0.03	0.01
25	0.03	0.01	1.8	0.02	0.09	0.04	0.00	0.11	0.03	0.01	0.05	0.03
26	0.03	0.01	0.08	0.01	8.6	0.07	0.00	0.07	0.05	0.02	0.03	0.00
27	0.02	0.01	0.02	0.02	0.52	0.04	0.00	0.10	0.02	0.03	0.01	0.02
28	0.03	0.01	0.02	0.03	0.15	0.01	0.01	0.09	0.02	0.03	0.04	0.04
29	0.04	0.01	0.02	0.04	0.07	0.01	0.03	0.09	0.05	0.03	0.00	0.04
30	0.03	0.01	0.02	0.01	---	0.01	0.02	0.07	0.04	0.04	0.01	0.04
31	0.04	---	0.01	0.00	---	0.01	---	0.06	---	0.05	0.04	---
TOTAL	0.76	1.10	2.29	0.65	16.09	2.99	1.96	1.69	1.17	0.57	0.96	0.61
MEAN	0.02	0.04	0.07	0.02	0.55	0.10	0.07	0.05	0.04	0.02	0.03	0.02
MAX	0.25	0.39	1.8	0.14	8.6	1.7	0.72	0.11	0.07	0.05	0.06	0.07
MIN	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	1.5	2.2	4.5	1.3	32	5.9	3.9	3.4	2.3	1.1	1.9	1.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004
MEAN	0.01	0.05	0.10	0.02	0.28	0.07	0.03	0.03	0.02	0.01	0.02	0.01
MAX (WY)	0.02	0.07	0.19	0.02	0.55	0.10	0.07	0.05	0.04	0.02	0.03	0.02
MIN (WY)	0.00	0.04	0.02	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00

SUMMARY STATISTICS

FOR 2004 WATER YEAR

WATER YEARS 2002 - 2004

ANNUAL TOTAL	30.84	
ANNUAL MEAN	0.08	0.05
HIGHEST ANNUAL MEAN		0.08 2004
LOWEST ANNUAL MEAN		0.01 2002
HIGHEST DAILY MEAN	8.6 Feb 26	8.6 Feb 26 2004
LOWEST DAILY MEAN	0.00 Oct 1	0.00 Oct 1 2001
ANNUAL SEVEN-DAY MINIMUM	0.01 Oct 1	0.00 Oct 1 2001
MAXIMUM PEAK FLOW	28 Feb 26	32 Dec 16 2002
MAXIMUM PEAK STAGE	3.65 Feb 26	3.72 Dec 16 2002
ANNUAL RUNOFF (AC-FT)	61	34
10 PERCENT EXCEEDS	0.07	0.06
50 PERCENT EXCEEDS	0.02	0.00
90 PERCENT EXCEEDS	0.01	0.00

## 11045600 O'NEILL LAKE OUTLET CHANNEL NEAR FALLBROOK, CA

LOCATION.—Lat 33°19'30", long 117°19'29", in SE 1/4 NW 1/4 sec. 8, T.10 S., R.4 W., [San Diego County](#), Hydrologic Unit 18070302, on Camp Joseph H. Pendleton Naval Reservation, on left bank, 300 ft downstream from O'Neill Lake, and 5.5 mi southwest of Fallbrook.

DRAINAGE AREA.—9.77 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1998 to February 2003, October 2003 to September 2004.

GAGE.—Water-stage recorder and concrete control with low-water V-notch weir. Elevation of gage is 100 ft above NGVD of 1929, from topographic map.

REMARKS.—Records excellent. Records for this station represent regulated releases from O'Neill Lake. Water is sometimes diverted into O'Neill Lake from the Santa Margarita River via a diversion dam 0.9 mi above gage. Slight regulation by two small storage reservoirs upstream from gaging station on Fallbrook Creek near Fallbrook (station 11045300). See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 20 ft<sup>3</sup>/s, Nov. 29, 2001, gage height, 2.59 ft; no flow at times in most years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	6.7	0.69	0.54	1.1	1.6	0.81	0.79	0.97	0.44	0.12
2	0.00	0.00	12	0.69	0.63	1.3	1.5	0.83	0.79	0.95	0.35	0.10
3	0.00	0.00	9.4	0.75	0.71	1.4	1.4	0.86	0.72	0.96	0.31	0.12
4	0.00	0.00	1.7	0.71	0.65	1.4	1.4	0.89	0.73	0.96	0.34	0.15
5	0.00	0.00	1.6	0.69	0.68	1.5	1.3	0.87	0.79	0.95	0.36	0.15
6	0.00	0.01	1.5	0.59	0.91	1.7	1.2	0.86	0.79	0.92	0.31	0.11
7	0.00	0.00	1.5	0.61	0.96	1.6	1.1	0.82	0.79	0.96	0.25	0.11
8	0.00	0.00	1.4	0.61	0.87	1.6	1.1	0.81	0.85	1.00	0.24	0.11
9	0.00	0.00	1.4	0.62	0.83	1.6	1.1	0.83	0.85	0.98	0.21	0.15
10	0.00	0.00	1.2	0.62	0.75	1.6	0.96	0.79	0.85	0.95	0.21	0.14
11	0.00	0.00	1.2	0.64	0.84	1.7	0.94	0.75	0.83	0.93	0.21	0.19
12	0.00	0.01	1.1	0.69	0.83	1.7	1.00	0.71	0.82	0.88	0.20	0.18
13	0.00	0.00	0.96	0.70	0.89	1.7	1.1	0.72	0.81	0.85	0.20	0.10
14	0.00	0.00	0.94	0.74	0.97	1.7	1.1	0.76	0.82	0.83	0.20	0.14
15	0.00	0.00	1.0	0.77	0.96	1.8	1.1	0.81	0.84	0.82	0.20	0.08
16	0.00	0.00	0.57	0.72	0.95	1.7	1.1	0.81	0.85	0.83	0.19	0.09
17	0.00	0.00	0.41	0.89	0.90	1.8	1.1	0.81	0.85	0.82	0.21	0.07
18	0.00	0.00	0.37	0.86	0.84	1.8	1.0	0.77	0.79	0.82	0.23	0.04
19	0.00	0.00	0.34	0.85	0.75	1.6	0.97	0.73	0.79	0.81	0.20	0.06
20	0.00	6.2	0.32	0.92	0.74	1.5	0.99	0.72	0.81	0.82	0.17	0.06
21	0.00	9.2	0.29	0.90	0.74	1.5	0.91	0.73	0.98	0.80	0.11	0.04
22	0.00	8.6	0.33	0.91	0.75	1.4	0.88	0.73	0.99	0.82	0.12	0.02
23	0.00	8.2	0.37	0.89	0.82	1.6	0.91	0.73	0.99	0.79	0.13	0.01
24	0.00	8.1	0.35	0.84	0.82	1.6	0.99	0.72	1.00	0.80	0.13	0.01
25	0.00	7.9	0.36	0.78	0.81	1.6	1.0	0.71	1.0	0.79	0.11	0.03
26	0.00	7.5	0.41	0.81	0.98	1.6	0.91	0.77	1.1	0.77	0.11	0.02
27	0.00	7.3	0.44	0.79	0.91	1.5	0.89	0.79	1.1	0.76	0.14	0.01
28	0.00	7.1	0.47	0.66	1.0	1.5	0.84	0.79	1.1	0.76	0.13	0.01
29	0.00	7.0	0.51	0.56	1.1	1.5	0.82	0.79	1.1	0.74	0.16	0.02
30	0.00	6.8	0.55	0.55	---	1.5	0.82	0.79	1.0	0.68	0.16	0.05
31	0.00	---	0.65	0.46	---	1.6	---	0.78	---	0.48	0.16	---
TOTAL	0.00	83.92	50.34	22.51	24.13	48.7	32.03	24.29	26.52	26.20	6.49	2.49
MEAN	0.00	2.80	1.62	0.73	0.83	1.57	1.07	0.78	0.88	0.85	0.21	0.08
MAX	0.00	9.2	12	0.92	1.1	1.8	1.6	0.89	1.1	1.0	0.44	0.19
MIN	0.00	0.00	0.29	0.46	0.54	1.1	0.82	0.71	0.72	0.48	0.11	0.01
AC-FT	0.00	166	100	45	48	97	64	48	53	52	13	4.9

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

	1999	2001	2002	2004	2004	2004	2004	2004	2004	2004	2004	2004
MEAN	0.06	1.36	1.93	0.22	0.27	0.42	0.32	0.24	0.24	0.22	0.08	0.03
MAX (WY)	0.35	3.88	7.99	0.73	0.83	1.57	1.07	0.78	0.88	0.85	0.21	0.08
MIN (WY)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## SUMMARY STATISTICS

## FOR 2004 WATER YEAR

## WATER YEARS 1999 - 2004

ANNUAL TOTAL	347.62	
ANNUAL MEAN	0.95	0.51
HIGHEST ANNUAL MEAN		0.95 2004
LOWEST ANNUAL MEAN		0.00 2000
HIGHEST DAILY MEAN	12 Dec 2	19 Nov 30 2001
LOWEST DAILY MEAN	0.00 Oct 1	0.00 Sep 26 1999
ANNUAL SEVEN-DAY MINIMUM	0.00 Oct 1	0.00 Oct 9 1999
MAXIMUM PEAK FLOW	17 Dec 2	20 Nov 29 2001
MAXIMUM PEAK STAGE	2.39 Dec 2	2.59 Nov 29 2001
ANNUAL RUNOFF (AC-FT)	690	368
10 PERCENT EXCEEDS	1.5	0.87
50 PERCENT EXCEEDS	0.79	0.01
90 PERCENT EXCEEDS	0.00	0.00

## 11045700 O'NEILL LAKE SPILL CHANNEL NEAR FALLBROOK, CA

LOCATION.—Lat 33°19'44", long 117°19'35", in NW 1/4 NW 1/4 sec.8, T.10 S., R.4 W., [San Diego County](#), Hydrologic Unit 18070302, on Camp Joseph H. Pendleton Naval Reservation, on right bank, 100 ft upstream from spillway on O'Neill Lake, 1.3 mi upstream from confluence with Santa Margarita River, and 5.5 mi southwest of Fallbrook.

DRAINAGE AREA.—9.77 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1998 to February 2003, October 2003 to September 2004.

GAGE.—Water-stage recorder and sharp-crested weir (wooden flashboards in four weir boxes). Elevation of gage is 110 ft above NGVD of 1929, from topographic map.

REMARKS.—Records for this station represent spill from O'Neill Lake. Minor seepage through weir flashboards may occur at times and is not indicated in records for this station. Water is sometimes diverted into O'Neill Lake from the Santa Margarita River via a diversion dam 0.55 mi above gage. Slight regulation by two small storage reservoirs upstream from gaging station on Fallbrook Creek near Fallbrook (station 11045300). See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3.5 ft<sup>3</sup>/s, Apr. 8, 2001, gage height, 6.65 ft, from rating curve developed on basis of sharp-crested weir computations; no flow for all or most of each year.

EXTREMES FOR CURRENT YEAR.—No flow for entire water year.

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.00	0.00	0.00	0.00	0.08	0.16	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	0.00	0.41	0.80	0.00	0.00	0.00	0.00	0.00
(WY)	1999	1999	1999	1999	1999	2001	2001	1999	1999	1999	1999	1999
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999

## SUMMARY STATISTICS

## FOR 2004 WATER YEAR

## WATER YEARS 1999 - 2004

ANNUAL TOTAL	0.00	
ANNUAL MEAN	0.00	0.02
HIGHEST ANNUAL MEAN		0.10 2001
LOWEST ANNUAL MEAN		0.00 1999
HIGHEST DAILY MEAN	0.00 Oct 1	2.8 Mar 11 2001
LOWEST DAILY MEAN	0.00 Oct 1	0.00 Oct 1 1998
ANNUAL SEVEN-DAY MINIMUM	0.00 Oct 1	0.00 Oct 1 1998
MAXIMUM PEAK FLOW		3.5 Apr 8 2001
MAXIMUM PEAK STAGE	4.48 Mar 10	6.65 Apr 8 2001
ANNUAL RUNOFF (AC-FT)	0.00	15
10 PERCENT EXCEEDS	0.00	0.00
50 PERCENT EXCEEDS	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00

## 11046000 SANTA MARGARITA RIVER AT YSIDORA, CA

LOCATION.—Lat 33°18'40", long 117°20'47", 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, at Basilone Road Bridge, 7.9 mi upstream from mouth, and 5.2 mi upstream from Ysidora.

DRAINAGE AREA.—723 mi<sup>2</sup>.

PERIOD OF RECORD.—February 1923 to February 1999, September 2001 to current year (see GAGE paragraph). Low-flow records not equivalent prior to Dec. 10, 1980, due to installation of conservation ponds above downstream site.

CHEMICAL DATA: Water years 1980–81.

WATER TEMPERATURE: Water years 1969–81.

SEDIMENT DATA: Water years 1969–78, 1982–83.

REVISED RECORDS.—WDR CA-87-1: Drainage area.

GAGE.—Water-stage recorder. Auxiliary gage 2.3 mi upstream with crest-stage gage and steel drop structure (diversion dam). Primary gage temporarily out of operation from Feb. 26, 1999, to Sept. 27, 2001, due to channel work and replacement of Basilone Road Bridge. During this period, the auxiliary gage (station 11045050) was operated as a temporary replacement. Elevation of gage is 75 ft above NGVD of 1929, from topographic map. February 1923 to Feb. 16, 1927, at site 4.4 mi downstream at different datum (destroyed by flood). Feb. 17, 1927, to Feb. 1, 1931, no gage in operation; records based on discharge measurements. Feb. 2, 1931, to Feb. 24, 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.—Records rated fair except for estimated daily discharges, which are poor. Flow partly regulated by Vail Lake (station 11042510) since November 1948 and by Skinner Reservoir since 1974. Flow in Warm Springs Creek, a tributary to Murrieta Creek, slightly regulated beginning in water year 1999 by Diamond Valley Lake, capacity, 800,000 acre-ft (see station 11042800). Diversions to O'Neill Lake and to ground-water recharge basins are made at point 2.3 mi upstream by Camp Pendleton personnel. Regulated return flows from O'Neill Lake can occur at times, as can unregulated spills. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 44,000 ft<sup>3</sup>/s, estimated, based on regression equation and flood routing of upstream flows, Jan. 16, 1993, gage height, 20.47 ft; no flow for all or part of most years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	8.0	16	8.1	21	53	13	e13	e2.4	1.8	1.1	0.00
2	11	8.6	18	11	24	74	20	e11	e2.3	1.8	0.93	0.00
3	10	9.1	28	19	62	103	25	e9.5	e2.2	2.4	0.97	0.00
4	8.2	8.1	15	23	101	65	27	e8.1	e2.2	2.3	0.76	0.00
5	9.0	8.2	13	24	63	46	25	e6.9	e2.1	2.2	0.87	0.00
6	10	7.9	11	22	45	38	22	e6.5	e2.1	1.8	0.74	0.00
7	11	8.1	11	19	37	33	18	e6.2	e2.0	1.8	0.51	0.00
8	9.3	7.3	11	21	33	29	17	e6.0	e2.0	1.8	0.57	0.00
9	10	7.6	10	24	31	27	20	e5.5	2.0	1.6	0.97	0.00
10	11	7.9	5.7	23	27	28	20	e5.4	2.1	1.6	0.45	0.00
11	11	7.7	4.4	22	25	26	20	e5.1	1.8	1.7	0.32	0.00
12	12	6.9	3.5	23	24	27	17	e4.9	1.7	1.6	0.50	0.00
13	11	7.8	3.5	23	23	33	18	e4.8	1.8	1.3	0.20	0.00
14	10	37	3.7	23	23	33	18	e4.6	1.7	1.5	0.16	0.00
15	9.6	36	4.4	23	24	28	17	e4.5	1.9	1.3	0.41	0.00
16	10	26	4.5	22	26	16	15	e4.3	1.5	1.3	0.27	0.00
17	7.1	20	4.5	22	25	14	20	e4.1	1.8	1.3	0.13	0.00
18	5.8	17	3.7	22	25	12	23	e3.9	2.0	1.6	0.14	0.00
19	7.3	14	3.5	25	33	10	23	e3.8	1.4	1.4	0.08	0.00
20	6.8	13	4.6	24	35	9.7	25	e3.7	1.6	1.4	0.04	0.00
21	5.5	14	4.3	22	28	11	23	e3.6	2.0	1.2	0.00	0.00
22	6.4	16	4.9	25	118	14	21	e3.5	2.3	1.2	0.00	0.00
23	5.7	15	5.2	28	378	12	20	e3.4	1.6	1.4	0.00	0.00
24	5.7	16	4.4	25	167	14	19	e3.2	1.4	1.3	0.00	0.00
25	4.5	16	7.2	27	71	12	21	e3.1	2.0	1.5	0.00	0.00
26	6.0	16	233	23	747	15	22	e3.0	1.8	1.3	0.00	0.00
27	5.6	16	149	24	253	15	21	e2.9	1.9	1.2	0.00	0.00
28	5.4	17	57	21	105	15	e18	e2.8	2.3	1.2	0.00	0.00
29	6.2	17	29	22	71	15	e17	e2.7	2.2	1.5	0.00	0.00
30	6.0	16	15	20	---	13	e15	e2.6	2.4	1.3	0.00	0.00
31	5.6	---	11	22	---	14	---	e2.5	---	1.0	0.00	---
TOTAL	252.4	425.2	699.0	682.1	2645	854.7	600	155.1	58.5	47.6	10.12	0.00
MEAN	8.14	14.2	22.5	22.0	91.2	27.6	20.0	5.00	1.95	1.54	0.33	0.00
MAX	12	37	233	28	747	103	27	13	2.4	2.4	1.1	0.00
MIN	4.5	6.9	3.5	8.1	21	9.7	13	2.5	1.4	1.0	0.00	0.00
AC-FT	501	843	1390	1350	5250	1700	1190	308	116	94	20	0.00

e Estimated.

11046000 SANTA MARGARITA RIVER AT YSIDORA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1948, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.31	6.31	30.9	58.5	152	190	58.9	11.8	3.21	.54	.29	.88
MAX	13.3	65.8	141	532	1002	1730	465	101	28.7	3.15	2.30	13.5
(WY)	1942	1945	1941	1943	1937	1938	1941	1941	1941	1936	1935	1939
MIN	.000	.000	.000	.000	1.32	1.18	1.33	.000	.000	.000	.000	.000
(WY)	1924	1924	1948	1948	1925	1925	1925	1948	1923	1923	1923	1923

SUMMARY STATISTICS

WATER YEARS 1923 - 1948

ANNUAL MEAN	43.3
HIGHEST ANNUAL MEAN	169 1938
LOWEST ANNUAL MEAN	.77 1948
HIGHEST DAILY MEAN	15500 Mar 3 1938
LOWEST DAILY MEAN	.00 May 11 1923
ANNUAL SEVEN-DAY MINIMUM	.00 May 11 1923
MAXIMUM PEAK FLOW	33600 Feb 16 1927
MAXIMUM PEAK STAGE	18.00 Feb 16 1927
ANNUAL RUNOFF (AC-FT)	31390
10 PERCENT EXCEEDS	53
50 PERCENT EXCEEDS	1.6
90 PERCENT EXCEEDS	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1980, BY WATER YEAR (WY)

MEAN	.007	1.31	4.30	69.8	153	84.3	26.3	3.84	.65	.17	.036	.030
MAX	.23	41.7	71.7	749	2249	1071	379	52.7	12.1	3.14	.80	.67
(WY)	1970	1966	1967	1978	1980	1978	1958	1980	1979	1979	1980	1980
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1949	1949	1949	1949	1950	1950	1949	1949	1949	1949	1949	1949

SUMMARY STATISTICS

WATER YEARS 1949 - 1980

ANNUAL MEAN	27.9
HIGHEST ANNUAL MEAN	282 1980
LOWEST ANNUAL MEAN	.000 1950
HIGHEST DAILY MEAN	18000 Feb 21 1980
LOWEST DAILY MEAN	.00 Oct 1 1948
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1 1948
MAXIMUM PEAK FLOW	24000 Feb 18 1980
MAXIMUM PEAK STAGE	18.80 Feb 18 1980
ANNUAL RUNOFF (AC-FT)	20250
10 PERCENT EXCEEDS	4.4
50 PERCENT EXCEEDS	.00
90 PERCENT EXCEEDS	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2004, BY WATER YEAR (WY)

MEAN	4.89	15.3	29.0	171	197	181	52.2	24.9	10.5	3.66	3.21	1.95
MAX	39.3	62.0	124	2261	1296	896	202	121	36.6	16.5	31.6	11.7
(WY)	1984	1984	1984	1993	1993	1995	1983	1998	1998	2003	1983	2003
MIN	0.00	0.00	0.01	4.74	8.27	3.85	4.07	1.58	0.00	0.00	0.00	0.00
(WY)	1982	1985	1990	1991	1989	1987	2002	1984	1984	1981	1981	1981

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1981 - 2004

ANNUAL TOTAL	20194.6	6429.72	
ANNUAL MEAN	55.3	17.6	57.9
HIGHEST ANNUAL MEAN			337 1993
LOWEST ANNUAL MEAN			4.59 1989
HIGHEST DAILY MEAN	3040 Mar 16	747 Feb 26	22000 Jan 16 1993
LOWEST DAILY MEAN	3.5 Dec 12	0.00 Aug 21	0.00 Jun 19 1981
ANNUAL SEVEN-DAY MINIMUM	4.0 Dec 12	0.00 Aug 21	0.00 Jun 19 1981
MAXIMUM PEAK FLOW		2990 Feb 26	44000 Jan 16 1993
MAXIMUM PEAK STAGE		8.62 Feb 26	20.47 Jan 16 1993
ANNUAL RUNOFF (AC-FT)	40060	12750	41950
10 PERCENT EXCEEDS	77	28	71
50 PERCENT EXCEEDS	16	7.6	7.5
90 PERCENT EXCEEDS	7.8	0.00	0.00

## 11046050 SANTA MARGARITA RIVER AT MOUTH, NEAR OCEANSIDE, CA

LOCATION.—Lat 33°14'08", long 117°24'27", in SW 1/4 NE 1/4 sec.9, T.11 S., R.5 W., San Diego County, Hydrologic Unit 18070302, on Camp Joseph H. Pendleton Naval Reservation, on right bank, 300 ft downstream from bridge on Interstate Highway 5, 0.5 mi upstream from mouth, and 3.5 mi northwest of Oceanside.

DRAINAGE AREA.—744 mi<sup>2</sup>.

## GAGE-HEIGHT RECORDS

PERIOD OF RECORD.—October 1989 to current year. Unpublished records for water year 1989 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 2.78 ft below NGVD of 1929.

REMARKS.—Gage height generally affected by tide. See schematic diagram of [Santa Margarita River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum gage height, 15.10 ft, from floodmarks and hydrographers' notes, Jan. 16, 1993; minimum recorded gage height, 2.02 ft, Feb. 3, 1999.

EXTREMES FOR CURRENT YEAR.—Maximum recorded gage height, 7.96 ft, Dec. 23; minimum recorded gage height, 3.40 ft, Jan. 2.

## GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.96	3.75	5.18	3.91	5.11	3.60	5.20	3.43	5.42	3.96	5.10	4.23
2	5.82	3.79	5.13	3.92	5.13	3.53	5.46	3.40	5.45	3.90	5.81	4.32
3	5.97	3.79	5.15	3.98	5.70	3.52	6.10	3.57	6.25	4.00	5.94	4.43
4	5.98	3.85	5.47	3.98	5.90	3.66	6.07	3.62	6.61	4.31	6.18	4.32
5	6.13	3.90	5.75	4.04	6.13	3.64	6.16	3.60	6.21	4.27	6.08	4.24
6	6.27	3.95	5.90	4.03	6.44	3.69	6.34	3.64	5.92	4.16	5.88	4.14
7	6.34	3.99	5.85	4.00	6.87	3.99	6.29	3.67	5.99	4.06	5.71	4.09
8	6.18	4.03	5.82	3.92	6.83	3.92	6.20	3.63	5.71	4.07	5.40	4.07
9	6.28	4.06	5.96	3.91	6.64	3.83	6.09	3.71	5.15	4.06	5.76	4.01
10	6.56	4.11	6.31	3.95	6.62	3.81	6.14	3.83	4.53	3.93	5.89	3.95
11	6.38	4.10	6.14	3.99	6.89	4.10	6.00	4.08	4.66	3.82	5.96	3.89
12	6.18	4.06	6.04	3.97	6.08	3.92	5.33	4.19	4.89	3.77	5.85	3.85
13	6.13	3.99	5.53	3.96	5.35	3.79	4.98	4.41	4.99	3.77	5.71	3.87
14	5.95	3.96	5.09	3.92	4.91	3.80	5.15	4.93	5.28	3.81	5.45	3.90
15	5.78	3.99	4.58	3.89	4.30	3.77	5.34	5.00	6.02	3.82	5.60	3.92
16	5.47	4.08	4.74	3.91	4.10	3.72	6.31	4.87	6.25	3.96	5.93	4.01
17	5.18	4.09	4.80	4.05	4.60	3.69	6.31	4.65	6.43	3.98	6.31	4.04
18	5.08	4.10	4.86	4.29	5.26	3.79	6.54	4.61	6.89	4.09	6.41	4.08
19	5.10	4.13	5.03	4.30	5.84	3.88	7.33	4.80	7.08	4.31	6.20	4.08
20	5.42	4.20	5.48	4.32	6.80	4.03	7.68	4.41	7.01	4.34	5.92	4.10
21	5.78	4.28	6.32	4.31	7.52	4.02	7.60	4.20	6.35	4.35	5.67	4.08
22	5.88	4.29	7.25	4.22	7.87	3.86	7.35	4.08	6.69	4.43	5.85	4.06
23	6.20	4.20	7.37	4.08	7.96	3.83	7.18	4.11	6.05	5.14	5.68	3.99
24	6.67	4.12	7.71	3.95	7.88	3.82	6.66	4.21	5.79	4.80	5.57	3.86
25	7.10	4.11	7.87	3.86	7.57	3.84	5.88	4.23	5.32	4.42	5.50	3.76
26	7.66	4.11	7.42	3.77	7.27	4.22	4.82	3.98	7.00	4.80	5.33	3.77
27	7.73	4.13	6.51	3.67	5.84	4.08	4.53	3.80	7.05	5.23	5.13	3.78
28	7.59	4.09	5.93	3.66	4.66	3.79	4.53	3.77	5.38	4.63	4.89	3.76
29	6.91	4.00	5.20	3.62	4.34	3.61	4.66	3.77	4.99	4.34	4.56	3.74
30	6.40	4.00	4.96	3.56	4.74	3.52	4.75	3.79	---	---	4.60	3.79
31	5.61	3.99	---	---	5.25	3.47	5.46	3.82	---	---	5.01	3.94
MONTH	7.73	3.75	7.87	3.56	7.96	3.47	7.68	3.40	7.08	3.77	6.41	3.74

## 11046050 SANTA MARGARITA RIVER AT MOUTH, NEAR OCEANSIDE, CA—Continued

## GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.46	4.50	5.68	5.59	6.43	6.36	6.45	6.36	6.05	6.00	5.75	5.69
2	5.95	4.23	5.82	5.68	6.52	6.36	6.42	6.35	6.05	5.98	5.75	5.68
3	5.72	4.25	6.00	5.82	6.72	6.50	6.40	6.35	6.03	5.97	5.74	5.68
4	5.76	4.32	6.22	6.00	6.75	6.69	6.39	6.33	6.02	5.96	5.74	5.66
5	6.16	4.38	6.55	6.22	6.76	6.71	6.38	6.32	6.01	5.94	5.74	5.64
6	6.29	4.41	6.64	6.51	6.75	6.71	6.37	6.32	6.02	5.93	5.71	5.63
7	6.31	4.32	6.68	6.62	6.71	6.70	6.36	6.31	6.00	5.92	5.70	5.63
8	6.31	4.31	6.71	6.63	6.70	6.65	6.35	6.29	5.99	5.91	5.69	5.63
9	6.28	4.34	6.73	6.65	6.70	6.64	6.34	6.27	5.97	5.91	5.65	5.62
10	5.95	4.41	6.71	6.67	6.69	6.63	6.32	6.27	5.96	5.90	5.67	5.61
11	5.33	4.35	6.71	6.64	6.67	6.61	6.31	6.26	5.95	5.90	5.67	5.61
12	4.89	4.32	6.70	6.62	6.66	6.58	6.30	6.24	5.93	5.89	5.65	5.60
13	4.79	4.31	6.69	6.60	6.65	6.56	6.28	6.24	5.92	5.88	5.64	5.59
14	5.00	4.34	6.68	6.61	6.63	6.55	6.28	6.22	5.92	5.88	5.62	5.58
15	5.07	4.42	6.67	6.58	6.60	6.56	6.27	6.19	5.92	5.86	5.62	5.57
16	5.18	4.45	6.64	6.56	6.59	6.58	6.26	6.19	5.90	5.85	5.58	5.56
17	5.35	4.56	6.63	6.55	6.58	6.55	6.25	6.18	5.90	5.85	5.56	5.52
18	5.38	4.38	6.62	6.53	6.57	6.55	6.23	6.17	5.89	5.84	5.61	5.55
19	5.27	4.38	6.60	6.52	6.57	6.55	6.22	6.15	5.89	5.81	5.60	5.53
20	5.28	4.35	6.59	6.53	6.55	6.51	6.21	6.13	5.87	5.81	5.60	5.52
21	5.45	4.37	6.59	6.51	6.56	6.51	6.19	6.12	5.87	5.80	5.61	5.50
22	5.28	4.47	6.58	6.49	6.54	6.51	6.18	6.11	5.86	5.78	5.59	5.49
23	5.07	4.41	6.55	6.49	6.54	6.50	6.17	6.11	5.85	5.77	5.58	5.48
24	4.93	4.38	6.55	6.47	6.53	6.47	6.15	6.10	5.83	5.77	5.57	5.48
25	4.85	4.50	6.53	6.47	6.52	6.46	6.13	6.08	5.82	5.75	5.53	5.48
26	5.00	4.64	6.51	6.45	6.51	6.45	6.13	6.06	5.79	5.74	5.53	5.48
27	5.28	5.00	6.51	6.43	6.50	6.44	6.13	6.05	5.79	5.73	5.53	5.48
28	5.46	5.28	6.47	6.43	6.47	6.42	6.11	6.03	5.78	5.72	5.52	5.47
29	5.55	5.46	6.47	6.41	6.46	6.40	6.08	6.02	5.78	5.71	5.52	5.46
30	5.59	5.49	6.47	6.39	6.46	6.38	6.06	6.01	5.77	5.70	5.50	5.47
31	---	---	6.45	6.37	---	---	6.05	6.01	5.76	5.70	---	---
MONTH	6.31	4.23	6.73	5.59	6.76	6.36	6.45	6.01	6.05	5.70	5.75	5.46

## 11046050 SANTA MARGARITA RIVER AT MOUTH, NEAR OCEANSIDE, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.—October 1993 to current year.

DISSOLVED OXYGEN: October 1993 to current year.

pH: October 1993 to current year.

SPECIFIC CONDUCTANCE: October 1993 to current year.

WATER TEMPERATURE: October 1993 to current year.

INSTRUMENTATION.—Water-quality monitor since October 1993.

REMARKS.—Dissolved oxygen records rated fair from Oct. 1 to Apr. 16, and poor for the remainder of the year. pH records rated good. Specific conductance records rated good except Feb. 14 to Mar. 20, which are fair. Temperature records rated excellent. Interruptions in record at times due to malfunction of recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 20.9 mg/L, May 1, 1996, Apr. 5, 2002; minimum recorded, 0.0 mg/L, May 19, Aug. 29, 1994.

pH: Maximum recorded, 9.6 standard units, Dec. 21, 22, 1996, Dec. 30, 31, 1999; minimum recorded, 6.2 standard units, Nov. 26, 1993.

SPECIFIC CONDUCTANCE: Maximum recorded, 58,700 microsiemens, June 21, 2002; minimum recorded, 119 microsiemens, Feb. 24, 1998.

WATER TEMPERATURE: Maximum recorded, 32.0°C, July 29, 1995, June 9, Aug. 14, 16, 1996; minimum recorded, 5.0°C, Nov. 21, 1994.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 19.6 mg/L, Sept. 5; minimum recorded, 0.6 mg/L, Oct. 11–13.

pH: Maximum recorded, 9.3 standard units, several days in September; minimum recorded, 7.2 standard units, Feb. 4.

SPECIFIC CONDUCTANCE: Maximum recorded, 51,800 microsiemens, Oct. 2; minimum recorded, 382 microsiemens, Feb. 27.

WATER TEMPERATURE: Maximum recorded, 29.6°C, July 20; minimum recorded, 9.5°C, Jan. 5.

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.1	1.1	11.4	2.4	---	---	7.6	4.5	15.5	4.2	9.1	6.6
2	6.0	1.0	11.9	3.2	---	---	8.2	4.5	16.2	4.5	7.8	5.0
3	7.5	0.8	10.0	4.3	---	---	10.2	4.6	14.8	4.8	7.1	4.5
4	7.9	1.6	9.7	3.2	10.9	4.7	9.3	3.0	8.4	2.5	7.4	5.1
5	9.4	1.7	8.8	4.1	9.6	4.4	8.9	4.0	11.1	4.2	7.5	4.7
6	7.8	1.4	8.0	3.3	10.7	4.4	8.8	4.4	12.1	4.4	7.6	3.4
7	6.1	1.3	7.9	3.5	7.2	5.0	10.2	4.8	12.8	5.7	7.6	3.2
8	4.5	0.8	7.2	3.0	10.0	3.6	9.3	3.8	13.4	5.2	7.3	4.9
9	3.6	0.8	6.3	3.0	9.3	3.0	10.1	3.2	16.4	4.3	7.4	5.3
10	3.8	0.7	5.8	1.9	9.2	4.0	9.9	3.8	17.3	4.2	7.2	5.5
11	5.9	0.6	5.6	1.9	9.1	4.5	9.5	4.6	16.8	5.6	8.9	5.5
12	6.0	0.6	4.5	1.4	8.9	3.8	15.2	4.8	18.4	6.3	7.4	5.0
13	6.5	0.6	7.7	1.2	11.1	3.5	17.4	4.3	18.4	6.6	10.4	4.6
14	5.5	0.8	8.7	2.0	9.2	3.4	14.9	5.3	17.1	6.3	9.8	4.4
15	4.2	0.8	9.0	2.9	10.1	2.9	14.7	5.4	18.0	6.6	8.4	4.0
16	4.5	0.7	10.1	3.1	8.7	3.8	13.5	6.3	15.8	6.1	7.2	4.8
17	3.7	0.9	9.8	3.7	11.6	5.1	12.8	6.3	12.0	5.0	7.9	4.9
18	4.0	0.9	10.3	3.8	12.0	5.4	13.0	6.6	10.5	4.7	8.3	5.3
19	11.2	1.6	11.3	4.5	10.0	5.5	12.2	6.3	12.1	4.2	9.0	5.2
20	9.9	2.0	8.6	4.7	7.8	5.2	10.3	5.4	8.7	4.0	12.2	6.1
21	9.9	2.1	9.5	4.3	15.2	5.0	10.8	4.8	9.5	4.1	12.7	6.3
22	10.2	2.8	9.1	4.3	9.8	4.0	9.3	4.3	9.1	4.3	10.7	6.4
23	10.0	2.8	8.4	2.9	6.9	3.5	9.4	4.5	7.6	4.4	12.2	6.2
24	10.0	3.3	7.7	3.1	8.2	2.7	9.2	4.4	8.4	6.2	12.5	6.4
25	8.8	4.3	---	---	7.5	3.4	11.4	4.8	9.2	5.2	13.8	6.2
26	8.2	3.8	---	---	9.4	4.3	13.0	5.2	8.8	6.0	12.0	5.6
27	8.4	3.3	---	---	7.9	3.8	16.5	4.8	8.7	7.5	13.1	6.2
28	8.2	3.0	---	---	5.3	2.2	18.3	5.3	8.6	6.9	13.2	5.4
29	6.9	2.3	---	---	5.6	2.0	18.5	5.7	9.0	6.9	13.3	4.8
30	6.9	1.2	---	---	6.4	4.2	17.4	6.1	---	---	13.9	4.8
31	8.4	2.1	---	---	7.6	4.2	14.5	5.1	---	---	12.6	4.3
MONTH	11.2	0.6	---	---	---	---	18.5	3.0	18.4	2.5	13.9	3.2



## 11046050 SANTA MARGARITA RIVER AT MOUTH, NEAR OCEANSIDE, CA—Continued

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.8	4.0	9.4	3.1	---	---	6.0	3.5	8.9	4.9	14.9	9.2
2	11.7	5.1	8.4	2.7	---	---	5.1	2.5	9.2	4.6	15.6	11.4
3	16.2	4.5	8.0	2.3	---	---	4.3	2.0	9.3	5.0	14.8	10.7
4	16.1	4.4	4.6	1.5	---	---	4.4	2.1	10.1	5.8	14.2	7.6
5	13.1	4.1	5.0	1.4	---	---	4.3	1.7	10.4	6.1	19.6	8.8
6	12.4	4.4	4.5	1.7	---	---	4.3	2.1	11.2	7.0	15.8	10.8
7	12.9	4.6	6.9	1.9	---	---	4.8	2.0	11.6	7.2	15.6	11.0
8	10.3	4.5	7.7	2.3	---	---	5.0	2.1	10.9	7.2	15.2	10.5
9	13.1	4.6	7.4	2.6	---	---	5.1	2.8	10.3	7.1	15.5	7.2
10	7.0	2.5	8.0	3.1	---	---	4.5	2.0	11.1	6.4	14.7	9.8
11	14.8	3.8	---	---	---	---	4.4	2.1	10.6	7.1	13.9	8.3
12	12.5	1.6	---	---	---	---	4.5	2.0	10.1	8.0	12.5	7.2
13	12.5	1.7	---	---	---	---	5.0	2.5	11.8	6.9	11.6	6.4
14	14.0	3.0	7.3	3.6	---	---	4.6	2.4	10.9	7.6	11.0	7.0
15	13.9	3.6	7.1	2.6	---	---	4.5	2.2	11.6	7.6	9.9	4.1
16	9.7	2.6	6.3	1.6	4.9	2.0	3.7	1.3	11.7	7.9	10.0	4.3
17	7.7	2.9	5.6	1.1	5.6	2.0	4.4	1.8	11.4	8.3	10.7	4.0
18	9.3	3.2	5.8	1.3	4.7	1.8	4.2	1.9	12.5	8.9	9.9	3.3
19	8.8	3.9	5.8	1.7	4.1	1.8	5.9	2.3	---	---	11.3	4.6
20	8.5	3.6	6.2	2.2	6.2	2.5	5.8	3.1	---	---	11.6	3.4
21	8.2	3.7	5.9	2.2	5.5	2.2	6.6	3.6	---	---	12.1	4.4
22	7.1	2.7	7.0	3.1	4.1	2.1	6.5	3.3	---	---	11.1	4.3
23	5.9	1.6	5.8	2.0	4.5	1.6	7.0	3.7	---	---	13.8	5.9
24	10.6	1.1	---	---	5.1	2.4	7.0	4.0	12.8	6.7	12.4	7.2
25	9.2	2.9	---	---	3.9	2.6	7.9	4.3	13.0	8.5	11.8	6.5
26	8.8	2.8	---	---	3.4	1.6	8.3	4.8	12.4	8.4	10.4	4.2
27	8.2	2.3	---	---	3.5	1.3	9.3	4.7	13.4	9.9	10.1	3.4
28	5.3	1.8	---	---	4.2	2.5	8.8	5.8	14.1	10.2	10.9	3.5
29	10.4	1.9	---	---	6.5	3.2	8.6	5.3	14.2	10.3	11.7	3.2
30	10.5	3.5	---	---	6.5	3.4	8.6	4.9	13.3	9.2	6.2	2.6
31	---	---	---	---	---	---	8.4	4.7	13.2	9.4	---	---
MONTH	16.2	1.1	---	---	---	---	9.3	1.3	---	---	19.6	2.6

## 11046050 SANTA MARGARITA RIVER AT MOUTH, NEAR OCEANSIDE, CA—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.2	7.6	8.2	7.5	---	---	8.0	7.7	8.3	7.6	7.7	7.5
2	8.2	7.6	8.3	7.7	---	---	8.0	7.7	8.3	7.5	7.8	7.5
3	8.2	7.6	8.2	7.9	---	---	8.1	7.6	8.3	7.6	7.8	7.5
4	8.4	7.7	8.2	7.8	8.2	7.8	8.0	7.7	7.8	7.2	7.8	7.5
5	8.2	7.9	8.2	7.9	8.1	7.8	8.0	7.7	8.0	7.4	7.8	7.5
6	8.3	7.8	8.2	7.8	8.2	7.8	8.1	7.8	8.0	7.3	7.7	7.4
7	8.4	7.8	8.1	7.9	8.0	7.8	8.1	7.8	8.0	7.5	7.8	7.4
8	8.2	7.9	8.2	7.8	8.1	7.6	8.1	7.7	8.0	7.4	7.8	7.6
9	8.1	7.8	8.1	7.8	8.1	7.6	8.1	7.7	8.2	7.4	7.8	7.5
10	8.2	7.8	8.1	7.6	8.1	7.7	8.1	7.6	8.2	7.4	7.8	7.6
11	8.1	7.8	8.1	7.7	8.1	7.8	8.0	7.7	8.2	7.5	8.1	7.7
12	8.1	7.8	8.0	7.6	8.1	7.8	8.4	7.7	8.9	7.6	8.1	7.7
13	8.2	7.8	8.1	7.6	8.2	7.7	8.5	7.7	8.9	8.4	8.2	7.8
14	8.2	7.8	8.2	7.7	8.1	7.7	8.3	7.8	8.7	8.3	8.1	7.7
15	8.2	7.8	8.2	7.7	8.2	7.6	8.3	7.8	8.6	8.2	7.9	7.7
16	8.3	7.8	8.2	7.7	8.1	7.8	8.3	7.9	8.5	7.9	7.9	7.6
17	8.3	7.9	8.2	7.7	8.3	7.9	8.2	7.9	8.2	7.8	7.8	7.7
18	8.4	7.9	8.2	7.7	8.3	7.9	8.2	7.9	8.1	7.8	7.9	7.7
19	8.5	7.8	8.3	7.7	8.2	7.9	8.2	7.9	8.2	7.7	8.2	7.8
20	8.4	8.0	8.1	7.8	8.1	7.9	8.1	7.8	8.0	7.7	8.3	8.0
21	8.5	8.1	8.2	7.8	8.5	7.9	8.1	7.6	8.0	7.6	8.3	8.0
22	8.5	8.1	8.1	7.8	8.1	7.9	7.9	7.6	8.1	7.7	8.2	8.0
23	8.4	8.1	8.1	7.7	8.0	7.7	7.9	7.6	7.9	7.5	8.4	8.0
24	8.4	8.1	8.0	7.7	8.1	7.6	7.9	7.6	7.7	7.5	8.4	8.1
25	8.4	8.1	---	---	8.0	7.6	8.0	7.7	7.8	7.4	8.5	8.0
26	8.3	8.0	---	---	8.0	7.6	8.1	7.7	7.8	7.5	8.4	8.0
27	8.4	7.9	---	---	7.8	7.5	8.3	7.7	7.6	7.5	8.6	8.0
28	8.3	7.8	---	---	7.7	7.4	8.4	7.6	7.6	7.5	8.5	8.0
29	8.2	7.4	---	---	7.7	7.5	8.4	7.7	7.7	7.6	8.6	8.0
30	8.0	7.3	---	---	7.9	7.6	8.3	7.7	---	---	8.6	8.0
31	8.1	7.3	---	---	8.0	7.6	8.3	7.6	---	---	8.4	7.7
MONTH	8.5	7.3	---	---	---	---	8.5	7.6	8.9	7.2	8.6	7.4
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.3	7.7	8.4	7.9	8.1	7.8	8.0	7.8	8.5	8.3	9.3	9.0
2	8.3	7.9	8.4	8.0	8.1	7.8	8.0	7.8	8.5	8.3	9.3	9.1
3	8.5	7.9	8.3	8.0	8.1	7.7	7.9	7.8	8.6	8.4	9.3	9.1
4	8.5	7.9	8.0	7.6	8.0	7.7	7.9	7.8	8.6	8.5	9.2	9.1
5	8.4	7.9	7.7	7.5	8.1	7.7	7.9	7.7	8.6	8.5	9.2	9.0
6	8.4	7.9	7.6	7.4	8.1	7.8	7.8	7.7	8.7	8.5	9.3	9.1
7	8.4	7.9	7.9	7.4	8.0	7.9	7.8	7.7	8.7	8.6	9.2	9.1
8	8.2	7.8	8.1	7.5	8.1	7.8	7.9	7.7	8.7	8.6	9.3	9.1
9	8.4	7.8	8.1	7.6	8.0	7.8	7.9	7.8	8.8	8.6	9.3	8.9
10	8.2	7.6	8.1	7.7	8.0	7.8	7.9	7.8	8.8	8.6	9.1	8.8
11	8.5	7.8	8.2	7.8	7.9	7.8	7.9	7.8	8.8	8.7	9.1	8.8
12	8.4	7.7	8.2	7.9	7.9	7.7	7.9	7.8	8.8	8.7	9.1	8.8
13	8.4	7.6	8.3	7.8	7.7	7.7	8.0	7.8	8.8	8.7	9.0	8.8
14	8.5	7.9	8.2	8.0	7.8	7.6	8.0	7.8	8.8	8.7	9.0	8.8
15	8.4	7.8	8.2	7.9	8.0	7.6	8.0	7.8	8.9	8.7	8.9	8.5
16	8.3	7.8	8.2	7.8	7.9	7.7	7.9	7.8	8.9	8.8	8.7	8.5
17	8.2	7.8	8.1	7.8	7.9	7.7	8.0	7.8	8.9	8.8	8.7	8.5
18	8.2	7.9	8.1	7.7	7.9	7.7	8.0	7.8	8.9	8.8	8.7	8.5
19	8.2	7.9	8.1	7.8	7.8	7.7	8.0	7.8	9.0	8.8	8.7	8.5
20	8.1	7.8	8.0	7.8	7.9	7.7	8.1	7.9	9.0	8.8	8.7	8.4
21	8.1	7.5	8.0	7.8	7.9	7.6	8.2	8.0	9.0	8.9	8.6	8.5
22	8.1	7.5	8.1	7.8	7.9	7.8	8.2	8.0	9.0	8.8	8.6	8.5
23	8.2	7.7	8.0	7.8	7.9	7.8	8.2	8.0	9.0	8.8	8.7	8.5
24	8.4	7.7	8.0	7.8	7.8	7.7	8.2	8.1	9.0	8.8	8.7	8.6
25	8.4	7.8	8.1	7.7	7.8	7.6	8.3	8.1	9.0	8.9	8.7	8.5
26	8.4	7.9	8.1	7.8	7.7	7.6	8.2	8.2	9.0	8.9	8.6	8.5
27	8.3	7.8	8.1	7.9	7.8	7.6	8.3	8.1	9.1	9.0	8.6	8.4
28	8.0	7.7	8.2	7.9	7.8	7.7	8.4	8.2	9.2	9.0	8.6	8.4
29	8.4	7.8	8.2	7.9	8.0	7.8	8.4	8.3	9.2	9.0	8.6	8.4
30	8.4	7.8	8.1	7.8	7.9	7.8	8.5	8.3	9.2	9.0	8.4	8.3
31	---	---	8.1	7.8	---	---	8.5	8.3	9.2	9.0	---	---
MONTH	8.5	7.5	8.4	7.4	8.1	7.6	8.5	7.7	9.2	8.3	9.3	8.3

## 11046050 SANTA MARGARITA RIVER AT MOUTH, NEAR OCEANSIDE, CA—Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	51400	44000	48200	45400	---	---	49100	38800	49000	23800	21400	1500
2	51800	43300	49100	43700	---	---	49100	34700	48600	23300	45300	1720
3	51500	45600	49500	43400	---	---	48900	24900	47800	16100	45600	26100
4	51400	45800	49500	45000	49900	33600	48900	39600	48000	16100	45900	11100
5	51600	44800	49900	45300	49500	36600	48900	42100	48600	36600	47000	23700
6	51400	44600	49800	45500	49300	33000	48900	36100	47700	38500	46900	32600
7	51200	45400	49700	45200	49400	39900	48700	41400	47600	41500	47400	33900
8	50900	45600	49700	44500	49200	40000	48400	32800	48000	35900	47200	38000
9	50600	45500	49600	43900	49700	41100	48400	42400	45800	36100	47700	35000
10	50500	46000	49300	44600	49500	41300	48400	42700	45400	21500	48200	34700
11	50700	45200	49400	45700	48800	37200	47900	43100	45800	27500	48400	23600
12	49400	45200	49400	44200	49800	39900	46200	39500	47600	19000	48700	28900
13	49400	44400	49600	44300	49300	34300	46000	42600	48100	31800	48300	4420
14	48700	44500	48700	44000	47300	35700	43400	39800	48700	35200	48300	6900
15	48700	45100	46500	42800	44600	35900	41500	36600	49000	34400	48200	33200
16	47800	45200	47000	42800	41200	36100	47300	38300	49000	26300	48400	30800
17	48600	45700	47400	43000	48100	33800	48100	42000	48600	35200	48700	39700
18	48900	46600	46900	41400	49500	35700	48200	41700	48500	28400	49000	43600
19	48800	46600	47300	40900	49600	36400	48400	41300	48900	38200	48500	38300
20	49000	45800	48600	41500	49000	40800	48600	39000	48200	38600	48900	36500
21	49800	46200	48300	39900	49500	39100	48600	35300	48700	43900	49100	35100
22	49700	46100	49700	38700	49600	43100	48100	41000	49600	43300	49200	36900
23	50100	46100	49400	41100	49400	44500	48100	40600	47900	622	49300	36400
24	50400	45300	49700	42100	49400	43800	48500	43000	4830	811	49100	16900
25	50100	45200	---	---	49100	23100	48100	39900	9400	1340	49000	10700
26	50300	45400	---	---	48100	10100	47500	30400	33400	394	48700	5560
27	50100	45900	---	---	44900	3610	46300	12600	791	382	48700	7640
28	50000	45400	---	---	42400	29300	45200	9850	1280	791	48100	9840
29	49800	45000	---	---	40900	28100	46600	17000	1550	1280	41000	4560
30	50000	41600	---	---	47100	25900	46900	16400	---	---	40600	3600
31	49300	41600	---	---	48800	30400	48500	14800	---	---	47000	16500
MONTH	51800	41600	---	---	---	---	49100	9850	49600	382	49300	1500
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	48500	31500	28300	20900	30600	29700	36100	35000	37200	36600	39000	38200
2	48700	41500	26300	21200	30500	29800	35900	35000	37200	36500	39300	38100
3	48800	35100	27800	21600	35000	30100	35800	35200	37900	36800	38900	38100
4	49000	30400	30800	26300	39800	31600	35600	34800	37900	36900	39500	38300
5	49400	31400	36200	28500	36200	32100	35500	34800	37800	37500	40200	38800
6	49900	37900	42800	33100	33200	31500	35400	34900	38100	37600	39600	38900
7	49600	31900	39200	30200	32500	31800	35800	35200	38300	37700	39700	38800
8	49800	35700	35000	26500	32300	31400	35900	35100	38000	37600	39800	38900
9	49700	28100	30900	27000	33200	31800	35800	34800	38400	37800	40300	39300
10	50700	40600	29500	26900	33400	32400	35900	35300	38500	37700	40600	39400
11	48800	22500	28700	27000	33400	32100	35800	35300	38500	37700	40500	39200
12	43700	25100	28400	27000	33400	32400	35600	34900	38400	37800	40400	39100
13	40000	15600	28700	27300	33600	32600	35800	35200	38700	37800	40300	38900
14	44600	21700	29000	27700	33800	33200	35800	35100	38800	37800	39600	39100
15	44300	26000	29000	27900	34500	33300	35700	35200	38600	37700	41100	39200
16	47300	25400	29200	27900	35100	34200	35800	35300	38400	37800	40900	39800
17	48000	25400	29400	27500	35500	34200	36000	35600	38500	37600	41000	40200
18	48300	20600	29400	28100	35500	34300	36100	35600	38900	38000	41400	40500
19	48700	27500	29200	28100	35400	34400	36300	35700	38400	37900	41400	39300
20	48600	28400	29300	28200	35400	34600	36300	35700	38700	38000	41700	39400
21	49000	32500	29400	28400	35200	34100	36300	35800	38900	38100	41200	38900
22	49100	38000	29500	28800	35000	34200	36400	35900	39200	38400	40300	39800
23	47600	28200	29800	28200	35100	33900	37000	36100	39600	38200	40800	39900
24	46200	32800	29700	28300	35200	34000	37000	36300	39100	38300	40900	39500
25	42800	25900	30500	28800	35400	34400	37000	36100	39200	38300	40600	39900
26	36100	22400	30400	29300	35400	34600	37000	35900	39200	38400	40700	39900
27	33500	27200	30400	29300	35400	34600	36900	35900	38600	38000	40900	39800
28	32700	28300	30300	29300	35500	34800	37000	36200	38200	37900	41000	40200
29	28900	23500	30400	29700	35600	34300	37100	36600	38500	37900	41100	39900
30	29700	20100	30600	29600	35900	34800	37300	36300	39000	38100	41500	40000
31	---	---	30600	29400	---	---	37100	36600	39000	38000	---	---
MONTH	50700	15600	42800	20900	39800	29700	37300	34800	39600	36500	41700	38100

## SANTA MARGARITA RIVER BASIN

11046050 SANTA MARGARITA RIVER AT MOUTH, NEAR OCEANSIDE, CA—Continued

TEMPERATURE, WATER, DEGREES C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	23.2	20.3	18.9	15.9	---	---	13.6	11.9	16.7	13.4	15.6	13.6
2	22.5	20.8	18.9	15.6	---	---	13.2	12.3	16.2	13.1	16.1	13.9
3	22.1	19.9	17.6	15.0	---	---	14.6	12.7	15.7	12.8	16.0	13.9
4	22.1	18.4	18.9	15.7	16.1	14.6	14.2	12.3	14.9	12.8	16.0	14.4
5	22.2	19.1	17.8	14.8	16.2	15.0	13.4	9.5	14.7	13.0	16.8	14.9
6	21.9	18.2	18.1	15.2	16.3	14.7	13.0	9.8	14.8	12.8	17.1	14.7
7	22.3	18.3	18.0	15.1	16.1	15.6	14.1	12.3	14.9	12.4	19.0	15.3
8	23.7	18.3	18.0	14.9	17.5	15.5	14.1	10.7	15.2	12.6	19.1	16.1
9	21.3	17.8	17.3	15.4	16.6	14.0	14.3	12.5	15.2	13.0	19.7	15.9
10	20.9	19.0	17.6	16.0	15.2	12.7	14.6	13.0	15.7	13.0	19.5	15.9
11	23.3	19.4	18.0	15.7	15.0	13.8	14.7	13.4	15.4	12.7	21.7	16.5
12	23.6	19.1	18.6	16.3	14.8	12.0	15.8	14.6	16.1	12.6	18.2	16.9
13	22.8	19.0	18.6	15.8	14.7	10.3	16.0	14.7	15.2	12.5	20.8	16.5
14	22.3	19.6	18.0	15.4	14.4	10.5	16.8	15.5	14.3	12.3	19.0	16.1
15	22.6	19.6	17.4	15.6	14.7	13.1	16.7	15.9	15.3	12.5	20.5	15.9
16	22.6	19.6	17.6	15.8	14.7	12.6	16.3	14.2	16.1	12.9	19.7	15.9
17	22.8	20.4	17.4	15.1	14.2	11.5	16.4	14.5	15.6	13.2	18.4	15.6
18	22.7	20.9	17.6	15.5	14.7	12.2	16.3	14.2	15.5	13.3	17.7	15.4
19	23.9	21.1	17.9	15.3	14.7	11.8	16.3	14.4	15.4	12.9	18.1	15.8
20	24.2	20.1	17.6	15.8	14.4	12.7	15.9	14.4	15.3	13.6	18.8	15.6
21	23.9	19.2	17.7	16.5	16.0	13.9	15.7	14.2	14.8	13.7	18.4	15.5
22	22.7	18.6	17.1	15.8	15.7	13.2	15.2	13.6	15.5	13.8	17.5	15.4
23	22.6	17.4	16.2	12.4	15.0	13.3	15.1	12.2	15.4	13.0	17.8	15.7
24	22.2	18.1	15.0	12.8	14.6	13.0	14.8	13.4	15.1	12.5	20.6	16.0
25	22.0	18.9	---	---	15.4	13.4	15.9	13.6	14.9	12.8	22.7	16.4
26	20.8	17.8	---	---	14.3	11.8	16.1	14.3	16.5	13.4	22.0	16.7
27	19.3	16.6	---	---	13.4	9.8	16.3	14.1	15.0	12.3	22.8	16.2
28	18.2	16.0	---	---	12.7	11.1	17.3	14.4	15.5	12.5	23.7	16.9
29	18.3	16.3	---	---	12.7	10.9	17.1	13.9	15.4	12.1	23.6	18.1
30	19.2	16.2	---	---	13.1	10.7	16.8	13.5	---	---	23.1	16.6
31	18.2	15.5	---	---	13.6	12.2	16.7	14.2	---	---	20.6	16.2
MONTH	24.2	15.5	---	---	---	---	17.3	9.5	16.7	12.1	23.7	13.6
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.3	16.5	24.4	21.6	27.4	24.5	25.8	23.6	27.1	25.2	26.2	25.0
2	19.4	15.6	25.4	22.1	27.1	25.1	25.2	23.2	27.2	25.5	26.7	25.4
3	20.6	16.6	26.0	22.4	26.6	24.6	24.9	23.4	27.1	25.5	26.2	24.5
4	21.4	17.3	24.4	22.8	26.0	23.8	26.3	23.7	26.8	25.6	25.6	24.2
5	21.2	17.7	24.4	22.7	26.4	24.7	26.0	24.6	26.8	25.1	26.3	24.8
6	21.1	17.4	24.3	22.1	25.6	23.7	25.4	24.4	26.5	24.5	26.4	24.4
7	22.2	17.4	25.0	23.5	23.7	22.5	24.7	24.1	27.0	24.9	26.5	25.2
8	20.2	17.6	25.3	23.7	23.5	21.3	25.0	23.4	27.0	25.1	26.5	25.6
9	22.0	17.3	25.8	23.4	24.1	21.6	25.8	23.5	26.8	25.7	27.5	26.2
10	20.9	17.8	25.5	23.5	24.5	21.8	25.8	24.2	27.4	25.5	28.0	26.8
11	22.7	17.4	24.5	22.2	24.9	22.5	26.0	24.7	27.3	26.2	28.5	27.3
12	22.9	18.8	24.7	21.8	25.9	23.1	27.2	24.7	26.9	25.7	28.5	27.7
13	23.4	20.0	25.2	22.3	25.7	23.7	27.7	25.8	26.4	25.2	28.2	26.4
14	22.8	17.1	25.8	22.8	25.3	23.8	28.3	26.3	26.2	25.4	26.9	25.4
15	23.4	18.3	25.6	23.0	25.4	23.9	29.2	26.9	25.9	24.9	26.1	25.1
16	23.2	19.3	25.4	23.0	24.7	23.0	29.2	27.0	25.9	24.7	26.0	25.0
17	19.5	17.0	24.3	22.5	23.5	22.2	29.4	26.9	25.6	24.6	26.7	25.4
18	21.0	16.5	25.0	22.4	23.4	22.0	29.2	27.2	26.0	24.9	26.5	24.9
19	22.2	17.3	24.7	22.3	22.0	21.3	29.4	27.3	26.0	24.4	26.1	23.6
20	22.4	17.5	24.7	22.8	22.9	20.9	29.6	27.3	25.6	24.6	23.8	22.0
21	22.2	17.6	24.3	22.7	23.5	22.0	29.4	27.9	25.8	24.5	23.3	21.5
22	22.1	17.9	24.5	22.4	23.0	22.1	28.7	27.2	26.1	24.5	23.1	21.3
23	24.3	18.4	24.2	23.1	23.3	21.6	28.0	27.0	26.1	24.6	23.2	20.8
24	24.3	19.1	24.2	22.4	25.4	22.0	27.2	26.4	25.9	24.0	23.5	21.2
25	25.3	19.6	23.2	21.8	26.2	23.8	26.5	25.8	26.2	23.9	24.0	22.4
26	25.0	21.5	22.8	20.6	26.2	24.4	27.3	25.4	26.0	24.7	24.7	23.3
27	24.5	21.6	23.2	20.5	25.6	24.4	27.9	26.1	26.1	24.8	25.2	23.9
28	23.5	22.8	22.8	21.8	24.7	23.3	27.9	26.1	25.8	24.4	25.0	23.8
29	23.1	20.1	23.8	21.4	24.8	22.5	27.3	25.3	26.3	24.8	24.5	23.4
30	23.5	21.9	25.6	22.1	25.6	23.1	27.1	25.5	26.4	24.8	23.7	22.2
31	---	---	27.3	23.3	---	---	27.0	25.4	26.0	25.0	---	---
MONTH	25.3	15.6	27.3	20.5	27.4	20.9	29.6	23.2	27.4	23.9	28.5	20.8

## 331346117243401 SANTA MARGARITA RIVER ESTUARY NEAR OCEANSIDE, CA

LOCATION.—Lat 33°13'46", long 117°24'34", in SE 1/4 SW 1/4 sec.9, T.11 S., R.5 W., San Diego County, Hydrologic Unit 18070302, on tidal flat of the Santa Margarita River, on Camp Joseph H. Pendleton Naval Reservation, 0.6 mi west of Interstate Highway 5, and 3.0 mi northwest of Oceanside.

DRAINAGE AREA.—Not determined.

PERIOD OF DAILY RECORD.—November 1993 to current year.

DISSOLVED OXYGEN: November 1993 to current year.

pH: November 1993 to current year.

SPECIFIC CONDUCTANCE: November 1993 to current year.

WATER TEMPERATURE: November 1993 to current year.

INSTRUMENTATION.—Water-quality monitor since November 1993.

REMARKS.—Dissolved oxygen records rated poor. pH records rated good. Specific conductance records rated good. Temperature records rated good. Interruptions in record at times in some years due to malfunction of recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 21.1 mg/L, Apr. 18, 1997; minimum recorded, 0.0 mg/L, many days during period of record.

pH: Maximum recorded, 9.9 standard units, Jan. 17, 2000; minimum recorded, 6.0 standard units, Nov. 23, 1994, Apr. 24, 1995.

SPECIFIC CONDUCTANCE: Maximum recorded, 58,700 microsiemens, July 2, 1998; minimum recorded, 236 microsiemens, Feb. 25, 1998.

WATER TEMPERATURE: Maximum recorded, 35.0°C, Aug. 14, 1996; minimum recorded, 2.0°C, Nov. 19, 21, 1994.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, >20.0 mg/L, Apr. 13; minimum recorded, 0.3 mg/L, Oct. 10, Mar. 7, July 15.

pH: Maximum recorded, 9.0 standard units, Apr. 13; minimum recorded, 7.1 standard units, Oct. 29.

SPECIFIC CONDUCTANCE: Maximum recorded, 56,100 microsiemens, Oct. 29; minimum recorded, 3,280 microsiemens, Feb. 27.

WATER TEMPERATURE: Maximum recorded, 30.3°C, July 15, 20; minimum recorded, 6.9°C, Dec. 29.

> Actual value is known to be greater than value shown.

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.7	2.5	9.8	3.5	---	---	14.1	7.6	10.8	5.3	---	---
2	7.5	2.5	11.2	4.3	---	---	13.1	7.7	11.4	6.7	---	---
3	8.2	2.1	10.4	3.9	---	---	11.8	6.0	8.9	5.7	---	---
4	8.5	3.0	10.7	4.3	10.4	6.2	12.8	6.6	10.8	6.1	---	---
5	8.5	1.9	9.8	4.5	10.1	5.6	11.8	7.2	11.4	6.8	---	---
6	8.8	1.3	9.2	4.5	9.5	4.8	10.7	7.4	13.5	7.1	---	---
7	9.2	1.5	8.9	4.1	7.3	4.4	11.9	7.0	11.5	6.9	6.4	0.3
8	8.8	1.4	8.0	3.9	8.7	2.6	10.2	6.9	12.3	6.5	8.4	2.0
9	7.5	0.7	6.7	3.5	8.8	4.8	10.7	6.7	11.2	6.6	9.8	3.1
10	7.6	0.3	6.6	2.2	8.8	5.7	11.6	6.6	11.7	6.3	8.2	3.3
11	8.8	1.4	7.0	2.4	8.5	5.1	10.9	7.9	13.3	7.1	---	---
12	7.7	0.9	6.6	2.9	9.1	5.7	11.0	7.3	12.5	7.5	9.4	3.6
13	6.9	1.1	7.3	2.6	9.8	6.9	13.0	7.0	11.4	6.8	11.6	4.4
14	7.9	0.9	7.4	3.2	10.3	7.1	12.2	7.7	12.1	6.7	10.8	4.0
15	7.1	1.3	7.7	3.5	12.3	7.7	12.0	7.5	11.8	6.6	11.8	3.9
16	7.5	1.6	8.0	4.0	12.2	7.7	12.3	6.4	10.2	6.2	11.2	4.6
17	6.5	0.9	8.7	3.7	10.6	7.1	11.0	5.4	9.7	5.5	11.0	4.8
18	6.6	0.7	7.7	4.5	11.4	7.2	11.3	6.4	8.7	6.0	11.7	4.8
19	7.0	1.0	7.2	4.4	10.5	7.6	9.5	6.4	10.7	5.0	11.8	4.3
20	8.0	1.0	6.6	4.0	9.2	6.7	9.5	4.5	9.4	5.1	11.5	4.3
21	7.8	1.0	6.6	3.3	8.9	5.3	9.6	5.8	10.2	5.0	12.4	3.1
22	8.4	1.1	6.1	2.8	8.9	4.6	9.6	6.2	10.6	5.2	12.8	3.2
23	8.8	1.4	6.3	3.4	8.0	4.6	9.4	6.4	7.8	4.1	14.4	3.2
24	8.3	1.1	5.8	3.7	8.8	3.7	9.1	6.2	11.9	3.5	14.2	4.4
25	8.0	1.6	---	---	8.0	3.1	9.9	5.7	13.9	3.0	14.2	4.1
26	5.2	0.9	---	---	8.7	6.1	10.7	5.7	8.5	3.4	9.7	3.0
27	5.8	0.4	---	---	11.0	4.8	12.5	6.4	8.4	5.7	14.0	3.8
28	5.5	0.4	---	---	12.9	5.2	12.3	5.1	---	---	14.9	4.2
29	6.4	0.7	---	---	14.2	8.8	10.8	5.4	---	---	14.7	5.3
30	6.9	3.1	---	---	15.9	7.5	11.1	6.1	---	---	15.6	4.6
31	8.8	3.5	---	---	14.2	7.8	10.6	5.7	---	---	15.5	4.5
MONTH	9.2	0.3	---	---	---	---	14.1	4.5	---	---	---	---

## 331346117243401 SANTA MARGARITA RIVER ESTUARY NEAR OCEANSIDE, CA—Continued

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	8.6	3.8	5.2	1.4	9.0	3.4	9.1	2.8	8.9	3.2
2	16.9	4.2	8.7	4.1	4.5	1.2	8.5	2.5	9.2	2.8	9.7	3.4
3	16.9	5.2	8.0	4.0	5.1	0.9	7.3	3.0	9.2	3.0	9.1	3.4
4	16.8	6.6	7.0	3.0	5.2	1.2	8.4	2.6	8.5	2.9	9.1	2.7
5	17.4	2.3	7.7	3.2	5.4	1.6	7.1	3.3	10.5	3.1	9.3	3.6
6	17.7	5.0	8.0	2.5	3.2	1.2	5.9	2.3	10.2	3.6	9.8	3.1
7	14.5	5.6	6.6	3.2	3.8	1.2	7.8	1.9	9.8	4.0	9.2	3.6
8	12.6	4.2	5.9	3.2	4.8	1.3	8.4	2.8	9.5	3.8	8.2	3.3
9	14.4	4.5	5.2	2.5	8.0	1.4	8.9	2.8	8.8	3.7	9.3	2.5
10	11.6	2.8	5.5	2.3	7.2	2.6	8.0	2.9	9.4	3.6	9.3	3.1
11	14.2	4.5	6.9	1.8	7.3	2.3	6.9	2.4	8.8	3.6	9.6	2.7
12	12.4	4.8	6.9	2.7	7.4	2.6	7.2	2.2	8.0	2.9	8.9	2.4
13	>20.0	5.4	6.6	2.2	6.1	2.4	5.6	1.9	8.6	2.8	8.7	2.2
14	14.4	5.1	5.9	1.5	7.0	2.1	4.9	0.9	8.4	3.6	9.2	2.7
15	17.1	3.6	5.8	1.5	6.5	2.1	7.4	0.3	8.9	3.3	9.3	3.9
16	14.7	5.0	4.5	1.8	5.7	2.8	8.7	1.5	10.3	3.5	9.2	3.2
17	11.3	2.4	5.4	1.4	8.8	3.1	8.7	2.4	9.2	4.0	10.0	2.9
18	12.8	3.8	5.8	1.7	6.9	3.3	7.6	1.9	9.1	3.8	10.0	2.6
19	12.3	3.9	5.8	1.4	6.7	2.8	6.8	1.7	10.0	4.1	10.6	2.8
20	12.5	2.6	6.2	1.9	8.8	3.2	5.8	1.3	8.4	4.2	10.2	3.0
21	12.3	2.6	6.1	1.8	7.3	4.2	8.0	0.6	9.3	2.6	9.3	3.8
22	11.6	3.1	6.2	1.9	5.8	3.6	9.2	1.8	9.3	3.5	8.7	3.9
23	12.2	1.0	5.4	1.8	7.0	3.1	8.0	2.6	9.6	3.5	8.6	3.8
24	10.8	1.0	6.0	2.0	8.2	2.6	7.1	2.4	8.9	3.0	8.9	4.2
25	9.3	3.6	5.4	2.1	8.0	2.8	8.0	2.4	9.0	3.6	8.1	3.8
26	9.1	3.8	6.3	2.0	8.4	2.2	7.6	3.1	8.0	3.3	8.9	3.0
27	8.8	3.8	6.3	2.3	8.5	2.1	8.7	3.1	9.0	3.0	8.7	3.3
28	8.1	2.3	5.9	2.2	8.9	3.1	8.6	2.9	8.2	2.5	8.3	2.6
29	9.8	4.3	5.4	2.0	9.7	3.6	8.6	2.7	9.2	3.3	8.0	2.6
30	10.1	2.9	5.5	1.5	9.7	3.7	8.8	3.3	8.2	2.5	7.2	2.4
31	---	---	5.2	1.2	---	---	8.5	3.0	8.5	2.8	---	---
MONTH	---	---	8.7	1.2	9.7	0.9	9.2	0.3	10.5	2.5	10.6	2.2

> Actual value is known to be greater than the value shown.

331346117243401 SANTA MARGARITA RIVER ESTUARY NEAR OCEANSIDE, CA—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.0	7.3	8.2	7.5	8.4	8.0	8.4	8.1	8.2	8.0	---	---
2	8.1	7.5	8.3	7.7	8.3	8.0	8.5	8.1	8.5	8.0	---	---
3	8.1	7.4	8.4	7.8	8.4	8.0	8.3	7.9	8.1	7.8	---	---
4	8.3	7.6	8.4	8.0	8.3	8.0	8.4	7.9	8.2	7.8	---	---
5	8.2	7.7	8.4	8.0	8.3	8.0	8.3	8.0	8.2	7.8	---	---
6	8.2	7.6	8.4	8.0	8.2	7.9	8.4	7.8	8.4	7.8	---	---
7	8.3	7.6	8.4	8.0	8.1	7.8	8.1	7.8	8.5	8.0	7.9	7.6
8	8.5	7.6	8.4	8.0	8.1	7.6	8.3	7.8	8.3	7.9	8.3	7.6
9	8.2	7.6	8.2	7.9	8.1	7.8	8.2	7.8	8.3	7.9	8.1	7.7
10	8.0	7.5	8.1	7.6	8.1	7.8	8.3	8.0	8.4	8.1	8.0	7.7
11	8.2	7.4	8.1	7.7	8.1	7.8	8.2	8.1	8.6	8.1	8.2	7.8
12	8.2	7.4	8.1	7.6	8.1	7.8	8.3	8.0	8.5	8.2	8.1	7.7
13	8.3	7.4	8.4	7.7	8.2	7.9	8.4	8.1	8.5	8.2	8.3	7.9
14	8.1	7.3	8.3	7.8	8.2	8.0	8.4	8.2	8.5	8.2	8.2	7.8
15	8.1	7.4	8.3	7.9	8.4	8.0	8.4	8.1	8.5	8.2	8.2	7.8
16	8.2	7.6	8.5	8.1	8.4	8.1	8.3	8.0	8.4	8.1	8.3	7.8
17	8.1	7.6	8.5	8.1	8.4	8.2	8.2	7.9	8.4	8.1	8.3	7.7
18	8.1	7.7	8.6	8.2	8.4	8.2	8.2	8.0	8.3	8.0	8.3	7.7
19	8.1	7.6	8.5	8.2	8.3	8.2	8.2	8.0	8.3	7.9	8.3	7.7
20	8.3	7.6	8.4	8.2	8.3	8.1	8.2	7.8	8.2	7.9	8.3	7.5
21	8.2	7.6	8.5	8.1	8.2	8.0	8.2	7.8	8.3	7.9	8.4	7.6
22	8.3	7.6	8.4	8.0	8.2	7.9	8.4	7.8	8.3	7.9	8.3	7.4
23	8.3	7.6	8.4	8.1	8.1	7.6	8.5	7.8	8.1	7.7	8.4	7.5
24	8.2	7.6	8.3	8.0	8.2	7.4	8.4	7.8	8.5	7.4	8.3	7.6
25	8.1	7.6	8.1	7.8	8.1	7.4	8.6	7.7	8.5	7.6	8.3	7.7
26	7.8	7.3	8.0	7.4	8.2	7.6	8.4	7.7	8.1	7.5	8.1	7.7
27	7.9	7.2	8.0	7.6	8.1	7.7	8.5	7.9	8.1	7.7	8.5	7.7
28	7.8	7.2	8.1	7.8	8.2	7.6	8.8	8.0	---	---	8.5	7.9
29	7.8	7.1	8.2	7.8	8.4	7.9	8.2	8.0	---	---	8.6	8.0
30	8.0	7.3	8.3	7.9	8.5	7.9	8.3	8.0	---	---	8.5	8.0
31	8.2	7.4	---	---	8.6	8.0	8.4	8.0	---	---	8.4	7.9
MONTH	8.5	7.1	8.6	7.4	8.6	7.4	8.8	7.7	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.8	8.0	8.4	8.0	7.8	7.4	8.1	7.8	8.2	7.9	8.4	8.0
2	8.7	8.0	8.4	8.0	7.7	7.4	8.1	7.8	8.2	7.9	8.4	8.0
3	8.8	8.1	8.4	8.0	7.9	7.4	8.0	7.8	8.2	7.9	8.3	8.0
4	8.8	8.1	8.2	7.8	8.1	7.5	8.1	7.8	8.2	8.0	8.3	8.0
5	8.8	8.2	8.2	7.7	8.0	7.6	8.1	7.8	8.2	8.0	8.4	8.0
6	8.8	8.1	8.2	7.6	7.7	7.5	8.1	7.7	8.2	8.0	8.4	8.0
7	8.7	8.1	8.1	7.7	7.7	7.5	8.0	7.7	8.2	8.0	8.4	8.0
8	8.5	8.1	7.9	7.6	7.8	7.4	8.0	7.7	8.2	8.0	8.3	8.0
9	8.8	8.0	7.8	7.5	7.8	7.5	8.1	7.7	8.2	8.0	8.2	8.0
10	8.6	8.2	7.6	7.3	7.8	7.5	8.1	7.8	8.2	8.0	8.2	8.0
11	8.8	8.1	7.8	7.3	7.8	7.5	8.1	7.8	8.2	8.0	8.2	8.0
12	8.8	8.3	7.8	7.3	7.8	7.5	8.1	7.8	8.1	8.0	8.1	7.9
13	9.0	8.4	7.8	7.3	7.7	7.5	8.0	7.9	8.2	8.0	8.1	7.9
14	8.7	8.4	7.8	7.4	7.8	7.5	8.1	7.8	8.2	7.9	8.1	7.9
15	8.8	8.1	7.8	7.4	7.8	7.5	8.1	7.8	8.1	7.8	8.1	7.9
16	8.6	8.2	7.6	7.4	7.7	7.6	8.2	7.8	8.2	7.8	8.2	7.9
17	8.4	8.1	7.7	7.3	8.0	7.6	8.2	7.8	8.1	7.8	8.2	8.0
18	8.5	8.0	7.7	7.4	7.9	7.7	8.2	7.8	8.1	7.9	8.2	8.0
19	8.5	8.0	7.7	7.4	7.8	7.5	8.2	7.9	8.1	7.9	8.2	8.0
20	8.5	7.9	7.8	7.4	7.9	7.5	8.1	7.8	8.1	7.9	8.3	8.0
21	8.5	7.9	7.7	7.4	7.9	7.6	8.2	7.9	8.1	7.9	8.3	8.1
22	8.4	7.9	7.8	7.4	7.8	7.7	8.1	7.7	8.1	7.9	8.4	8.1
23	8.2	7.7	7.7	7.4	7.9	7.6	8.0	7.8	8.2	8.0	8.4	8.2
24	8.3	7.8	7.7	7.5	8.0	7.6	7.9	7.8	8.2	8.0	8.5	8.2
25	8.2	7.8	7.8	7.5	8.0	7.7	8.0	7.7	8.3	8.0	8.5	8.2
26	8.2	7.9	7.9	7.5	8.0	7.6	8.0	7.7	8.2	8.0	8.4	8.1
27	8.2	7.8	7.9	7.5	7.9	7.6	8.0	7.7	8.4	8.0	8.4	8.1
28	8.1	7.7	7.9	7.5	8.0	7.7	8.0	7.8	8.4	8.0	8.3	8.1
29	8.1	7.7	7.9	7.6	8.1	7.8	8.1	7.8	8.4	7.9	8.3	8.1
30	8.5	7.6	7.8	7.4	8.1	7.8	8.1	7.9	8.3	7.9	8.2	8.1
31	---	---	7.8	7.4	---	---	8.2	7.9	8.3	8.0	---	---
MONTH	9.0	7.6	8.4	7.3	8.1	7.4	8.2	7.7	8.4	7.8	8.5	7.9

SANTA MARGARITA RIVER BASIN

331346117243401 SANTA MARGARITA RIVER ESTUARY NEAR OCEANSIDE, CA—Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	50700	49600	50400	48400	51000	49300	48800	48000	48100	47400	---	---
2	51000	49900	50400	48900	51100	48900	49500	48400	48300	46600	---	---
3	50900	49900	50600	49300	50600	49000	49700	46200	47000	41900	---	---
4	50800	49800	50900	49100	49500	48200	49500	47200	46800	42200	---	---
5	50800	49900	50800	49400	49400	48500	49700	48600	48100	40100	---	---
6	51100	49800	50900	49200	49300	47700	49900	48800	46700	41900	---	---
7	51100	49700	51000	49300	48800	47300	50000	48000	46700	43300	44900	36100
8	51600	49900	50900	49100	49100	47600	49700	48900	46900	45300	45000	40100
9	51400	49900	50400	49200	49700	48700	49800	49200	46900	43300	46200	40900
10	51200	50100	50200	49000	49700	48700	49800	47200	46200	44000	46700	37100
11	51900	50300	50400	49200	49600	48400	49400	47800	45700	43400	47800	42500
12	52500	50800	50200	49200	49600	48400	49200	47400	46200	43700	48300	44500
13	52400	50700	49800	48700	50100	49400	48900	46500	47100	45700	48400	46000
14	52200	51000	50000	46900	50200	47800	46700	39100	48000	47000	48100	46800
15	52300	51200	50300	49600	50100	49200	41900	34600	48000	47100	47800	42900
16	52400	51500	49800	48300	50100	49100	46000	37400	48200	46800	46900	44300
17	52600	51500	49600	49300	50100	48100	47800	41200	48200	46600	46700	44500
18	52600	51800	49800	49000	50100	48700	48700	44900	48000	46700	47300	44700
19	52600	51700	49600	48000	50100	49300	47600	46500	47900	46800	47400	45000
20	53600	51300	49300	47600	50500	49600	48700	46700	47800	44100	47300	44700
21	53700	52200	49200	47400	50700	49200	49700	48200	47700	45200	47000	44200
22	53800	51500	49600	47700	50900	49800	49700	48900	47600	41200	48000	43900
23	53800	51200	50000	48200	52000	50100	50100	49300	46000	5500	47600	37600
24	54600	52100	50200	49100	52100	50100	50100	48000	22300	7220	47900	44900
25	54900	53000	50800	49100	51800	44900	49200	46500	31000	10400	48000	46000
26	55100	53000	52300	50400	49600	44900	48600	44900	32200	5140	47800	44000
27	55600	53200	52200	50400	48400	42300	47900	47100	8920	3280	46300	45300
28	55900	53000	52300	48900	48300	45400	47900	46700	---	---	46000	45300
29	56100	51000	52200	47400	47800	45900	48200	47600	---	---	46000	44000
30	51800	49600	51700	48600	47400	45300	48000	46900	---	---	45500	42500
31	50400	49300	---	---	48000	46300	47900	44700	---	---	44700	40300
MONTH	56100	49300	52300	46900	52100	42300	50100	34600	---	---	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	42600	37800	29000	26500	31600	30900	36200	35900	39900	39600	43900	42400
2	46000	38100	28200	26000	31700	31000	36200	36000	40200	39900	43700	42900
3	45700	42400	26900	25900	33500	31100	36100	35900	40500	40200	43700	43300
4	45400	42200	27400	26000	35000	33100	36100	36000	40500	40300	43900	43200
5	45100	40900	29100	25700	35500	34700	36200	36000	40600	40300	43500	43000
6	47100	42500	30700	25000	36100	35400	36100	35900	40700	40500	43400	41900
7	47700	44700	27700	25800	36200	35800	36300	35800	40700	40400	43200	42200
8	48100	46000	28500	27100	36000	35400	36500	36300	40800	40500	44400	42800
9	47400	44800	29600	28400	35600	35100	36600	36400	40800	40500	44400	43800
10	46700	44900	30300	29600	35600	35200	36700	36400	40800	40500	44500	44200
11	45800	42300	31400	29800	35600	35100	36500	36200	41000	40700	44500	44300
12	45300	43400	30400	29900	35700	34600	36500	36400	41200	40900	44500	44300
13	44300	41900	30800	30100	35900	34900	36600	36500	41100	40600	44800	44400
14	43300	39100	30900	30600	36200	34200	36700	36500	41100	40900	45000	44800
15	42300	41000	31000	30600	36000	34900	36900	36600	41300	41000	45200	44900
16	42200	38900	31100	30800	36200	35900	37100	36700	41400	41200	45200	44700
17	43500	40600	31100	30700	36100	35500	37100	36800	41500	41400	45200	44800
18	43200	37900	31300	31000	35800	35000	37200	36900	41600	41300	45300	45000
19	45400	42400	31400	31200	35200	34600	37100	36400	41700	41500	45400	45000
20	46200	44100	31600	31100	34800	34100	37500	36500	42100	41700	45400	45200
21	46600	43500	31600	31200	34600	34000	38400	37400	42200	42000	45800	45400
22	46300	43900	31800	31300	34600	34100	38800	38300	42400	42200	45900	45400
23	47200	46100	32000	31600	34900	34200	38900	38500	42500	42200	45900	45500
24	47200	46700	32200	31800	35100	34500	38800	38500	42600	42400	45900	45600
25	47000	44800	32100	31800	35200	34700	38800	38600	42600	42200	45900	45500
26	45900	40200	32300	31700	35500	34200	38900	38700	42700	42400	45800	44500
27	41100	31400	32200	31900	35800	34800	39000	38500	42800	42600	46000	44900
28	37200	33700	32000	31500	35900	35600	39200	39000	43100	42700	45800	45600
29	36600	33400	31800	31400	35900	35500	39500	39200	43400	42800	45800	44600
30	36600	23300	32000	30900	36000	35400	39600	39300	43400	42600	45200	44500
31	---	---	31500	30900	---	---	39800	39300	43900	43100	---	---
MONTH	48100	23300	32300	25000	36200	30900	39800	35800	43900	39600	46000	41900



## 331346117243401 SANTA MARGARITA RIVER ESTUARY NEAR OCEANSIDE, CA—Continued

## TEMPERATURE, WATER, DEGREES C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24.5	19.9	19.2	15.3	16.0	8.8	12.2	7.1	17.0	11.3	---	---
2	23.0	20.5	19.2	14.0	16.3	9.9	12.4	8.4	16.5	10.8	---	---
3	21.4	18.9	18.5	13.7	17.0	11.7	15.5	11.5	16.3	12.3	---	---
4	22.8	17.7	21.1	15.0	16.8	12.7	14.5	10.4	16.8	11.6	---	---
5	22.5	19.2	19.0	13.5	17.6	13.9	13.6	8.9	16.9	10.4	---	---
6	22.8	18.9	19.5	13.7	17.7	13.8	12.2	8.8	15.8	10.0	---	---
7	23.0	18.5	19.4	14.4	16.6	15.4	15.4	10.0	15.4	10.1	22.5	15.3
8	25.6	18.7	19.2	13.9	18.6	14.2	14.2	10.1	16.2	10.9	21.6	16.0
9	21.9	18.4	16.6	14.9	15.1	11.7	13.5	10.1	16.4	9.7	23.1	16.7
10	21.6	18.8	18.0	15.3	14.2	11.4	13.8	10.0	16.3	9.6	22.9	16.6
11	24.9	19.2	18.6	15.1	14.3	11.8	14.6	10.8	16.2	9.7	23.6	16.9
12	25.1	19.3	19.6	16.3	13.4	9.2	16.0	12.3	16.5	9.2	19.7	16.8
13	23.6	18.4	20.3	15.6	13.2	9.1	15.3	12.2	14.4	9.1	21.2	16.6
14	22.8	19.7	19.5	14.8	13.3	8.9	17.4	12.6	13.3	8.0	19.5	16.9
15	24.0	19.6	17.7	14.6	14.7	9.6	16.6	12.7	16.6	9.7	23.2	17.1
16	24.0	19.0	18.7	15.2	13.6	9.1	17.4	12.8	17.7	11.9	20.4	17.6
17	23.7	20.4	17.0	13.9	12.9	7.3	17.1	14.4	17.8	12.8	20.4	16.7
18	23.3	20.4	18.0	13.5	14.3	9.1	16.6	13.8	14.9	12.8	19.7	16.0
19	24.7	21.2	18.8	13.6	13.0	9.5	16.0	13.7	16.8	12.2	20.1	15.9
20	25.4	20.1	18.2	14.7	12.6	10.3	16.9	14.1	17.1	13.3	20.8	16.2
21	25.3	19.0	18.9	15.8	17.5	11.8	15.6	13.2	14.9	13.2	20.6	15.8
22	23.8	18.3	17.4	13.4	15.7	12.7	15.6	11.6	16.0	12.8	19.3	15.9
23	24.6	17.6	15.8	12.0	14.0	11.8	14.8	10.7	19.3	12.3	19.3	15.6
24	23.7	18.2	14.3	10.6	16.6	11.2	13.5	11.0	20.2	14.1	21.6	16.2
25	23.0	18.8	17.8	12.4	16.3	13.0	16.5	11.4	18.2	15.1	23.1	17.3
26	23.1	17.4	16.4	13.0	14.4	10.6	16.7	9.8	19.9	13.7	22.1	17.3
27	23.8	16.0	14.7	11.5	11.3	8.6	16.7	11.0	17.5	13.0	24.4	17.9
28	21.0	16.0	15.4	10.7	10.7	7.3	17.7	13.1	---	---	24.8	17.3
29	19.0	16.0	16.8	10.0	11.0	6.9	17.2	12.3	---	---	24.9	17.9
30	19.3	16.2	16.3	10.2	13.0	9.8	17.1	11.6	---	---	23.9	16.7
31	18.8	14.0	---	---	13.8	8.1	17.9	13.4	---	---	22.5	17.7
MONTH	25.6	14.0	21.1	10.0	18.6	6.9	17.9	7.1	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	20.3	16.9	24.8	19.4	27.8	24.1	26.2	23.2	27.8	24.8	27.6	24.0
2	22.1	15.0	26.3	20.4	27.6	24.7	25.6	22.7	28.3	25.0	28.4	24.2
3	23.6	16.9	26.6	21.3	26.9	23.8	25.2	22.7	28.0	25.0	26.4	23.9
4	25.0	17.6	26.1	22.1	26.8	23.5	26.8	22.9	27.3	24.8	27.0	22.3
5	24.3	18.6	27.2	22.1	26.7	23.7	26.4	24.3	27.8	24.5	27.7	23.3
6	24.4	18.2	26.7	21.9	25.0	23.3	25.5	23.9	27.5	23.6	28.0	23.5
7	24.1	18.5	25.7	22.0	23.5	21.7	24.7	22.9	27.9	24.2	28.5	24.6
8	21.1	17.8	25.9	20.7	24.3	20.7	25.3	22.8	28.1	24.8	27.8	24.9
9	24.2	18.1	26.5	21.8	24.8	21.2	26.6	22.7	27.6	25.3	28.7	25.1
10	20.9	18.8	25.1	22.5	25.0	21.4	26.6	23.6	28.8	25.1	29.6	25.8
11	24.8	18.5	25.3	22.2	25.7	21.7	26.6	23.9	28.4	26.0	30.0	26.3
12	24.8	19.2	25.3	21.8	26.3	22.5	28.0	24.0	27.1	25.4	29.6	26.4
13	25.8	20.4	25.6	21.7	26.4	23.1	28.4	25.4	27.3	24.0	28.3	25.9
14	25.6	19.7	26.2	22.3	25.9	23.0	29.3	25.9	27.2	24.9	26.4	24.1
15	26.7	19.5	25.9	22.3	25.6	23.0	30.3	26.4	27.1	24.4	26.8	24.0
16	26.0	20.8	25.4	22.7	24.1	22.0	29.9	26.5	26.9	24.0	27.2	24.1
17	22.1	16.2	24.6	21.4	23.6	21.1	29.8	26.0	26.4	23.9	27.8	24.5
18	22.4	14.1	25.5	21.8	22.7	21.4	30.0	26.2	26.7	24.2	27.2	24.0
19	23.4	17.1	25.3	21.9	21.4	20.4	30.1	26.3	27.1	23.6	25.7	22.6
20	23.8	16.2	25.4	22.2	23.4	20.4	30.3	26.7	25.8	23.8	24.8	20.9
21	24.6	18.6	24.8	21.8	23.6	21.6	30.0	27.4	26.9	23.6	24.4	20.6
22	24.8	18.3	25.4	21.7	22.5	21.5	29.3	26.7	27.1	23.4	24.4	19.9
23	25.7	17.9	24.6	22.3	23.5	21.0	28.1	26.1	27.1	23.3	24.6	19.5
24	25.5	18.4	24.6	21.6	25.8	21.7	26.8	25.3	26.5	22.8	25.2	20.2
25	25.1	19.8	23.1	21.1	26.5	23.4	26.8	24.8	27.2	22.9	25.2	21.6
26	25.2	19.5	23.1	20.0	26.7	23.9	27.8	24.8	26.9	24.3	25.8	22.5
27	26.9	19.0	23.5	19.9	25.7	23.7	28.7	25.4	27.9	24.2	26.0	23.4
28	24.3	20.5	23.0	21.3	24.6	22.5	28.5	25.5	27.6	24.2	26.0	22.9
29	24.0	18.6	24.7	20.8	25.3	21.7	27.6	24.4	28.1	24.5	25.4	22.0
30	23.3	19.2	26.1	21.6	26.2	22.8	27.7	24.8	28.0	24.2	23.0	21.2
31	---	---	27.6	22.8	---	---	27.5	24.6	27.1	24.1	---	---
MONTH	26.9	14.1	27.6	19.4	27.8	20.4	30.3	22.7	28.8	22.8	30.0	19.5

## 11046062 COCKLEBURR CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA

LOCATION.—Lat 33°15'02", long 117°25'53", in SW 1/4 NW 1/4 sec.5, T.11 S., R.5 W., San Diego County, Hydrologic Unit 18070301, at the mouth of unnamed creek draining Cockleburrr Canyon at the Pacific Ocean and 4.70 mi northwest of Oceanside.

DRAINAGE AREA.—1.60 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.—June 2003 to current year.

DISSOLVED OXYGEN: June 2003 to current year.

pH: June 2003 to current year.

SPECIFIC CONDUCTANCE: June 2003 to current year.

WATER TEMPERATURE: June 2003 to current year.

INSTRUMENTATION.—Water-quality monitor since June 2003.

REMARKS.—Dissolved oxygen records rated fair. pH, specific conductance, and temperature records rated good. Interruption of records at times due to malfunction of recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, >20.0 mg/L, many days in 2004; minimum recorded, 1.7 mg/L, Sept. 18, 2003.

pH: Maximum recorded, 9.0 standard units, June 10, 2004; minimum recorded, 7.4 standard units, June 19–22, 2003, Mar. 1, Aug. 3–5, 2004.

SPECIFIC CONDUCTANCE: Maximum recorded, 47,300 microsiemens, June 3, 2004; minimum recorded, 459 microsiemens, Feb. 26, 2004.

WATER TEMPERATURE: Maximum recorded, 28.7°C, June 10, 2004; minimum recorded, 8.4°C, Dec. 17, 2004.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, >20.0 mg/l, many days ; minimum recorded, 3.2 mg/L, July 31.

pH: Maximum recorded, 9.0 standard units, June 10; minimum recorded, 7.4 standard units, Mar. 1, Aug. 3–5.

SPECIFIC CONDUCTANCE: Maximum recorded, 47,300 microsiemens, June 3; minimum recorded, 459 microsiemens, Feb. 26.

WATER TEMPERATURE: Maximum recorded, 28.7°C, June 10; minimum recorded, 8.4°C, Dec. 17.

> Actual value is known to be greater than value shown.

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.8	6.0	15.3	7.6	>15.5	9.6	>20.0	5.7	---	---	9.2	4.1
2	14.8	7.4	18.7	6.6	19.7	9.4	>19.5	6.9	>17.3	12.3	9.2	4.8
3	14.3	8.5	18.4	6.2	>18.9	8.6	17.7	4.1	>16.3	9.2	10.2	7.9
4	14.9	8.2	>18.7	7.4	18.8	8.0	>20.0	11.1	>20.0	8.5	10.6	7.8
5	13.5	8.5	>19.3	7.6	19.0	6.9	>20.0	14.0	>17.0	8.9	11.5	8.0
6	12.7	7.7	>19.3	7.6	19.5	7.2	>20.0	13.3	>19.5	9.0	14.0	8.6
7	13.5	7.7	>20.0	7.8	15.9	6.4	>20.0	17.1	>15.8	8.5	15.7	9.2
8	14.5	7.8	>19.1	13.3	16.3	3.7	>20.0	9.0	>18.5	10.1	18.0	9.2
9	11.6	8.6	>20.0	14.9	11.5	4.4	>20.0	9.7	>20.0	10.5	19.7	8.8
10	11.4	7.1	>19.9	15.6	11.2	9.2	19.0	11.6	>19.6	11.7	18.0	8.8
11	---	---	>19.8	14.2	11.1	9.1	17.1	11.1	>18.6	11.2	19.2	9.2
12	---	---	>18.8	12.9	10.7	8.9	16.9	10.5	>19.6	15.3	13.7	10.7
13	---	---	13.6	5.0	12.7	9.4	17.7	10.8	19.2	15.7	13.2	9.3
14	---	---	18.2	12.2	12.0	9.6	17.3	8.8	18.4	15.2	13.4	9.9
15	17.8	9.4	14.5	10.7	12.8	9.6	20.0	9.0	18.5	15.2	14.3	9.5
16	>17.8	9.5	12.2	10.0	12.6	9.8	18.7	9.3	>19.9	14.2	13.1	10.4
17	17.7	10.0	14.0	9.8	15.1	9.4	18.8	8.9	>20.0	17.2	13.9	10.3
18	17.8	9.6	16.0	9.9	16.6	9.9	19.8	8.7	17.2	9.8	13.7	10.2
19	17.4	9.9	14.4	8.9	17.9	10.6	19.3	6.8	15.3	8.1	13.9	10.4
20	18.0	8.2	12.6	8.0	16.6	11.2	15.7	8.7	17.7	9.4	12.5	9.3
21	17.0	8.8	12.6	7.8	17.9	12.1	16.8	7.3	>18.7	13.3	14.6	8.7
22	17.4	9.6	14.9	7.2	19.8	8.7	15.6	6.7	18.6	7.3	>18.9	13.3
23	17.2	8.4	18.8	7.5	11.7	6.6	>16.9	6.5	9.2	7.6	>19.5	17.2
24	18.0	8.4	19.8	8.0	14.6	6.6	>16.6	4.9	9.2	7.9	>18.9	14.6
25	16.3	7.1	19.3	8.3	9.0	5.8	>18.0	8.8	11.3	7.4	>19.0	17.1
26	19.1	7.1	19.7	8.9	13.2	5.1	>18.1	9.4	9.5	7.8	19.7	15.0
27	>19.0	7.8	>19.6	8.6	15.5	5.5	---	---	8.5	6.6	>19.1	8.3
28	>18.3	7.0	>18.3	8.6	18.9	6.1	---	---	8.9	4.7	>17.9	8.8
29	>18.4	7.6	>19.4	8.0	>20.0	4.2	>17.8	10.4	8.6	4.6	>19.2	7.1
30	18.0	13.2	>17.9	8.3	17.6	9.4	---	---	---	---	19.0	7.8
31	18.5	7.6	---	---	>16.9	10.0	---	---	---	---	>19.0	8.8
MONTH	---	---	20.0	5.0	20.0	3.7	---	---	---	---	19.7	4.1

> Actual value is known to be greater than value shown.

## 11046062 COCKLEBURR CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	>19.6	13.1	18.3	13.2	>20.0	8.9	>20.0	12.9	>20.0	5.7	>20.0	7.8
2	14.2	7.5	16.9	11.7	---	---	18.0	9.3	>20.0	5.1	>20.0	6.6
3	18.0	7.3	16.9	8.0	---	---	18.6	7.5	12.2	5.0	>20.0	14.5
4	17.7	10.9	18.3	4.5	---	---	19.4	10.9	13.0	4.5	>20.0	8.5
5	17.4	10.6	14.3	5.8	---	---	17.5	10.3	>20.0	3.9	>20.0	13.2
6	18.3	10.8	17.4	5.9	---	---	16.7	9.5	>20.0	8.5	>20.0	15.0
7	>18.3	7.8	>20.0	8.4	---	---	16.6	8.6	>20.0	9.3	>20.0	11.0
8	>18.7	14.5	>20.0	13.3	---	---	19.2	9.6	>20.0	10.5	>20.0	12.5
9	>17.9	10.8	>20.0	17.2	---	---	---	---	>20.0	9.3	>20.0	8.9
10	>17.6	9.1	>20.0	>20.0	---	---	---	---	>20.0	8.7	>20.0	11.7
11	>17.3	9.5	>20.0	>20.0	---	---	---	---	>20.0	16.0	>20.0	8.6
12	>18.1	16.5	>20.0	>20.0	---	---	---	---	>20.0	15.6	>20.0	8.7
13	---	---	>20.0	16.0	---	---	---	---	>20.0	7.8	>20.0	8.9
14	---	---	>20.0	14.6	---	---	---	---	>20.0	9.3	>20.0	8.1
15	>18.3	17.3	>20.0	14.2	---	---	---	---	>20.0	8.6	>20.0	7.4
16	>17.3	16.4	>20.0	15.9	---	---	---	---	>20.0	9.2	>20.0	7.3
17	17.7	13.8	>20.0	16.1	---	---	---	---	>20.0	9.2	>20.0	7.2
18	>17.7	11.4	>20.0	15.9	>20.0	9.5	---	---	---	---	>20.0	8.6
19	17.7	13.8	>20.0	17.6	13.4	8.0	---	---	---	---	>20.0	7.9
20	17.2	12.1	>20.0	15.0	14.6	6.9	---	---	---	---	>20.0	8.5
21	16.6	11.5	>20.0	13.9	15.9	8.5	---	---	---	---	>20.0	9.1
22	17.3	10.7	>20.0	13.8	13.6	8.6	---	---	---	---	>20.0	9.8
23	17.4	9.1	>20.0	12.7	>20.0	7.7	16.9	6.9	---	---	>20.0	10.8
24	17.1	8.8	19.7	12.0	>20.0	10.8	15.4	4.5	>20.0	11.4	>20.0	10.7
25	18.0	10.9	16.7	11.5	>20.0	12.0	16.6	5.9	>20.0	12.1	>20.0	10.7
26	16.9	9.7	>20.0	10.8	>20.0	12.2	18.3	7.3	>20.0	10.7	>20.0	9.3
27	17.5	11.3	>20.0	11.7	>20.0	11.5	19.6	7.4	>20.0	10.7	>20.0	8.8
28	17.5	10.4	19.1	11.0	17.9	10.0	>20.0	8.6	>20.0	9.7	>20.0	8.7
29	17.4	9.1	>20.0	9.8	>20.0	10.7	>20.0	8.8	>20.0	8.4	>20.0	8.2
30	17.5	13.8	>20.0	9.7	>20.0	11.6	18.2	7.5	>20.0	9.4	>20.0	8.3
31	---	---	>20.0	9.3	---	---	>20.0	3.2	>20.0	9.1	---	---
MONTH	---	---	20.0	4.5	---	---	---	---	---	---	20.0	6.6

&gt; Actual value is known to be greater than the value shown.

## 11046062 COCKLEBURR CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.2	7.9	8.1	7.9	8.4	8.0	8.0	7.6	8.0	7.6	7.9	7.4
2	8.3	8.0	8.2	7.9	8.3	8.0	8.1	7.6	8.0	7.6	8.2	7.5
3	8.3	8.1	8.3	7.8	8.3	7.9	7.9	7.6	8.0	7.6	8.3	7.7
4	8.3	8.1	8.3	7.8	8.3	7.9	8.4	7.7	8.0	7.6	8.2	7.7
5	8.3	8.1	8.5	7.8	8.3	7.8	8.5	7.8	8.0	7.6	8.2	7.7
6	8.2	8.0	8.6	7.8	8.2	7.8	8.6	7.8	8.1	7.7	8.3	7.8
7	8.3	8.1	8.7	7.8	8.1	7.8	8.5	8.0	8.1	7.8	8.4	7.8
8	8.3	8.1	8.6	7.8	8.2	7.8	8.6	7.7	8.4	7.8	8.4	7.8
9	8.2	8.1	8.5	7.8	7.9	7.7	8.3	7.7	8.4	7.8	8.5	7.8
10	8.2	8.0	8.6	7.9	7.9	7.9	8.0	7.8	8.5	7.9	8.2	7.9
11	8.3	7.9	8.6	7.8	7.9	7.8	7.9	7.8	8.4	8.0	8.1	7.9
12	8.2	8.0	8.6	7.8	7.9	7.9	7.9	7.8	8.2	7.7	8.1	8.0
13	8.2	8.0	8.7	7.8	8.0	7.9	7.8	7.8	8.1	7.9	8.0	7.9
14	8.2	7.9	8.2	7.9	8.0	7.9	7.9	7.8	8.0	7.8	8.1	7.9
15	8.2	8.0	8.0	7.9	8.0	7.9	7.9	7.8	8.0	7.9	8.1	8.0
16	8.3	8.0	8.0	7.9	8.0	7.9	7.9	7.8	8.0	7.9	8.1	8.0
17	8.3	8.0	8.1	7.8	8.1	7.9	8.0	7.8	8.0	7.9	8.0	7.9
18	8.2	8.0	8.0	8.0	8.1	7.9	8.1	7.8	8.0	7.8	8.2	7.9
19	8.3	8.0	8.1	7.9	8.2	7.9	8.1	7.7	8.1	7.9	8.1	7.9
20	8.3	8.0	8.0	7.8	8.2	7.9	8.1	7.7	8.3	7.9	8.2	7.9
21	8.3	8.0	8.0	7.8	8.2	7.9	8.1	7.7	8.4	8.1	8.2	8.0
22	8.3	8.1	8.1	7.8	8.2	7.8	8.3	7.7	8.3	7.8	8.2	8.0
23	8.3	8.1	8.1	7.9	8.1	7.7	8.5	7.5	7.9	7.7	8.2	8.0
24	8.2	8.1	8.2	7.9	8.2	7.7	8.3	7.5	7.8	7.5	8.2	8.0
25	8.2	8.1	8.2	7.9	7.8	7.5	8.2	7.5	7.8	7.5	8.3	8.0
26	8.3	8.0	8.3	7.9	8.1	7.6	8.2	7.5	7.8	7.6	8.2	8.0
27	8.3	8.0	8.3	7.9	8.1	7.7	8.3	7.6	8.0	7.5	8.3	7.8
28	8.3	8.0	8.3	7.9	8.3	7.6	8.3	7.8	8.2	7.5	8.5	7.9
29	8.3	8.0	8.4	8.0	8.2	7.6	8.2	7.5	8.0	7.5	8.3	7.7
30	8.3	8.1	8.4	8.0	8.2	7.8	8.0	7.7	---	---	8.3	7.8
31	8.3	8.0	---	---	8.1	7.7	8.0	7.6	---	---	8.2	7.8
MONTH	8.3	7.9	8.7	7.8	8.4	7.5	8.6	7.5	8.5	7.5	8.5	7.4
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.1	7.9	8.3	8.2	8.1	7.6	8.4	8.2	8.2	7.6	8.1	7.8
2	8.1	7.8	8.2	8.0	8.2	7.6	8.3	8.0	8.1	7.5	8.2	7.8
3	8.2	7.7	8.2	7.7	8.6	7.6	8.3	7.8	7.7	7.4	8.2	8.0
4	8.2	7.8	8.4	7.6	8.3	7.7	8.3	8.0	7.8	7.4	8.3	8.0
5	8.4	7.8	8.4	7.7	8.4	7.9	8.2	7.9	8.2	7.4	8.2	8.0
6	8.4	7.8	8.4	7.8	8.5	8.1	8.3	7.9	8.4	7.9	8.2	7.9
7	8.4	7.8	8.6	7.9	8.4	8.0	8.3	7.9	8.4	8.0	8.2	7.9
8	8.5	8.1	8.9	8.1	8.8	8.0	8.3	8.0	8.3	8.0	8.2	8.0
9	8.4	7.8	8.8	8.3	8.8	8.0	8.4	8.1	8.3	7.9	8.3	7.9
10	8.5	7.8	8.9	8.5	9.0	8.0	8.3	8.1	8.2	7.9	8.2	8.0
11	8.4	7.9	8.6	8.3	8.9	7.9	8.3	7.9	8.3	7.9	8.2	7.9
12	8.6	8.0	8.3	7.9	8.8	7.9	8.2	7.9	8.2	7.9	8.2	7.9
13	8.4	8.2	7.9	7.7	8.4	7.8	8.2	7.8	8.3	7.9	8.1	7.9
14	8.4	8.3	8.0	7.5	8.2	7.9	8.2	7.8	8.2	7.9	8.1	7.9
15	8.4	8.2	8.2	7.5	8.7	7.8	8.1	7.7	8.2	7.9	8.1	7.8
16	8.4	8.1	8.3	7.6	8.7	7.8	8.2	7.8	8.2	7.8	8.1	7.8
17	8.4	8.1	8.3	7.7	8.2	7.8	8.3	7.9	8.2	7.7	8.2	7.8
18	8.4	8.1	8.4	7.9	8.3	7.7	8.4	8.0	8.2	7.8	8.2	8.0
19	8.4	8.1	8.4	7.9	7.9	7.6	8.3	8.0	8.2	7.9	8.2	7.9
20	8.3	8.1	8.4	7.8	7.9	7.5	8.3	7.9	8.3	7.8	8.2	7.9
21	8.4	7.9	8.4	7.8	8.1	7.6	---	---	8.3	7.6	8.2	8.0
22	8.4	7.9	8.4	7.8	8.0	7.6	---	---	8.3	7.7	8.2	8.0
23	8.5	8.0	8.3	7.8	8.3	7.7	8.4	8.0	8.4	7.8	8.2	7.9
24	8.5	8.0	8.2	7.9	8.3	7.8	8.3	8.0	8.4	8.1	8.2	7.9
25	8.6	8.2	8.2	7.9	8.3	7.8	8.3	8.0	8.4	8.0	8.2	7.9
26	8.6	8.2	8.2	7.8	8.3	7.8	8.4	8.1	8.2	7.9	8.2	7.8
27	8.6	8.3	8.1	7.7	8.2	7.8	8.3	8.0	8.2	7.9	8.2	7.9
28	8.5	8.3	8.1	7.7	8.3	7.9	8.2	8.0	8.2	7.9	8.2	7.8
29	8.5	8.2	8.1	7.8	8.4	8.1	8.2	8.0	8.2	7.8	8.2	7.8
30	8.4	8.2	8.1	7.6	8.4	8.2	8.2	7.9	8.2	7.8	8.1	7.8
31	---	---	8.1	7.6	---	---	8.2	7.6	8.1	7.8	---	---
MONTH	8.6	7.7	8.9	7.5	9.0	7.5	---	---	8.4	7.4	8.3	7.8

## 11046062 COCKLEBURR CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5680	5580	8910	6200	5970	5900	14300	9980	18900	10200	20300	13700
2	5720	5630	8280	7150	6030	5930	14800	11700	17900	7990	17000	999
3	5810	5710	7470	6080	6100	6000	12400	8240	15100	851	5720	2790
4	5860	5800	7180	6490	6140	6050	11200	4140	10800	6930	6590	4700
5	5880	5820	6540	5940	6160	6090	10900	9470	10400	7140	6160	5500
6	5960	5870	6120	3260	6200	6150	10200	7000	9410	6830	5690	5570
7	5970	5920	5930	5670	6210	6180	10500	5420	7710	6690	5800	5670
8	5980	5940	5840	5500	6180	6050	10300	9660	7480	6520	5830	5760
9	5990	5850	5560	5250	6130	5920	9740	6450	7590	6410	5940	5660
10	5990	5870	5330	5110	5920	5710	9040	8320	7690	6310	6000	5920
11	6000	5940	5320	5020	5780	5650	8580	7880	7940	6810	5990	5820
12	6010	5940	5300	5110	5800	5730	8120	7620	8540	7060	5850	5190
13	5980	5920	5170	2910	5880	5770	8250	7460	8130	6900	5230	5000
14	6130	5900	4970	4510	5930	5840	7540	6890	7570	7030	5070	2110
15	6080	6030	4840	4300	6080	5860	7000	6420	7520	6920	5130	4880
16	6080	6040	4760	4410	6100	6020	6860	5570	8140	6400	5160	4970
17	6090	6060	4740	4320	6220	6060	6140	5350	8220	7250	5530	5090
18	6060	5990	4880	4360	6250	6100	5730	5220	14800	7260	5640	5450
19	5990	5870	4880	4540	6100	5710	22700	5460	20700	11700	5770	5550
20	5870	5780	4940	4700	5740	5380	34900	19400	21900	19500	5690	2680
21	5820	5770	5310	4860	5460	3780	42000	33700	20800	20000	5620	3420
22	5800	5620	5320	5030	14400	4000	41900	39700	20000	1420	5610	2460
23	5630	3230	5470	5260	24500	13200	39800	37800	2220	863	5390	5120
24	4950	3410	5550	5450	29600	21300	38000	35500	5000	2220	5260	2610
25	5090	4920	5640	5520	26600	2340	35500	32200	6540	4780	5110	2910
26	5330	5060	5720	5530	13800	2340	32400	31400	6310	459	4920	2040
27	8860	5320	5770	5650	14200	13100	31600	29000	29900	1650	4470	1930
28	11500	8860	5820	5720	14300	11800	29300	24700	30400	22800	4110	2030
29	11700	10700	5930	5710	14300	13700	25300	22800	22900	20300	4670	1970
30	10900	9000	5950	5780	14400	13700	23300	21300	---	---	4750	1430
31	9170	8470	---	---	14400	12700	21400	10300	---	---	4880	2380
MONTH	11700	3230	8910	2910	29600	2340	42000	4140	30400	459	20300	999
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5020	4780	5320	2240	7230	5140	4410	4090	10600	8980	4850	3150
2	5100	1720	5300	5220	40100	6550	5640	4040	9690	8230	4600	3230
3	4280	3720	22100	4920	47300	40100	6240	4640	8480	7200	4300	2680
4	4600	4090	36400	22100	44900	38800	5610	4930	7360	6400	4200	2310
5	4900	4500	39700	34600	46200	40200	4950	4630	6650	5930	4190	3840
6	5140	4760	42100	33200	43400	41400	4630	4360	5930	5370	4180	4080
7	9150	5070	38400	33500	41700	40000	4380	4150	5410	4980	4140	3270
8	11600	8900	35900	32300	40000	34300	4370	4130	4990	4620	4180	3270
9	19400	9730	32500	29100	35700	33200	4550	4340	4670	4280	4220	4080
10	16900	15200	29100	26300	33700	29200	4870	4500	4450	4220	4340	4210
11	15200	11300	26700	24800	32900	25400	5090	4800	4510	4230	4570	4300
12	13100	11800	27200	24300	25400	21900	5430	5020	4950	4510	4800	4570
13	15200	12100	26800	24800	23600	20000	5370	5030	5000	4920	5000	4770
14	13600	11100	24900	21400	20500	16800	5130	4740	5030	4890	5210	4990
15	11800	9760	22100	18300	16900	14200	4900	4370	4900	4740	5370	5150
16	10000	8510	18600	15400	14700	13000	4410	3980	4750	4490	5510	5370
17	8780	7670	15800	13800	13600	11700	4150	3930	4540	4480	5570	5300
18	7760	6400	14000	12700	12300	11500	4210	3960	4510	4380	5300	5050
19	6610	5650	12700	12000	11700	9900	---	---	4500	4320	5130	5040
20	5820	5240	12000	9370	9900	8870	---	---	4390	4110	5220	5120
21	5370	4120	11100	8500	8870	8230	---	---	4220	3720	5370	5200
22	4470	4170	9780	7000	8250	7620	---	---	4060	3860	5500	5370
23	4240	3940	7910	6110	7730	7160	4100	3820	4010	3860	5550	5480
24	4170	3970	7070	5310	7360	6670	4210	3910	3960	3860	5530	5390
25	4390	4130	6520	5800	6700	5840	4210	4040	4140	3960	5400	5280
26	4420	4210	6330	5370	5870	4930	4060	3860	4400	4130	5400	5320
27	4730	2050	6390	5460	5240	4350	4060	3890	4640	4360	5460	5400
28	4820	4480	6610	4860	4720	4380	4190	4050	4800	4570	5540	5440
29	4860	4590	6730	4410	4560	4330	4280	4160	4920	4730	5610	5530
30	5120	4850	6950	4960	4460	3930	4360	4150	4890	4830	5690	5590
31	---	---	7160	5150	---	---	9370	4360	4870	4810	---	---
MONTH	19400	1720	42100	2240	47300	3930	---	---	10600	3720	5690	2310

## 11046062 COCKLEBURR CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

## TEMPERATURE, WATER, DEGREES C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH					
1	21.8	19.5	17.1	15.6	11.6	9.8	13.3	12.0	17.0	16.2	16.3	14.6				
2	21.7	19.9	17.2	15.0	11.8	9.9	13.1	11.9	17.1	15.3	15.8	11.7				
3	20.6	19.3	16.7	14.0	12.1	10.3	12.9	11.6	15.4	11.6	15.6	11.0				
4	20.0	18.1	16.9	14.8	12.0	10.3	14.0	12.2	15.0	12.8	16.6	12.5				
5	20.3	18.9	15.9	14.5	12.7	11.2	13.2	11.6	14.8	12.6	16.7	14.4				
6	20.2	19.2	15.7	13.9	13.2	11.6	13.3	11.8	15.8	12.9	16.7	13.8				
7	20.6	19.1	15.8	14.0	13.7	13.0	14.4	12.5	14.3	10.2	16.7	13.6				
8	21.5	19.1	15.6	14.1	15.0	13.4	14.5	12.7	13.9	11.1	17.3	14.1				
9	20.7	19.8	15.4	14.4	13.7	11.9	13.4	12.0	14.1	9.8	17.6	14.4				
10	20.4	19.3	15.7	14.6	12.3	11.5	13.8	12.0	14.4	9.6	17.6	15.4				
11	22.0	19.3	16.2	14.3	12.9	11.6	13.3	12.2	14.7	10.0	18.6	15.8				
12	21.7	19.0	16.7	15.4	12.0	10.6	14.4	12.2	14.6	11.0	17.6	16.1				
13	20.5	18.3	16.4	14.6	11.4	9.8	13.8	12.5	13.5	9.3	17.7	15.4				
14	19.9	19.0	17.0	15.3	10.8	9.2	13.1	11.3	12.1	9.7	16.1	15.2				
15	20.4	18.4	15.5	13.9	11.6	9.5	13.1	11.4	13.3	9.9	17.6	14.9				
16	20.4	17.9	15.7	13.7	10.7	9.1	13.4	12.2	14.4	10.9	16.6	15.5				
17	20.5	18.6	15.1	13.0	10.8	8.4	14.0	12.8	15.2	12.5	16.8	15.5				
18	20.2	18.0	14.7	12.1	10.5	8.5	14.1	12.4	14.1	12.9	16.8	15.5				
19	20.6	18.8	13.8	11.7	10.6	9.6	15.4	13.3	15.5	13.1	17.0	15.3				
20	19.8	17.2	14.4	13.1	10.5	10.0	15.5	14.4	16.0	14.5	17.7	15.4				
21	19.4	16.8	15.4	14.0	12.2	10.5	15.3	14.5	16.1	15.0	17.6	15.9				
22	18.7	16.4	15.1	12.7	13.0	11.2	16.0	14.6	15.6	12.6	17.2	16.1				
23	18.3	16.0	12.9	11.1	12.8	12.3	16.0	14.6	14.9	11.7	16.7	15.8				
24	18.3	16.6	11.5	10.2	13.6	12.4	15.4	14.8	14.8	11.5	18.5	15.6				
25	19.2	17.4	12.6	10.5	14.0	12.7	16.6	14.6	13.9	11.0	18.2	15.3				
26	18.9	16.7	13.3	10.8	13.8	12.6	17.1	15.4	15.5	12.6	18.4	15.7				
27	17.3	15.8	12.5	10.8	13.4	12.6	17.3	15.7	15.0	12.4	17.2	12.4				
28	18.7	17.0	12.4	10.5	13.2	12.1	17.5	16.2	15.5	13.0	16.6	14.2				
29	18.7	17.8	12.6	10.5	12.9	12.2	17.4	16.1	16.3	14.2	17.3	13.4				
30	18.9	17.1	12.1	10.2	12.9	12.2	18.1	16.6	---	---	17.3	13.6				
31	17.6	15.9	---	---	13.0	12.2	17.7	16.0	---	---	17.1	14.8				
MONTH	22.0	15.8	17.2	10.2	15.0	8.4	18.1	11.3	17.1	9.3	18.6	11.0				
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER					
1	16.6	15.3	20.1	16.1	24.9	20.4	22.5	20.1	24.9	21.4	22.2	20.5				
2	16.1	12.7	20.7	16.8	25.1	21.0	21.7	17.3	25.1	22.1	22.5	20.0				
3	19.3	15.4	20.7	17.4	23.1	20.8	22.8	19.2	24.8	22.5	22.2	20.4				
4	20.3	16.8	22.6	19.3	24.0	21.4	23.2	20.3	24.5	22.8	21.9	19.6				
5	20.3	17.7	23.1	20.0	23.1	21.4	22.8	21.1	24.8	22.6	21.5	19.3				
6	19.6	17.2	23.4	20.8	23.2	22.0	21.8	20.7	23.1	20.6	21.9	20.0				
7	20.6	15.4	24.7	21.6	22.5	22.0	21.6	20.1	23.0	20.5	22.4	20.3				
8	19.5	17.1	25.9	22.3	24.6	21.9	21.9	19.8	22.9	20.3	22.1	20.4				
9	22.0	18.1	26.1	23.5	26.6	22.9	23.2	19.8	22.5	20.6	22.8	20.7				
10	20.1	19.0	27.2	24.4	28.7	24.0	23.4	20.7	23.0	20.5	23.6	21.2				
11	22.2	18.9	26.4	24.4	26.8	24.4	23.1	20.9	23.2	21.1	24.5	22.0				
12	23.8	19.9	27.0	24.6	26.4	24.7	23.6	20.4	22.6	21.3	24.8	22.6				
13	23.9	20.3	27.2	24.6	25.6	24.1	23.8	21.6	23.6	21.1	24.3	22.4				
14	23.1	20.9	26.6	24.8	25.0	23.4	24.0	22.0	23.0	21.6	23.3	21.9				
15	23.2	20.8	25.5	23.2	25.6	23.4	23.9	21.9	23.0	21.0	23.8	21.6				
16	22.7	20.5	25.3	22.8	23.9	22.5	24.1	21.1	22.5	20.5	23.9	21.8				
17	20.5	16.0	24.4	22.3	23.0	22.0	23.9	21.1	22.1	20.1	24.5	22.2				
18	18.9	16.0	24.4	21.4	22.8	22.0	24.3	21.3	22.4	20.5	23.7	21.8				
19	19.5	16.6	23.8	21.3	22.1	20.7	24.4	21.5	22.3	19.9	22.6	20.8				
20	19.4	15.7	23.5	20.7	22.3	20.4	24.3	21.9	21.3	19.9	21.9	19.4				
21	19.7	16.5	22.9	20.7	22.3	20.6	---	---	22.1	19.6	20.9	18.4				
22	20.3	16.8	22.7	20.1	21.5	20.2	---	---	22.5	19.9	20.3	17.5				
23	18.9	15.7	22.2	20.0	22.1	19.8	24.2	22.2	22.1	20.0	20.1	17.2				
24	18.6	15.2	21.7	19.3	23.6	20.6	23.3	22.1	21.8	19.4	20.1	17.2				
25	18.3	15.4	20.2	18.3	23.1	21.1	22.9	21.2	22.3	19.6	20.1	18.0				
26	18.3	15.2	20.6	17.1	23.2	20.8	23.5	21.2	22.3	20.6	20.9	18.7				
27	19.8	15.3	21.1	17.5	22.1	19.5	24.2	21.4	23.4	20.8	21.3	19.3				
28	19.2	17.4	20.7	18.9	21.9	19.4	24.3	21.6	23.0	20.8	21.5	19.6				
29	19.5	16.4	22.1	18.4	22.4	19.2	23.4	20.7	23.4	21.2	21.5	19.6				
30	19.6	15.9	23.5	18.9	23.0	20.0	23.7	21.2	23.3	21.1	19.9	18.9				
31	---	---	24.0	19.3	---	---	24.0	20.2	22.5	20.9	---	---				
MONTH	23.9	12.7	27.2	16.1	28.7	19.2	---	---	25.1	19.4	24.8	17.2				

## 11046072 ALISO CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA

LOCATION.—Lat 33°15'52", long 117°26'32", in SW 1/4 NE 1/4 sec.31, T.10 S., R.5 W., San Diego County, Hydrologic Unit 18070301, at mouth of unnamed creek draining Aliso Canyon at the Pacific Ocean and 5.80 mi northwest of Oceanside.

DRAINAGE AREA.—9.19 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.—June 2003 to current year.

DISSOLVED OXYGEN: June 2003 to current year.

pH: June 2003 to current year.

SPECIFIC CONDUCTANCE: June 2003 to current year.

WATER TEMPERATURE: June 2003 to current year.

INSTRUMENTATION.—Water-quality monitor since June 2003.

REMARKS.—Dissolved oxygen records rated poor. pH and specific conductance records rated good. Temperature records rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 18.9 mg/L, Sept. 22, 2004; minimum recorded, <0.2 mg/L, several days in 2004.

pH: Maximum recorded, 9.9 standard units, July 21, 22, 2003, May 30, June 29, 30, July 2, 2004; minimum recorded, 7.5 standard units, Jan. 25, 2004.

SPECIFIC CONDUCTANCE: Maximum recorded, 50,500 microsiemens, Sept. 28, 2004; minimum recorded, 12,700 microsiemens, Feb. 27, 2004.

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 20, 2004; minimum recorded, 9.0°C, Dec. 31, 2003.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 18.9 mg/L, Sept. 22; minimum recorded, <0.2 mg/L, several days during the water year.

pH: Maximum recorded, 9.9 standard units, May 30, June 29, 30, July 2; minimum recorded, 7.5 standard units, Jan. 25.

SPECIFIC CONDUCTANCE: Maximum recorded, 50,500 microsiemens, Sept. 28; minimum recorded, 12,700 microsiemens, Feb. 27.

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 20; minimum recorded, 9.0°C, Dec. 31.

> Actual value is known to be less than value shown.

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.3	1.6	3.0	0.4	7.0	4.8	8.5	7.2	10.8	4.7	---	---
2	11.6	2.9	4.1	0.2	7.5	5.1	7.2	5.7	12.5	3.9	---	---
3	12.8	2.7	4.6	0.8	7.3	4.7	6.7	5.0	9.6	4.2	---	---
4	9.1	2.3	4.0	0.8	7.6	5.3	6.8	4.4	9.8	5.0	---	---
5	10.2	0.6	4.4	0.5	8.2	5.1	7.5	4.4	10.6	4.8	---	---
6	8.0	<0.2	3.5	0.5	7.3	4.9	7.2	4.8	---	---	---	---
7	13.1	0.6	3.3	0.3	6.3	4.3	8.2	4.6	---	---	---	---
8	12.9	4.1	2.5	<0.2	7.0	2.9	8.2	5.7	---	---	8.2	4.0
9	14.4	4.6	1.5	<0.2	7.3	4.6	8.4	5.6	---	---	8.9	3.6
10	10.7	2.1	1.0	<0.2	5.7	3.8	7.5	5.2	---	---	8.3	5.4
11	13.8	2.5	1.6	<0.2	7.5	4.1	7.4	4.7	10.7	7.5	8.6	5.5
12	14.5	6.8	4.0	0.2	8.2	5.3	7.0	4.6	10.0	6.4	7.6	5.4
13	>14.1	4.3	5.2	<0.2	8.7	6.2	7.0	4.2	9.3	6.3	8.2	4.8
14	>15.0	4.8	4.9	0.4	8.2	6.6	6.2	3.2	8.8	6.5	7.6	5.8
15	>13.2	5.8	4.9	1.4	9.3	5.9	6.2	3.6	9.3	5.9	7.4	5.6
16	>14.6	4.8	3.8	1.0	9.4	7.2	6.6	3.1	9.2	5.9	7.0	5.5
17	>14.3	4.4	4.2	1.9	9.0	7.3	7.3	3.8	10.8	6.1	7.0	4.7
18	>14.4	4.3	5.8	1.4	8.0	6.7	7.0	3.7	8.9	6.3	8.7	4.3
19	>14.2	5.0	4.6	1.6	7.6	6.2	6.3	2.6	9.1	5.3	9.3	7.5
20	>13.6	5.3	3.7	2.0	6.5	5.0	5.1	2.7	9.6	6.0	8.8	7.2
21	>14.3	3.4	4.0	2.3	7.8	4.0	6.7	3.6	7.5	5.2	8.5	6.7
22	>13.4	4.4	5.0	1.9	8.5	5.2	7.0	4.0	8.0	3.8	8.0	6.6
23	>14.9	2.8	6.2	3.1	7.8	5.7	7.7	4.2	11.5	4.1	8.1	5.9
24	>14.3	3.5	5.9	3.8	7.7	5.3	7.0	4.3	13.5	5.8	8.6	5.1
25	>14.2	2.4	6.0	4.0	8.0	5.8	8.8	4.4	14.0	7.5	6.7	4.0
26	>13.3	2.7	6.2	3.8	9.1	6.4	10.6	4.5	14.7	5.4	7.1	4.2
27	13.1	2.6	6.6	4.2	9.5	7.3	9.2	4.9	11.5	5.6	6.6	3.8
28	8.1	1.6	6.3	4.5	9.9	7.7	10.4	5.2	---	---	6.2	3.4
29	5.5	0.2	6.3	4.1	9.7	7.6	8.8	4.7	---	---	---	---
30	3.8	<0.2	7.0	4.5	9.8	7.8	8.4	4.2	---	---	---	---
31	3.4	<0.2	---	---	9.6	7.7	8.4	3.9	---	---	---	---
MONTH	15.0	0.2	7.0	0.2	9.9	2.9	10.6	2.6	---	---	---	---

> Actual value is known to be greater than the value shown.

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

## 11046072 ALISO CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	>12.7	5.3	11.7	7.2	---	---	4.7	0.2
2	---	---	---	---	>12.3	1.7	14.1	6.1	---	---	5.1	0.5
3	---	---	---	---	>14.4	2.7	13.1	6.3	13.3	3.6	9.5	0.7
4	---	---	14.3	8.0	12.5	5.1	15.7	7.4	11.1	3.3	7.4	0.9
5	---	---	>14.4	9.1	12.5	4.7	12.5	7.4	12.4	2.7	8.2	1.1
6	---	---	>14.0	10.0	11.4	5.8	12.5	6.0	14.3	5.0	5.7	1.3
7	---	---	>14.6	9.4	12.3	4.4	12.9	6.3	13.9	5.2	6.8	1.4
8	---	---	>14.8	9.7	13.6	5.2	13.6	7.0	12.4	4.1	5.2	1.6
9	10.8	7.4	>14.4	11.0	13.4	7.3	13.4	7.6	11.0	3.7	3.7	1.8
10	10.2	8.2	>14.6	9.4	13.4	6.0	13.1	5.8	10.4	3.7	---	---
11	11.5	7.1	>14.5	8.1	12.3	6.8	13.2	6.8	10.6	3.1	---	---
12	11.8	8.1	>14.5	9.2	12.9	5.7	14.6	7.1	6.8	1.9	---	---
13	12.3	8.8	>14.6	10.6	13.5	6.2	14.1	6.9	10.9	<0.2	8.5	1.0
14	12.0	8.8	>13.6	9.9	12.9	5.0	13.6	6.5	13.3	3.7	8.7	<0.2
15	13.2	8.6	>14.3	8.9	12.3	5.0	13.5	6.2	11.9	3.6	4.8	0.2
16	12.3	9.1	>14.5	7.2	11.7	3.7	14.0	6.4	10.4	2.3	11.2	0.3
17	10.6	8.4	>14.0	5.8	13.2	5.5	14.1	6.1	7.1	1.5	12.2	0.4
18	12.2	7.5	>14.3	7.9	11.4	6.2	13.5	6.6	9.9	1.9	12.6	0.6
19	13.1	9.2	>14.2	5.6	12.1	4.4	12.9	6.5	8.7	<0.2	12.8	0.8
20	13.1	9.5	>13.6	7.0	13.2	3.3	13.1	6.3	7.8	1.2	14.9	0.7
21	13.9	9.2	>13.4	7.8	14.0	6.2	13.5	6.3	6.0	<0.2	18.4	0.8
22	13.2	8.3	>13.7	7.4	12.5	7.0	13.2	6.2	4.9	<0.2	18.9	1.0
23	14.6	9.5	>13.5	3.8	13.8	6.1	12.1	6.0	4.9	<0.2	16.2	1.0
24	14.2	9.5	>13.6	6.0	14.2	5.3	12.8	6.6	5.3	<0.2	17.6	1.2
25	14.9	10.0	14.3	4.6	13.9	6.4	---	---	6.1	<0.2	18.4	1.2
26	15.1	9.8	>13.9	5.9	14.3	6.4	---	---	7.3	<0.2	18.8	1.3
27	---	---	>13.7	6.9	11.3	4.9	---	---	6.3	<0.2	18.3	1.4
28	---	---	>13.7	7.9	13.5	2.0	---	---	---	---	16.8	1.5
29	---	---	>13.3	5.4	15.0	4.3	---	---	---	---	14.3	0.3
30	---	---	>13.4	5.5	15.2	6.8	---	---	---	---	10.8	0.4
31	---	---	>13.2	3.2	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	15.2	1.7	---	---	---	---	---	---

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



11046072 ALISO CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.2	8.9	8.3	8.3	8.0	8.0	8.2	8.1	7.7	7.6	---	---
2	9.3	9.0	8.3	8.2	8.0	8.0	8.1	8.1	7.7	7.6	---	---
3	9.2	8.9	8.3	8.2	8.0	7.9	8.1	8.0	7.8	7.6	---	---
4	9.1	8.9	8.2	8.2	8.0	8.0	8.0	7.9	7.8	7.7	---	---
5	9.2	8.9	8.3	8.2	8.0	8.0	8.0	7.9	7.8	7.7	---	---
6	9.1	8.9	8.2	8.1	8.0	7.9	7.9	7.8	7.8	7.7	---	---
7	9.4	8.9	8.2	8.1	8.0	7.9	7.9	7.7	7.7	7.6	---	---
8	9.4	9.0	8.1	8.0	8.0	7.9	7.9	7.8	7.7	7.6	8.3	8.2
9	9.3	9.0	8.0	8.0	8.1	8.0	7.9	7.8	7.7	7.6	8.4	8.1
10	9.1	8.8	8.0	7.9	8.1	8.0	7.9	7.8	7.9	7.6	8.6	8.3
11	9.4	8.8	8.0	7.9	8.1	8.0	7.9	7.8	7.9	7.8	8.3	8.2
12	9.5	9.0	8.0	7.9	8.1	8.1	7.9	7.8	8.0	7.8	8.3	8.2
13	9.4	9.0	8.1	7.9	8.1	8.1	7.9	7.8	7.9	7.8	8.3	8.2
14	9.3	8.9	8.1	7.9	8.1	8.1	7.9	7.7	7.9	7.8	8.3	8.2
15	9.3	8.9	8.1	7.9	8.2	8.1	7.8	7.7	8.0	7.8	8.3	8.2
16	9.5	8.9	8.0	7.9	8.2	8.2	7.8	7.7	8.0	7.8	8.3	8.2
17	9.4	9.0	8.0	8.0	8.2	8.2	7.8	7.7	8.0	7.8	8.3	8.2
18	9.5	9.0	8.0	7.9	8.2	8.2	7.8	7.7	7.8	7.8	8.3	8.2
19	9.5	9.0	8.0	7.9	8.2	8.1	7.8	7.7	7.9	7.7	8.3	8.2
20	9.5	9.0	8.0	7.9	8.2	8.1	7.7	7.6	7.9	7.7	8.3	8.2
21	9.6	8.9	8.0	7.9	8.2	8.1	7.7	7.7	7.8	7.7	8.3	8.2
22	9.5	9.0	8.0	7.9	8.2	8.1	7.7	7.6	7.8	7.6	8.3	8.3
23	9.6	9.0	8.0	7.9	8.2	8.1	7.7	7.6	7.9	7.7	8.4	8.2
24	9.4	8.9	8.0	8.0	8.2	8.0	7.7	7.6	8.0	7.7	8.3	8.2
25	9.2	8.9	8.0	7.9	8.1	8.0	7.6	7.5	8.1	7.8	8.3	8.2
26	9.3	8.7	8.0	7.9	8.2	8.1	7.7	7.6	8.2	7.8	8.3	8.2
27	9.2	8.6	8.0	7.9	8.3	8.1	7.7	7.6	8.3	7.9	8.3	8.2
28	8.8	8.6	8.0	7.9	8.3	8.2	7.8	7.6	---	---	8.3	8.2
29	8.6	8.3	8.0	7.9	8.3	8.2	7.7	7.6	---	---	8.3	8.2
30	8.5	8.3	8.0	7.9	8.3	8.2	7.7	7.6	---	---	8.3	8.2
31	8.3	8.3	---	---	8.2	8.2	7.7	7.6	---	---	8.4	8.2
MONTH	9.6	8.3	8.3	7.9	8.3	7.9	8.2	7.5	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.3	8.2	8.6	8.4	9.8	9.3	9.8	9.4	9.7	9.0	9.2	9.0
2	8.3	8.2	8.6	8.4	9.8	9.3	9.9	9.4	9.6	9.0	9.2	8.9
3	8.3	8.2	8.7	8.4	9.8	8.9	9.8	9.5	9.7	9.2	9.4	8.8
4	8.3	8.2	8.7	8.4	9.7	9.3	9.8	9.5	9.5	9.1	9.3	9.1
5	8.3	8.2	8.7	8.4	9.6	9.3	9.7	9.5	9.7	9.1	9.2	8.8
6	8.4	8.2	8.8	8.5	9.5	9.2	9.8	9.4	9.7	9.3	9.2	8.9
7	8.3	8.2	8.7	8.5	9.5	9.1	9.8	9.4	9.7	9.4	9.3	9.0
8	8.3	8.2	8.8	8.5	9.6	9.0	9.8	9.4	9.6	9.3	9.2	8.9
9	8.3	8.2	8.9	8.6	9.6	9.2	9.8	9.5	9.6	9.2	9.2	8.8
10	8.3	8.2	8.9	8.6	9.6	9.3	9.8	9.5	9.5	9.3	9.2	8.9
11	8.3	8.2	8.9	8.5	9.6	9.3	9.8	9.5	9.6	9.2	9.2	8.9
12	8.4	8.2	9.0	8.7	9.6	9.2	9.8	9.5	9.5	9.2	9.2	8.9
13	8.4	8.3	9.1	8.8	9.6	9.3	9.7	9.4	9.5	9.1	9.1	8.8
14	8.4	8.3	9.2	8.9	9.6	9.3	9.6	9.4	9.5	9.1	8.9	8.7
15	8.4	8.3	9.3	8.9	9.6	9.2	9.6	9.4	9.5	9.1	9.0	8.6
16	8.4	8.3	9.4	8.9	9.7	9.2	9.6	9.3	9.4	9.1	9.1	8.7
17	8.4	8.3	9.4	8.9	9.7	9.2	9.6	9.3	9.5	9.2	9.2	8.8
18	8.4	8.2	9.3	8.9	9.6	9.3	9.6	9.4	9.6	9.2	9.2	8.8
19	8.4	8.3	9.4	9.0	9.6	9.2	9.5	9.3	9.6	9.2	9.3	8.8
20	8.4	8.3	9.5	9.1	9.7	9.2	9.5	9.3	9.6	9.2	9.2	8.8
21	8.5	8.3	9.6	9.1	9.7	9.3	9.5	9.2	9.6	9.2	9.2	8.7
22	8.5	8.3	9.6	9.2	9.6	9.3	9.6	9.3	9.5	9.2	9.3	8.8
23	8.5	8.4	9.6	9.1	9.6	9.2	9.6	9.2	9.5	9.2	9.1	8.8
24	8.5	8.4	9.6	9.1	9.7	9.2	9.5	9.3	9.5	9.2	9.1	8.7
25	8.5	8.3	9.6	9.1	9.8	9.3	9.6	9.3	9.6	9.1	9.1	8.7
26	8.6	8.3	9.7	9.1	9.7	9.3	9.6	9.3	9.5	9.3	9.1	8.7
27	8.6	8.3	9.7	9.2	9.7	9.3	9.6	9.3	9.5	9.1	9.2	8.6
28	8.6	8.3	9.8	9.4	9.8	9.1	9.6	9.2	9.4	9.0	9.2	8.7
29	8.6	8.3	9.8	9.2	9.9	9.3	9.5	9.3	9.5	9.0	9.2	8.7
30	8.6	8.3	9.9	9.3	9.9	9.4	9.6	9.3	9.4	9.1	9.2	8.8
31	---	---	9.8	9.3	---	---	9.5	9.1	9.3	9.0	---	---
MONTH	8.6	8.2	9.9	8.4	9.9	8.9	9.9	9.1	9.7	9.0	9.4	8.6

## 11046072 ALISO CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

## SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	40300	39200	40100	38500	36800	36400	41100	40500	43800	42000	---	---
2	39800	39400	39500	39000	36600	36100	41100	40300	44000	42700	---	---
3	40200	39600	39700	39000	37300	35600	40600	39800	42800	41600	---	---
4	40300	39800	39300	38900	37400	37100	40600	39600	42400	41200	---	---
5	40000	39400	39400	39000	37400	29300	40800	39700	41900	40100	---	---
6	39900	39500	---	---	37300	27700	40700	39400	42800	40400	---	---
7	39900	39600	39400	38800	37200	36800	39900	38900	42800	41200	---	---
8	40800	39600	39300	39000	37000	36400	40100	39700	42400	40200	21200	20700
9	39900	39500	39200	38800	---	---	39900	39800	42700	40400	21600	20300
10	40100	39600	39000	38600	37200	37000	40000	39800	42500	40200	21900	21300
11	40100	39600	39100	37800	37100	36700	40000	39800	42700	42300	22300	21700
12	40300	39400	38700	38100	37000	36800	39900	39700	42600	42500	22600	22000
13	40700	39700	38600	38100	36900	36700	39900	39700	42700	42500	22800	22300
14	40100	39200	38600	38200	36900	36700	40100	39600	42700	42400	22900	22400
15	40400	39800	38400	37800	36800	36700	39800	39500	42700	42300	23000	22600
16	40700	39800	38000	37000	37000	36700	39800	39400	42700	42600	23100	22800
17	40600	39900	37500	36600	37000	36800	39900	39100	42600	42300	23200	22800
18	40500	39800	38400	36500	37000	26400	39800	38700	42500	42100	23300	23000
19	40600	39600	38400	37500	36900	36600	40700	38300	42200	42000	23600	22900
20	40200	39200	37900	36800	36700	36400	42800	39600	42200	41800	23500	23000
21	40200	39600	38000	36500	36700	36400	43200	40900	42000	41800	23600	22900
22	40400	39900	38200	36000	36900	36400	43200	41900	42000	40500	23800	23000
23	40300	39700	38100	36400	39100	36600	43400	42300	41300	38100	24200	22700
24	40300	39800	38800	37900	42500	37200	43500	41800	38700	35300	25000	23400
25	40300	39600	38500	37500	42800	40700	43800	42000	37700	32900	24300	23600
26	40300	39700	38400	37100	42000	40500	43300	40900	37500	14900	24100	23700
27	40200	39600	38100	37300	41100	40700	43900	41500	26800	12700	24800	23800
28	40200	39400	38600	37100	41300	40800	44100	42700	---	---	25100	24400
29	40000	39100	37300	36400	41100	40600	43900	42600	---	---	25200	24800
30	40200	39800	36800	36200	41200	40700	43900	42500	---	---	25400	24700
31	40200	39200	---	---	41200	40700	43700	42400	---	---	25900	25100
MONTH	40800	39100	---	---	---	---	44100	38300	---	---	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	26200	25300	28200	27800	31000	30600	36100	35300	42300	41200	48000	47100
2	26000	25100	28200	27400	31200	30700	36400	35700	42200	41600	47800	47000
3	26100	25500	27700	27000	---	---	36700	35800	42900	41900	48000	46400
4	26700	25500	27800	27400	31500	30800	36900	36000	43000	42200	48500	47200
5	26500	25500	27900	27500	31800	31300	37000	36100	43300	42400	48500	47200
6	26300	25600	28100	27700	32100	31500	37200	36600	44000	42700	48800	47400
7	26400	25600	28100	27900	32300	32100	37200	36700	43900	39600	49000	47800
8	26400	25900	28300	27900	32800	32200	37300	36600	44200	42800	49200	47700
9	26600	26100	28500	28200	33300	32800	37600	36800	44400	43300	49200	47900
10	26400	26200	28800	28000	33300	33100	37800	37200	44600	43200	49400	48000
11	26500	26200	28700	28300	33600	33200	38000	37400	44900	41700	49400	48000
12	26500	26300	28900	28700	33800	33300	38200	37700	45000	44400	49800	48400
13	26600	26300	29000	28700	34100	33800	38400	37800	45300	43900	49900	48600
14	26800	26500	29200	28900	34300	34000	38700	38000	45500	43800	50000	49100
15	26700	26500	29400	28500	34500	34200	39000	38200	45700	44200	49900	48600
16	26900	26600	29400	28600	34700	34400	39200	38600	45800	45000	50100	48700
17	26800	26600	29400	29300	34900	33800	39400	38800	45900	45300	50100	49100
18	26700	26300	29400	29100	34500	34300	39700	38900	45900	45400	50100	49400
19	26700	26500	29500	29300	34500	34400	40000	39100	46200	45500	50000	49400
20	26700	26500	29700	29400	34500	34300	40300	39400	46300	45800	49900	49100
21	26900	26500	29900	29600	34500	34400	40500	39700	46600	46000	49800	48900
22	27200	26800	30100	29800	34500	34400	40700	39900	47000	46200	49800	49200
23	27200	27000	30100	29900	34500	34400	40900	40300	47100	46500	49600	49300
24	27300	27200	30200	30000	34700	34500	41000	40400	47500	46700	49800	49300
25	27300	27100	30300	30100	34800	34300	41000	39300	48000	47000	49800	49400
26	27400	27100	30300	30000	35000	34600	41000	40500	47800	47300	49600	49100
27	28000	26900	30400	30100	35200	34800	41300	40700	48000	47400	49600	49300
28	27900	27400	30400	30300	35500	35100	41600	40500	48300	47600	50500	49000
29	28200	27300	30500	30400	35800	35200	41900	40700	48200	47300	50000	49400
30	28200	27300	30700	30400	36000	35300	42000	41100	48700	47500	50000	49600
31	---	---	30800	30500	---	---	42100	41200	48400	47200	---	---
MONTH	28200	25100	30800	27000	---	---	42100	35300	48700	39600	50500	46400

11046072 ALISO CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

TEMPERATURE, WATER, DEGREE C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24.1	20.7	17.5	14.6	15.3	11.9	11.7	9.4	16.2	13.7	---	---
2	22.8	20.4	18.4	13.6	15.4	11.9	12.2	10.0	16.1	13.4	---	---
3	21.6	19.2	17.5	14.2	15.1	12.6	13.6	11.3	16.2	13.2	---	---
4	21.4	19.7	18.8	14.9	15.6	12.6	12.4	10.1	16.0	13.3	---	---
5	22.4	20.0	18.0	14.0	16.4	13.9	12.1	9.6	16.1	13.2	---	---
6	21.9	20.5	18.5	14.5	16.5	13.8	12.4	9.5	15.9	12.9	---	---
7	22.4	20.7	18.9	15.2	16.8	15.8	13.3	10.6	15.9	12.7	---	---
8	24.9	20.8	19.3	14.9	18.0	15.1	14.1	10.9	15.8	12.7	23.9	18.1
9	22.2	20.4	17.9	16.2	16.8	13.3	13.8	11.4	15.6	12.1	23.6	18.6
10	21.6	19.4	18.8	16.5	14.4	13.3	14.4	11.3	14.7	11.4	22.4	19.0
11	24.6	20.1	19.0	16.2	14.8	12.3	14.8	11.6	15.2	11.5	23.7	19.1
12	24.5	19.6	19.7	17.0	13.8	11.0	16.0	13.6	16.4	11.9	21.2	18.7
13	24.4	19.0	19.8	16.1	13.9	10.9	16.0	12.9	14.4	12.0	21.2	17.9
14	23.5	20.6	19.1	15.7	13.1	10.8	16.2	12.9	13.7	11.4	19.8	17.7
15	23.8	20.1	17.3	15.4	14.3	11.1	15.6	13.1	14.9	11.1	22.3	17.7
16	24.6	19.0	17.5	14.4	12.9	10.1	16.0	13.7	15.5	12.4	20.8	18.9
17	24.6	20.3	17.3	14.8	13.4	9.3	16.6	14.5	16.5	13.4	20.5	18.3
18	24.1	19.2	18.9	14.0	13.8	10.1	16.6	14.5	15.1	13.9	19.8	18.0
19	25.0	20.8	19.3	14.2	13.2	10.3	17.3	14.9	16.3	13.0	20.4	17.7
20	25.3	18.7	17.7	15.3	12.8	10.9	17.6	14.9	16.4	14.4	20.8	18.2
21	25.4	18.4	18.0	16.3	15.1	12.7	16.2	13.5	15.5	14.5	20.6	18.1
22	23.4	18.2	17.1	13.3	15.3	11.9	15.7	12.1	16.6	13.5	19.7	18.3
23	24.4	17.3	15.4	11.9	13.4	12.0	15.4	12.1	19.2	15.1	19.3	17.5
24	23.5	19.6	13.6	10.9	14.5	11.0	14.4	12.8	20.7	17.2	21.2	17.6
25	23.2	19.9	15.4	11.8	15.4	13.7	16.3	13.2	19.2	14.2	22.6	17.7
26	24.1	17.0	15.8	12.7	14.2	11.9	15.8	13.4	18.1	15.0	22.0	18.7
27	23.8	16.8	15.5	12.2	12.8	10.6	16.0	13.5	18.5	16.0	22.8	18.0
28	21.9	16.8	15.6	11.8	11.8	9.7	17.0	14.6	---	---	23.6	18.4
29	21.1	17.3	15.9	12.5	10.9	9.4	16.5	14.2	---	---	23.9	18.9
30	20.0	17.3	15.9	12.3	11.4	9.8	15.9	13.9	---	---	23.4	19.1
31	18.5	15.2	---	---	11.7	9.0	16.7	14.7	---	---	22.3	19.9
MONTH	25.4	15.2	19.8	10.9	18.0	9.0	17.6	9.4	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	20.6	18.3	25.3	20.2	28.2	23.0	25.2	21.4	26.8	22.4	26.8	23.9
2	21.2	17.2	26.9	20.9	28.4	23.5	25.3	21.0	27.8	22.6	27.4	22.8
3	22.3	18.7	27.4	21.8	27.5	23.4	26.1	22.0	27.0	22.7	25.8	22.1
4	23.8	19.9	26.8	22.1	27.6	23.0	27.2	22.0	26.7	23.0	26.4	19.7
5	23.7	20.9	27.5	22.8	28.4	23.1	26.2	23.4	27.7	22.5	28.5	20.3
6	22.9	20.6	27.7	22.6	24.8	22.3	25.4	23.1	27.8	21.6	27.1	21.1
7	23.6	20.2	26.7	23.1	22.3	20.8	25.5	22.2	27.7	22.6	27.7	23.1
8	21.9	20.2	27.2	22.0	24.8	19.8	26.3	22.2	28.0	22.8	27.0	22.3
9	23.6	20.2	27.6	22.9	25.8	20.2	26.6	22.4	28.0	23.6	28.2	23.3
10	22.1	20.6	26.0	22.5	26.1	20.5	27.4	22.2	28.8	23.8	29.0	23.1
11	23.9	20.0	25.6	20.9	27.2	21.3	26.9	23.2	28.1	24.6	29.5	23.8
12	23.9	20.4	25.8	21.1	27.6	22.2	28.0	23.0	26.0	24.0	28.9	24.5
13	24.5	21.3	26.7	21.7	27.7	22.6	28.3	24.5	26.6	23.2	27.8	23.5
14	24.4	20.9	27.3	22.4	27.3	22.7	28.8	24.8	26.8	23.4	26.2	22.2
15	24.7	20.8	27.4	22.3	26.6	22.6	29.5	25.2	26.3	23.0	27.0	22.7
16	25.0	21.8	26.4	22.8	23.5	21.7	29.5	24.9	25.3	22.3	27.4	23.0
17	22.4	18.2	25.4	21.5	24.4	20.7	28.9	24.5	24.8	21.9	28.1	24.4
18	21.4	16.7	26.1	21.3	22.5	21.4	29.4	24.4	25.8	22.4	28.0	23.6
19	22.4	18.2	26.2	21.5	21.7	20.4	29.2	24.6	25.7	21.3	26.1	22.2
20	22.8	18.6	26.4	21.8	24.6	20.4	30.0	25.0	25.1	21.9	25.2	20.2
21	23.3	19.6	26.0	21.5	24.7	21.1	28.9	25.9	25.0	22.2	26.0	20.5
22	23.9	20.0	26.5	21.3	22.6	21.4	28.6	24.9	24.2	21.3	26.6	20.2
23	24.8	19.8	25.0	21.4	23.6	20.6	26.8	24.6	23.1	20.5	26.2	20.1
24	24.6	20.0	25.3	21.0	26.3	21.3	25.5	23.8	23.8	19.7	26.4	21.0
25	24.7	20.6	22.5	20.1	27.2	22.9	26.5	22.8	25.3	20.1	26.1	21.7
26	25.4	20.8	22.9	19.0	27.8	23.4	26.4	23.7	25.3	22.2	26.5	22.3
27	25.9	20.9	24.2	19.1	25.9	22.8	27.6	23.6	25.8	21.7	26.7	23.1
28	23.6	21.2	23.2	20.8	25.7	21.4	27.7	23.1	25.5	22.2	26.6	22.2
29	23.9	19.4	24.4	20.1	25.1	20.3	26.7	22.1	25.8	23.7	25.9	21.6
30	24.3	19.7	26.4	20.7	25.9	21.6	26.6	23.3	26.2	23.4	22.7	20.5
31	---	---	27.6	22.0	---	---	26.6	22.7	26.2	23.6	---	---
MONTH	25.9	16.7	27.7	19.0	28.4	19.8	30.0	21.0	28.8	19.7	29.5	19.7

## 11046082 HIDDEN CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA

LOCATION.—Lat 33°16'31", long 117°27'05", in NE 1/4 SE 1/4 sec.25, T.10 S., R.6 W., San Diego County, Hydrologic Unit 18070301, at mouth of unnamed creek, 0.8 mi north of Aliso Creek Lagoon at the Pacific Ocean, and 6.70 mi northwest of Oceanside.

DRAINAGE AREA.—2.17 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.—June 2003 to current year.

DISSOLVED OXYGEN: June 2003 to current year.

pH: June 2003 to current year.

SPECIFIC CONDUCTANCE: June 2003 to current year.

WATER TEMPERATURE: June 2003 to current year.

INSTRUMENTATION.—Water-quality monitor since June 2003.

REMARKS.—Dissolved oxygen and specific conductance records rated poor. pH and water temperature records rated good. Interruption of records at times due to malfunction of recording equipment and exceedence of maximum allowable correction limits.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 15.9 mg/L, Nov. 18, 2003; minimum recorded, <0.2 mg/L, many days in 2004.

pH: Maximum recorded, 8.9 standard units, several days April–June 2004; minimum recorded, 7.0 standard units, Jan. 28, Feb. 4, 5, 2004.

SPECIFIC CONDUCTANCE: Maximum recorded, >99,900 microsiemens, Aug. 26–Sept. 30, 2004; minimum recorded, 522 microsiemens, Feb. 26, 2004.

WATER TEMPERATURE: Maximum recorded, 29.2°C, Sept. 10, 2004; minimum recorded, 6.3°C, Dec. 17, 2003.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 15.9 mg/L, Nov. 18; minimum recorded, <0.2 mg/L, many days.

pH: Maximum recorded, 8.9 standard units, several days April–June; minimum recorded, 7.0 standard units, Jan. 28, Feb. 4, 5.

SPECIFIC CONDUCTANCE: Maximum recorded, >99,900 microsiemens, Aug. 26–Sept. 30; minimum recorded, 522 microsiemens, Feb. 26.

WATER TEMPERATURE: Maximum recorded, 29.2°C, Sept. 10; minimum recorded, 6.3°C, Dec. 17.

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

> Actual value is known to be greater than value shown.

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.4	<0.2	6.6	2.4	8.9	6.4	---	---	6.1	5.0	---	---
2	---	---	9.1	1.4	8.8	6.0	---	---	6.6	5.3	---	---
3	---	---	6.5	3.1	8.7	5.8	---	---	6.6	5.5	---	---
4	---	---	11.0	1.4	8.5	4.2	---	---	6.6	5.3	---	---
5	---	---	10.7	2.3	8.9	5.2	---	---	6.6	5.8	---	---
6	---	---	7.8	4.8	8.6	4.4	---	---	7.1	5.9	---	---
7	---	---	7.4	4.1	5.8	1.9	---	---	7.4	6.2	14.6	9.2
8	---	---	7.5	3.8	6.9	1.0	7.2	6.6	7.8	6.5	15.1	9.2
9	---	---	6.7	2.7	---	---	8.0	6.7	8.0	6.8	15.4	11.3
10	---	---	6.8	2.4	---	---	7.8	6.7	8.1	7.4	13.0	11.6
11	---	---	5.8	2.9	---	---	7.7	6.9	7.6	6.9	12.8	11.2
12	---	---	8.1	1.6	---	---	7.5	6.5	7.7	6.7	11.8	10.8
13	---	---	7.9	3.3	---	---	7.6	6.7	8.0	6.7	11.0	9.0
14	---	---	8.4	3.6	---	---	7.3	6.7	8.6	7.0	10.1	8.8
15	---	---	9.2	3.8	---	---	7.4	6.5	8.9	7.0	9.0	7.9
16	---	---	10.2	2.4	---	---	7.6	6.6	9.6	7.5	9.2	8.1
17	---	---	11.0	2.1	---	---	7.7	6.6	9.9	7.8	9.0	7.9
18	---	---	15.9	4.3	---	---	7.6	6.6	10.6	7.5	10.5	7.6
19	---	---	9.2	5.0	---	---	7.2	6.4	8.7	7.0	10.0	8.0
20	---	---	8.8	4.5	---	---	7.2	6.0	9.0	7.1	9.5	8.0
21	---	---	9.2	3.8	---	---	6.8	6.0	9.0	7.2	9.2	6.9
22	2.1	0.3	7.7	4.0	---	---	6.2	5.7	8.9	7.4	9.1	7.0
23	2.0	0.3	7.8	5.1	---	---	6.0	5.4	9.5	8.4	9.0	7.0
24	1.5	0.3	8.6	5.7	---	---	5.8	4.7	10.7	8.5	9.3	6.9
25	4.6	0.6	8.6	4.9	---	---	4.8	4.3	11.5	10.0	9.2	7.1
26	6.5	0.9	7.8	4.6	---	---	5.2	4.4	12.7	8.7	8.6	6.6
27	5.5	2.2	8.4	5.3	---	---	5.5	4.7	9.6	8.6	8.7	6.4
28	5.5	3.1	9.9	5.9	---	---	5.1	3.7	9.6	6.8	8.2	6.3
29	7.2	1.8	8.8	5.3	---	---	5.6	4.6	---	---	9.4	6.5
30	9.0	0.8	9.0	6.2	---	---	5.3	4.7	---	---	10.2	7.3
31	9.0	3.9	---	---	---	---	5.9	4.6	---	---	9.9	6.7
MONTH	---	---	15.9	1.4	---	---	---	---	---	---	---	---

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

## 11046082 HIDDEN CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.2	6.9	9.5	3.3	4.9	1.1	5.6	0.2	3.8	1.3	5.7	<0.2
2	10.6	6.7	8.7	2.6	8.1	1.1	4.7	0.2	2.6	0.6	7.6	0.2
3	11.0	7.3	8.7	2.3	6.0	1.3	4.9	0.2	3.1	<0.2	7.0	0.5
4	11.0	7.6	9.5	1.5	9.8	1.8	4.0	0.2	2.6	<0.2	6.9	0.4
5	10.5	6.4	8.0	1.0	10.1	0.4	4.2	0.2	2.4	<0.2	6.5	0.6
6	10.3	5.8	9.6	1.9	8.0	1.2	4.0	0.2	7.4	<0.2	5.0	0.6
7	10.8	6.3	10.4	1.5	8.0	1.1	4.3	0.2	8.5	<0.2	6.3	0.3
8	8.9	5.2	10.8	3.0	9.4	1.1	4.5	0.3	6.6	<0.2	3.1	0.3
9	10.4	4.8	10.9	2.4	10.8	2.0	4.5	0.4	4.8	<0.2	5.2	0.3
10	9.3	5.1	10.0	2.5	10.0	2.1	3.9	0.4	4.5	<0.2	3.9	0.4
11	11.7	5.4	10.0	2.3	8.6	1.7	3.2	0.4	2.2	<0.2	4.6	0.3
12	11.1	5.3	11.0	2.8	8.1	1.0	2.6	0.4	1.1	<0.2	3.9	0.4
13	10.7	5.3	9.2	2.6	7.4	0.7	2.0	0.3	1.3	<0.2	4.7	0.2
14	10.4	5.1	8.6	2.1	7.1	<0.2	1.6	0.3	1.3	<0.2	5.4	0.2
15	10.8	4.5	7.8	1.7	6.7	<0.2	1.9	0.4	3.8	<0.2	---	---
16	11.3	4.9	8.4	1.8	6.3	<0.2	2.1	0.4	5.5	<0.2	---	---
17	9.1	4.9	8.2	1.4	6.1	<0.2	1.8	0.4	4.9	<0.2	---	---
18	11.4	4.9	8.7	1.4	5.3	1.1	1.9	0.4	6.3	<0.2	---	---
19	11.7	5.8	8.5	1.3	3.4	0.5	1.4	0.4	6.3	<0.2	---	---
20	10.8	5.4	8.6	1.8	4.4	0.2	1.9	0.5	4.0	<0.2	---	---
21	11.3	4.4	9.7	1.5	4.5	0.7	0.9	<0.2	---	---	---	---
22	11.7	5.1	8.8	1.2	4.0	0.3	0.9	<0.2	---	---	---	---
23	11.9	4.2	8.6	1.7	3.1	0.4	1.3	0.2	---	---	---	---
24	11.8	4.3	8.9	2.4	3.5	0.4	2.4	0.3	---	---	---	---
25	11.6	4.4	7.2	1.3	4.0	0.4	1.8	0.4	---	---	---	---
26	11.7	4.2	7.7	1.0	3.4	0.4	2.9	0.6	---	---	---	---
27	10.9	3.9	7.9	1.0	4.2	0.5	3.5	0.8	---	---	---	---
28	8.2	3.2	7.4	0.9	5.1	0.6	3.8	0.9	---	---	---	---
29	10.1	3.3	6.5	2.0	4.5	<0.2	4.3	1.0	---	---	6.9	1.8
30	9.5	3.2	5.8	1.1	4.8	<0.2	4.9	1.0	---	---	5.3	2.1
31	---	---	4.8	1.1	---	---	2.6	1.2	---	---	---	---
MONTH	11.9	3.2	11.0	0.9	10.8	0.2	5.6	0.2	---	---	---	---

&lt; Actual value is known to be less than the value shown.

## PACIFIC OCEAN

## 11046082 HIDDEN CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

## PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.7	8.2	8.1	8.0	8.0	7.9	7.5	7.4	7.2	7.1	---	---
2	---	---	8.2	7.9	7.9	7.9	7.5	7.4	7.3	7.2	---	---
3	---	---	8.3	8.1	8.0	7.9	7.5	7.4	7.3	7.1	---	---
4	---	---	8.2	8.0	7.9	7.8	7.5	7.4	7.3	7.0	---	---
5	---	---	8.3	8.0	7.8	7.8	7.5	7.4	7.2	7.0	---	---
6	---	---	8.3	8.2	7.8	7.7	7.5	7.4	7.2	7.1	8.1	7.3
7	---	---	8.3	8.2	7.8	7.6	7.6	7.4	7.3	7.1	8.3	7.5
8	---	---	8.2	8.2	7.8	7.6	7.7	7.6	7.3	7.2	8.3	7.7
9	---	---	8.2	8.1	7.8	7.7	7.8	7.7	7.3	7.2	8.3	7.8
10	---	---	8.1	7.9	7.8	7.7	7.8	7.7	7.7	7.3	8.3	8.0
11	---	---	8.1	8.0	7.8	7.7	7.8	7.7	7.7	7.6	8.2	8.0
12	---	---	8.0	7.9	7.8	7.7	7.7	7.7	7.7	7.6	8.0	7.9
13	---	---	8.1	7.9	7.8	7.7	7.7	7.6	7.7	7.7	8.0	7.7
14	---	---	8.1	8.0	7.8	7.7	7.7	7.6	7.8	7.7	8.0	7.8
15	8.4	8.2	8.2	8.0	7.8	7.7	7.7	7.6	7.8	7.7	8.0	7.8
16	8.4	8.1	8.2	7.9	7.8	7.6	7.7	7.6	7.9	7.8	8.2	8.0
17	8.3	8.1	8.1	7.9	7.8	7.7	7.7	7.6	7.9	7.8	8.3	8.1
18	8.2	8.1	8.1	8.0	7.8	7.7	7.7	7.6	7.9	7.8	8.3	8.1
19	8.1	8.0	8.1	8.0	7.8	7.7	7.8	7.7	7.9	7.8	8.3	8.1
20	8.0	7.9	8.0	7.9	7.8	7.7	7.8	7.7	8.0	7.9	8.3	8.2
21	---	---	8.1	7.9	7.8	7.7	7.8	7.6	8.0	7.9	8.3	8.2
22	8.1	7.9	8.0	8.0	7.8	7.6	7.6	7.6	8.0	7.9	8.3	8.1
23	8.1	7.9	8.1	8.0	7.8	7.6	7.6	7.5	8.0	7.6	8.3	8.2
24	8.1	7.9	8.1	8.0	7.7	7.6	7.5	7.2	8.1	7.7	8.3	8.2
25	8.2	7.9	8.0	7.9	7.7	7.6	7.2	7.2	8.2	8.0	8.3	8.2
26	8.2	8.0	7.9	7.8	7.7	7.6	7.2	7.2	8.1	7.3	8.3	8.2
27	8.2	8.0	7.9	7.9	7.7	7.4	7.2	7.2	7.6	7.3	8.3	8.2
28	8.1	8.0	8.0	7.9	7.7	7.4	7.2	7.0	7.5	7.1	8.2	8.2
29	8.1	7.9	7.9	7.8	7.6	7.4	7.2	7.1	---	---	8.2	8.1
30	8.1	7.8	8.0	7.9	7.6	7.4	7.2	7.1	---	---	8.3	8.2
31	8.2	8.0	---	---	7.6	7.4	7.2	7.1	---	---	8.3	8.2
MONTH	---	---	8.3	7.8	8.0	7.4	7.8	7.0	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.3	8.2	8.8	8.6	8.5	8.4	8.2	8.0	8.2	8.0	8.2	8.1
2	8.3	8.2	8.7	8.5	8.8	8.5	8.2	8.0	8.3	8.1	8.2	8.0
3	8.4	8.3	8.8	8.5	8.9	8.2	8.2	8.0	8.4	8.2	8.2	8.0
4	8.5	8.3	8.9	8.4	8.5	8.3	8.2	8.0	8.4	8.3	8.2	8.0
5	8.5	8.3	8.9	8.3	8.6	8.2	8.1	8.0	8.3	8.2	8.2	8.0
6	8.4	8.3	8.9	8.2	8.5	8.2	8.2	8.0	8.5	8.2	8.2	8.0
7	8.5	8.3	8.8	8.3	8.3	8.1	8.1	8.0	8.5	8.3	8.2	8.0
8	8.4	8.2	8.8	8.3	8.4	8.0	8.2	8.0	8.5	8.3	8.1	8.0
9	8.4	8.3	8.8	8.4	8.5	8.1	8.2	8.0	8.5	8.3	8.1	8.0
10	8.4	8.3	8.7	8.4	8.6	8.1	8.2	8.0	8.4	8.3	8.1	7.9
11	8.6	8.3	8.8	8.3	8.5	8.2	8.1	8.1	8.4	8.3	8.0	8.0
12	8.6	8.4	8.9	8.4	8.5	8.2	8.1	8.1	8.4	8.3	8.0	7.9
13	8.6	8.4	8.8	8.3	8.5	8.2	8.2	8.1	8.4	8.2	8.0	7.8
14	8.6	8.3	8.7	8.4	8.5	8.2	8.3	8.1	8.4	8.2	7.9	7.7
15	8.6	8.3	8.6	8.4	8.5	8.2	8.3	8.0	8.3	8.2	7.9	7.7
16	8.6	8.4	8.7	8.3	8.5	8.3	8.3	8.1	8.3	8.2	7.9	7.7
17	8.6	8.5	8.5	8.3	8.4	8.2	8.3	8.1	8.3	8.2	8.0	7.8
18	8.7	8.4	8.6	8.2	8.3	8.2	8.3	8.1	8.3	8.2	8.0	7.8
19	8.8	8.5	8.6	8.3	8.2	8.1	8.3	8.1	8.3	8.2	8.0	7.8
20	8.8	8.5	8.6	8.3	8.3	8.1	8.3	8.1	8.3	8.2	8.0	7.8
21	8.8	8.5	8.7	8.4	8.3	8.2	8.4	8.0	8.3	8.1	8.0	7.9
22	8.8	8.5	8.7	8.4	8.2	8.1	8.4	8.2	8.4	8.1	8.0	7.9
23	8.7	8.4	8.6	8.4	8.2	8.1	8.3	8.2	8.4	8.1	8.0	7.8
24	8.9	8.5	8.6	8.4	8.2	8.0	8.3	8.1	8.4	8.2	7.9	7.8
25	8.9	8.5	8.5	8.3	8.3	8.1	8.2	8.1	8.4	8.1	7.9	7.8
26	8.8	8.6	8.6	8.3	8.2	8.1	8.2	8.0	8.3	8.1	7.9	7.7
27	8.9	8.5	8.6	8.4	8.2	8.1	8.2	8.0	8.3	8.1	7.9	7.8
28	8.7	8.6	8.6	8.4	8.2	8.0	8.2	8.0	8.3	8.0	8.1	7.8
29	8.8	8.4	8.5	8.4	8.1	8.0	8.1	7.9	8.2	8.0	8.1	7.9
30	8.9	8.5	8.5	8.4	8.2	8.0	8.2	8.0	8.2	8.0	8.0	7.9
31	---	---	8.6	8.4	---	---	8.2	8.0	8.2	8.0	---	---
MONTH	8.9	8.2	8.9	8.2	8.9	8.0	8.4	7.9	8.5	8.0	8.2	7.7

11046082 HIDDEN CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	74800	73000	76300	75800	71000	70400	50200	47700	50900	50800	---	---
2	---	---	76500	74700	70900	70000	51300	47700	50900	50400	---	---
3	---	---	76200	74700	70700	69400	51100	48100	50400	50000	---	---
4	---	---	76100	72900	70500	69300	50700	47500	50400	49300	---	---
5	---	---	76500	72600	70100	69400	50800	47600	49800	49300	---	---
6	---	---	73600	73100	70100	65000	50900	47400	49900	49700	15800	6590
7	---	---	74100	72800	69600	69000	51400	47900	50000	49900	19400	11000
8	---	---	74200	73700	69500	68200	51400	51200	50000	49900	22700	15500
9	---	---	74100	73700	68200	67600	51500	51300	50100	50000	24600	18500
10	---	---	73900	73400	68400	67800	51600	51200	50400	50100	32000	23400
11	---	---	73800	73200	68100	67200	51600	51400	50500	50300	34500	26900
12	---	---	73500	72700	67800	66700	51600	51300	50500	50400	36300	31600
13	---	---	72800	72300	67600	64700	51700	51400	50700	49400	36400	32000
14	---	---	72700	72100	67500	65900	51600	51300	50700	50400	35300	32400
15	84000	83100	72700	72000	66800	65900	51700	51500	50600	50400	36800	34000
16	83500	82800	72600	71500	67200	66200	51800	51400	50600	50400	38000	34600
17	83300	82500	72100	70600	68100	66700	51900	51500	50600	50500	38900	35200
18	83100	82500	70700	69500	67500	66900	51900	51500	50600	50400	39600	36500
19	82900	82400	69900	69200	67600	66700	51800	50700	50500	50300	41500	38400
20	82700	82100	69900	69600	68000	66700	51400	50500	50500	50300	---	---
21	---	---	70000	69600	67200	66700	51000	50600	50500	50200	---	---
22	83700	82500	70600	69700	66900	65100	50900	50700	50200	49300	---	---
23	82800	81500	71000	70500	65700	63100	50900	50800	49400	26700	31700	31300
24	82400	81700	71200	70600	55100	51300	50800	50600	35500	29500	32500	31200
25	81700	80900	71000	70500	53000	47900	50600	50500	39400	33900	32600	31900
26	81300	79400	70800	70500	51800	47300	50700	50600	36000	522	32800	32400
27	81300	80400	70800	70300	52200	46400	50700	50600	11200	3400	33200	32400
28	80400	79900	71000	70200	51100	46500	50700	50500	9010	6720	33400	32700
29	80200	79600	71300	70300	51500	46600	50700	50600	---	---	33800	33000
30	80000	76400	71000	70200	51600	47100	50700	50500	---	---	34300	33600
31	76600	76000	---	---	51600	47200	50800	50600	---	---	34600	34000
MONTH	---	---	76500	69200	71000	46400	51900	47400	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	35000	34100	44200	43700	---	---	63400	62700	81000	79300	>99900	>99900
2	34700	33400	44600	44100	---	---	64000	63200	82000	80600	>99900	>99900
3	34700	34000	45000	44000	---	---	64300	63800	83300	81700	>99900	99000
4	35300	34500	46200	44900	55000	52800	65100	64300	84000	82800	>99900	>99900
5	35700	35300	49000	46000	54900	53500	65400	64800	84600	82400	>99900	>99900
6	36100	35600	49500	47800	54700	53800	66000	65200	85800	83900	>99900	>99900
7	36500	35900	49600	47800	55100	54600	66200	65300	86600	84700	>99900	>99900
8	36700	36200	49200	48200	55300	54600	66400	65500	87300	85700	>99900	>99900
9	37100	36600	49500	48800	55800	54500	66700	65700	87900	86600	>99900	>99900
10	37500	37000	49800	49400	56300	55100	67300	66700	88300	86700	>99900	>99900
11	37600	37000	50100	49500	56600	55600	67800	67300	88900	87400	>99900	>99900
12	37800	37300	50500	49800	57000	56200	68300	67600	89600	88200	>99900	>99900
13	38200	37800	50900	50300	57600	56800	68700	68100	89800	88400	>99900	>99900
14	38600	38100	51300	50400	58000	57200	69300	68700	90500	89100	>99900	>99900
15	38900	38500	51600	51000	58400	57700	69800	69200	90900	89200	>99900	>99900
16	39300	38400	51800	51200	58800	58300	70300	69600	91400	88500	>99900	>99900
17	39400	39100	52200	51700	59000	58500	71200	70200	91600	89500	>99900	>99900
18	39600	38200	52600	52000	59000	58700	72100	70900	92400	90500	>99900	>99900
19	39900	39200	53000	51500	58900	58600	73200	71700	93300	89900	>99900	>99900
20	40300	39900	53500	52800	59400	58900	74000	72400	93500	90700	>99900	>99900
21	40500	40200	54100	53400	59600	59100	74000	73000	94400	93200	>99900	>99900
22	40900	40500	54500	53600	59500	59300	75000	73400	95800	92500	>99900	>99900
23	41200	40800	55000	54100	59800	59100	75400	74500	96500	93800	>99900	99800
24	41700	41100	55400	54300	60000	59600	76100	75300	98000	94800	>99900	94400
25	42000	41500	---	---	60500	59900	76200	74800	99300	56600	>99900	>99900
26	42300	41800	---	---	60900	60300	76200	75400	>99900	97400	>99900	97900
27	42800	42200	---	---	61600	60800	76800	75800	>99900	97400	>99900	97700
28	43000	42700	---	---	61600	61200	77600	76100	>99900	99400	>99900	99500
29	43400	42900	---	---	62200	61300	78600	77200	>99900	99400	>99900	>99900
30	43900	43400	---	---	63300	62000	79600	78300	>99900	99800	>99900	>99900
31	---	---	---	---	---	---	80500	78900	>99900	>99900	---	---
MONTH	43900	33400	---	---	---	---	80500	62700	99900	56600	99900	94400

> Actual value is known to be greater than the value shown.

## 11046082 HIDDEN CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

TEMPERATURE, WATER, DEGREES C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	25.4	20.6	16.7	14.9	14.0	9.2	10.4	7.9	14.6	12.3	---	---
2	---	---	18.3	13.6	14.0	9.6	11.5	8.6	14.2	11.7	---	---
3	---	---	16.8	12.7	14.6	10.6	12.6	10.7	15.2	13.1	---	---
4	---	---	18.5	16.3	14.8	11.2	11.0	9.0	15.0	12.0	---	---
5	---	---	16.9	12.4	16.1	12.9	10.6	7.9	14.6	11.8	---	---
6	---	---	18.1	13.1	15.6	12.4	10.6	8.0	14.5	11.6	20.2	14.2
7	---	---	18.4	13.8	16.6	15.1	11.9	9.5	13.9	11.1	20.8	14.9
8	---	---	18.1	13.2	17.5	13.4	11.8	8.9	14.2	11.0	21.6	16.3
9	---	---	17.8	15.2	13.4	10.3	12.0	9.3	13.4	10.7	22.5	17.3
10	---	---	19.4	16.4	13.2	10.3	12.0	9.2	13.5	10.1	22.2	19.1
11	---	---	19.2	15.7	14.6	10.9	12.3	9.2	13.3	10.0	23.7	19.2
12	---	---	19.7	16.6	12.1	8.5	13.9	11.8	13.9	9.9	22.5	20.6
13	---	---	18.8	14.4	12.0	8.1	13.2	10.5	12.6	10.1	22.7	20.4
14	---	---	17.8	13.2	12.2	8.1	13.6	10.7	12.1	9.9	21.7	19.9
15	23.7	19.6	16.8	13.3	12.2	9.4	14.0	10.6	13.2	9.6	23.5	20.2
16	23.9	17.7	17.9	15.5	10.7	6.9	14.6	11.9	14.6	11.2	21.9	19.4
17	23.9	19.2	16.9	13.9	11.0	6.3	14.9	12.9	15.5	12.6	21.2	19.1
18	23.6	19.0	17.0	12.2	11.0	6.8	15.0	12.8	14.3	13.2	20.4	17.9
19	24.4	20.7	16.6	11.8	11.6	7.1	15.6	13.3	15.6	12.5	20.1	17.8
20	24.4	17.9	17.4	13.8	12.0	8.7	15.9	14.0	15.9	13.9	20.9	17.8
21	---	---	18.0	15.3	15.0	11.7	14.9	13.4	15.0	13.6	20.8	17.9
22	21.3	16.4	15.3	11.1	12.5	9.9	14.6	12.4	16.3	13.4	19.8	18.1
23	20.8	15.6	11.9	8.4	13.9	11.8	14.3	11.9	16.5	12.3	19.3	17.6
24	21.3	17.9	12.4	7.8	15.2	11.6	13.1	12.1	17.6	13.3	21.1	17.4
25	21.9	18.9	14.4	10.5	15.3	13.5	14.5	12.4	16.7	13.0	22.1	17.0
26	20.0	16.2	14.4	10.8	14.0	11.6	14.1	12.2	16.3	13.1	22.0	18.0
27	18.4	14.1	13.2	9.6	13.0	9.2	14.2	12.1	17.0	13.1	22.2	16.9
28	17.5	14.5	13.9	9.8	12.0	8.2	14.9	12.8	17.0	12.7	23.5	16.9
29	19.0	16.6	14.8	10.8	10.6	7.7	14.8	12.6	---	---	24.0	17.6
30	20.5	15.7	14.0	9.4	11.3	8.7	14.6	12.3	---	---	22.8	17.7
31	17.7	13.4	---	---	11.3	7.8	14.9	13.1	---	---	21.4	18.4
MONTH	---	---	19.7	7.8	17.5	6.3	15.9	7.9	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	19.6	17.5	24.5	18.6	25.4	21.6	25.0	21.3	26.2	22.8	26.8	22.2
2	20.7	15.5	24.3	19.3	25.8	22.1	23.7	20.7	26.3	22.8	27.1	21.3
3	21.9	17.7	25.7	19.9	26.2	20.6	24.1	21.5	26.1	22.3	27.6	21.6
4	23.9	18.6	25.2	20.3	26.6	21.9	25.3	21.6	25.6	22.7	26.3	19.0
5	23.9	20.3	26.7	21.0	27.2	22.8	24.3	22.5	26.3	22.3	26.4	19.2
6	23.2	19.3	27.8	21.1	24.5	22.4	23.6	21.9	25.3	20.4	26.5	19.9
7	23.8	18.9	26.8	20.7	22.4	20.7	23.8	21.3	25.9	21.7	27.6	21.9
8	21.4	18.8	27.8	20.7	24.3	20.0	24.4	21.2	25.9	21.8	27.1	21.2
9	23.5	19.2	27.6	21.6	25.5	20.4	26.2	21.6	26.5	22.7	28.3	22.6
10	21.5	19.6	25.8	22.1	25.8	20.2	26.0	21.8	26.9	23.2	29.2	22.5
11	24.5	18.8	25.4	20.5	25.8	21.2	25.1	22.4	26.8	24.1	29.1	23.4
12	24.6	19.4	26.0	20.4	26.3	22.0	25.5	22.3	25.6	23.7	28.6	23.5
13	24.8	20.6	26.1	20.9	26.2	22.3	25.9	23.3	25.7	23.1	28.5	22.9
14	24.7	19.8	26.7	21.7	25.8	22.2	26.6	23.6	25.5	23.4	26.8	21.6
15	25.0	19.6	25.8	21.7	25.4	22.3	26.4	24.0	25.6	22.6	27.9	21.9
16	25.0	20.9	25.4	22.1	23.5	21.3	26.0	23.3	26.6	22.0	28.4	22.2
17	22.0	16.5	24.5	21.2	22.9	20.4	25.9	22.6	25.8	21.5	29.0	23.0
18	21.7	14.8	25.2	20.8	21.9	20.4	25.9	22.6	25.9	22.1	28.4	21.7
19	23.1	17.1	24.6	20.7	20.4	19.3	26.2	22.8	26.6	20.9	26.1	19.9
20	23.6	17.6	25.1	20.9	22.4	19.6	26.8	23.2	26.2	21.4	25.7	17.3
21	24.4	18.9	24.7	20.5	22.7	20.6	27.1	24.5	27.0	22.0	23.6	16.6
22	24.7	19.5	24.2	19.9	22.1	20.6	27.0	23.8	27.1	21.1	22.6	16.4
23	23.8	18.7	23.6	20.4	22.0	19.9	26.5	23.6	26.8	20.1	22.8	16.0
24	24.6	18.3	23.9	19.5	23.7	20.5	25.5	23.4	26.6	19.8	23.6	17.3
25	23.2	19.2	21.5	19.0	24.5	22.1	26.3	22.4	27.3	20.1	23.7	19.4
26	23.7	19.1	21.8	17.5	25.0	22.3	27.1	23.5	27.0	22.5	24.6	21.0
27	24.7	19.3	22.9	18.1	24.3	21.8	28.0	23.2	28.2	22.2	25.2	21.0
28	23.0	20.6	21.5	19.8	23.0	20.9	27.3	22.9	27.1	22.0	24.9	20.7
29	23.6	18.6	23.5	18.8	23.8	20.4	25.8	20.8	28.2	22.4	25.5	19.9
30	24.0	18.4	24.7	19.7	24.4	21.2	26.0	22.8	27.8	21.4	20.9	18.4
31	---	---	25.2	20.8	---	---	25.5	22.5	26.6	21.5	---	---
MONTH	25.0	14.8	27.8	17.5	27.2	19.3	28.0	20.7	28.2	19.8	29.2	16.0



11046090 LAS FLORES CREEK AT LAS PULGAS CANYON, NEAR OCEANSIDE, CA

LOCATION.—Lat 33°19'07", long 117°26'13", in NE 1/4 SE 1/4 sec.7, T.10 S., R.5 W., San Diego County, Hydrologic Unit 18070301, on Camp Joseph H. Pendleton Naval Reservation, on right bank, 2.7 mi upstream from mouth, and 9.7 mi northwest of Oceanside.

DRAINAGE AREA.—15.6 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1998 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 110 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Some pumping upstream from station for irrigation. Camp Pendleton Water Treatment Plant No. 9 discharges to the channel at a point approximately 0.5 mi upstream from gage.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 135 ft<sup>3</sup>/s, Feb. 25, 2003, gage height, 8.43 ft, from rating curve extended above 22.5 ft<sup>3</sup>/s; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	1100	25	7.10

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.15	0.31	1.1	0.41	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.17	0.36	2.6	0.95	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.45	2.1	1.0	0.46	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.18	0.59	0.90	0.46	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.16	0.52	0.84	0.38	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.15	0.47	0.87	0.34	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.15	e0.45	0.71	0.32	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.15	e0.44	1.1	0.29	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.15	e0.45	0.76	0.31	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.15	e0.48	0.69	0.27	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.15	e0.45	0.54	0.26	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.15	e0.42	0.54	0.22	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.16	e0.43	0.48	0.18	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.18	e0.45	0.48	0.16	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.19	e0.45	0.48	0.17	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.19	e0.46	0.45	0.17	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.19	0.47	0.47	0.26	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.19	0.51	0.43	0.67	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.19	0.73	0.45	0.32	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.20	0.53	0.39	0.26	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.20	0.50	0.50	0.25	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.20	0.88	0.48	0.22	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.23	3.9	0.47	0.20	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.25	e1.0	0.37	0.15	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.22	0.28	e0.60	0.32	0.13	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	2.0	0.26	11	0.32	0.11	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.48	0.28	2.2	1.7	0.01	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.32	0.31	1.6	0.72	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.16	0.30	1.3	0.60	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.16	0.30	---	0.50	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.15	0.33	---	0.52	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	3.49	6.59	34.05	21.78	7.93	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.11	0.21	1.17	0.70	0.26	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	2.0	0.45	11	2.6	0.95	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.15	0.31	0.32	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	6.9	13	68	43	16	0.00	0.00	0.00	0.00	0.00

e Estimated.

## LAS FLORES CREEK BASIN

## 11046090 LAS FLORES CREEK AT LAS PULGAS CANYON, NEAR OCEANSIDE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.33	0.46	0.58	0.72	1.97	1.67	0.87	0.37	0.11	0.03	0.04	0.04
MAX	1.86	2.52	2.15	2.09	5.13	4.63	1.85	1.29	0.32	0.19	0.24	0.23
(WY)	1999	1999	1999	1999	2003	2003	1999	1999	2003	1999	1999	1999
MIN	0.00	0.00	0.11	0.05	0.30	0.30	0.19	0.00	0.00	0.00	0.00	0.00
(WY)	2001	2003	2004	2003	2002	2002	2002	2004	2002	2000	2000	2000

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	363.85		73.84			
ANNUAL MEAN	1.00		0.20		0.59	
HIGHEST ANNUAL MEAN					1.36 1999	
LOWEST ANNUAL MEAN					0.10 2002	
HIGHEST DAILY MEAN	63	Mar 16	11	Feb 26	63	Mar 16 2003
LOWEST DAILY MEAN	0.00	Jan 7	0.00	Oct 1	0.00	Jun 4 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 4	0.00	Oct 1	0.00	Jun 4 2000
MAXIMUM PEAK FLOW			25	Feb 26	135	Feb 25 2003
MAXIMUM PEAK STAGE			7.10	Feb 26	8.43	Feb 25 2003
ANNUAL RUNOFF (AC-FT)	722		146		428	
10 PERCENT EXCEEDS	1.6		0.49		1.8	
50 PERCENT EXCEEDS	0.01		0.00		0.18	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11046100 LAS FLORES CREEK NEAR OCEANSIDE, CA

LOCATION.—Lat 33°17'32", long 117°27'21", in NW 1/4 SE 1/4 sec.24, T.10 S., R.6 W., San Diego County, Hydrologic Unit 18070301, on Camp Joseph H. Pendleton Naval Reservation, on upstream side and at center of Southern Pacific Railroad bridge, 0.5 mi upstream from mouth, and 8.5 mi northwest of Oceanside.

DRAINAGE AREA.—26.6 mi<sup>2</sup>.

PERIOD OF RECORD.—May 1951 to September 1967, October 1969 to September 1979, October 1993 to current year. Discharge records for October 1967 to September 1969 and October 1979 to September 1993 available in files of U.S. Marine Corps at Camp Pendleton.

REVISED RECORDS.—WDR CA-72-1: 1971(M).

GAGE.—Water-stage recorder and multiple concrete culvert control. Elevation of gage is 35 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. No regulation upstream from station. Camp Pendleton Water Treatment Plant No. 9 discharges to the channel at a point approximately 2.7 mi upstream from gage. Some pumping upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,300 ft<sup>3</sup>/s, estimated, Mar. 4, 1978, gage height, 13.67 ft, from floodmarks, based on culvert computation of peak flow; no flow for several days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Feb. 25, 1969, reached a stage of 7.25 ft, from floodmarks, discharge, 4,200 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.00	0.01	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	4.4	0.01	0.00	0.01	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.07	0.01	0.00	0.01	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	---	0.01	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.01	---	0.01	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	4.51	0.34	0.17	0.26	0.01	0.03	0.00
MEAN	0.00	0.00	0.00	0.00	0.00	0.16	0.01	0.01	0.01	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	0.00	4.4	0.04	0.01	0.01	0.01	0.01	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	8.9	0.7	0.3	0.5	0.02	0.06	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2004, BY WATER YEAR (WY)

	0.08	0.25	0.70	3.64	6.19	8.34	1.89	0.38	0.15	0.11	0.10	0.11
MEAN	0.08	0.25	0.70	3.64	6.19	8.34	1.89	0.38	0.15	0.11	0.10	0.11
MAX	0.94	4.81	12.9	35.6	146	143	29.3	8.95	2.32	1.27	1.17	1.15
(WY)	1999	1966	1967	1995	1998	1978	1958	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1952	1954	1954	1963	1961	1955	1953	1953	1952	1952	1952	1952

SUMMARY STATISTICS FOR 2003 CALENDAR YEAR FOR 2004 WATER YEAR WATER YEARS 1952 - 2004

ANNUAL TOTAL	372.89	5.32	
ANNUAL MEAN	1.02	0.01	1.81
HIGHEST ANNUAL MEAN			17.9 1978
LOWEST ANNUAL MEAN			0.01 1961
HIGHEST DAILY MEAN	153	Mar 16	1050 Feb 24 1998
LOWEST DAILY MEAN	0.00	Feb 3	0.00 Oct 1 1951
ANNUAL SEVEN-DAY MINIMUM	0.00	May 17	0.00 Oct 1 1951
MAXIMUM PEAK FLOW			15 Feb 26 7300 Mar 4 1978
MAXIMUM PEAK STAGE			0.71 Feb 26 13.67 Mar 4 1978
ANNUAL RUNOFF (AC-FT)	740	11	1310
10 PERCENT EXCEEDS	0.08	0.01	0.66
50 PERCENT EXCEEDS	0.00	0.00	0.01
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 11046102 LAS FLORES CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA

LOCATION.—Lat 33°17'26", long 117°27'54", in NE 1/4 SW 1/4 sec.24, T.10 S., R.6 W., San Diego County, Hydrologic Unit 18070301, at mouth of Las Flores Creek at the Pacific Ocean, and 0.50 mi downstream of Los Flores Creek near Oceanside (station 11046100).

DRAINAGE AREA.—27.0 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.—June 2003 to current year.

DISSOLVED OXYGEN: June 2003 to current year.

pH: June 2003 to current year.

SPECIFIC CONDUCTANCE: June 2003 to current year.

WATER TEMPERATURE: June 2003 to current year.

INSTRUMENTATION.—Water-quality monitor since June 2003.

REMARKS.—Dissolved oxygen records rated poor. pH, specific conductance, and water temperature records rated good. Interruption in records at times due to malfunction of recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 19.7 mg/L, Dec. 29, 2003, Feb. 12, July 15, 2004; minimum recorded, <0.2 mg/L, July 27 to Aug. 1, 2004.

pH: Maximum recorded, 9.1 standard units, Aug. 3, 2003; minimum recorded, 6.7 standard units, several days in August 2003.

SPECIFIC CONDUCTANCE: Maximum recorded, 36,900 microsiemens, June 1, 2, 13, 14, 2003; minimum recorded, 592 microsiemens, Feb. 27, 2004.

WATER TEMPERATURE: Maximum recorded, 33.2°C, June 11, 2003; minimum recorded, 7.6°C, Dec. 28, 2003.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 19.7 mg/L, Dec. 29, Feb. 12, July 15; minimum recorded, <0.2 mg/L, July 27 to Aug. 1.

pH: Maximum recorded, 8.7 standard units, Oct. 4, Aug. 6, 7, Sept. 23; minimum recorded, 6.9 standard units, Sept. 29.

SPECIFIC CONDUCTANCE: Maximum recorded, 25,800 microsiemens, June 3; minimum recorded, 592 microsiemens, Feb. 27.

WATER TEMPERATURE: Maximum recorded, 29.4°C, July 20, 21; minimum recorded, 7.6°C, Dec. 28.

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

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.3	2.1	9.2	6.6	10.0	6.6	---	---	14.6	11.9	12.4	7.5
2	11.2	2.9	11.1	6.4	10.7	7.4	19.6	14.8	15.9	12.4	12.9	7.3
3	10.7	3.1	11.5	6.6	10.8	7.3	17.6	12.7	14.8	11.8	11.7	7.3
4	11.1	2.4	10.8	6.0	9.5	7.4	16.4	12.1	15.7	11.5	17.8	6.9
5	11.0	2.2	12.2	7.4	9.7	7.2	15.6	12.0	18.1	12.3	17.6	6.7
6	9.4	3.1	12.2	6.7	8.8	6.5	16.8	11.8	17.7	12.5	14.5	6.0
7	11.0	2.4	12.8	6.7	8.2	5.8	14.4	10.1	17.9	13.1	16.2	6.2
8	12.3	3.0	13.4	7.3	7.4	5.0	12.2	10.5	17.9	12.9	17.9	5.0
9	7.1	2.1	11.5	8.4	9.9	5.4	12.2	10.0	18.0	12.0	15.2	4.2
10	8.4	1.7	11.6	7.0	9.7	8.0	11.9	10.4	---	---	4.8	4.2
11	11.1	1.6	10.8	7.1	11.4	7.9	11.7	8.9	---	---	4.8	3.9
12	10.6	2.3	10.0	6.0	10.3	9.0	11.6	9.6	19.7	11.6	5.1	4.3
13	9.4	2.2	7.2	4.6	10.8	9.2	13.0	8.3	19.4	11.8	4.8	4.0
14	6.5	0.9	7.4	4.5	10.9	9.4	13.1	9.9	19.4	11.5	4.8	4.0
15	8.1	1.7	5.9	4.5	11.7	9.3	13.6	9.9	19.3	11.8	4.8	3.9
16	8.2	1.4	6.2	3.8	12.5	10.0	15.2	9.1	18.3	13.0	4.8	3.9
17	7.0	1.4	5.1	3.7	12.1	10.0	14.1	9.7	18.0	11.6	4.9	3.9
18	8.1	1.2	4.4	2.9	12.3	9.8	15.2	8.9	18.6	8.8	5.2	4.3
19	4.3	0.8	5.3	3.6	12.2	9.8	12.7	9.3	19.2	11.3	5.4	4.3
20	8.8	1.7	5.0	3.7	11.4	9.3	12.2	8.2	18.7	10.3	6.0	4.4
21	7.5	1.7	5.2	3.4	12.2	8.7	12.2	9.5	16.7	10.2	6.6	4.7
22	7.6	3.0	6.9	4.2	10.7	9.0	12.2	8.9	17.9	10.8	5.5	4.8
23	8.9	2.8	7.6	5.8	12.3	7.2	14.4	9.0	19.0	9.8	6.0	4.8
24	7.5	2.6	8.3	5.9	13.1	8.8	13.9	10.2	16.7	10.2	5.8	5.0
25	6.9	1.8	8.2	6.2	11.7	9.2	18.5	9.6	17.5	10.5	6.3	4.9
26	7.0	3.7	10.0	6.6	13.7	9.7	14.5	11.3	16.2	9.5	6.9	5.7
27	8.2	4.4	11.4	7.5	17.2	10.3	15.4	12.0	15.1	9.1	6.8	5.5
28	8.0	5.1	10.4	8.0	18.3	11.8	14.2	11.5	14.0	8.7	6.8	5.6
29	9.8	5.7	8.2	6.9	19.7	13.6	15.8	11.8	14.9	8.4	6.6	5.5
30	9.7	5.4	8.6	6.3	---	---	14.7	12.2	---	---	6.5	5.4
31	10.6	5.3	---	---	---	---	15.8	11.8	---	---	6.5	5.2
MONTH	12.3	0.8	13.4	2.9	---	---	---	---	---	---	17.9	3.9

## 11046102 LAS FLORES CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.1	5.0	11.5	8.2	15.8	5.8	15.6	7.6	6.0	<0.2	10.1	2.1
2	6.8	4.9	11.0	7.5	13.8	5.9	13.9	6.3	---	---	15.8	3.4
3	7.1	4.8	11.5	7.8	13.2	7.3	13.1	5.5	---	---	15.2	5.4
4	7.8	4.8	10.1	7.6	12.6	6.1	15.9	6.3	13.6	2.3	18.4	5.9
5	6.3	4.8	10.6	6.0	---	---	12.9	5.4	16.8	2.7	17.0	4.5
6	6.6	4.7	9.5	5.0	---	---	13.2	5.4	15.5	3.8	17.5	5.1
7	6.8	4.8	8.6	6.7	---	---	14.7	5.4	17.2	4.3	---	---
8	6.1	5.3	9.3	6.8	13.6	9.9	16.7	5.6	17.2	4.7	---	---
9	7.4	5.2	8.9	6.0	12.5	7.7	17.0	5.5	16.6	5.4	---	---
10	7.1	5.7	10.4	7.1	11.1	7.0	15.3	4.5	17.1	4.9	---	---
11	8.8	5.8	9.8	7.2	12.1	6.3	16.7	5.7	14.7	3.5	---	---
12	7.8	6.3	10.2	7.1	11.7	7.2	16.6	5.3	---	---	---	---
13	9.1	6.5	12.3	7.0	---	---	14.5	5.4	---	---	---	---
14	8.9	6.7	12.7	7.5	---	---	15.5	4.6	---	---	15.3	3.1
15	8.5	6.6	15.6	7.5	---	---	19.7	4.2	---	---	13.8	2.0
16	8.3	6.4	16.4	7.3	---	---	16.0	4.6	---	---	14.1	1.4
17	9.2	6.7	10.8	7.1	---	---	18.2	4.3	12.1	2.6	12.9	0.8
18	9.4	6.7	9.8	6.6	7.9	4.4	17.5	4.8	13.2	2.5	11.4	0.5
19	9.9	7.7	9.9	6.2	8.0	4.3	16.9	5.2	13.5	2.6	10.0	1.4
20	9.9	7.3	10.1	6.6	9.4	4.6	15.2	4.5	12.7	3.2	10.9	2.0
21	9.9	7.2	11.3	6.0	10.2	6.2	15.6	3.9	13.3	2.9	11.2	2.9
22	10.7	8.1	11.6	5.7	10.0	5.4	14.4	2.0	12.8	2.7	12.4	3.4
23	11.3	8.2	10.4	6.1	---	---	11.6	1.3	12.4	2.5	14.4	4.2
24	10.4	7.9	10.8	5.5	---	---	10.6	1.1	11.8	2.5	11.6	5.2
25	10.4	8.7	10.6	5.9	---	---	10.9	1.0	12.5	2.7	11.2	3.7
26	10.6	8.9	13.2	6.0	---	---	9.5	0.6	11.5	1.6	11.5	3.1
27	9.7	8.3	17.6	5.9	---	---	9.2	<0.2	13.2	2.5	11.1	3.4
28	10.7	9.0	13.3	4.6	---	---	7.8	<0.2	12.9	2.1	13.1	2.6
29	10.9	8.1	13.7	3.8	15.9	7.2	6.1	<0.2	13.3	2.2	12.6	4.9
30	11.6	9.2	16.4	4.0	16.3	7.0	6.1	<0.2	12.6	1.7	10.1	4.7
31	---	---	15.4	4.9	---	---	7.4	<0.2	13.6	0.4	---	---
MONTH	11.6	4.7	17.6	3.8	---	---	19.7	0.2	---	---	---	---

&lt; Actual value is known to be less than the value shown.

## 11046102 LAS FLORES CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.6	8.3	8.4	8.3	8.5	8.4	8.2	8.0	7.8	7.6	7.7	7.5
2	8.5	8.4	8.5	8.3	8.6	8.4	8.1	7.9	7.8	7.6	7.8	7.5
3	8.6	8.5	8.5	8.2	8.6	8.4	7.9	7.8	7.8	7.6	7.6	7.5
4	8.7	8.5	8.3	8.0	8.6	8.4	8.0	7.8	7.9	7.7	7.6	7.5
5	8.6	8.3	8.4	8.2	8.4	8.3	8.0	7.7	8.0	7.7	7.6	7.4
6	8.4	8.3	8.4	8.1	8.4	8.2	7.9	7.7	8.0	7.7	7.7	7.4
7	8.4	8.3	8.3	8.0	8.3	8.1	8.0	7.7	8.0	7.8	7.7	7.4
8	8.4	8.3	8.2	7.9	8.2	8.1	8.0	7.9	8.0	7.7	7.7	7.3
9	8.3	8.2	8.1	8.0	8.4	7.8	8.0	7.9	8.0	7.8	7.6	7.4
10	8.3	8.2	8.0	8.0	8.1	8.0	8.0	7.9	---	---	7.6	7.5
11	8.2	8.1	8.1	7.7	8.2	8.0	7.9	7.8	---	---	7.6	7.4
12	8.2	8.0	8.1	7.8	8.3	8.2	7.8	7.7	8.2	8.0	7.5	7.4
13	8.2	8.1	8.2	8.0	8.2	8.1	7.9	7.7	8.2	8.0	7.5	7.4
14	8.1	7.9	8.3	8.1	8.2	8.1	7.9	7.7	8.2	8.1	7.6	7.5
15	8.2	8.0	8.3	8.2	8.2	8.1	7.8	7.7	8.2	8.0	7.6	7.4
16	8.2	7.9	8.3	8.1	8.3	8.2	7.8	7.8	8.2	8.0	7.6	7.4
17	8.1	7.9	8.2	7.9	8.4	8.2	7.8	7.7	8.1	8.0	7.4	7.4
18	8.1	7.8	8.2	7.9	8.3	8.2	7.8	7.8	8.1	8.0	7.5	7.4
19	8.0	7.8	8.2	7.9	8.3	8.2	7.8	7.6	8.1	7.9	7.5	7.4
20	8.2	7.8	8.1	7.9	8.2	8.0	7.7	7.6	8.0	7.9	7.6	7.4
21	8.2	7.9	8.1	7.9	8.0	7.9	7.8	7.6	8.0	8.0	7.6	7.4
22	8.2	8.0	8.3	8.1	8.0	7.7	7.6	7.6	8.1	7.9	7.5	7.4
23	8.3	8.0	8.5	8.3	7.8	7.5	7.7	7.6	8.0	7.8	7.5	7.4
24	8.2	8.0	8.5	8.4	7.7	7.6	7.8	7.5	8.0	7.8	7.5	7.4
25	8.1	7.8	8.5	8.2	7.7	7.6	7.6	7.4	8.1	7.9	7.6	7.4
26	8.2	8.0	8.4	8.2	7.8	7.7	7.7	7.4	8.0	7.8	7.6	7.4
27	8.4	8.2	8.5	8.4	7.9	7.7	7.8	7.5	7.9	7.7	7.6	7.4
28	8.4	8.2	8.6	8.4	8.0	7.7	7.7	7.5	7.8	7.7	7.6	7.4
29	8.4	8.0	8.5	8.3	8.0	7.9	7.8	7.5	7.7	7.6	7.6	7.4
30	8.3	8.1	8.5	8.4	8.1	7.9	7.8	7.6	---	---	7.6	7.4
31	8.4	8.2	---	---	8.1	8.0	7.8	7.6	---	---	7.6	7.4
MONTH	8.7	7.8	8.6	7.7	8.6	7.5	8.2	7.4	---	---	7.8	7.3
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	7.3	8.1	7.9	8.1	7.8	8.3	8.0	8.5	8.3	8.4	8.2
2	7.5	7.4	8.2	7.9	8.0	7.8	8.4	8.2	8.6	8.4	8.4	8.1
3	7.5	7.4	8.1	7.9	8.0	7.8	8.3	8.2	8.6	8.4	8.5	8.3
4	7.5	7.3	8.2	7.9	7.8	7.7	8.3	8.2	8.6	8.5	8.6	8.2
5	7.4	7.3	8.1	7.6	7.8	7.7	8.3	8.2	8.6	8.4	8.6	8.2
6	7.4	7.2	8.0	7.6	8.0	7.8	8.3	8.2	8.7	8.5	8.6	8.2
7	7.4	7.2	8.0	7.7	8.0	7.8	8.4	8.3	8.7	8.3	8.5	8.1
8	7.5	7.3	8.0	7.7	8.1	7.7	8.4	8.3	8.6	8.3	8.5	8.2
9	7.5	7.4	8.0	7.6	8.0	7.6	8.4	8.2	8.6	8.4	8.4	8.2
10	7.6	7.5	7.9	7.7	8.0	7.7	8.3	8.1	8.5	8.3	8.4	8.1
11	7.6	7.4	8.0	7.7	7.9	7.7	8.3	8.2	8.4	8.3	8.4	8.1
12	7.7	7.5	8.0	7.7	7.9	7.7	8.2	8.1	8.5	8.4	8.5	8.2
13	7.6	7.5	8.0	7.8	7.9	7.7	8.2	8.1	8.5	8.3	8.6	8.4
14	7.7	7.5	8.0	7.8	7.9	7.7	8.2	8.0	8.4	8.3	8.5	8.4
15	7.7	7.6	8.0	7.8	7.9	7.7	8.2	8.0	8.5	8.3	8.5	8.3
16	7.7	7.6	8.0	7.8	8.0	7.8	8.2	8.0	8.5	8.3	8.4	8.3
17	8.0	7.7	8.1	7.9	8.0	7.8	8.3	8.2	8.4	8.3	8.4	8.2
18	8.1	7.9	8.0	7.8	8.0	7.9	8.4	8.2	8.4	8.3	8.4	8.2
19	8.0	7.8	8.1	7.8	8.0	7.9	8.3	8.2	8.4	8.3	8.4	8.2
20	8.1	7.9	8.0	7.8	8.0	7.9	8.4	8.2	8.4	8.3	8.5	8.3
21	8.0	7.8	8.0	7.8	8.0	7.9	8.4	8.2	8.4	8.2	8.6	8.3
22	8.0	7.8	8.0	7.8	8.1	7.9	8.5	8.3	8.4	8.1	8.6	8.3
23	8.0	7.8	8.0	7.9	8.0	7.9	8.5	8.4	8.4	8.2	8.7	8.3
24	8.0	7.8	8.0	7.9	8.0	7.8	8.5	8.3	8.5	8.2	8.6	8.2
25	8.0	7.8	8.1	8.0	7.9	7.7	8.5	8.4	8.4	8.2	8.5	8.2
26	8.0	7.8	8.2	8.1	7.9	7.7	8.5	8.3	8.3	8.2	8.4	8.2
27	8.0	7.8	8.3	8.0	8.0	7.8	8.5	8.2	8.3	8.1	8.3	8.1
28	8.0	7.8	8.2	8.0	8.2	8.0	8.5	8.3	8.3	8.0	8.3	7.0
29	8.0	7.8	8.2	7.9	8.2	8.0	8.6	8.4	8.1	8.0	7.1	6.9
30	8.1	7.9	8.2	7.8	8.2	8.0	8.5	8.3	8.2	8.0	7.2	7.0
31	---	---	8.1	7.7	---	---	8.5	8.3	8.4	8.1	---	---
MONTH	8.1	7.2	8.3	7.6	8.2	7.6	8.6	8.0	8.7	8.0	8.7	6.9

## 11046102 LAS FLORES CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

## SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH					
1	6770	2580	5060	1920	2550	1580	15700	15400	16500	16100	2860	1050				
2	6630	6580	4940	1990	2100	1550	15400	14900	16100	15400	3140	1280				
3	6620	6570	4890	2100	2100	1610	14900	14500	15500	15100	2980	1320				
4	6570	6460	4800	4730	2300	1250	14500	14100	15100	13900	2940	1320				
5	6500	6350	4740	1870	2230	1520	14100	13700	14200	14000	3260	1640				
6	6430	6340	4720	4600	2260	1480	13700	13400	14000	13800	3080	1110				
7	6400	6280	4680	4600	2160	1440	14000	13000	13800	13500	3260	1840				
8	6340	2470	4620	2510	2900	1550	13700	13400	13500	13200	3310	1720				
9	6290	2470	4600	2130	3820	1510	13400	13100	13200	13000	3260	3210				
10	6280	6170	4560	2050	3810	3760	13100	12700	---	---	3240	3210				
11	6180	3090	4480	1080	3760	3740	12700	12400	---	---	3270	3210				
12	4050	2580	4450	2560	3760	3740	12400	12200	12600	12300	3250	2520				
13	4200	2820	4430	4320	3740	3710	12200	11900	12300	12200	3290	3240				
14	6020	2840	4400	4320	3720	3650	11900	11700	12200	11900	3280	3270				
15	6010	5760	4360	4240	3660	3610	11700	11400	11900	11700	3270	1450				
16	5870	5540	4240	2140	3640	3610	11400	11100	11700	11500	1950	1320				
17	5770	5510	4170	2060	3620	3560	11100	4230	---	---	3230	1420				
18	5710	2120	4120	2440	3600	3580	10900	4710	11300	11100	3230	3210				
19	5700	2210	4110	1450	3580	3550	18900	10600	11100	10800	3220	3210				
20	5680	2370	2600	1460	3560	3520	19300	14600	10900	10700	3220	1300				
21	4970	2290	2680	1500	3540	3480	23200	18700	10800	10500	3220	3210				
22	4140	2390	3000	1480	14000	3490	21000	18300	10500	9670	3210	3180				
23	5440	1780	2680	1420	24000	4380	21500	16900	9990	8560	3190	3180				
24	2750	1780	2270	1530	19600	7760	18500	11800	9050	7380	3190	3180				
25	3250	1770	2560	1580	22300	9230	18800	7080	7750	4510	3180	3120				
26	5300	2060	2320	1430	20700	18200	19600	16800	7130	851	3140	3130				
27	5540	1830	2340	1340	18900	16400	18700	16900	5000	592	3140	3130				
28	5520	5320	2800	1520	17600	16400	18000	17200	4230	1990	3140	3120				
29	5330	5160	2600	1620	17000	16500	17500	6820	3200	2340	3130	3120				
30	5180	2330	2690	1620	16500	15900	16800	6950	---	---	3130	2920				
31	5100	5030	---	---	16100	15700	16800	7230	---	---	3140	3120				
MONTH	6770	1770	5060	1080	24000	1250	23200	4230	---	---	3310	1050				
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER					
1	3130	3100	3460	3460	7790	7690	10900	10900	9620	5160	7870	7710				
2	3120	3100	3460	3440	7790	4320	10900	10900	9560	3330	7790	4070				
3	3120	3100	3460	3440	25800	7680	10900	10800	9510	3280	7750	7650				
4	3120	3100	3560	3460	25300	21900	10800	10700	9450	9400	7710	7620				
5	3120	1280	4420	3550	23000	21600	10800	10700	9420	3820	7650	7520				
6	3120	3110	9880	3960	22100	19200	10700	10700	9350	9280	7590	7500				
7	3140	3110	6730	5760	20700	19100	10700	10500	9310	9230	7570	7460				
8	3150	3130	7780	3990	19400	10400	10600	10400	9260	9170	7500	7440				
9	3420	3140	7190	2740	18300	6470	10500	10300	9170	9120	7480	6410				
10	3410	3320	7200	3060	14600	7350	10400	10300	9260	9060	7380	7260				
11	3610	3380	7900	7100	12600	6110	10400	5480	9180	9030	7260	2970				
12	3560	3490	8950	7580	12500	6400	10300	4550	9140	4910	5520	3350				
13	3570	3500	9200	7980	12400	12200	10300	10100	8980	8820	7190	3970				
14	3550	3500	8910	8530	12400	12200	10200	10100	8940	8820	7120	6810				
15	3540	3490	8890	8730	12300	12100	10200	9890	8890	4640	7040	6580				
16	3520	3500	8780	8620	12200	12100	10200	9990	8760	3860	7020	6440				
17	3520	1240	8680	8550	12200	12000	10200	9990	8630	8440	6890	6510				
18	3520	3510	8580	8490	12000	11900	10100	9950	8590	8440	6790	6440				
19	3520	3500	8520	8420	11900	11800	10100	9980	8440	5760	6740	6640				
20	3510	3490	8440	8320	11800	6090	10100	6660	8340	3880	6680	6460				
21	3520	3500	8430	8330	11700	11500	10100	5520	6760	3720	6650	6510				
22	3520	1600	8380	8180	11500	11400	10000	5380	8150	2670	6620	6460				
23	3510	1490	8310	8130	11400	11200	10000	9970	8150	6340	6620	6460				
24	3490	1490	8270	8120	11200	5370	9990	9860	8080	2910	6640	6580				
25	3490	3480	8180	8080	11200	8930	9900	9780	8090	3280	6630	6230				
26	3490	3470	8120	7990	11200	8930	9800	9720	8080	7930	6500	6190				
27	3480	1830	8010	7950	11100	11000	9770	5040	7970	7840	6480	6200				
28	3480	2010	7980	7860	11100	11000	9720	9630	7930	7790	6600	6280				
29	3490	3460	7920	7850	11000	5680	9670	9580	7930	3230	6550	6490				
30	3470	3460	7880	7800	10900	10900	9650	2960	7930	7830	6500	6380				
31	---	---	7860	7710	---	---	9620	9570	7910	7850	---	---				
MONTH	3610	1240	9880	2740	25800	4320	10900	2960	9620	2670	7870	2970				

## 11046102 LAS FLORES CREEK LAGOON AT MOUTH, NEAR OCEANSIDE, CA—Continued

TEMPERATURE, WATER, DEGREES C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24.6	20.9	17.0	15.3	14.1	10.6	11.2	8.9	15.4	12.6	16.3	13.9
2	24.1	20.9	17.3	13.6	14.6	10.7	11.9	9.3	15.2	12.2	16.8	14.5
3	22.3	19.8	15.6	13.5	14.2	11.6	13.0	11.0	15.6	13.5	17.6	14.3
4	22.4	18.1	16.2	14.3	14.7	11.4	12.1	9.8	15.5	12.0	18.1	15.2
5	22.4	19.8	17.0	13.1	15.3	12.6	11.7	8.9	15.0	12.0	17.9	15.8
6	22.1	20.4	17.7	13.6	15.6	12.5	11.4	9.1	14.9	11.8	18.3	15.5
7	23.0	20.4	17.9	14.3	15.8	14.8	12.7	10.1	14.6	11.4	19.5	15.9
8	24.3	20.4	18.2	14.0	17.2	14.3	12.8	10.0	14.8	11.4	18.6	16.9
9	22.1	20.8	17.1	15.5	15.3	12.2	12.9	10.6	14.3	11.3	18.4	16.8
10	21.7	19.9	18.3	16.1	14.1	12.3	13.5	10.6	---	---	18.2	16.9
11	24.5	20.2	18.3	15.4	14.0	12.1	13.9	10.8	---	---	19.2	17.1
12	24.4	20.1	19.9	16.8	13.3	10.3	15.0	12.6	14.7	10.8	18.2	17.4
13	23.7	19.4	19.0	15.9	12.8	9.9	14.7	12.0	13.5	11.1	18.5	17.0
14	22.2	20.8	18.6	14.9	12.3	9.7	15.0	12.2	12.9	10.4	17.7	16.7
15	22.1	20.3	16.6	14.6	13.4	10.4	15.5	12.2	14.1	10.4	18.6	16.8
16	21.3	19.1	17.6	14.6	12.3	9.3	15.3	13.0	14.9	11.8	18.0	16.9
17	21.9	20.1	16.6	13.7	12.4	8.6	15.8	13.7	15.8	12.9	18.0	17.0
18	21.6	19.7	16.4	13.3	12.6	9.2	15.7	13.6	14.8	13.6	17.8	16.9
19	22.3	21.2	17.5	13.2	12.3	9.3	15.9	14.0	16.1	12.8	18.0	16.7
20	23.2	19.3	17.1	14.6	11.8	10.1	16.7	13.7	16.1	14.1	18.1	16.8
21	21.7	18.6	17.6	15.8	14.6	11.5	16.1	14.0	15.5	14.0	18.4	17.0
22	21.0	18.5	16.6	13.3	14.5	11.5	16.0	12.5	16.4	13.8	17.9	17.2
23	20.3	17.9	14.7	11.2	13.4	11.0	16.1	10.7	17.3	14.1	18.3	16.9
24	20.7	18.9	12.8	9.8	14.2	11.8	14.9	10.9	17.9	15.5	18.6	17.1
25	21.0	19.6	14.5	11.1	15.2	13.2	16.1	12.4	17.4	13.6	19.5	16.9
26	20.7	18.1	15.3	11.6	13.7	12.2	16.3	11.5	17.0	15.4	19.5	17.2
27	19.3	16.4	14.7	11.3	13.4	9.1	16.3	11.8	17.1	13.8	19.2	16.9
28	18.2	16.1	14.6	11.2	12.1	7.6	16.3	13.8	16.5	13.5	20.0	16.8
29	19.0	16.0	14.5	11.4	10.6	8.8	15.9	13.3	16.2	13.2	20.1	17.1
30	19.7	16.7	13.8	10.7	11.5	9.5	15.7	12.9	---	---	20.0	17.1
31	16.9	14.9	---	---	11.6	8.8	16.1	14.1	---	---	19.7	17.8
MONTH	24.6	14.9	19.9	9.8	17.2	7.6	16.7	8.9	---	---	20.1	13.9
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.6	17.4	22.1	18.5	26.6	22.4	26.5	22.3	27.4	23.5	24.9	22.1
2	19.0	16.4	22.4	18.9	27.0	23.2	25.2	21.2	28.1	23.5	25.7	22.0
3	19.3	17.4	23.0	19.6	25.5	23.0	25.3	22.0	27.6	23.3	26.0	22.2
4	20.4	17.7	24.0	19.8	25.1	22.9	26.6	22.3	26.6	23.3	26.3	20.7
5	20.8	18.8	23.9	20.7	27.1	24.4	25.0	23.2	27.9	23.1	25.1	21.1
6	20.5	18.6	25.0	19.4	27.7	26.1	24.6	22.5	27.4	21.7	25.1	21.8
7	20.8	18.3	24.4	20.2	26.5	25.6	24.5	22.1	27.9	22.4	26.3	22.8
8	19.5	18.2	24.7	19.9	26.0	22.2	25.1	22.0	27.9	22.8	25.7	22.8
9	20.9	18.2	24.1	19.9	26.2	22.4	26.2	22.0	27.7	23.4	26.9	23.6
10	19.6	18.7	24.4	20.8	25.2	20.6	26.4	22.0	29.1	23.9	27.8	24.0
11	21.3	18.4	23.7	19.9	25.2	21.5	26.4	22.5	28.5	25.1	26.8	24.4
12	20.5	18.5	24.3	19.9	25.9	22.3	27.7	22.8	26.8	24.5	26.7	24.3
13	21.6	19.1	24.6	20.1	26.1	22.5	27.8	24.0	27.7	23.5	27.9	23.8
14	21.0	18.9	24.8	21.0	25.6	22.3	28.6	24.3	27.2	23.8	26.1	22.8
15	21.6	18.8	24.6	21.4	25.6	22.6	29.1	24.9	27.3	23.3	26.7	22.9
16	21.9	19.6	24.6	21.9	24.0	22.1	29.2	24.5	27.6	22.9	27.2	23.1
17	20.5	17.2	24.0	21.0	23.5	21.2	28.6	23.9	26.4	22.5	28.1	23.6
18	19.0	16.0	24.5	21.2	22.4	20.9	29.2	23.9	26.6	23.1	27.5	22.7
19	19.7	16.6	24.0	21.1	21.0	19.8	29.2	24.1	27.3	21.8	26.2	21.8
20	19.8	16.9	24.6	21.4	23.4	19.8	29.4	24.3	26.2	22.3	25.0	19.6
21	20.1	17.7	24.5	21.3	23.8	21.0	29.4	25.6	27.5	22.8	25.2	18.8
22	20.9	18.2	24.7	21.2	22.5	21.3	28.5	25.0	27.3	21.9	25.3	18.6
23	20.6	17.8	23.3	21.4	23.4	20.8	27.6	24.7	27.3	21.1	25.0	18.4
24	21.4	17.7	24.1	20.6	25.7	21.3	26.5	24.1	26.8	20.5	26.1	19.5
25	21.2	18.4	22.3	20.2	26.9	22.9	27.1	23.1	27.4	21.0	25.7	20.9
26	21.7	18.6	21.7	18.8	27.5	23.4	26.5	23.6	26.9	22.9	26.2	22.0
27	22.7	18.8	22.6	18.8	26.0	23.0	28.3	23.8	28.6	22.9	26.6	22.3
28	21.6	20.0	22.0	20.3	24.7	21.8	28.0	23.6	28.0	22.7	25.6	22.2
29	21.3	18.7	23.9	19.9	25.7	21.0	26.5	22.0	28.6	23.2	24.9	21.4
30	21.5	18.4	25.3	20.5	26.7	22.3	27.6	23.2	28.1	22.3	21.8	19.8
31	---	---	25.8	21.5	---	---	27.2	22.9	25.0	22.1	---	---
MONTH	22.7	16.0	25.8	18.5	27.7	19.8	29.4	21.2	29.1	20.5	28.1	18.4



## 11046250 SAN ONOFRE CREEK AT SAN ONOFRE, CA

LOCATION.—Lat 33°23'02", long 117°34'24", in SE 1/4 SE 1/4 sec.14, T.9 S., R.7 W., San Diego County, Hydrologic Unit 18070301, on Camp Joseph H. Pendleton Naval Reservation, on left bank, 0.2 mi north of San Onofre, 0.3 mi upstream from Interstate Highway 5, and 0.5 mi upstream from mouth.

DRAINAGE AREA.—42.2 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1946 to September 1967, January to September 1989, October 1998 to current year. Previous periods of gage operation were at site 250 ft upstream, at different datum.

WATER TEMPERATURE: Water years 1982–83, 1988–89.

SEDIMENT DATA: Water years 1982–83, 1988–89.

GAGE.—Water-stage recorder, crest-stage gage, and concrete road crossing. Elevation of gage is 15 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. No regulation upstream from station. Detention basins upstream from station for ground-water recharge. Pumping upstream from station for irrigation and water supply.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,600 ft<sup>3</sup>/s, Apr. 1, 1958, gage height, 6.90 ft, site and datum then in use; no flow for all or part of most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s, or maximum, from rating curve extended above 54 ft<sup>3</sup>/s, on basis of critical-depth computations:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	1100	203	4.52

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	e0.34	22	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	e3.0	0.36	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	3.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	e1.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	3.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	1.00	0.00	65.48	22.47	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.03	0.00	2.26	0.72	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	1.0	0.00	54	22	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	2.0	0.00	130	45	0.00	0.00	0.00	0.00	0.00	0.00

e Estimated.

## SAN ONOFRE CREEK BASIN

## 11046250 SAN ONOFRE CREEK AT SAN ONOFRE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.45	2.73	2.70	2.59	3.36	2.54	0.00	0.00	0.00	0.00	0.00
MAX	0.00	12.3	63.6	37.1	32.2	41.9	62.6	0.10	0.00	0.00	0.00	0.00
(WY)	1947	1966	1967	1952	1962	1952	1958	1958	1947	1947	1947	1947
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1947	1947	1947	1947	1947	1947	1947	1947	1947	1947	1947	1947

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	613.34		88.95			
ANNUAL MEAN	1.68		0.24		1.22	
HIGHEST ANNUAL MEAN					8.48 1958	
LOWEST ANNUAL MEAN					0.00 1947	
HIGHEST DAILY MEAN	341	Mar 16	54	Feb 26	887	Dec 6 1966
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1946
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1946
MAXIMUM PEAK FLOW			203	Feb 26	2600	Apr 1 1958
MAXIMUM PEAK STAGE			4.52	Feb 26	6.90	Apr 1 1958
ANNUAL RUNOFF (AC-FT)	1220		176		883	
10 PERCENT EXCEEDS	0.00		0.00		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11046252 SAN ONOFRE CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE, CA

LOCATION.—Lat 33°22'53", long 117°34'43", in NW 1/4 NE 1/4 sec.23, T.9 S., R.7 W., San Diego County, Hydrologic Unit 18070301, at mouth of San Onofre Creek, at the Pacific Ocean near San Clemente, and 0.50 mi downstream from San Onofre Creek at San Onofre (station 11046250).

DRAINAGE AREA.—42.4 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.—June 2003 to current year.

DISSOLVED OXYGEN: June 2003 to current year.

pH: June 2003 to current year.

SPECIFIC CONDUCTANCE: June 2003 to current year.

WATER TEMPERATURE: June 2003 to current year.

INSTRUMENTATION.—Water-quality monitor since June 2003.

REMARKS.—Dissolved oxygen records rated fair except for Jan. 12 to Mar. 5, July 28 to Sept. 2, which are poor. pH records rated good. Specific conductance records rated good except for Feb. 4 to May 7, which is fair. Temperature records rated excellent. Interruption of records at times due to malfunction of recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 9.1 mg/L, June 10, 2003; minimum recorded, <0.2 mg/L, Mar. 6, 7, 2004.

pH: Maximum recorded, 7.8 standard units, Apr. 2, June 2, 2004; minimum recorded, 6.5 standard units, May 8–10, June 8, 9, 2004.

SPECIFIC CONDUCTANCE: Maximum recorded, 48,900 microsiemens, June 4, 2004; minimum recorded, 361 microsiemens, Apr. 2, 2004.

WATER TEMPERATURE: Maximum recorded, 22.8°C, July 4, 2003; minimum recorded, 8.1°C, Jan. 6, 2004.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 8.8 mg/L, Apr. 2; minimum recorded, <0.2 mg/L, Mar. 6, 7.

pH: Maximum recorded, 7.8 standard units, Apr. 2, June 2; minimum recorded, 6.5 standard units, May 8–10, June 8, 9.

SPECIFIC CONDUCTANCE: Maximum recorded, 48,900 microsiemens, June 4; minimum recorded, 361 microsiemens, Apr. 2.

WATER TEMPERATURE: Maximum recorded, 22.4°C, July 19; minimum recorded, 8.1°C, Jan. 6.

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

DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.5	1.5	4.0	2.7	---	---	6.5	5.8	7.0	6.3	---	---
2	3.7	1.3	2.7	0.6	---	---	6.9	5.9	8.0	6.3	---	---
3	3.2	1.2	3.6	0.6	6.0	4.0	6.3	5.4	7.6	5.6	---	---
4	2.8	1.8	3.8	2.7	6.4	4.8	6.0	4.6	5.6	1.4	---	---
5	3.9	1.7	4.6	3.4	6.4	4.7	6.6	5.1	1.8	0.4	4.3	0.2
6	3.8	1.0	4.8	3.5	6.4	4.5	7.2	6.0	2.3	1.1	0.3	<0.2
7	3.0	1.6	5.0	3.1	5.3	4.3	7.1	6.3	4.5	2.1	0.5	<0.2
8	3.2	1.4	4.6	3.1	5.1	3.9	6.8	6.2	5.7	3.5	3.6	0.5
9	2.6	1.4	4.5	3.2	4.5	3.7	6.8	5.6	5.6	4.5	5.0	3.1
10	2.9	1.9	5.2	3.8	5.1	4.2	6.7	6.1	6.2	4.9	5.4	2.0
11	3.0	2.2	4.4	2.5	5.7	3.6	6.6	5.9	6.6	5.2	5.2	1.8
12	3.3	0.8	4.7	2.6	5.9	5.0	6.5	5.5	7.0	5.5	5.4	4.3
13	3.3	1.1	3.6	1.6	6.6	5.4	5.9	5.1	7.5	5.7	5.3	4.1
14	2.9	0.8	4.4	3.1	6.8	5.6	5.3	4.7	7.9	6.5	4.9	3.8
15	3.4	1.2	5.0	3.7	6.5	4.8	5.8	4.8	8.0	6.4	6.0	3.5
16	3.2	1.5	5.4	3.7	6.6	5.3	6.2	5.0	7.7	5.8	5.6	4.5
17	4.1	1.8	4.6	2.8	7.3	5.7	6.7	5.4	7.4	5.8	5.9	0.5
18	2.6	1.4	4.8	3.6	7.1	5.7	6.1	5.6	6.7	5.3	5.3	0.2
19	3.8	1.5	4.1	3.6	6.8	5.5	5.7	4.2	5.9	4.9	1.2	0.2
20	3.5	1.7	4.7	3.2	6.0	4.9	5.0	2.1	5.4	3.8	5.3	1.1
21	4.0	1.7	5.0	4.2	5.4	4.0	4.7	2.1	7.2	4.1	5.6	3.9
22	3.4	1.9	4.7	3.5	6.0	3.8	4.6	3.6	6.9	5.5	5.4	4.1
23	3.6	1.4	5.2	3.6	5.7	1.6	5.5	4.0	6.7	3.4	5.5	4.6
24	3.0	1.4	6.6	4.8	6.6	1.7	6.1	5.5	3.8	1.8	5.3	4.3
25	3.9	1.6	7.4	5.0	6.1	4.0	5.8	5.2	1.8	1.0	5.8	4.1
26	3.2	1.7	5.7	4.4	4.0	2.8	6.0	5.6	---	---	6.4	4.6
27	2.7	1.2	5.2	4.0	2.8	1.3	5.8	5.2	---	---	6.1	4.3
28	3.1	1.1	5.8	4.5	1.5	1.1	6.7	4.8	---	---	6.6	5.3
29	4.2	2.7	5.8	5.2	3.2	0.9	6.4	5.7	---	---	6.7	4.8
30	3.4	2.1	6.6	5.2	7.0	3.2	6.8	5.8	---	---	6.3	4.2
31	3.3	2.9	---	---	6.6	6.1	7.6	5.6	---	---	6.6	4.5
MONTH	4.2	0.8	7.4	0.6	---	---	7.6	2.1	---	---	---	---

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





## 11046252 SAN ONOFRE CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE, CA—Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1190	1180	1290	1240	---	---	1280	1240	1170	1150	---	---
2	1210	1180	1260	1240	---	---	1240	1210	1170	1160	---	---
3	1200	1180	1260	1220	1160	1150	1240	1200	1170	806	---	---
4	1200	1180	1220	1160	1160	1150	1250	1190	806	722	---	---
5	1200	1180	1190	1160	1170	1150	1230	1200	894	755	40700	17900
6	1200	1180	1190	1180	1170	1150	1220	1200	1070	894	36600	26400
7	1200	1190	1180	1170	1180	1160	1200	1190	1120	1070	26400	11700
8	1200	1190	1180	1170	1180	1150	1210	1190	1140	1110	11700	1620
9	1210	1190	1180	1120	1170	1160	1220	1190	1140	1120	1990	1290
10	1200	1190	1180	1170	1180	1170	1200	1190	1140	1120	2540	1200
11	1190	1180	1180	1180	1170	1160	1210	1190	1160	1150	3830	1160
12	1210	1190	1180	1030	1180	1160	1210	1180	1160	1150	1260	1160
13	1210	1190	1180	1030	1180	1160	1190	1180	1160	1150	1190	1150
14	1210	1190	1180	1160	1170	1160	1200	1180	1150	1140	1240	1160
15	1200	1180	1170	1160	1160	1140	1200	1180	1160	1150	1210	1150
16	1210	1190	1170	1010	1160	1140	1180	1170	1160	1150	1230	1160
17	1210	1190	1160	1010	1170	1150	1180	1170	1160	1150	7660	1160
18	1220	1200	1170	1150	1170	1160	1170	1170	1150	1150	17200	1220
19	1210	1200	1170	1160	1170	1160	1200	1170	1160	1150	10200	4590
20	1230	1200	1180	1170	1170	1160	4990	1180	1150	1100	4590	1370
21	1220	1210	1190	1170	1200	1170	8360	1610	1110	1100	1370	1170
22	1220	1200	1180	1170	8710	1200	4580	2480	1120	1070	1210	1160
23	1210	1190	1190	1170	19000	2380	2480	1360	1070	533	1170	1140
24	1210	1200	1180	1170	25700	12300	1360	1250	967	806	1200	1150
25	1200	1190	1180	1160	22800	19700	1250	1200	980	707	1190	1150
26	1220	1190	1190	1160	19700	15300	1210	1190	---	---	1170	1140
27	1380	1210	1190	1160	15300	10600	1200	1180	---	---	1180	1150
28	3040	1290	1190	1170	10600	6670	1190	1160	---	---	1190	1140
29	1660	1360	1180	1160	6670	2580	1180	1160	---	---	1220	1150
30	1360	1280	1180	1160	2580	1310	1180	1160	---	---	1260	1180
31	1350	1270	---	---	1350	1280	1180	1150	---	---	1340	1220
MONTH	3040	1180	1290	1010	---	---	8360	1150	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1330	1240	1320	1280	---	---	1610	1340	1410	1300	1260	1220
2	1560	361	1350	1240	34900	1290	1550	1290	1380	1280	1230	1220
3	471	392	6630	1280	48700	22000	1460	1260	1350	1270	1220	1210
4	538	462	42900	1310	48900	46200	1510	1260	1290	1230	1230	1210
5	975	538	48300	30000	46400	43000	1340	1240	1280	1220	1230	1210
6	1060	975	48300	43300	43000	38500	1300	1250	1330	1220	1230	1210
7	1090	1020	44800	38000	38500	33800	1320	1320	1240	1200	1230	1210
8	1160	1090	38000	32900	33800	26800	---	---	1220	1210	1220	1210
9	1190	1110	32900	26000	26800	10800	---	---	---	---	1220	1200
10	1160	1140	26000	13800	10900	2870	---	---	---	---	1220	1200
11	1180	1150	13800	2450	2880	1660	---	---	---	---	1220	1210
12	1190	1160	2460	1310	1820	1560	---	---	1260	1210	1230	1210
13	1190	1140	1460	1300	1860	1590	---	---	1240	1220	1230	1210
14	1200	1160	1490	1290	2050	1810	---	---	1230	1220	1220	1210
15	1200	1160	1620	1360	2050	1800	---	---	1230	1220	1240	1220
16	1200	1150	1470	1370	1900	1650	---	---	1220	1210	1230	1210
17	1220	1180	1480	1380	1690	1510	---	---	1230	1210	1220	1210
18	1200	1010	1500	1380	1570	1450	1370	1230	1220	1200	1220	1210
19	1180	1150	1520	1360	1510	1430	1330	1230	1220	1190	1220	1210
20	1210	1170	1440	1310	1520	1440	1300	1220	1210	1200	1220	1210
21	1260	1190	1380	1290	1640	1470	1280	1220	1220	1200	1220	1210
22	1270	1210	1390	1280	---	---	1270	1220	1220	1210	1230	1210
23	1290	1220	1410	1280	---	---	1240	1220	1220	1210	1230	1220
24	1340	1250	1480	1250	---	---	1240	1210	1230	1220	1230	1220
25	---	---	---	---	---	---	---	---	1230	1210	1230	772
26	---	---	---	---	---	---	---	---	1220	1210	1230	1220
27	---	---	---	---	---	---	---	---	1230	1220	1230	1210
28	1360	1270	---	---	---	---	1280	1240	1240	1210	1230	1220
29	1310	1270	---	---	---	---	1280	1250	1240	1210	1230	1220
30	1330	1270	---	---	---	---	1280	1240	1240	1220	1220	1220
31	---	---	---	---	---	---	1330	1240	1260	1240	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	1260	772

11046252 SAN ONOFRE CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE, CA—Continued

TEMPERATURE, WATER, DEGREES C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.6	19.0	15.6	15.3	---	---	9.0	8.3	11.9	11.0	---	---
2	19.2	18.4	15.3	14.8	---	---	9.5	8.6	11.2	10.2	---	---
3	18.4	17.6	14.8	14.1	11.9	11.2	10.3	9.5	11.9	11.2	---	---
4	17.9	17.0	14.5	13.8	12.1	11.6	10.2	9.2	11.6	11.2	---	---
5	18.5	17.7	13.8	13.2	12.2	11.7	9.2	8.5	11.4	11.2	16.2	13.5
6	18.5	18.2	14.0	13.0	12.2	11.6	8.9	8.1	11.4	10.8	15.9	14.1
7	18.8	18.1	14.4	13.6	13.7	12.2	9.9	8.9	10.8	10.2	15.8	14.0
8	18.8	18.2	14.4	13.7	13.9	13.0	9.9	9.3	10.3	9.6	15.3	14.0
9	18.7	18.3	15.4	14.4	13.0	11.1	9.8	9.2	10.0	9.2	15.1	14.1
10	18.8	18.3	16.0	15.4	11.6	10.9	10.0	9.4	10.0	9.3	15.2	14.4
11	19.5	18.7	15.8	15.2	12.1	11.6	10.1	9.5	10.0	9.2	15.7	14.8
12	19.1	18.4	16.0	15.5	11.8	10.7	11.3	10.1	9.7	9.0	15.5	15.2
13	18.5	17.4	15.8	14.8	10.7	10.0	11.2	10.6	9.5	8.6	15.7	15.0
14	18.2	17.7	14.8	14.2	10.6	9.8	11.1	10.5	9.3	8.5	15.8	14.8
15	18.4	17.8	14.6	14.0	11.0	10.4	11.3	10.6	10.1	8.9	16.4	15.0
16	17.8	17.1	14.6	13.9	10.7	10.1	11.7	11.1	11.1	10.0	15.8	15.0
17	18.2	17.3	13.9	13.6	10.3	9.6	12.3	11.7	11.8	11.0	15.7	15.1
18	18.3	17.4	13.8	13.3	10.4	9.6	12.3	12.0	11.7	11.2	16.0	15.1
19	18.4	17.8	14.0	13.1	10.4	9.7	12.3	12.0	12.0	11.4	16.0	15.4
20	18.0	17.2	14.5	13.4	11.1	10.3	12.5	12.0	12.4	12.0	16.1	15.5
21	17.9	16.8	15.2	14.5	11.7	10.9	12.7	12.3	12.4	12.2	16.1	15.6
22	17.4	16.4	14.9	13.1	11.7	10.8	12.6	11.8	12.9	12.1	16.4	15.7
23	17.0	15.9	13.1	11.0	11.6	10.9	11.8	10.8	12.9	11.2	16.0	15.7
24	17.6	16.6	11.1	10.3	12.0	11.2	10.9	10.5	11.6	11.4	16.9	15.5
25	17.6	17.1	11.6	10.8	12.3	11.8	11.5	10.8	11.6	11.6	16.8	15.4
26	17.2	16.4	11.9	11.4	12.6	12.3	11.5	11.0	---	---	16.8	15.6
27	16.4	15.5	11.8	11.1	12.6	11.7	11.3	10.8	---	---	16.4	14.8
28	15.9	14.8	11.4	10.8	11.7	10.4	12.1	11.2	---	---	16.3	14.0
29	15.8	15.2	11.6	10.9	10.4	9.0	12.1	11.5	---	---	16.7	14.1
30	16.6	15.8	11.4	10.8	9.5	9.0	11.7	10.8	---	---	16.6	14.1
31	16.3	15.6	---	---	9.5	9.0	12.3	11.5	---	---	15.8	14.5
MONTH	19.6	14.8	16.0	10.3	---	---	12.7	8.1	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.7	15.0	17.6	14.8	---	---	19.9	17.4	20.8	19.6	18.9	17.7
2	15.3	12.2	19.0	15.3	20.9	17.1	19.9	17.4	20.6	19.4	19.3	17.8
3	13.3	12.4	20.4	15.8	20.4	19.2	20.2	18.3	20.5	19.1	19.4	19.0
4	13.9	13.3	19.5	16.5	20.2	19.7	21.0	18.4	20.4	19.4	19.2	18.2
5	15.8	13.9	19.8	18.5	20.4	20.2	20.0	19.1	20.7	19.4	19.3	17.7
6	16.3	15.8	19.4	18.9	20.3	20.0	20.1	18.8	19.8	18.2	19.5	17.7
7	16.8	16.1	19.5	18.7	20.1	19.8	19.8	18.5	19.8	17.9	19.4	17.8
8	16.5	15.8	18.9	18.2	19.8	19.4	---	---	19.8	18.1	19.6	18.2
9	16.9	15.7	18.7	18.0	19.4	19.0	---	---	---	---	20.7	19.2
10	16.9	16.1	18.6	17.9	19.2	18.2	---	---	---	---	21.0	19.6
11	17.8	15.8	18.4	17.4	18.8	17.4	---	---	---	---	21.1	19.8
12	17.8	16.0	17.9	16.8	19.6	17.7	---	---	19.7	18.9	20.8	19.8
13	17.8	15.7	18.6	16.2	19.6	17.8	---	---	20.3	19.1	20.3	19.7
14	17.7	15.2	19.8	16.4	18.5	16.9	---	---	20.3	19.4	20.0	19.5
15	17.8	14.7	19.5	16.2	18.5	17.0	---	---	19.6	19.1	20.0	19.4
16	18.2	15.7	18.5	17.2	18.1	17.5	---	---	19.9	18.8	20.0	19.1
17	16.2	13.9	18.8	17.0	18.5	17.4	---	---	19.1	18.2	20.3	19.4
18	16.1	13.4	19.4	17.3	17.8	17.5	22.3	18.6	19.4	18.7	20.0	19.2
19	16.5	13.9	19.1	16.8	17.9	17.4	22.4	18.9	19.4	18.2	19.6	18.8
20	16.9	13.9	18.6	17.0	19.5	17.4	22.3	19.1	19.1	18.2	18.8	17.5
21	17.4	14.7	18.1	17.0	18.3	17.3	22.0	19.5	19.7	18.8	17.5	16.6
22	17.6	15.1	18.6	16.7	---	---	21.7	19.5	19.3	18.0	17.1	15.9
23	17.9	14.3	17.8	16.8	---	---	21.0	19.4	19.1	18.0	17.2	15.6
24	17.6	13.9	17.9	15.6	---	---	20.1	19.1	18.8	17.4	17.6	15.9
25	---	---	---	---	---	---	---	---	19.0	17.6	18.0	16.5
26	---	---	---	---	---	---	---	---	19.5	18.6	18.7	17.6
27	---	---	---	---	---	---	---	---	20.0	18.7	18.7	18.1
28	17.4	16.0	---	---	---	---	19.9	19.0	19.6	18.3	18.4	18.0
29	17.6	15.8	---	---	---	---	20.5	18.0	19.9	18.6	18.3	17.9
30	17.8	14.9	---	---	---	---	20.4	19.1	19.6	18.6	17.9	17.4
31	---	---	---	---	---	---	20.5	19.2	19.3	18.1	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	21.1	15.6

## 11046300 SAN MATEO CREEK NEAR SAN CLEMENTE, CA

LOCATION.—Lat 33°28'15", long 117°28'20", in SE 1/4 NE 1/4 sec.23, T.8 S., R.6 W., San Diego County, Hydrologic Unit 18070301, on Camp Joseph H. Pendleton Naval Reservation, on left bank, 0.4 mi downstream from mouth of Devil Canyon, and 8.6 miles northeast of San Clemente.

DRAINAGE AREA.—80.8 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1952 to September 1967, October 1993 to current year. Discharge records for October 1967 to September 1977 and October 1989 to September 1993 available in files of U.S. Marine Corps at Camp Pendleton.

REVISED RECORDS.—WSP 1928: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 405 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,500 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 12.83 ft, on basis of slope-area measurement of peak flow; no flow for several days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 9,240 ft<sup>3</sup>/s, gage height, 11.12 ft, Jan. 25, 1969.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s, or maximum, from rating curve extended above 167 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	1745	162	3.99

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.18	0.22	7.7	0.30	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.18	0.21	26	0.42	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.22	0.51	29	0.51	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.24	0.61	17	0.49	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.24	0.47	13	0.42	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.23	0.36	8.0	0.37	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.21	0.30	4.8	0.34	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.20	0.29	3.1	0.31	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.18	0.28	2.1	0.31	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.18	0.24	1.8	0.31	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.18	0.24	1.5	0.31	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.18	0.24	1.3	0.28	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.18	0.24	1.2	0.24	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.18	0.24	1.0	0.21	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.18	0.24	0.94	0.19	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.18	0.24	0.87	0.18	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.19	0.24	0.80	0.19	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.20	0.27	0.71	0.43	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.20	0.43	0.64	0.49	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.20	0.46	0.60	0.37	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.20	0.40	0.57	0.29	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.20	0.42	0.55	0.25	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.20	3.6	0.52	0.22	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.20	6.6	0.49	0.19	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.20	4.6	0.48	0.15	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.20	72	0.45	0.11	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.13	0.20	38	0.45	0.08	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.20	0.21	18	0.43	0.04	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.21	0.22	13	0.37	0.01	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.21	0.22	---	0.33	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.20	0.22	---	0.31	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.95	6.20	162.95	127.01	8.01	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.03	0.20	5.62	4.10	0.27	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.21	0.24	72	29	0.51	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.18	0.21	0.31	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	1.9	12	323	252	16	0.00	0.00	0.00	0.00	0.00



## 11046300 SAN MATEO CREEK NEAR SAN CLEMENTE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.12	3.02	9.23	15.2	35.9	33.5	21.7	5.35	1.91	0.54	0.13	0.07
MAX	1.57	69.4	164	131	488	371	270	53.9	21.2	6.94	2.09	1.21
(WY)	1999	1966	1967	1995	1998	1995	1958	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.09	0.04	0.01	0.00	0.00	0.00	0.00	0.00
(WY)	1953	1954	1954	1963	1961	1961	1961	1961	1960	1953	1953	1953

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1953 - 2004	
ANNUAL TOTAL	3528.38		305.12			
ANNUAL MEAN	9.67		0.83		10.4	
HIGHEST ANNUAL MEAN					65.7	
LOWEST ANNUAL MEAN					0.02	
HIGHEST DAILY MEAN	816	Mar 16	72	Feb 26	3150	Feb 24 1998
LOWEST DAILY MEAN	0.00	Jul 9	0.00	Oct 1	0.00	Oct 1 1952
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 9	0.00	Oct 1	0.00	Oct 1 1952
MAXIMUM PEAK FLOW			162	Feb 26	12500	Feb 23 1998
MAXIMUM PEAK STAGE			3.99	Feb 26	12.83	Feb 23 1998
ANNUAL RUNOFF (AC-FT)	7000		605		7540	
10 PERCENT EXCEEDS	11		0.48		12	
50 PERCENT EXCEEDS	0.32		0.00		0.18	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11046360 CRISTIANITOS CREEK ABOVE SAN MATEO CREEK, NEAR SAN CLEMENTE, CA

LOCATION.—Lat 33°25'35", long 117°34'10", in SW 1/4 SW 1/4 sec.36, T.8 S., R.7 W., San Diego County, Hydrologic Unit 18070301, on Camp Joseph H. Pendleton Naval Reservation, on left bank, at San Mateo Creek Road crossing, 0.5 mi upstream from confluence with San Mateo Creek, and 2.3 mi east of San Clemente.

DRAINAGE AREA.—31.6 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1993 to current year.

GAGE.—Water-stage recorder, crest-stage gage, and culvert control. Elevation of gage is 90 ft above NGVD of 1929, from topographic map. October 1993 to Feb. 23, 1998, two water-stage recorders (one on each of two main channels) at same site at different datums. Gage destroyed by flood of Feb. 23, 1998, and was out of operation until Sept. 30, 1999, when it was relocated at present site.

REMARKS.—Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,800 ft<sup>3</sup>/s, estimated, Feb. 23, 1998, gage height unknown, on basis of drainage area relation with the peak on San Mateo Creek near San Clemente (station 11046300) and slope-area measurement of peak flow; no flow most of each year.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Jan. 16, 1952, reached a discharge of 1,800 ft<sup>3</sup>/s, gage height, 8.86 ft, datum then in use, at site 1.8 mi upstream (station 11046350), on basis of slope-area measurement.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended above 162 ft<sup>3</sup>/s:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0700	137	4.93	Mar. 2	0300	227	5.12

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.17	14	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	1.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.70	0.49	0.00	24.95	14.00	0.14	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.02	0.02	0.00	0.86	0.45	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.70	0.49	0.00	19	14	0.14	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	1.4	1.0	0.00	49	28	0.3	0.00	0.00	0.00	0.00	0.00

## 11046360 CRISTIANITOS CREEK ABOVE SAN MATEO CREEK, NEAR SAN CLEMENTE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.01	0.08	0.37	4.04	26.5	15.6	3.90	1.00	0.23	0.02	0.00	0.00
MAX	0.07	0.51	1.58	24.6	249	128	31.2	7.36	1.92	0.08	0.00	0.00
(WY)	2001	1997	1997	1995	1998	1995	1998	1998	1998	1997	1994	1994
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1994	1994	1994	1994	1999	1999	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1994 - 2004	
ANNUAL TOTAL	444.13		40.28			
ANNUAL MEAN	1.22		0.11		4.18	
HIGHEST ANNUAL MEAN					25.2 1998	
LOWEST ANNUAL MEAN					0.00 1999	
HIGHEST DAILY MEAN	273	Mar 15	19	Feb 26	1400	Feb 24 1998
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1993
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1993
MAXIMUM PEAK FLOW			227	Mar 2	e5800	Feb 23 1998
MAXIMUM PEAK STAGE			5.12	Mar 2	a	Feb 23, 1998
ANNUAL RUNOFF (AC-FT)	881		80		3030	
10 PERCENT EXCEEDS	0.00		0.00		0.72	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated.

a Peak stage is unknown but is known to have occurred on Feb. 23, 1998.

## 11046372 SAN MATEO CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE, CA

LOCATION.—Lat 33°23'12", long 117°35'38", in NE 1/4 SE 1/4 sec.15, T.9 S., R.7 W., San Diego County, Hydrologic Unit 18070301, at the mouth of San Mateo Creek near San Clemente, 0.40 mi downstream of Interstate 5 freeway, and 3.0 mi downstream from Cristianitos Creek.

DRAINAGE AREA.—139 mi<sup>2</sup>.

PERIOD OF RECORD.—June 2003 to current year.

DISSOLVED OXYGEN: June 2003 to current year.

pH: June 2003 to current year.

SPECIFIC CONDUCTANCE: June 2003 to current year.

WATER TEMPERATURE: June 2003 to current year.

PERIOD OF DAILY RECORD.—June 2003 to current year.

DISSOLVED OXYGEN: June 2003 to current year.

pH: June 2003 to current year.

SPECIFIC CONDUCTANCE: June 2003 to current year.

WATER TEMPERATURE: June 2003 to current year.

INSTRUMENTATION.—Water-quality monitor since June 2003.

REMARKS.—Dissolved oxygen records rated poor. pH and specific conductance records rated good. Temperature records rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, >20 mg/L, May 20 to June 2, 2004; minimum recorded, 1.3 mg/L, Mar. 10, 11, 2004.

pH: Maximum recorded, 8.3 standard units, several days in May and June, 2004; minimum recorded, 7.0 standard units, several days in February and March 2004.

SPECIFIC CONDUCTANCE: Maximum recorded, 16,500 microsiemens, June 3, 4, 2004; minimum recorded, 629 microsiemens, Feb. 27, 2004.

WATER TEMPERATURE: Maximum recorded, 26.8°C, Sept. 11, 2004; minimum recorded, 7.3°C, Dec. 31, 2003, Jan. 1, 2004.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, >20 mg/L, May 20 to June 2; minimum recorded, 1.3 mg/L, Mar. 10, 11.

pH: Maximum recorded, 8.3 standard units, several days in May and June; minimum recorded, 7.0 standard units, several days in February and March.

SPECIFIC CONDUCTANCE: Maximum recorded, 16,500 microsiemens, June 3, 4; minimum recorded, 629 microsiemens, Feb. 27.

WATER TEMPERATURE: Maximum recorded, 26.8°C, Sept. 11; minimum recorded, 7.3°C, Dec. 31, Jan. 1.

> Actual value is known to be greater than value shown.

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	4.7	9.6	4.6	---	---	---	---	11.4	8.0	6.2	4.9
2	10.2	5.7	10.6	6.5	---	---	---	---	11.5	8.2	6.4	2.1
3	9.3	6.4	11.8	4.6	13.6	11.8	---	---	10.3	5.5	7.1	2.0
4	10.2	6.1	12.7	5.2	13.3	11.0	---	---	12.0	5.5	7.9	2.8
5	9.7	5.6	13.8	8.6	13.9	9.8	---	---	13.0	9.4	7.4	1.8
6	9.4	4.9	14.0	9.9	13.2	11.2	---	---	14.5	9.9	8.3	3.1
7	9.2	4.7	15.6	9.9	12.2	8.6	---	---	15.3	11.0	8.1	2.5
8	10.3	5.2	14.4	8.6	13.1	8.4	---	---	14.9	11.9	7.6	1.7
9	9.6	5.0	13.0	5.8	13.7	9.9	---	---	15.3	11.3	5.7	2.1
10	10.3	6.1	16.5	5.8	13.1	7.0	---	---	14.2	10.1	5.9	1.3
11	10.5	4.8	13.0	8.2	14.4	10.6	---	---	13.8	9.5	6.5	1.3
12	10.3	7.3	13.0	7.8	13.8	10.3	11.0	7.9	13.5	9.4	8.7	3.2
13	11.0	6.8	12.4	8.0	13.7	11.7	11.1	8.0	12.9	10.4	9.3	3.1
14	11.5	6.5	14.0	7.0	13.5	10.0	10.0	7.2	12.6	10.6	9.5	4.9
15	11.5	6.8	12.4	6.5	13.4	11.6	10.6	8.4	12.6	9.2	7.8	2.5
16	11.5	7.8	12.0	7.0	14.7	11.1	10.1	8.0	13.3	9.3	10.1	2.4
17	11.3	7.3	11.8	7.6	14.7	12.1	10.0	4.8	11.9	8.4	9.0	1.9
18	9.8	5.8	12.0	8.3	14.5	11.4	9.7	7.0	11.8	8.5	10.0	3.3
19	9.2	5.4	11.7	8.6	14.0	11.7	10.9	5.7	11.1	6.1	10.5	3.0
20	9.4	5.8	11.6	8.3	13.6	7.4	10.4	6.1	11.1	5.4	8.2	2.9
21	10.4	5.9	11.4	7.6	14.2	7.4	11.9	5.8	12.2	6.6	8.9	4.1
22	11.0	6.6	11.9	8.4	12.6	10.4	11.7	8.5	10.4	6.0	8.4	2.0
23	10.2	7.1	12.1	8.4	13.2	7.8	13.2	7.6	8.8	3.5	6.3	3.3
24	11.2	6.8	11.7	8.1	13.7	8.7	12.8	8.8	9.3	5.1	7.8	2.9
25	11.7	7.6	11.8	8.9	12.9	5.8	12.3	6.3	9.7	6.5	8.7	3.0
26	11.8	7.0	11.5	8.7	12.3	8.0	11.4	8.7	8.4	3.4	10.4	3.0
27	11.8	5.1	12.8	8.1	13.5	8.6	12.5	8.7	7.3	3.9	11.4	5.5
28	12.8	7.9	12.6	9.2	14.6	10.9	12.1	5.0	6.4	3.4	12.0	5.1
29	10.8	7.6	12.6	8.8	14.6	9.9	12.1	8.4	6.1	1.7	12.2	3.5
30	10.8	8.0	---	---	16.0	9.9	11.7	8.8	---	---	11.2	3.6
31	10.8	7.2	---	---	---	---	12.4	6.4	---	---	13.0	8.2
MONTH	12.8	4.7	---	---	---	---	---	---	15.3	1.7	13.0	1.3

## 11046372 SAN MATEO CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE, CA—Continued

## DISSOLVED OXYGEN, MG/L, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.2	5.2	13.7	7.7	>20.0	>20.0	10.7	6.1	10.1	6.0	10.3	6.6
2	10.8	6.2	13.5	7.6	>20.0	6.4	10.4	6.8	10.9	6.1	10.3	7.1
3	10.3	5.5	14.0	7.8	7.4	3.2	9.9	5.7	11.3	6.4	9.7	5.7
4	10.6	4.0	14.0	8.3	5.8	2.4	10.5	7.2	10.4	5.0	9.9	6.1
5	11.4	4.8	14.0	8.2	3.4	1.5	9.4	4.7	10.1	5.2	9.3	6.0
6	12.7	3.9	14.0	7.4	9.3	2.6	9.9	5.4	9.7	6.3	9.3	5.4
7	12.1	5.0	15.0	6.9	9.9	5.9	10.0	5.4	9.0	5.8	8.8	4.6
8	12.3	4.3	15.7	8.3	12.7	7.9	9.9	5.6	8.8	5.1	8.3	5.6
9	11.2	4.5	15.5	8.2	14.5	9.1	11.1	6.9	10.2	5.8	8.2	3.5
10	8.4	3.2	16.4	11.4	14.6	7.1	11.7	6.7	10.5	5.8	7.4	3.8
11	11.3	5.4	16.8	10.4	13.5	9.6	11.5	6.3	11.0	6.4	6.8	2.6
12	9.3	4.4	17.4	10.4	13.7	9.2	12.5	8.3	11.3	5.8	8.0	2.6
13	9.8	5.5	18.6	11.9	12.2	8.9	12.1	7.3	10.1	5.2	8.4	4.2
14	8.8	4.8	18.7	10.9	11.1	6.2	12.0	7.6	11.5	5.4	8.4	4.2
15	8.4	5.5	18.4	12.0	10.5	6.4	12.0	6.6	13.1	6.5	7.4	2.8
16	8.2	4.3	18.4	12.6	9.4	6.1	10.9	6.5	11.6	5.8	9.3	3.5
17	8.2	4.6	16.8	9.8	10.4	5.4	9.9	6.6	11.5	7.5	9.8	4.6
18	7.7	4.4	17.6	10.0	10.1	6.2	10.2	6.3	12.1	7.2	9.8	5.5
19	9.5	5.8	19.5	12.0	10.6	5.1	10.2	6.2	11.9	7.8	10.2	5.9
20	10.8	7.0	>20.0	15.3	10.8	4.8	9.1	5.5	11.0	6.6	10.1	6.4
21	11.3	6.1	>20.0	13.8	11.3	6.2	9.5	5.2	11.8	5.6	10.1	6.8
22	11.3	7.4	>20.0	11.6	10.5	5.4	9.2	4.7	12.1	7.5	10.0	6.0
23	11.4	7.9	>20.0	11.4	11.9	6.7	8.9	4.0	12.0	6.1	10.5	6.6
24	11.2	7.4	>20.0	12.8	10.6	5.6	8.1	4.5	10.7	6.6	10.4	8.3
25	12.2	8.0	>20.0	10.2	10.1	6.6	10.3	5.2	10.1	6.3	10.1	7.8
26	12.7	6.5	>20.0	11.1	11.4	6.1	10.7	6.4	9.0	3.9	10.3	7.7
27	12.6	5.7	>20.0	15.7	11.0	7.1	11.2	3.8	8.8	5.4	10.8	8.5
28	11.6	5.9	>20.0	>20.0	11.4	6.5	11.4	5.5	9.0	4.6	10.6	8.2
29	12.1	6.6	>20.0	15.6	10.0	6.4	10.5	6.9	9.7	5.1	---	---
30	13.6	7.6	>20.0	>20.0	10.2	5.6	10.2	5.8	9.9	6.2	---	---
31	---	---	>20.0	17.2	---	---	9.8	6.5	10.7	5.4	---	---
MONTH	13.6	3.2	20.0	6.9	20.0	1.5	12.5	3.8	13.1	3.9	---	---

&gt; Actual value is known to be greater than the value shown.

## 11046372 SAN MATEO CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE, CA—Continued

## PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.7	7.3	7.8	7.4	---	---	8.0	7.8	7.8	7.6	7.2	7.1
2	7.8	7.4	7.7	7.4	---	---	8.0	7.6	7.8	7.6	7.2	7.0
3	7.8	7.6	7.8	7.3	---	---	7.9	7.6	7.6	7.4	7.2	7.0
4	7.8	7.5	7.8	7.4	---	---	7.9	7.7	7.7	7.5	7.2	7.0
5	7.7	7.5	8.0	7.5	---	---	7.9	7.7	7.8	7.6	7.2	7.0
6	7.6	7.4	8.0	7.6	7.9	7.8	7.8	7.6	7.9	7.6	7.2	7.0
7	7.5	7.3	8.1	7.6	7.8	7.6	7.8	7.6	7.9	7.6	7.2	7.0
8	7.7	7.3	8.0	7.7	7.8	7.6	7.8	7.6	7.9	7.7	7.2	7.0
9	7.7	7.4	7.9	7.5	8.0	7.8	7.8	7.6	8.0	7.7	7.1	7.0
10	7.6	7.4	---	---	8.0	7.6	7.8	7.6	7.8	7.6	7.2	7.0
11	7.7	7.3	---	---	8.1	7.7	7.8	7.6	7.8	7.5	7.2	7.0
12	7.8	7.5	---	---	8.1	7.8	7.8	7.6	7.8	7.6	7.3	7.0
13	7.8	7.5	---	---	8.1	7.8	7.9	7.7	7.8	7.6	7.3	7.1
14	7.9	7.5	---	---	8.0	7.7	7.8	7.6	7.8	7.6	7.3	7.2
15	7.8	7.4	---	---	8.0	7.8	7.8	7.6	7.8	7.6	7.3	7.1
16	7.9	7.6	---	---	8.1	7.9	7.8	7.7	7.9	7.6	7.4	7.1
17	7.9	7.6	---	---	8.1	7.8	7.7	7.5	7.8	7.6	7.4	7.1
18	7.8	7.5	---	---	8.1	7.8	7.7	7.6	7.9	7.6	7.4	7.2
19	7.7	7.4	---	---	8.0	7.8	7.6	7.4	7.8	7.5	7.4	7.2
20	7.6	7.4	---	---	8.0	7.6	7.6	7.4	7.8	7.4	7.3	7.2
21	7.7	7.5	---	---	8.0	7.6	7.7	7.5	8.0	7.5	7.4	7.2
22	7.8	7.5	---	---	8.0	7.8	7.7	7.6	7.8	7.5	7.4	7.0
23	7.8	7.6	---	---	8.0	7.6	7.9	7.6	7.6	7.3	7.2	7.1
24	7.8	7.6	---	---	7.9	7.7	7.8	7.7	7.6	7.3	7.3	7.1
25	7.9	7.5	---	---	8.1	7.5	7.8	7.6	7.5	7.3	7.4	7.1
26	7.8	7.5	---	---	8.1	7.7	7.8	7.7	7.5	7.1	7.5	7.1
27	7.8	7.5	---	---	8.1	7.8	7.9	7.7	7.3	7.2	7.6	7.2
28	7.7	7.5	---	---	8.1	7.8	7.8	7.5	7.3	7.1	7.6	7.2
29	7.8	7.6	---	---	8.1	7.7	7.9	7.7	7.2	7.0	7.6	7.2
30	7.8	7.6	---	---	8.0	7.7	7.9	7.6	---	---	7.6	7.2
31	7.9	7.6	---	---	8.1	7.8	7.9	7.4	---	---	7.8	7.4
MONTH	7.9	7.3	---	---	---	---	8.0	7.4	8.0	7.0	7.8	7.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.7	7.3	8.1	7.6	7.8	7.4	7.7	7.4	7.5	7.3	7.8	7.4
2	7.6	7.3	8.1	7.4	7.6	7.2	7.7	7.4	7.6	7.3	7.8	7.4
3	7.5	7.2	8.0	7.4	7.4	7.1	7.6	7.4	7.6	7.3	8.0	7.4
4	7.5	7.2	7.8	7.4	7.4	7.1	7.6	7.4	7.6	7.3	8.0	7.5
5	7.5	7.3	8.0	7.3	7.1	7.0	7.6	7.3	7.6	7.3	8.0	7.5
6	7.7	7.2	8.0	7.4	7.6	7.1	7.7	7.3	7.6	7.3	7.9	7.5
7	7.7	7.3	8.1	7.4	7.8	7.4	7.6	7.4	7.5	7.3	7.7	7.4
8	7.8	7.4	8.0	7.4	8.1	7.5	7.6	7.2	7.5	7.3	7.7	7.4
9	7.7	7.3	7.8	7.4	8.3	7.8	7.6	7.3	7.6	7.3	7.7	7.2
10	7.6	7.3	8.1	7.5	8.3	7.8	7.6	7.3	7.5	7.2	7.6	7.2
11	7.8	7.4	8.2	7.5	8.2	8.0	7.6	7.3	7.6	7.2	7.5	7.3
12	7.7	7.5	8.2	7.5	8.3	7.9	7.7	7.3	7.7	7.2	7.6	7.3
13	7.7	7.4	8.2	7.5	8.2	7.9	7.7	7.3	7.7	7.2	7.7	7.2
14	7.7	7.4	8.2	7.4	8.1	7.7	7.7	7.3	7.8	7.2	7.8	7.2
15	7.5	7.3	8.2	7.5	8.0	7.6	7.6	7.3	8.0	7.2	7.5	7.3
16	7.4	7.3	8.2	7.4	8.0	7.6	7.6	7.3	7.9	7.3	7.7	7.2
17	7.6	7.3	8.2	7.5	7.9	7.5	7.6	7.4	7.9	7.4	7.8	7.2
18	7.5	7.2	8.2	7.4	7.9	7.5	7.6	7.4	8.0	7.4	7.8	7.3
19	7.5	7.3	8.2	7.4	7.9	7.5	7.6	7.3	7.9	7.4	7.9	7.3
20	7.6	7.4	8.2	7.2	7.8	7.4	7.5	7.3	7.8	7.3	7.9	7.5
21	7.6	7.3	8.3	7.3	8.0	7.6	7.5	7.3	8.0	7.3	8.0	7.5
22	7.7	7.4	8.3	7.4	7.8	7.4	7.4	7.2	8.1	7.5	7.9	7.6
23	7.7	7.5	8.3	7.3	8.0	7.4	7.3	7.1	8.0	7.3	7.9	7.6
24	7.8	7.5	8.3	7.2	7.8	7.4	7.3	7.1	7.9	7.5	8.0	7.5
25	7.9	7.5	8.1	7.4	7.7	7.5	7.4	7.1	7.8	7.4	7.9	7.5
26	7.9	7.4	8.3	7.5	7.8	7.4	7.4	7.2	7.8	7.2	8.0	7.5
27	7.8	7.4	8.2	7.6	7.9	7.5	7.4	7.1	7.5	7.2	8.0	7.5
28	8.0	7.4	8.2	7.5	8.1	7.5	7.6	7.2	7.6	7.2	7.9	7.5
29	8.1	7.5	8.3	7.4	8.0	7.5	7.6	7.3	7.7	7.2	7.7	7.4
30	8.0	7.5	8.3	7.6	7.6	7.4	7.4	7.2	7.8	7.3	7.7	7.7
31	---	---	8.3	7.5	---	---	7.5	7.3	7.9	7.3	---	---
MONTH	8.1	7.2	8.3	7.2	8.3	7.0	7.7	7.1	8.1	7.2	8.0	7.2

## 11046372 SAN MATEO CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE, CA—Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1750	1710	2280	1980	---	---	1560	1520	1230	1230	699	664
2	1740	1710	2040	1900	---	---	1520	1500	1240	1230	817	694
3	1740	1730	1970	1870	1680	1660	1520	1430	1240	1110	732	685
4	1740	1720	1880	1820	1660	1640	1440	1420	1140	1130	694	673
5	1730	1710	1840	1780	1640	1620	1420	1400	1140	1130	709	673
6	1720	1670	1800	1740	1620	1600	1410	1390	1140	1140	716	690
7	1680	1640	1740	1670	1600	1550	1390	1380	1140	1140	751	712
8	1660	1630	1690	1640	1610	1550	1380	1370	1140	1140	856	731
9	1640	1620	1640	1610	1610	1600	1370	1360	1150	1140	894	752
10	1620	1580	1620	1570	1600	1570	1360	1340	1150	1140	933	776
11	1590	1550	1570	1550	1570	1540	1340	1330	1160	1150	892	789
12	1560	1540	1570	1470	1560	1550	1340	1300	1160	1150	870	822
13	1550	1540	1580	1540	1550	1530	1320	1320	1170	1160	876	843
14	1540	1520	1560	1540	1540	1510	1320	1310	1180	1160	887	867
15	1520	1500	1550	1510	1510	1510	1310	1300	1180	1170	937	881
16	1510	1500	1540	1500	1510	1490	1310	1310	1190	1180	914	900
17	1510	1490	1550	1530	1500	1490	1310	1300	1190	1180	936	911
18	1500	1480	1550	1540	1490	1480	1300	1300	1190	1180	960	933
19	1490	1460	1550	1540	1480	1470	1300	1290	1190	1160	976	951
20	1470	1460	1600	1540	1490	1470	1300	1290	1170	1160	986	962
21	1480	1460	1640	1580	1490	1460	1290	1290	1170	1160	995	978
22	1480	1470	1660	1610	1530	1480	1290	1280	1170	1130	1010	993
23	1470	1470	1660	1650	1790	1510	1290	1280	1140	949	1020	1010
24	1470	1460	1720	1650	1890	1620	1280	1280	981	896	1030	1020
25	1470	1460	2100	1700	2020	1690	1280	1270	939	873	1040	1020
26	1580	1460	2100	1870	1990	1710	1270	1260	929	742	1050	1040
27	2090	1570	1940	1880	1770	1740	1260	1260	755	629	1060	1040
28	2340	1740	1900	1830	1740	1700	1260	1250	686	649	1060	1050
29	2350	1880	1830	1770	1700	1660	1250	1240	664	650	1080	1060
30	2400	2160	---	---	1660	1580	1240	1240	---	---	1080	1070
31	2420	2230	---	---	1580	1560	1240	1230	---	---	1090	1080
MONTH	2420	1460	---	---	---	---	1560	1230	1240	629	1090	664
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1100	1090	1200	1190	1220	1180	2330	2270	2070	2040	1900	1880
2	1100	1100	1200	1180	1440	1210	2300	2260	2040	2010	1880	1830
3	1100	1100	1200	1180	16500	1340	2270	2210	2020	1990	1840	1810
4	1110	1100	1200	1180	16500	13500	2220	2170	2000	1960	1820	1790
5	1110	1100	1190	1180	13600	10300	2180	2120	1970	1940	1800	1770
6	1110	1110	1190	1170	11500	6680	2130	2070	1940	1920	1790	1740
7	1120	1110	1180	1160	7430	5970	2080	2010	1920	1860	1750	1730
8	1120	1110	1170	1160	6600	5640	2030	1980	1900	1890	1730	1700
9	1120	1120	1160	1140	5810	5610	1990	1950	1910	1890	1710	1680
10	1130	1120	1150	1140	5760	4720	1960	1940	1940	1900	1690	1670
11	1130	1120	1150	1140	4920	4750	1940	1920	1970	1930	1680	1660
12	1130	1120	1150	1130	4810	4460	1930	1920	2000	1960	1660	1650
13	1140	1130	1140	1120	4550	4400	1930	1920	2060	2000	1660	1640
14	1140	1130	1120	1110	4400	4160	1930	1920	2060	2050	1650	1640
15	1150	1140	1110	1100	4200	3900	1960	1920	2080	2060	1640	1620
16	1150	1150	1120	1100	4000	3790	1970	1950	2080	2060	1640	1620
17	1160	1150	1120	1120	3930	3550	1990	1960	2080	2060	1630	1610
18	1150	1140	1120	1120	3580	3450	1990	1980	2060	2020	1620	1600
19	1150	1140	1130	1110	3460	3210	1990	1980	2040	2020	1600	1580
20	1150	1140	1140	1120	3210	3030	1990	1980	2030	2000	1590	1580
21	1150	1150	1140	1120	3110	3030	1980	1920	2010	1960	1580	1570
22	1160	1150	1140	1120	3050	2920	1960	1940	1980	1960	1580	1570
23	1160	1150	1140	1130	2930	2740	1950	1940	1960	1940	1570	1560
24	1170	1160	1150	1130	2770	2620	1960	1930	1960	1950	1560	1550
25	1170	1160	1150	1140	2640	2500	1960	1930	1960	1920	1560	1540
26	1180	1170	1160	1140	2510	2420	1980	1950	1960	1920	1550	1530
27	1180	1180	1160	1150	2430	2420	2020	1960	1950	1930	1540	1520
28	1190	1180	1180	1160	2420	2400	2040	2000	1950	1940	1530	1530
29	1190	1190	1190	1170	2410	2360	2080	2030	1950	1920	1540	1530
30	1200	1190	1190	1160	2370	2310	2100	2070	1930	1890	1540	1540
31	---	---	1190	1170	---	---	2090	2060	1920	1900	---	---
MONTH	1200	1090	1200	1100	16500	1180	2330	1920	2080	1860	1900	1520

11046372 SAN MATEO CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE, CA—Continued

TEMPERATURE, WATER, DEGREES C, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.3	20.5	17.6	15.9	---	---	9.2	7.3	13.3	11.1	13.9	12.8
2	22.4	20.2	16.7	15.0	---	---	9.6	7.9	12.8	10.6	13.4	12.9
3	20.9	19.5	15.8	14.6	12.7	10.5	11.0	9.6	12.9	11.9	13.8	13.0
4	20.3	17.9	16.5	14.7	12.7	10.8	9.9	8.6	13.1	11.4	14.5	13.5
5	20.7	19.1	15.2	13.4	12.7	11.1	9.8	7.8	12.6	10.8	14.7	14.0
6	20.3	19.7	15.7	13.6	13.2	10.7	9.4	7.7	12.3	10.3	14.7	13.8
7	20.9	19.5	15.8	13.8	14.0	13.1	10.6	8.8	12.1	10.0	14.7	14.1
8	21.9	19.6	16.1	13.6	15.0	13.2	10.4	8.4	12.0	9.8	15.3	14.6
9	20.9	20.0	15.7	14.7	13.2	11.1	10.7	8.8	11.7	9.5	15.6	14.8
10	20.8	19.4	16.8	15.3	12.5	11.1	11.2	9.2	12.1	9.9	16.0	15.1
11	22.1	20.0	17.1	14.7	12.8	11.5	11.5	9.5	11.6	9.3	16.8	15.4
12	22.0	19.6	17.7	16.0	11.6	9.5	12.4	11.0	12.1	9.3	16.7	16.1
13	21.5	18.7	17.5	15.2	11.2	9.2	12.5	10.6	11.3	9.4	17.0	16.0
14	21.2	19.6	16.6	14.4	11.0	9.0	12.7	11.0	10.8	8.7	16.8	15.9
15	21.2	19.4	15.3	14.0	11.5	9.4	13.0	10.9	11.5	8.6	17.1	16.1
16	20.6	18.1	16.0	14.2	11.3	9.2	12.9	11.4	12.7	10.3	16.9	16.4
17	21.0	18.8	15.8	13.2	10.9	8.3	13.7	12.4	13.3	11.2	16.8	16.3
18	21.4	18.7	15.6	12.9	11.0	8.4	13.6	12.4	12.5	11.5	17.0	16.1
19	21.3	19.6	15.9	12.9	10.7	8.6	14.1	12.7	13.5	11.4	17.4	16.2
20	21.3	18.4	15.5	13.1	10.6	9.1	14.6	13.3	13.6	12.6	17.3	16.5
21	21.1	18.0	15.4	14.5	12.3	10.3	14.4	13.1	13.3	12.5	17.8	16.6
22	20.2	17.7	15.2	13.4	12.1	10.3	13.4	11.5	14.2	12.3	17.9	17.0
23	20.2	17.0	13.6	11.4	11.7	10.4	12.3	10.7	14.3	13.1	17.4	16.6
24	20.1	17.9	11.8	9.8	11.5	10.3	11.6	10.6	14.6	12.8	18.1	16.6
25	19.5	18.2	13.0	10.5	13.3	11.5	12.8	11.1	13.8	12.8	18.6	16.5
26	19.0	16.8	13.4	11.3	12.7	11.3	12.4	10.8	14.1	13.3	18.7	16.9
27	17.8	16.0	13.1	10.8	11.3	9.6	12.4	10.8	14.3	13.4	18.2	16.2
28	17.0	15.3	12.9	11.0	9.8	8.2	13.6	12.1	14.0	13.2	17.5	15.7
29	17.4	15.4	12.7	10.8	9.0	7.5	13.3	11.3	14.0	12.6	17.4	16.0
30	18.6	16.8	---	---	9.6	8.4	13.1	11.0	---	---	18.2	15.8
31	17.4	16.0	---	---	9.4	7.3	13.9	12.4	---	---	17.9	16.2
MONTH	22.4	15.3	---	---	---	---	14.6	7.3	14.6	8.6	18.7	12.8
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.4	16.5	21.0	17.4	24.3	20.6	23.5	20.6	25.0	22.6	23.8	20.7
2	17.6	15.5	21.6	18.2	24.2	21.1	23.3	20.0	24.8	22.4	24.5	20.9
3	18.2	16.4	21.8	18.9	23.3	21.2	23.4	21.1	24.6	22.1	23.6	21.3
4	19.2	17.0	21.9	19.1	22.8	21.8	24.2	21.5	24.7	22.6	23.7	20.2
5	19.5	17.7	23.0	19.9	23.3	22.4	23.3	21.9	25.1	22.4	24.2	20.6
6	19.6	17.6	22.0	19.5	23.4	22.1	23.4	21.8	24.6	20.8	24.7	20.6
7	19.7	17.7	22.0	19.7	22.2	20.6	23.7	21.6	25.1	21.2	24.6	20.7
8	18.8	17.3	21.5	18.8	22.4	20.1	22.7	21.4	25.1	22.0	24.3	21.4
9	19.3	17.5	20.9	18.4	22.6	20.1	24.0	21.0	25.5	22.1	25.7	22.1
10	18.7	17.8	21.3	19.1	23.1	20.3	24.1	20.8	26.2	22.4	26.4	23.2
11	20.0	17.4	21.6	18.8	23.3	20.3	24.4	22.0	25.7	23.8	26.8	23.8
12	19.9	17.6	21.6	18.8	24.1	21.0	25.2	21.9	24.7	23.2	26.2	23.6
13	20.1	18.1	21.6	18.5	24.4	21.5	24.9	22.5	25.1	22.5	25.4	23.0
14	20.0	17.3	22.3	19.1	23.3	20.9	25.2	22.6	25.0	23.0	24.3	22.2
15	19.9	16.9	22.2	19.0	23.4	20.7	26.3	23.1	24.5	22.5	24.0	21.9
16	20.6	18.2	22.5	19.7	21.8	20.2	26.4	23.1	25.0	21.7	24.0	21.8
17	19.1	16.1	22.0	19.3	21.7	19.8	26.2	22.4	23.8	21.2	24.5	22.0
18	18.1	15.0	22.6	20.1	21.0	20.3	26.3	22.7	23.2	21.7	24.4	21.8
19	18.5	15.5	22.7	19.7	20.4	19.7	26.6	23.1	23.9	20.3	23.6	21.6
20	18.8	15.6	22.3	19.8	21.9	19.5	26.6	23.2	23.5	21.3	22.6	19.8
21	19.5	16.8	22.4	19.9	22.1	20.0	26.5	24.1	24.4	21.6	22.4	18.7
22	19.9	17.2	22.7	19.7	21.2	20.4	26.4	23.9	24.5	21.0	21.9	17.9
23	20.1	16.6	21.4	19.6	22.1	19.9	25.5	23.8	24.4	20.8	21.1	17.6
24	20.2	16.6	21.8	19.1	23.8	20.7	24.8	23.2	24.3	20.0	21.4	17.7
25	19.6	17.0	20.5	18.8	24.4	21.6	25.4	22.7	24.6	20.3	21.8	18.6
26	20.4	17.0	20.4	17.7	24.7	21.8	25.4	22.8	24.9	22.0	22.9	20.0
27	20.6	17.7	20.0	17.6	23.7	21.7	26.3	22.9	25.5	21.9	23.1	20.8
28	20.3	18.6	19.9	18.6	22.8	20.6	26.3	23.1	24.8	21.6	22.9	20.7
29	21.2	17.9	22.4	18.5	22.9	19.8	25.2	22.0	25.1	22.1	21.7	20.6
30	20.4	17.6	22.9	19.0	23.6	20.9	24.9	22.7	24.6	21.6	21.7	21.7
31	---	---	24.3	19.7	---	---	25.1	22.8	23.7	20.9	---	---
MONTH	21.2	15.0	24.3	17.4	24.7	19.5	26.6	20.0	26.2	20.0	26.8	17.6







11046530 SAN JUAN CREEK AT LA NOVIA STREET BRIDGE, AT SAN JUAN CAPISTRANO, CA

LOCATION.—Lat 33°30'09", long 117°38'50", in NW 1/4 SE 1/4 sec.6, T.8 S., R.8 W., Orange County, Hydrologic Unit 18070301, on right bank, 20 ft downstream from La Novia Street Bridge, 1.3 mi upstream from Arroyo Trabuco Creek, and 0.8 mi east of San Juan Capistrano.

DRAINAGE AREA.—109 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1985 to current year. October 1985 to September 1986, published as "San Juan Creek at San Juan Capistrano."

WATER TEMPERATURE: Water years 1986–88.

SEDIMENT DATA: Water years 1986–93.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 100 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. No regulation upstream from station. Capistrano Water Co. diverts water 2.0 mi upstream. Various amounts of diverted water reach station as irrigation return flow. October 1928 to September 1969 and October 1969 to September 1985, data published as "San Juan Creek near San Juan Capistrano" (station 11046500) and "San Juan Creek at San Juan Capistrano" (station 11046550), which are located approximately 1.9 mi upstream and 1.0 mi downstream, respectively. Data for these sites are roughly equivalent.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 25,600 ft<sup>3</sup>/s, estimated, Mar. 5, 1995, gage height, 20.66 ft, from rating curve extended above 3,420 ft<sup>3</sup>/s; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 22,400 ft<sup>3</sup>/s, Feb. 25, 1969, gage height, 5.60 ft, from floodmark, at site and datum then in use.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s, from rating curve extended above 3,510 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	1100	1,060	13.52	Mar. 2	0145	470	12.95

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	1.4	2.2	4.2	4.3	8.3	2.1	0.36	0.00	0.00	0.00	0.00
2	0.00	0.01	2.2	5.9	8.3	102	6.8	0.31	0.00	0.00	0.00	0.00
3	0.00	0.00	2.0	10	23	22	5.2	0.12	0.00	0.00	0.00	0.00
4	0.03	0.00	2.1	7.4	7.7	11	4.1	0.08	0.00	0.00	0.00	0.00
5	0.03	0.00	2.0	5.5	4.6	7.4	3.0	0.04	0.00	0.00	0.00	0.00
6	0.01	0.00	1.9	5.0	3.8	6.2	2.6	0.03	0.00	0.00	0.00	0.00
7	0.00	0.00	1.9	4.9	3.2	5.6	2.6	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	2.7	4.3	2.9	4.8	2.5	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	3.3	4.1	2.6	4.4	2.1	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	3.0	4.1	2.6	3.5	2.1	0.22	0.00	0.00	0.00	0.00
11	0.02	0.00	3.0	3.8	2.6	3.1	2.2	0.30	0.00	0.00	0.00	0.00
12	0.02	0.15	2.9	3.7	2.5	2.9	2.2	0.25	0.00	0.00	0.00	0.00
13	0.01	0.13	2.8	3.6	2.0	2.7	2.0	0.00	0.27	0.00	0.00	0.00
14	0.02	0.07	2.6	3.6	2.0	2.7	1.5	0.00	0.44	0.00	0.00	0.00
15	0.03	0.39	3.2	3.6	2.1	2.9	1.7	0.00	0.25	0.00	0.00	0.00
16	0.04	1.3	3.2	3.5	2.0	3.0	1.5	0.00	0.00	0.00	0.00	0.00
17	0.05	1.5	2.6	3.5	2.2	2.7	5.7	0.00	0.00	0.00	0.00	0.00
18	0.05	1.9	2.3	8.7	5.4	2.4	21	0.14	0.00	0.00	0.00	0.00
19	0.05	2.2	2.0	6.6	10	2.3	6.6	0.10	0.34	0.00	0.00	0.00
20	0.06	2.5	1.9	6.2	4.8	2.1	4.1	0.02	0.90	0.00	0.00	0.00
21	0.04	2.4	2.0	5.5	3.5	2.1	3.2	0.00	0.04	0.00	0.00	0.00
22	0.00	2.1	2.0	4.9	14	2.3	3.3	0.02	0.03	0.00	0.00	0.00
23	0.00	2.1	2.1	4.6	85	2.1	2.8	0.04	0.00	0.00	0.00	0.00
24	0.00	2.2	2.1	4.6	18	1.9	2.1	0.00	0.00	0.00	0.00	0.00
25	0.00	2.3	9.5	4.7	11	1.6	1.8	0.01	0.00	0.00	0.00	0.00
26	0.00	2.3	40	4.0	323	1.5	1.5	0.00	0.00	0.00	0.00	0.00
27	0.00	2.2	11	3.7	33	1.7	0.91	0.00	0.00	0.00	0.00	0.00
28	0.00	1.8	6.1	4.1	16	2.1	0.63	0.01	0.00	0.00	0.00	0.00
29	0.00	1.9	5.0	4.1	10	1.7	0.47	0.00	0.00	0.00	0.00	0.00
30	0.01	2.0	5.1	3.8	---	1.4	0.36	0.04	0.00	0.00	0.00	0.00
31	0.00	---	4.7	4.0	---	1.4	---	0.03	---	0.00	0.00	---
TOTAL	0.47	32.85	139.4	150.2	612.1	221.8	98.67	2.12	2.27	0.00	0.00	0.00
MEAN	0.02	1.09	4.50	4.85	21.1	7.15	3.29	0.07	0.08	0.00	0.00	0.00
MAX	0.06	2.5	40	10	323	102	21	0.36	0.90	0.00	0.00	0.00
MIN	0.00	0.00	1.9	3.5	2.0	1.4	0.36	0.00	0.00	0.00	0.00	0.00
AC-FT	0.9	65	276	298	1210	440	196	4.2	4.5	0.00	0.00	0.00

## SAN JUAN CREEK BASIN

## 11046530 SAN JUAN CREEK AT LA NOVIA STREET BRIDGE, AT SAN JUAN CAPISTRANO, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.49	2.25	4.60	52.5	91.3	67.3	17.6	9.67	3.23	1.08	0.48	0.38
MAX	3.26	9.45	16.8	590	816	663	121	94.9	25.5	8.93	3.83	3.33
(WY)	1999	1997	1997	1993	1998	1995	1998	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.50	0.77	0.55	0.04	0.00	0.00	0.00	0.00	0.00
(WY)	1987	1987	1990	2000	2002	1990	1989	1987	1986	1986	1986	1986

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	4097.66		1259.88			
ANNUAL MEAN	11.2		3.44		20.6	
HIGHEST ANNUAL MEAN					106 1993	
LOWEST ANNUAL MEAN					0.61 1989	
HIGHEST DAILY MEAN	1250	Mar 16	323	Feb 26	5700	Mar 5 1995
LOWEST DAILY MEAN	0.00	Aug 9	0.00	Oct 1	0.00	May 20 1986
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 9	0.00	Oct 22	0.00	May 20 1986
MAXIMUM PEAK FLOW			1060	Feb 26	25600	Mar 5 1995
MAXIMUM PEAK STAGE			13.52	Feb 26	20.66	Mar 5 1995
ANNUAL RUNOFF (AC-FT)	8130		2500		14890	
10 PERCENT EXCEEDS	10		5.3		20	
50 PERCENT EXCEEDS	1.6		0.11		0.90	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11047300 ARROYO TRABUCO AT SAN JUAN CAPISTRANO, CA

LOCATION.—Lat 33°29'54", long 117°39'54", on line between secs.1 and 12, T.8 S., R.8 W., Orange County, Hydrologic Unit 18070301, on left bank, 30 ft downstream from Del Obispo Street Bridge, in San Juan Capistrano.

DRAINAGE AREA.—54.1 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1972 to September 1977, October 1983 to September 1989, October 1995 to current year.

WATER TEMPERATURE: Water years 1971–77, 1984.

SEDIMENT DATA: Water Years 1971–77, 1984–93.

GAGE.—Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 80 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,000 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 19.81 ft, from rating curve extended above 1,600 ft<sup>3</sup>/s; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 800 ft<sup>3</sup>/s, from rating curve extended above 1,600 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1515	1,150	13.08	Feb. 26	0630	3,850	15.70
Feb. 22	2145	815	12.66	Mar. 2	0145	893	12.76

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	48	2.8	6.9	7.3	16	31	2.5	1.0	0.71	0.48	1.1
2	2.3	6.6	3.0	31	26	226	28	1.8	1.1	0.68	0.52	0.68
3	2.7	4.8	2.9	32	77	25	7.1	1.7	0.93	0.56	0.98	0.91
4	2.9	4.7	3.0	9.5	10	13	5.8	1.3	0.93	0.65	1.2	0.91
5	2.5	3.6	2.9	8.6	7.9	11	4.0	0.77	1.0	0.96	0.89	0.60
6	2.8	3.5	3.2	7.2	6.8	11	4.1	1.1	0.79	1.3	0.88	0.62
7	2.6	3.3	11	6.6	6.4	11	4.8	1.1	1.1	1.0	0.68	0.87
8	2.6	3.3	25	6.2	6.1	10	4.2	1.8	1.5	0.66	0.38	0.87
9	3.0	2.8	7.0	5.5	5.9	11	4.6	2.2	1.5	0.48	0.77	0.92
10	3.5	2.7	5.6	5.5	5.9	10	4.7	2.5	1.3	0.28	0.75	0.83
11	3.2	2.3	5.0	5.3	5.9	9.6	4.7	3.4	0.91	0.25	0.50	0.83
12	3.1	16	4.1	5.6	5.7	8.3	4.4	3.4	0.76	0.35	0.43	0.51
13	2.8	14	4.2	5.9	5.1	8.3	3.7	3.1	0.64	0.18	0.52	0.61
14	2.7	5.6	5.7	5.7	5.1	8.2	3.3	1.3	0.51	0.15	0.43	0.69
15	2.9	4.6	9.1	5.7	5.5	8.2	3.2	0.78	0.60	0.70	0.38	0.74
16	2.4	11	4.0	5.6	6.1	8.3	3.5	0.30	0.85	0.64	0.34	0.94
17	2.4	3.0	3.7	5.8	6.2	7.8	81	0.46	1.4	0.09	0.26	1.4
18	2.3	2.4	3.3	6.2	73	7.4	15	0.83	0.96	0.02	0.56	2.5
19	2.2	2.3	3.3	7.9	23	7.0	7.8	0.73	0.88	0.07	0.76	2.5
20	2.2	2.2	3.6	6.8	13	6.8	5.0	0.75	0.81	0.10	0.53	2.4
21	2.1	2.4	3.5	6.3	18	6.8	4.5	0.73	0.71	0.08	0.57	1.7
22	2.2	2.5	3.6	6.4	199	7.1	4.1	1.5	0.91	0.17	0.79	0.83
23	2.2	2.3	3.7	5.9	177	7.7	3.5	1.9	1.0	0.32	0.81	0.82
24	2.8	2.4	4.1	6.4	22	7.7	2.8	1.4	0.72	0.17	0.51	0.87
25	2.7	2.6	186	6.6	24	7.4	2.8	1.3	0.44	0.11	0.89	0.66
26	2.9	2.7	37	6.5	825	7.3	2.6	1.6	0.25	0.32	0.80	0.78
27	2.6	2.8	8.7	6.6	43	7.1	2.5	1.3	0.11	0.50	0.95	1.0
28	2.6	2.6	6.5	7.7	23	6.7	2.7	1.6	0.37	0.61	0.96	0.87
29	3.0	2.7	6.3	7.4	17	6.4	3.4	2.2	0.44	0.70	1.0	1.0
30	3.0	2.7	7.0	7.1	---	5.9	3.0	1.6	0.41	0.63	1.0	1.1
31	3.3	---	7.1	7.7	---	6.1	---	1.3	---	0.57	0.81	---
TOTAL	82.9	172.4	385.9	254.1	1655.9	500.1	261.8	48.25	24.83	14.01	21.33	31.06
MEAN	2.67	5.75	12.4	8.20	57.1	16.1	8.73	1.56	0.83	0.45	0.69	1.04
MAX	3.5	48	186	32	825	226	81	3.4	1.5	1.3	1.2	2.5
MIN	2.1	2.2	2.8	5.3	5.1	5.9	2.5	0.30	0.11	0.02	0.26	0.51
AC-FT	164	342	765	504	3280	992	519	96	49	28	42	62

## SAN JUAN CREEK BASIN

## 11047300 ARROYO TRABUCO AT SAN JUAN CAPISTRANO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.73	12.0	20.2	19.2	72.0	25.4	12.6	6.39	3.05	1.64	1.60	2.30
MAX	16.7	37.8	91.8	120	481	129	59.8	56.9	22.1	7.99	8.90	7.81
(WY)	2001	1997	1998	1997	1998	1998	1998	1998	1998	1998	1977	1986
MIN	0.05	0.81	1.73	0.85	2.84	3.74	0.92	0.71	0.01	0.05	0.02	0.00
(WY)	1974	1975	1973	1976	1977	1988	1977	1988	1973	1973	1973	1973

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1973 - 2004	
ANNUAL TOTAL	7214.3		3452.58			
ANNUAL MEAN	19.8		9.43		14.7	
HIGHEST ANNUAL MEAN					74.1 1998	
LOWEST ANNUAL MEAN					3.17 1976	
HIGHEST DAILY MEAN	897	Feb 25	825	Feb 26	2560	Feb 23 1998
LOWEST DAILY MEAN	2.1	Oct 21	0.02	Jul 18	0.00	Oct 1 1972
ANNUAL SEVEN-DAY MINIMUM	2.2	Oct 17	0.12	Jul 17	0.00	Oct 1 1972
MAXIMUM PEAK FLOW			3850	Feb 26	10000	Feb 23 1998
MAXIMUM PEAK STAGE			15.70	Feb 26	19.81	Feb 23 1998
ANNUAL RUNOFF (AC-FT)	14310		6850		10630	
10 PERCENT EXCEEDS	24		10		18	
50 PERCENT EXCEEDS	4.6		2.7		2.3	
90 PERCENT EXCEEDS	2.7		0.52		0.47	



## 11048200 AGUA CHINON WASH NEAR IRVINE, CA

LOCATION.—Lat 33°40'44", long 117°42'48", in Lomas de Santiago Grant, [Orange County](#), Hydrologic Unit 18070204, on right bank, 4.8 mi upstream from confluence with San Diego Creek, and 4.0 mi east of Irvine.

DRAINAGE AREA.—2.85 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July 2002 to current year.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 440 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. No diversion upstream from station. Irrigation return flow can cause low-flow fluctuations in discharge at times.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 144 ft<sup>3</sup>/s, Mar. 16, 2003, gage height, 2.17 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0500	45	1.74

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.07	0.00	0.00	0.00	0.18	0.05	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.18	0.37	1.5	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.01	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	1.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.38	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	6.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.01	---	0.00	0.01	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.01	0.11	0.58	0.25	9.97	1.68	0.14	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.02	0.01	0.34	0.05	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.01	0.07	0.38	0.18	6.8	1.5	0.09	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.02	0.2	1.2	0.5	20	3.3	0.3	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	0.00	0.04	0.10	0.01	0.43	0.39	0.08	0.01	0.00	0.00	0.00	0.00
MAX	0.00	0.08	0.18	0.02	0.51	0.73	0.15	0.01	0.00	0.00	0.01	0.00
(WY)	2004	2003	2003	2003	2003	2003	2003	2003	2003	2003	2002	2002
MIN	0.00	0.00	0.02	0.01	0.34	0.05	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	2003	2004	2004	2004	2004	2004	2004	2004	2003	2002	2003	2004

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 2002 - 2004
ANNUAL TOTAL	42.98	12.74	
ANNUAL MEAN	0.12	0.03	0.09
HIGHEST ANNUAL MEAN			0.14 2003
LOWEST ANNUAL MEAN			0.03 2004
HIGHEST DAILY MEAN	13 Mar 16	6.8 Feb 26	13 Mar 16 2003
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Jul 1 2002
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Jul 1 2002
MAXIMUM PEAK FLOW		45 Feb 26	144 Mar 16 2003
MAXIMUM PEAK STAGE		1.74 Feb 26	2.17 Mar 16 2003
ANNUAL RUNOFF (AC-FT)	85	25	62
10 PERCENT EXCEEDS	0.00	0.00	0.00
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00



11048200 AGUA CHINON WASH NEAR IRVINE, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 2003 to September 2004.  
 SEDIMENT DATA: October 2003 to September 2004.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	Temper- ature, water, deg C (00010)	Suspnd. sedi- ment, falldia dst wat percent <.002mm (70337)	Suspnd. sedi- ment, falldia dst wat percent <.004mm (70338)	Suspnd. sedi- ment, falldia dst wat percent <.008mm (70339)	Suspnd. sedi- ment, falldia dst wat percent <.016mm (70340)	Suspnd. sedi- ment, falldia dst wat percent <.031mm (70341)
FEB								
22...	1820	5.2	12.5	--	--	--	--	--
23...	0630	.80	12.0	59	76	90	96	98
26...	0930	3.6	13.0	52	65	78	88	92
MAR								
02...	0905	.40	13.0	53	73	89	97	99

Date	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Suspnd. sedi- ment, sieve diametr percent <.125mm (70332)	Suspnd. sedi- ment, sieve diametr percent <.25mm (70333)	Suspnd. sedi- ment, sieve diametr percent <.5 mm (70334)	Suspnd. sedi- ment, sieve diametr percent <1 mm (70335)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
FEB							
22...	74	84	95	99	100	1490	21
23...	98	99	99	100	--	9230	20
26...	93	95	97	99	100	20700	201
MAR							
02...	100	--	--	--	--	10200	11

## 11048400 MARSHBURN CHANNEL NEAR IRVINE, CA

LOCATION.—Lat 33°41'02", long 117°44'40", in Lomas de Santiago Grant, Orange County, Hydrologic Unit 18070204, on left bank, 2.1 mi upstream from confluence with San Diego Creek, and 1.9 mi east of Irvine.

DRAINAGE AREA.—Indeterminate.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July 2002 to current year.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 275 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. No diversion upstream from station. Irrigation return flow can cause low-flow fluctuations in discharge at times.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 374 ft<sup>3</sup>/s, Mar. 16, 2003, gage height, 2.86 ft, from rating curve extended above 1.90 ft<sup>3</sup>/s; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended above 1.90 ft<sup>3</sup>/s:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0500	207	2.39	Mar. 2	1645	108	2.01

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.11	0.22	0.04	0.00	0.00	1.6	0.99	0.19	0.00	0.00	0.00	0.26
2	0.08	0.00	0.03	1.4	3.7	8.2	0.04	0.00	0.01	0.00	0.00	0.00
3	0.19	0.02	0.00	0.58	0.93	1.1	0.02	0.16	0.00	0.00	0.00	0.00
4	0.06	0.01	0.14	0.00	0.00	0.03	0.02	0.18	0.01	0.00	0.00	0.00
5	0.00	0.01	0.05	0.04	0.00	0.00	0.00	0.17	0.04	0.00	0.00	0.00
6	0.03	0.00	0.05	0.01	0.00	0.03	0.04	0.22	0.00	0.00	0.00	0.00
7	0.00	0.06	0.75	0.00	0.02	0.00	0.03	0.24	0.00	0.00	0.00	0.53
8	0.11	0.03	0.12	0.04	0.00	0.04	0.04	0.19	0.00	0.04	0.00	0.00
9	0.13	0.01	0.00	0.03	0.04	0.04	0.03	0.04	0.01	0.00	0.00	0.01
10	0.00	0.04	0.00	0.01	0.06	0.04	0.05	0.14	0.03	0.00	0.00	0.00
11	0.01	0.04	0.00	0.00	0.05	0.01	0.00	0.21	0.00	0.00	0.00	0.07
12	0.00	0.00	0.00	0.00	0.02	0.04	0.00	0.24	0.00	0.00	0.13	0.00
13	0.00	0.00	0.05	0.06	0.04	0.05	0.02	0.25	0.00	0.00	0.00	0.04
14	0.00	0.00	0.09	0.00	0.03	0.00	0.03	0.31	0.00	0.00	0.00	0.44
15	0.06	0.03	0.03	0.01	0.00	0.05	0.05	0.32	0.00	0.00	0.00	0.00
16	0.02	0.00	0.00	0.07	0.04	0.06	0.06	0.06	0.00	0.00	0.00	0.00
17	0.10	0.00	0.03	0.00	0.01	0.05	2.3	0.22	0.00	0.54	0.02	0.04
18	0.13	0.00	0.03	0.00	5.3	0.00	0.13	0.27	0.00	0.00	0.00	0.03
19	0.09	0.00	0.04	0.11	0.02	0.02	0.00	0.33	0.00	0.00	0.08	0.00
20	0.23	0.02	0.03	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.05
21	0.32	0.05	0.00	0.00	0.08	0.00	0.03	0.32	0.00	0.01	0.00	0.00
22	0.00	0.01	0.00	0.09	12	0.03	0.05	0.37	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	1.7	4.4	0.02	0.10	0.10	0.00	0.06	0.00	1.4
24	0.04	0.05	0.06	1.2	0.15	0.00	0.07	0.25	0.00	0.15	0.16	1.8
25	0.31	0.08	4.5	0.00	2.7	0.00	0.00	0.14	0.00	0.00	0.00	2.3
26	0.04	0.00	0.50	0.05	41	0.02	0.13	0.06	0.00	0.04	0.00	1.8
27	0.21	0.00	0.00	0.10	0.82	0.02	0.11	0.11	0.00	0.00	0.00	1.7
28	0.12	0.05	0.15	0.04	0.00	0.04	0.16	0.10	0.00	0.00	0.00	1.0
29	0.88	0.12	0.00	0.00	0.01	0.00	0.00	0.27	0.00	0.05	0.00	0.89
30	0.78	0.00	0.00	0.04	---	0.04	0.14	0.01	0.00	0.00	0.00	1.3
31	0.09	---	0.00	0.08	---	0.05	---	0.05	---	0.00	0.00	---
TOTAL	4.14	0.85	6.69	5.66	71.42	11.58	4.64	5.89	0.10	0.89	0.39	13.66
MEAN	0.13	0.03	0.22	0.18	2.46	0.37	0.15	0.19	0.00	0.03	0.01	0.46
MAX	0.88	0.22	4.5	1.7	41	8.2	2.3	0.37	0.04	0.54	0.16	2.3
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	8.2	1.7	13	11	142	23	9.2	12	0.2	1.8	0.8	27

## 11048400 MARSHBURN CHANNEL NEAR IRVINE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.09	0.39	0.52	0.14	2.24	1.34	0.47	0.16	0.01	0.02	0.02	0.19
MAX	0.13	0.75	0.83	0.18	2.46	2.31	0.79	0.19	0.02	0.03	0.05	0.46
(WY)	2004	2003	2003	2004	2004	2003	2003	2004	2003	2004	2002	2004
MIN	0.05	0.03	0.22	0.09	2.01	0.37	0.15	0.14	0.00	0.01	0.01	0.05
(WY)	2003	2004	2004	2003	2003	2004	2004	2003	2004	2003	2003	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	173.58		125.91			
ANNUAL MEAN	0.48		0.34		0.46	
HIGHEST ANNUAL MEAN					0.58 2003	
LOWEST ANNUAL MEAN					0.34 2004	
HIGHEST DAILY MEAN	37	Mar 16	41	Feb 26	41	Feb 26 2004
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 5	0.00	Jul 1 2002
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 1	0.00	Jun 11	0.00	Jul 1 2002
MAXIMUM PEAK FLOW			207	Feb 26	374	Mar 16 2003
MAXIMUM PEAK STAGE			2.39	Feb 26	2.86	Mar 16 2003
ANNUAL RUNOFF (AC-FT)	344		250		334	
10 PERCENT EXCEEDS	0.17		0.32		0.24	
50 PERCENT EXCEEDS	0.01		0.02		0.01	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11048400 MARSHBURN CHANNEL NEAR IRVINE, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 2003 to September 2004.

SEDIMENT DATA: October 2003 to September 2004.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sediment, sieve diameter, percent <.063mm (70331)	Suspnd. sediment, sieve diameter, percent <.125mm (70332)	Suspnd. sediment, sieve diameter, percent <.25mm (70333)	Suspnd. sediment, sieve diameter, percent <.5 mm (70334)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC									
26...	0830	.50	8.0	99	--	--	--	24	.03
FEB									
03...	0805	.33	9.7	99	--	--	--	69	.06
18...	1800	10	12.2	98	100	--	--	633	17
22...	1355	2.0	19.5	98	100	--	--	219	1.2
23...	0745	2.3	12.0	99	100	--	--	252	1.6
26...	1130	27	14.5	93	97	99	100	426	31
MAR									
02...	1035	2.6	14.0	98	100	--	--	185	1.3

## 11048553 SAND CANYON CREEK AT IRVINE, CA

LOCATION.—Lat 33°39'26", long 117°49'36", in San Joaquin Grant, [Orange County](#), Hydrologic Unit 18070204, on right bank, at culvert on Culver Drive, and 0.85 mi upstream from mouth, at Irvine.

DRAINAGE AREA.—7.06 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July 2001 to current year.

GAGE.—Water-stage recorder, culvert control, and crest-stage gage. Elevation of gage is 50 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. No diversion upstream from station. Releases of treated wastewater from Sand Canyon Reservoir may occur at times. Irrigation return flow can cause low-flow fluctuations in discharge at times.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 280 ft<sup>3</sup>/s, Mar. 16, 2003, gage height, 5.94 ft, from rating curve extended above 0.58 ft<sup>3</sup>/s; no flow at times Sept. 11–14, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0545	197	5.44

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.10	0.66	0.15	0.17	0.25	1.1	4.9	0.10	0.06	0.05	0.13	0.16
2	0.10	0.18	0.15	0.42	2.6	3.7	0.96	0.08	0.07	0.06	0.12	0.16
3	0.11	0.17	0.17	0.27	3.3	0.78	0.33	0.08	0.08	0.05	0.12	0.19
4	0.10	0.20	0.16	0.18	0.38	0.66	0.32	0.08	0.08	0.04	0.13	0.13
5	0.11	0.16	0.18	0.14	0.28	0.66	0.26	0.11	0.08	0.04	0.14	0.22
6	0.11	0.15	0.19	0.14	0.25	0.65	0.26	0.11	0.09	0.06	0.16	0.13
7	0.12	0.17	0.52	0.13	0.24	0.70	0.23	0.16	0.13	0.03	0.16	0.12
8	0.13	0.13	0.32	0.13	0.23	0.66	0.27	0.05	0.09	0.05	0.12	0.10
9	0.14	0.11	0.15	0.15	0.22	0.70	0.28	0.05	0.09	0.06	0.11	0.18
10	0.14	0.12	0.13	0.15	0.24	0.69	0.25	0.04	0.10	0.05	0.10	0.20
11	0.12	0.11	0.13	0.14	0.22	0.73	0.22	0.04	0.14	0.10	0.13	0.13
12	0.20	0.14	0.13	0.14	0.23	0.76	0.17	0.04	0.21	0.11	0.15	0.16
13	0.15	0.12	0.12	0.16	0.24	0.73	0.18	0.05	0.12	0.08	0.17	0.21
14	0.11	0.15	0.19	0.16	0.22	0.74	0.20	0.05	0.11	0.14	0.16	0.15
15	0.13	0.20	0.14	0.17	0.36	0.71	0.16	0.03	0.09	0.17	0.13	0.20
16	0.10	0.18	0.10	0.18	0.32	0.65	0.15	0.02	0.11	0.18	0.14	0.19
17	0.12	0.13	0.10	0.19	0.31	0.59	0.87	0.03	0.09	0.24	0.12	0.19
18	0.12	0.14	0.10	0.21	3.2	0.58	0.27	0.03	0.08	0.49	0.14	0.29
19	0.10	0.20	0.11	0.30	0.73	0.58	0.14	0.05	0.07	0.50	0.21	0.16
20	0.10	0.26	0.11	0.22	0.43	0.49	0.14	0.04	0.08	0.27	0.18	0.20
21	0.10	0.11	0.16	0.19	0.47	0.58	0.12	0.06	0.08	0.21	0.15	0.17
22	0.11	0.17	0.15	0.18	6.7	0.49	0.14	0.05	0.10	0.18	0.15	0.22
23	0.16	0.15	0.18	0.19	6.8	0.50	0.10	0.03	0.08	0.17	0.17	0.20
24	0.14	0.12	0.18	0.17	0.62	0.45	0.08	0.03	0.09	0.13	0.16	0.23
25	0.16	0.14	2.1	0.19	2.3	0.46	0.09	0.02	0.14	0.12	0.20	0.24
26	0.19	0.13	0.55	0.17	52	0.32	0.10	0.05	0.05	0.18	0.15	0.23
27	0.15	0.14	0.23	0.20	1.3	0.33	0.07	0.06	0.05	0.17	0.15	0.28
28	0.18	0.13	0.20	0.29	0.60	0.34	0.08	0.06	0.05	0.21	0.15	0.22
29	0.17	0.14	0.21	0.22	0.53	0.27	0.08	0.06	0.05	0.17	0.16	0.13
30	0.17	0.14	0.22	0.22	---	0.35	0.12	0.11	0.06	0.15	0.18	0.12
31	0.19	---	0.17	0.22	---	0.25	---	0.04	---	0.12	0.14	---
TOTAL	4.13	5.05	7.70	5.99	85.57	21.20	11.54	1.81	2.72	4.58	4.58	5.51
MEAN	0.13	0.17	0.25	0.19	2.95	0.68	0.38	0.06	0.09	0.15	0.15	0.18
MAX	0.20	0.66	2.1	0.42	52	3.7	4.9	0.16	0.21	0.50	0.21	0.29
MIN	0.10	0.11	0.10	0.13	0.22	0.25	0.07	0.02	0.05	0.03	0.10	0.10
AC-FT	8.2	10	15	12	170	42	23	3.6	5.4	9.1	9.1	11

## SAN DIEGO CREEK BASIN

## 11048553 SAND CANYON CREEK AT IRVINE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.12	0.35	0.77	0.28	2.45	1.43	0.82	0.28	0.18	0.15	0.14	0.14
MAX	0.14	0.58	1.66	0.35	4.07	3.16	1.91	0.64	0.33	0.20	0.16	0.18
(WY)	2003	2003	2003	2003	2003	2003	2003	2003	2003	2002	2001	2004
MIN	0.10	0.17	0.25	0.19	0.32	0.44	0.16	0.06	0.09	0.13	0.12	0.10
(WY)	2002	2004	2004	2004	2002	2002	2002	2004	2004	2003	2003	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	338.36		160.38			
ANNUAL MEAN	0.93		0.44		0.58	
HIGHEST ANNUAL MEAN					1.08 2003	
LOWEST ANNUAL MEAN					0.23 2002	
HIGHEST DAILY MEAN	39	Mar 16	52	Feb 26	52	Feb 26 2004
LOWEST DAILY MEAN	0.07	Sep 7	0.02	May 16	0.02	May 16 2004
ANNUAL SEVEN-DAY MINIMUM	0.09	Sep 5	0.04	May 12	0.04	May 12 2004
MAXIMUM PEAK FLOW			197	Feb 26	280	Mar 16 2003
MAXIMUM PEAK STAGE			5.44	Feb 26	5.94	Mar 16 2003
ANNUAL RUNOFF (AC-FT)	671		318		422	
10 PERCENT EXCEEDS	0.84		0.56		0.71	
50 PERCENT EXCEEDS	0.21		0.16		0.17	
90 PERCENT EXCEEDS	0.11		0.06		0.09	

11048553 SAND CANYON CREEK AT IRVINE, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 2001 to current year.

SEDIMENT DATA: October 2001 to current year.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sediment, sieve diameter, percent <.063mm (70331)	Suspnd. sediment, sieve diameter, percent <.125mm (70332)	Suspnd. sediment, sieve diameter, percent <.25mm (70333)	Suspnd. sediment, sieve diameter, percent <.5 mm (70334)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC									
26...	0930	.52	11.6	88	--	--	--	9	.01
FEB									
03...	1130	1.2	10.9	94	--	--	--	14	.05
18...	1445	2.1	13.0	90	97	99	100	140	.79
22...	1515	1.6	14.0	85	--	--	--	8	.03
23...	1120	2.2	13.5	94	--	--	--	25	.15
26...	1405	9.7	15.0	95	--	--	--	42	1.1
MAR									
02...	1415	1.3	13.5	95	--	--	--	4	.01

## 11048600 BONITA CREEK AT IRVINE, CA

LOCATION.—Lat 33°38'42", long 117°51'37", in San Joaquin Grant, Orange County, Hydrologic Unit 18070204, on right bank, at downstream side of unnamed service road bridge, and 0.45 mi upstream from mouth, at Irvine.

DRAINAGE AREA.—5.39 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July 2001 to current year.

GAGE.—Water-stage recorder, concrete control, and crest-stage gage. Elevation of gage is 30 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. No diversion upstream from station. Slight regulation from small storage reservoir upstream from station. Irrigation return flow can cause low-flow fluctuations in discharge at times.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 610 ft<sup>3</sup>/s, Mar. 16, 2003, gage height, 11.20 ft, from rating curve extended above 2.0 ft<sup>3</sup>/s, on basis of critical-depth computations, maximum gage height, 11.26 ft, Feb. 26, 2004; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 250 ft<sup>3</sup>/s, or maximum, from rating curve extended above 2.0 ft<sup>3</sup>/s, as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0530	490	11.26

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.63	1.5	0.69	0.25	0.84	3.9	5.4	1.0	e0.61	e0.44	0.28	0.41
2	0.56	0.41	1.2	0.80	1.4	8.9	0.66	e0.55	e0.61	e0.42	0.30	0.44
3	0.55	0.51	0.71	0.55	1.7	2.6	e0.60	e0.51	e0.42	e0.42	0.33	0.39
4	0.54	0.76	0.67	0.35	0.69	2.6	e0.65	e0.48	e0.53	e0.45	0.41	0.37
5	0.55	0.52	0.63	0.32	0.74	2.4	e0.60	e0.46	e0.60	e0.46	0.40	0.37
6	0.58	0.56	0.65	0.29	0.79	2.7	e0.46	e0.42	e0.60	e0.44	0.38	0.37
7	0.53	0.67	1.6	0.38	0.92	2.5	e0.60	e0.42	e0.60	e0.43	0.40	0.39
8	0.59	0.75	1.7	0.43	1.1	2.6	0.67	e0.44	e0.53	e0.43	0.42	0.43
9	0.60	0.80	0.77	0.47	1.1	2.6	e0.57	e0.50	e0.50	e0.42	0.47	0.41
10	0.61	0.81	0.83	0.56	1.3	2.8	e0.60	e0.59	0.56	e0.40	0.40	0.46
11	0.65	0.78	0.85	0.59	1.4	2.8	e0.59	e0.51	0.89	e0.38	0.40	0.44
12	0.51	1.5	0.87	0.63	1.6	2.6	0.55	e0.51	0.99	e0.38	0.41	0.42
13	0.41	0.86	0.91	0.71	1.8	2.6	0.59	e0.56	0.82	e0.41	0.42	0.39
14	0.46	0.49	1.0	0.71	2.0	2.9	e0.59	e0.59	0.72	e0.41	0.46	0.40
15	0.49	0.82	0.85	0.64	2.2	2.8	0.54	e0.61	0.39	e0.40	0.41	0.44
16	0.47	0.72	0.70	0.69	2.5	2.6	e0.60	e0.61	0.42	e0.43	0.39	0.42
17	0.58	0.65	0.69	0.68	2.6	2.3	1.2	e0.57	e0.46	e0.45	0.40	0.43
18	0.60	0.70	0.76	0.71	6.1	2.2	e0.59	e0.60	0.40	e0.46	0.42	0.45
19	0.55	0.81	0.79	0.73	2.4	2.1	e0.55	e0.61	0.46	e0.47	0.39	0.40
20	0.53	0.79	0.85	0.62	1.7	1.9	e0.59	e0.61	e0.35	0.46	0.39	0.41
21	0.48	0.88	0.88	0.65	1.7	1.9	e0.41	e0.66	e0.38	0.49	0.41	0.43
22	0.55	0.82	0.99	0.65	7.2	1.7	e0.59	e0.69	e0.42	0.50	0.39	0.39
23	0.55	0.80	1.1	0.72	8.7	1.5	e0.56	e0.64	e0.40	0.48	0.39	0.37
24	0.60	0.87	1.0	0.78	2.3	1.5	e0.60	e0.61	e0.46	0.47	0.39	0.43
25	0.65	0.88	4.5	0.78	7.0	1.3	e0.59	e0.64	e0.45	0.45	0.39	0.48
26	0.47	0.88	0.46	0.82	101	1.2	0.57	e0.65	e0.42	0.47	0.41	0.53
27	0.41	0.99	0.23	0.77	4.3	1.1	0.53	e0.61	e0.43	0.49	0.39	0.57
28	0.40	0.93	0.23	0.88	3.0	1.0	0.74	e0.69	e0.40	0.38	0.42	0.57
29	0.45	0.79	0.21	0.77	2.5	0.94	0.75	e0.64	e0.41	0.28	0.39	0.50
30	0.51	0.68	0.21	0.80	---	0.84	0.76	e0.65	e0.43	0.30	0.39	0.49
31	0.58	---	0.23	0.85	---	0.84	---	e0.62	---	0.31	0.41	---
TOTAL	16.64	23.93	27.76	19.58	172.58	72.22	23.30	18.25	15.66	13.18	12.26	13.00
MEAN	0.54	0.80	0.90	0.63	5.95	2.33	0.78	0.59	0.52	0.43	0.40	0.43
MAX	0.65	1.5	4.5	0.88	101	8.9	5.4	1.0	0.99	0.50	0.47	0.57
MIN	0.40	0.41	0.21	0.25	0.69	0.84	0.41	0.42	0.35	0.28	0.28	0.37
AC-FT	33	47	55	39	342	143	46	36	31	26	24	26

e Estimated.



## 11048600 BONITA CREEK AT IRVINE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.52	1.25	1.97	2.77	6.22	4.60	1.96	0.66	0.47	0.50	0.50	0.67
MAX	0.58	2.10	4.12	7.13	11.1	8.51	4.60	1.02	0.52	0.73	0.87	1.45
(WY)	2003	2003	2003	2003	2003	2003	2003	2003	2004	2003	2003	2003
MIN	0.45	0.80	0.90	0.56	1.65	2.33	0.50	0.36	0.40	0.35	0.36	0.38
(WY)	2002	2004	2004	2002	2002	2004	2002	2002	2002	2001	2002	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	1139.65		428.36			
ANNUAL MEAN	3.12		1.17		1.83	
HIGHEST ANNUAL MEAN					3.51 2003	
LOWEST ANNUAL MEAN					0.82 2002	
HIGHEST DAILY MEAN	64	Mar 15	101	Feb 26	101	Feb 26 2004
LOWEST DAILY MEAN	0.02	Jul 31	0.21	Dec 29	0.00	Nov 12 2002
ANNUAL SEVEN-DAY MINIMUM	0.16	Jul 2	0.26	Dec 26	0.02	Nov 11 2002
MAXIMUM PEAK FLOW			490	Feb 26	610	Mar 16 2003
MAXIMUM PEAK STAGE			11.26	Feb 26	11.26	Feb 26 2004
ANNUAL RUNOFF (AC-FT)	2260		850		1330	
10 PERCENT EXCEEDS	7.1		1.9		4.6	
50 PERCENT EXCEEDS	0.99		0.59		0.60	
90 PERCENT EXCEEDS	0.38		0.39		0.33	

11048600 BONITA CREEK AT IRVINE, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 2001 to current year.

SEDIMENT DATA: October 2001 to current year.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	Temper- ature, water, deg C (00010)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Suspnd. sedi- ment, sieve diametr percent <.125mm (70332)	Suspnd. sedi- ment, sieve diametr percent <.25mm (70333)	Suspnd. sedi- ment, sieve diametr percent <.5 mm (70334)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
DEC									
26...	1050	.50	10.5	91	--	--	--	3	<.01
FEB									
03...	1045	1.0	11.0	94	--	--	--	10	.03
18...	1615	6.6	12.5	94	98	100	--	180	3.2
22...	1620	3.8	15.0	93	98	100	--	63	.65
23...	0920	6.6	13.0	96	97	98	100	107	1.9
26...	1605	20	15.0	98	100	--	--	183	9.9
MAR									
02...	1230	2.9	13.0	98	--	--	--	8	.06

&lt; Actual value is known to be less than value shown.

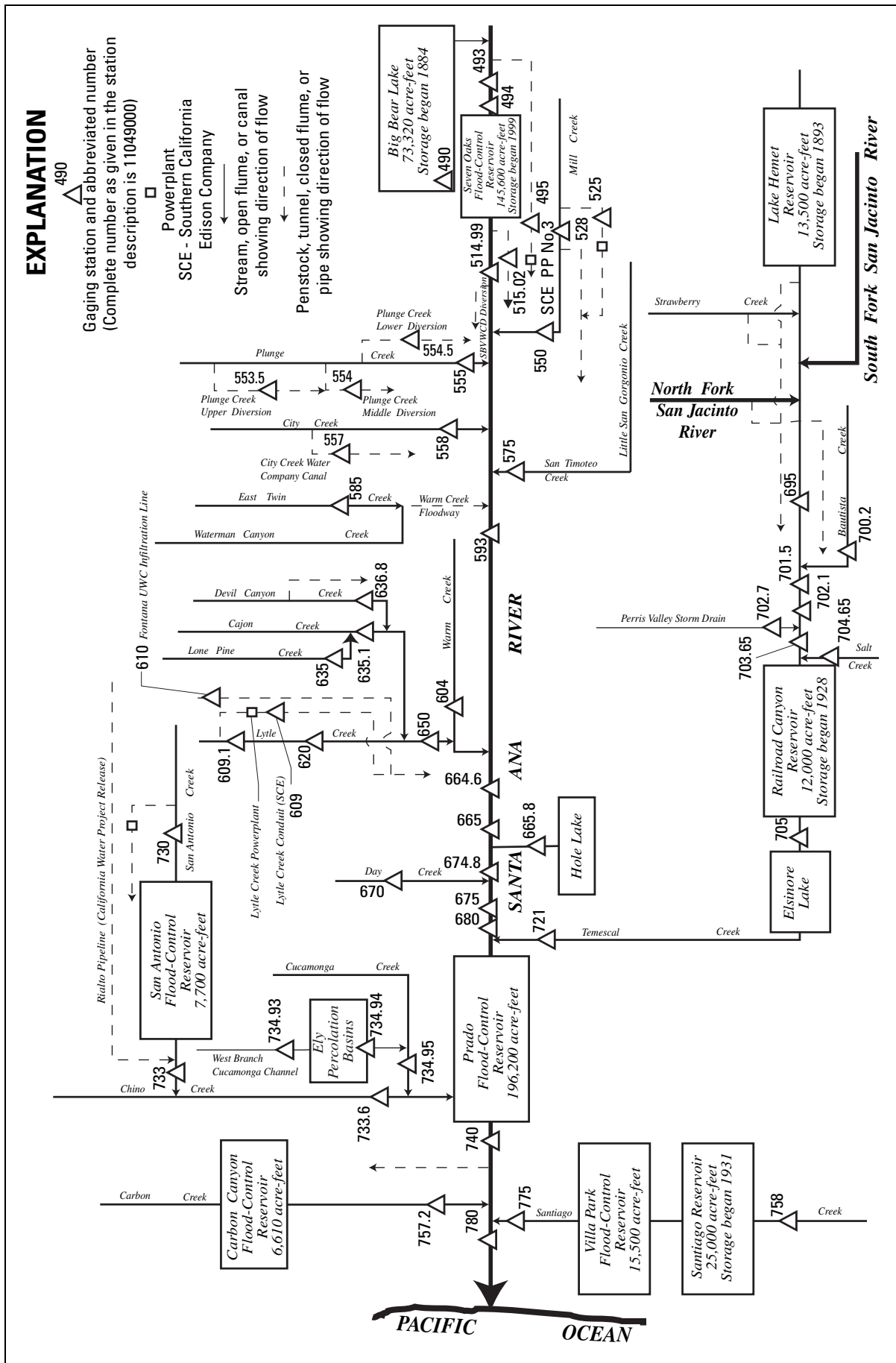


Figure 17. Diversions and storage in Santa Ana River Basin.

## 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 mi<sup>2</sup>, excludes Baldwin Lake drainage included in reports prior to 1983.

PERIOD OF RECORD.—October 1950 to current year. February 1884 to September 1950 in files of Bear Valley Mutual Water Co.

REVISED RECORDS.—WDR CA-83-1: Drainage area. WDR CA-99-1: Spillway (top of dam) elevation.

GAGE.—Nonrecording gage. Datum of gage is 6,670.9 ft above NGVD of 1929 (levels by Bear Valley Mutual Water Co.). Prior to 1912 at old dam 200 ft upstream at same datum; spill occurs at elevation 6,743.2 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; present capacity table put into use August 1977), 73,320 acre-ft at elevation 6,743.2 ft, top of dam. No dead storage. During the year, 592 acre-ft was released. Between November 2003 and March 2004, 860 acre-ft was pumped from the lake for snowmaking. See schematic diagram of [Santa Ana River Basin](#).

COOPERATION.—Record of contents provided by Big Bear Municipal Water District; not reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents unknown, lake spilled in 1969, 1970, 1980, 1983; minimum contents observed, 530 acre-ft, Nov. 24, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum contents unknown, lake spilled in 1916, 1917, 1922, 1923, 1938, 1939; lake dry October, November 1898, August to November 1899, October, November 1904.

EXTREMES FOR CURRENT YEAR.—Maximum contents observed, 36,450 acre-ft, Apr. 5; minimum contents observed, 30,140 acre-ft, Sept. 30.

## MONTHEND CONTENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Contents (acre-ft)	Change in contents (acre-ft)
Sept. 30 .....	35,660	—
Oct. 31 .....	34,720	-940
Nov. 30 .....	34,630	-90
Dec. 31 .....	34,840	+210
CAL YR 2003 .....	—	-2,270
Jan. 31 .....	34,540	-300
Feb. 29 .....	35,190	+650
Mar. 31 .....	36,370	+1,180
Apr. 30 .....	36,000	-370
May 31 .....	34,880	-1,120
June 30 .....	33,770	-1,110
July 31 .....	32,170	-1,600
Aug. 31 .....	31,290	-880
Sept. 30 .....	30,140	-1,150
WTR YR 2004 .....	—	-5,520



## 11049400 SANTA ANA RIVER ABOVE SEVEN OAKS DAM, CA

LOCATION.—Lat 34°08'34", long 117°04'07", in NW 1/4 SW 1/4 sec.26, T.1 N., R.2 W., San Bernardino County, Hydrologic Unit 18070203, at upstream side of bridge on powerhouse access road, 2.6 mi upstream from Seven Oaks Dam, 5.6 mi northeast of Mentone, and 10 mi southwest of town of Big Bear Lake.

DRAINAGE AREA.—200 mi<sup>2</sup>.

PERIOD OF RECORD.—February 2000, October 2001 to current year.

CHEMICAL DATA: February 2000, October 2001 to current year.

SEDIMENT DATA: February 2000, October 2001 to current year.

REMARKS.—Water-quality data collected for the National Water-Quality Assessment (NAWQA) Program.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO <sub>3</sub> (39086)
OCT										
16...	1340	.39	697	8.3	92	8.0	325	28.5	16.0	139
DEC										
11...	1400	3.2	693	9.4	96	8.1	284	6.0	12.0	118
JAN										
15...	1630	1.3	691	8.5	88	8.1	297	12.0	12.5	121
FEB										
12...	1220	.90	698	9.4	94	8.2	301	17.5	11.5	128
MAR										
11...	1330	1.9	693	8.8	97	8.2	273	27.0	15.5	116
APR										
13...	1340	.74	635	8.6	105	8.1	304	20.0	16.0	127
JUN										
18...	1350	.34	697	9.1	110	8.0	309	30.0	20.0	123
AUG										
13...	1320	6.4	696	7.3	86	8.0	338	24.5	18.5	124

Date	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, wat unfltrd, by analysis, mg/L (62855)
OCT										
16...	170	--	6.47	20.0	<.04	.26	<.008	e.003	.009	.29
DEC										
11...	144	--	6.18	19.1	<.04	.27	<.008	<.006	.011	.39
JAN										
15...	147	--	6.24	18.3	<.04	.38	<.008	.010	.010	.46
FEB										
12...	156	--	6.67	19.7	<.04	.22	.037	.007	.016	.38
MAR										
11...	141	--	5.63	14.6	<.04	.63	e.004	e.005	.011	.71
APR										
13...	148	3	5.91	14.9	<.04	.34	<.008	e.004	.009	.40
JUN										
18...	151	--	5.99	16.9	<.04	.20	<.008	.006	.007	.23
AUG										
13...	152	--	7.44	23.8	.15	1.21	.036	.097	.52	4.02

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

## 11049400 SANTA ANA RIVER ABOVE SEVEN OAKS DAM, CA—Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sediment, sieve diameter percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT						
16...SS	1340	.39	16.0	50	<.5	<.01
DEC						
11...SS	1400	3.2	12.0	67	<.5	<.01
JAN						
15...SS	1630	1.3	12.5	86	1	<.01
FEB						
12...SS	1220	.90	11.5	71	1	<.01
MAR						
11...SS	1330	1.9	15.5	75	1	.01
APR						
13...SS	1340	.74	16.0	40	<.5	<.01
JUN						
18...SS	1350	.34	20.0	50	<.5	<.01
AUG						
13...SS	1320	6.4	18.5	92	474	8.2

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfiltered uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
JUN							
18...*	1404	.20	9.2	7.9	293	--	.35
18...*	1408	.29	9.1	7.9	292	--	1.00
18...*	1412	.24	9.1	7.9	292	20.0	1.70
18...*	1415	.25	9.0	7.9	305	--	2.40
18...*	1417	.30	9.0	7.9	307	--	3.10

SS Suspended-sediment data determined from a sample collected and processed according to National Water-Quality Assessment (NAWQA) program protocol.

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

\* Instantaneous discharge at the time of cross-sectional measurements: Jun 18, 0.34 ft<sup>3</sup>/s.

## 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, 0.35 mi downstream from Seven Oaks Dam, 1.6 mi upstream from Mill Creek, 3.2 mi northeast of Mentone, and 16 mi downstream from Big Bear Lake.

DRAINAGE AREA.—210 mi<sup>2</sup>, including area tributary to Baldwin Lake at head of Bear Valley.

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.

CHEMICAL DATA: Water years 1999–2001.

SPECIFIC CONDUCTANCE: Water year 1999.

WATER TEMPERATURE: Water years 1983–89, 1999.

SEDIMENT DATA: Water years 1999–2001.

REVISED RECORDS.—WSP 931: 1940. WSP 1635: 1918, 1920(M), 1922, 1937, 1943(M). WSP 1928: Drainage area. WSP 2128: 1910.

GAGE.—Three water-stage recorders. Main gage on right bank of river (station 11051499), canal gage on powerplant diversion (station 11049500), and since 1970, supplementary gage on left bank of river (station 11051502). Elevation of the main and supplementary gages is 1,950 ft above NGVD 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.—Records good. Flow partly regulated by Big Bear Lake (station 11049000) and, since November 1999, by Seven Oaks Flood-Control Reservoir, capacity, 145,600 acre-ft. The supplementary gage (station 11051502) measures water that is occasionally diverted out of the main channel 250 ft upstream for water distribution. Flow measured by the supplementary gage is included with the river record to maintain equivalence with records prior to 1970. For records of combined discharge of Santa Ana River and Southern California Edison Co.'s Santa Ana River Canal above Powerplant No. 3 (station 11049500), which diverts upstream from station, see station 11051501. Prior to water year 2000, station 11049500 was named "Southern California Edison Co.'s Santa Ana River Canal below Powerplant No. 2". 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.

COOPERATION.—Records for Southern California Edison Co.'s Santa Ana River Canal above Powerplant No. 3 (station 11049500) were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1933.

EXTREMES FOR PERIOD OF RECORD.—River only: Maximum discharge, 52,300 ft<sup>3</sup>/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 ft<sup>3</sup>/s, Mar. 2, 1938; no flow on Feb. 17, 2000.

EXTREMES OUTSIDE PERIOD OF RECORD.—Combined river and canal: Flood of Feb. 23, 1891, 53,700 ft<sup>3</sup>/s, from notes provided by F.C. Finkle, consulting engineer, Los Angeles.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	0.41	2.0	3.8	2.0	2.3	5.2	2.2	25	3.2	3.1	1.4
2	5.4	0.48	2.0	3.1	2.3	2.6	2.8	2.2	19	2.5	2.4	1.4
3	6.5	0.50	2.6	2.5	2.3	2.3	2.8	18	18	2.7	1.4	1.9
4	5.7	0.43	2.6	2.4	2.2	2.2	2.7	27	9.9	2.6	1.0	2.2
5	2.0	0.56	2.1	2.3	2.2	2.3	2.7	26	2.6	2.4	0.97	1.9
6	2.0	0.75	2.1	2.3	2.2	2.2	2.7	27	2.0	2.4	0.96	1.6
7	5.2	0.87	3.2	2.4	2.1	2.2	2.7	26	1.8	2.3	0.83	1.3
8	8.0	1.0	4.4	2.1	2.1	2.2	3.4	26	7.8	2.5	0.69	1.1
9	7.8	1.1	3.8	2.1	2.1	2.2	3.3	26	8.8	2.4	0.58	1.6
10	8.3	1.2	3.9	2.1	2.1	2.1	2.9	28	8.1	1.9	0.54	3.9
11	9.0	1.1	4.8	2.0	2.2	2.1	2.7	28	4.7	1.6	0.52	1.6
12	7.7	1.4	6.5	2.0	2.3	2.2	2.6	28	6.1	1.4	0.51	3.7
13	7.6	3.0	5.0	1.6	2.2	2.2	2.7	28	6.8	1.3	1.6	4.6
14	7.4	4.9	4.2	2.2	2.1	2.2	9.1	28	4.6	1.2	3.4	8.3
15	5.5	2.5	3.3	2.2	2.2	2.3	3.0	28	1.4	1.8	4.4	5.2
16	0.37	5.4	3.1	2.2	2.1	2.3	2.9	28	1.2	1.6	4.8	2.8
17	0.26	3.8	3.4	2.1	2.1	2.3	3.5	28	1.2	1.4	3.6	2.8
18	0.37	2.9	2.9	2.1	2.2	2.3	3.0	27	1.1	1.4	2.4	2.9
19	0.68	1.7	2.3	2.2	2.1	2.3	2.9	27	1.1	1.2	2.1	3.6
20	0.87	1.2	1.8	2.2	2.1	2.3	2.8	27	1.1	1.2	2.0	4.6
21	3.2	1.0	2.3	2.1	2.1	2.4	2.8	27	3.0	1.0	2.1	4.1
22	7.0	0.93	3.2	2.1	2.3	2.4	2.7	26	3.8	0.99	2.2	3.8
23	7.5	1.3	2.7	2.1	2.2	2.4	2.6	26	3.5	0.97	2.4	3.6
24	6.9	2.6	2.4	2.1	2.1	2.4	2.6	26	3.2	0.89	2.6	3.3
25	6.6	2.9	6.0	2.0	2.0	2.4	2.6	26	3.0	1.8	2.4	3.1
26	5.5	2.5	45	2.0	2.6	2.5	2.4	25	2.9	2.9	2.3	2.9
27	4.6	1.8	59	2.0	2.2	2.5	2.2	24	2.9	2.9	2.6	2.9
28	4.4	1.7	59	2.0	2.2	2.5	2.3	26	3.2	3.1	2.4	3.2
29	7.0	2.5	53	2.0	2.3	2.5	2.2	29	3.6	3.3	2.1	4.0
30	4.8	2.1	6.5	2.0	---	2.5	2.2	30	3.7	3.2	1.9	4.8
31	0.27	---	4.4	2.0	---	7.2	---	31	---	3.1	1.6	---
TOTAL	153.72	54.53	309.5	68.3	63.2	76.8	91.0	781.4	165.1	63.15	62.40	94.1
MEAN	4.96	1.82	9.98	2.20	2.18	2.48	3.03	25.2	5.50	2.04	2.01	3.14
MAX	9.0	5.4	59	3.8	2.6	7.2	9.1	31	25	3.3	4.8	8.3
MIN	0.26	0.41	1.8	1.6	2.0	2.1	2.2	2.2	1.1	0.89	0.51	1.1
AC-FT	305	108	614	135	125	152	180	1550	327	125	124	187



11051500 SANTA ANA RIVER NEAR MENTONE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.07	9.24	25.8	42.4	83.2	95.9	64.4	49.6	22.2	11.8	6.49	6.60
MAX	77.8	206	536	646	1052	1405	413	446	278	174	124	134
(WY)	1970	1966	1967	1993	1980	1938	1969	1998	1969	1969	1969	1969
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1934	1934	1949	1936	1961	1951	1959	1959	1959	1934	1934	1933

SUMMARY STATISTICS

WATER YEARS 1915 - 1999

ANNUAL MEAN	33.8
HIGHEST ANNUAL MEAN	283 1969
LOWEST ANNUAL MEAN	0.01 1961
HIGHEST DAILY MEAN	15500 Mar 2 1938
LOWEST DAILY MEAN	0.00 Nov 21 1932
ANNUAL SEVEN-DAY MINIMUM	0.00 Nov 21 1932
MAXIMUM PEAK FLOW	52300 Mar 2 1938
MAXIMUM PEAK STAGE	14.30 Mar 2 1938
ANNUAL RUNOFF (AC-FT)	24500
10 PERCENT EXCEEDS	75
50 PERCENT EXCEEDS	1.9
90 PERCENT EXCEEDS	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

	2000	2001	2002	2003	2004
MEAN	1.51	5.55	5.16	1.96	15.1
MAX	4.96	23.5	9.98	2.82	36.3
(WY)	2004	2003	2004	2001	2000
MIN	0.25	0.14	0.97	1.50	1.35
(WY)	2003	2000	2001	2000	2002

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 2000 - 2004

ANNUAL TOTAL	4112.36	1983.20	
ANNUAL MEAN	11.3	5.42	6.00
HIGHEST ANNUAL MEAN			12.4 2003
LOWEST ANNUAL MEAN			0.86 2002
HIGHEST DAILY MEAN	390 Mar 20	59 Dec 27	390 Mar 20 2003
LOWEST DAILY MEAN	0.23 Sep 13	0.26 Oct 17	0.00 Nov 5 1999
ANNUAL SEVEN-DAY MINIMUM	0.40 Sep 11	0.49 Oct 31	0.00 Nov 5 1999
MAXIMUM PEAK FLOW		73 Mar 31	612 Mar 20 2003
ANNUAL RUNOFF (AC-FT)	8160	3930	4350
10 PERCENT EXCEEDS	21	12	9.3
50 PERCENT EXCEEDS	2.2	2.4	1.4
90 PERCENT EXCEEDS	0.55	1.2	0.23

## SANTA ANA RIVER BASIN

11051501 SANTA ANA RIVER NEAR MENTONE, CA—Continued

SANTA ANA RIVER AND SOUTHERN CALIFORNIA EDISON CO.'S CANAL NEAR MENTONE, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	18	3.9	24	2.3	37	22	40	11	8.0	7.9
2	17	17	17	3.3	21	15	36	21	34	10	9.4	8.1
3	20	18	18	2.6	25	26	36	37	32	9.9	8.4	8.6
4	18	18	19	2.5	22	29	35	46	24	10	8.0	8.8
5	9.6	18	17	9.4	22	37	34	45	16	10	8.0	8.4
6	4.6	18	16	20	23	43	33	46	15	9.7	8.0	8.4
7	5.3	18	15	19	25	43	33	44	16	10	7.8	8.1
8	8.1	18	17	19	24	45	29	45	15	10	7.6	7.9
9	13	18	17	19	24	47	30	45	15	10	7.2	8.5
10	21	17	17	19	23	47	30	47	17	9.4	6.9	7.3
11	22	18	18	19	23	47	30	48	14	9.0	6.8	1.6
12	21	23	20	18	21	46	28	47	12	9.1	6.9	3.7
13	20	24	20	21	21	45	29	47	13	9.0	5.4	4.9
14	19	23	21	25	22	44	34	46	13	8.8	3.5	12
15	18	20	20	24	21	43	29	46	13	9.8	4.5	12
16	13	25	19	25	21	43	29	46	13	9.8	7.8	9.7
17	13	22	19	24	20	43	32	45	13	9.4	10	9.7
18	12	20	20	25	21	43	31	45	13	9.1	9.6	9.6
19	13	20	20	24	23	42	29	44	13	8.7	9.3	10
20	13	19	19	24	22	42	29	45	13	8.9	9.3	11
21	15	19	16	24	16	41	29	45	12	8.5	9.6	11
22	18	17	19	24	7.6	41	29	44	12	8.4	9.8	11
23	20	15	21	23	2.2	40	28	44	11	8.4	10	11
24	19	17	19	24	2.1	41	26	43	11	8.2	10	10
25	19	18	18	24	2.0	40	26	43	10	6.6	9.8	10
26	16	20	45	24	2.6	40	24	42	11	7.6	9.1	9.6
27	15	19	59	26	2.2	38	24	41	11	7.4	9.2	9.6
28	14	17	59	23	2.2	38	24	40	11	8.0	9.2	10
29	18	18	53	24	2.3	36	24	40	12	7.9	8.9	11
30	19	18	6.6	23	---	34	23	38	11	8.7	8.7	12
31	15	---	4.5	23	---	34	---	37	---	8.1	8.4	---
TOTAL	485.6	569	687.1	608.7	487.2	1195.3	890	1314	466	279.4	255.1	271.4
MEAN	15.7	19.0	22.2	19.6	16.8	38.6	29.7	42.4	15.5	9.01	8.23	9.05
MAX	22	25	59	26	25	47	37	48	40	11	10	12
MIN	4.6	15	4.5	2.5	2.0	2.3	23	21	10	6.6	3.5	1.6
AC-FT	963	1130	1360	1210	966	2370	1770	2610	924	554	506	538

## 11051501 SANTA ANA RIVER NEAR MENTONE, CA—Continued

## SANTA ANA RIVER AND SOUTHERN CALIFORNIA EDISON CO.'S CANAL NEAR MENTONE, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	49.0	45.7	58.8	91.7	124	136	117	103	74.4	63.5	56.8	54.2
MAX	122	219	538	1439	1052	1402	413	477	277	175	124	137
(WY)	1984	1966	1967	1916	1980	1938	1969	1998	1969	1922	1969	1969
MIN	10.4	12.5	14.4	19.0	18.3	21.6	20.6	19.2	15.1	9.36	9.91	9.75
(WY)	1991	1991	1991	1991	1991	1965	1961	1961	1989	1990	1990	1990

## SUMMARY STATISTICS

## WATER YEARS 1912 - 1999

ANNUAL MEAN	81.1
HIGHEST ANNUAL MEAN	366 1916
LOWEST ANNUAL MEAN	18.6 1990
HIGHEST DAILY MEAN	16000 Jan 27 1916
LOWEST DAILY MEAN	5.3 Jul 22 1990
ANNUAL SEVEN-DAY MINIMUM	8.1 Jul 19 1990
MAXIMUM PEAK FLOW	52300 Mar 2 1938
ANNUAL RUNOFF (AC-FT)	58730
10 PERCENT EXCEEDS	138
50 PERCENT EXCEEDS	49
90 PERCENT EXCEEDS	24

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

	2000	2003	2003	2000	2003	2003	2003	2004	2003	2003	2000	2000
MEAN	15.0	22.9	22.3	22.2	34.0	50.0	36.4	32.2	17.7	11.7	11.1	12.3
MAX	21.3	38.1	26.0	25.3	49.8	85.6	52.1	42.4	25.2	16.4	15.7	17.6
(WY)	2000	2003	2003	2000	2003	2003	2003	2004	2003	2003	2000	2000
MIN	7.84	13.6	19.4	19.6	16.8	20.1	16.4	15.3	9.43	6.43	5.83	6.80
(WY)	2003	2002	2002	2004	2004	2002	2002	2002	2002	2002	2002	2002

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 2000 - 2004

ANNUAL TOTAL	11526.7	7508.8	
ANNUAL MEAN	31.6	20.5	23.9
HIGHEST ANNUAL MEAN			32.8 2003
LOWEST ANNUAL MEAN			13.8 2002
HIGHEST DAILY MEAN	436 Mar 20	59 Dec 27	436 Mar 20 2003
LOWEST DAILY MEAN	4.5 Dec 31	1.6 Sep 11	0.00 Feb 17 2000
ANNUAL SEVEN-DAY MINIMUM	11 Oct 3	2.2 Feb 23	2.2 Feb 23 2004
MAXIMUM PEAK FLOW		106 Mar 31	660 Mar 20 2003
ANNUAL RUNOFF (AC-FT)	22860	14890	17340
10 PERCENT EXCEEDS	57	43	43
50 PERCENT EXCEEDS	20	18	20
90 PERCENT EXCEEDS	14	7.9	8.4

## 11052500 MILL CREEK POWER CANAL NOS. 2 AND 3 NEAR YUCAIPA, CA

LOCATION.—Lat 34°05'23", long 117°00'49", in NW 1/4 NW 1/4 sec.17, T.1 S., R.1 W., [San Bernardino County](#), Hydrologic Unit 18070203, on penstock, 100 ft downstream from Mill Creek No. 3 forebay, and 4.2 mi northeast of Yucaipa.

PERIOD OF RECORD.—January 1919 to September 1938, October 1947 to September 1989, October 1993 to current year. Monthly discharge only for January 1919 to September 1938 and October 1947 to September 1960. Stand-alone records for this station for October 1973 to September 1986 are available in files of the U.S. Geological Survey.

GAGE.—Acoustic-velocity meter on penstock. Elevation of gage is 4,840 ft above NGVD of 1929, from topographic map. Prior to October 1993, water-stage recorder and Parshall flume below powerplant at terminus of penstock 1.5 mi downstream, at different datum. October 1993 to September 1995, water-stage recorder and Parshall flume at auxiliary gage near Canal No. 3 intake 4.5 mi upstream, at different datum.

REMARKS.—Mill Creek Power Canal No. 3 diverts water from Mill Creek 6 mi upstream from the powerplant. Canal No. 3 also receives up to 1.6 ft<sup>3</sup>/s of additional water, at times, from Crafton Water Company's groundwater well No. 4, located 1 mi downstream of the diversion. Well water would not have been included in flow records from October 1993 to September 1995, when the gage was located near the Canal No. 3 intake. Diversions to Mill Creek Power Canal No. 2, 3 mi upstream from the powerplant, were included with this record until September 1989. Canal No. 2 was damaged during an earthquake in 1992, has not been used since 1992, and has been permanently discontinued. Records for this station, prior to water year 1987, are published as a component of the combined flows of Mill Creek and Mill Creek Power Canal Nos. 1, 2, and 3 (station 11054001). See schematic diagram of [Santa Ana River Basin](#).

COOPERATION.—Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project No. 1934.

EXTREMES FOR PERIOD OF RECORD (Since water year 1994).—Maximum daily discharge, 41 ft<sup>3</sup>/s, May 6, 1995; no flow at times in some years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	9.3	0.04	5.3	0.10	22	18	13	11	11	8.2
2	12	10	9.3	0.04	5.6	4.4	22	18	13	11	11	8.2
3	12	11	9.2	0.05	5.6	8.6	21	17	13	11	11	8.1
4	12	11	9.2	0.05	5.6	8.7	22	18	13	11	11	8.2
5	12	11	9.1	0.04	5.5	8.9	22	18	13	10	11	7.9
6	12	11	9.2	1.4	5.6	8.9	21	17	13	8.5	10	8.2
7	12	11	9.2	5.4	5.6	0.11	21	17	13	10	10	8.0
8	12	11	9.1	5.3	5.6	0.10	20	17	13	11	10	8.1
9	12	11	9.1	5.4	5.6	0.10	20	17	13	10	9.9	8.2
10	12	11	9.1	5.3	5.7	0.09	20	17	13	10	9.2	8.2
11	12	10	9.3	5.3	5.7	0.06	20	17	13	10	9.1	8.1
12	12	1.2	9.3	5.3	5.8	0.05	20	17	13	10	9.3	8.1
13	11	0.09	9.4	5.4	5.8	0.04	19	16	12	10	5.5	8.1
14	11	9.4	9.3	5.3	5.9	0.04	19	16	12	8.1	1.3	8.2
15	12	10	9.2	5.3	5.9	0.14	19	16	12	1.6	1.3	8.1
16	12	10	9.0	5.3	5.9	11	19	16	12	8.0	4.8	8.0
17	12	10	9.0	5.3	5.9	18	20	16	12	14	8.9	8.0
18	11	10	8.9	5.2	6.4	18	20	15	12	14	8.8	8.0
19	11	8.8	8.8	5.3	6.3	19	19	15	12	13	8.7	8.1
20	11	9.9	9.0	5.3	6.6	19	19	15	12	13	8.6	8.3
21	11	9.6	8.9	5.3	7.2	18	19	15	11	13	8.6	8.2
22	11	9.5	8.8	5.3	7.3	6.0	19	15	11	13	8.6	8.3
23	11	9.6	9.5	5.3	7.6	1.7	18	14	11	12	8.6	8.2
24	11	9.5	9.7	5.3	7.3	1.5	18	14	11	12	8.6	8.1
25	11	9.5	3.1	5.3	7.4	1.7	18	14	11	12	8.6	8.0
26	11	9.5	0.06	5.3	0.47	0.86	18	14	11	12	8.5	8.0
27	11	9.4	0.05	5.3	0.09	0.13	18	14	11	12	8.5	7.9
28	10	9.4	0.05	5.3	0.11	0.11	18	14	11	12	8.4	7.7
29	9.8	9.3	0.04	5.3	0.11	1.8	18	14	11	12	7.3	7.9
30	10	9.3	0.03	5.3	---	12	18	14	11	11	6.5	8.2
31	10	---	0.04	5.3	---	21	---	13	---	11	8.3	---
TOTAL	351.8	282.99	223.27	134.32	153.48	190.13	587	488	362	337.2	260.9	242.8
MEAN	11.3	9.43	7.20	4.33	5.29	6.13	19.6	15.7	12.1	10.9	8.42	8.09
MAX	12	11	9.7	5.4	7.6	21	22	18	13	14	11	8.3
MIN	9.8	0.09	0.03	0.04	0.09	0.04	18	13	11	1.6	1.3	7.7
AC-FT	698	561	443	266	304	377	1160	968	718	669	517	482

## 11052500 MILL CREEK POWER CANAL NOS. 2 AND 3 NEAR YUCAIPA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.2	14.2	13.7	13.8	14.3	16.7	19.5	20.0	18.9	16.4	15.2	14.6
MAX	26.8	23.5	23.9	26.6	27.8	30.1	33.3	31.8	28.7	29.2	30.2	27.9
(WY)	1981	1979	1979	1979	1979	1979	1995	1995	1979	1980	1980	1978
MIN	4.25	4.04	0.00	4.08	4.55	5.33	4.50	5.02	3.67	2.74	3.79	3.01
(WY)	2003	2003	2001	2001	2000	2000	2000	2002	2002	1999	2002	1997

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1974 - 2004
ANNUAL TOTAL	4322.30	3613.89	
ANNUAL MEAN	11.8	9.87	16.1
HIGHEST ANNUAL MEAN			26.2 1979
LOWEST ANNUAL MEAN			5.07 2002
HIGHEST DAILY MEAN	22 Apr 17	22 Apr 1	41 May 6 1995
LOWEST DAILY MEAN	0.00 Mar 16	0.03 Dec 30	0.00 Mar 3 1974
ANNUAL SEVEN-DAY MINIMUM	0.13 Feb 12	0.04 Dec 27	0.00 Sep 5 1997
ANNUAL RUNOFF (AC-FT)	8570	7170	11630
10 PERCENT EXCEEDS	21	18	26
50 PERCENT EXCEEDS	12	9.6	16
90 PERCENT EXCEEDS	4.5	1.7	6.0

11052800 MILL CREEK BELOW SOUTHERN CALIFORNIA EDISON CO.'S NO. 3 POWER CANAL DIVERSION DAM, NEAR FOREST FALLS, CA

LOCATION.—Lat 34°05'28", long 116°56'25", in NE 1/4 NW 1/4 sec.13, T.1 S., R.1 W., [San Bernardino County](#), Hydrologic Unit 18070203, 700 ft downstream from Southern California Edison Co.'s No. 3 Power Canal diversion dam, and 0.5 mi northwest of Forest Falls.

PERIOD OF RECORD.—October 2003 to September 2004 (instantaneous values only, based on discharge measurements).

GAGE.—None. Elevation of gage is 4,880 ft above NAVD of 1988, from topographic map.

REMARKS.—No regulation upstream from station. Southern California Edison Co.'s Mill Creek Power Canal No. 3 (station 11052500) diverts water from Mill Creek at diversion dam, approximately 700 ft upstream. Measured flow at this station represents leakage from the diversion dam and any bypass flow that is not captured by the diversion facilities.

COOPERATION.—Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project No. 1934.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge observed, 0.51 ft<sup>3</sup>/s, June 22, 2004; minimum discharge observed, 0.29 ft<sup>3</sup>/s, Aug. 2, 2004.

EXTREMES FOR CURRENT YEAR.—Maximum discharge observed, 0.51 ft<sup>3</sup>/s, June 22; minimum discharge observed, 0.29 ft<sup>3</sup>/s, Aug. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.38	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	0.29	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	0.39	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	0.30
9	---	---	---	---	---	---	---	---	---	---	---	0.39
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	0.36	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	0.35	---	---	---	0.36
15	---	---	---	---	---	---	---	---	0.39	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	0.45	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	0.32	---	---	---	---	---	---	---
20	---	0.33	---	---	---	---	0.42	---	---	---	---	0.42
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	0.30	---	---	---	---	0.51	0.33	---	---
23	---	---	0.34	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	0.43	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	0.36
29	---	---	---	---	---	---	---	---	0.50	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	0.36	---

## REVISION OF RECORDS FOR A DISCONTINUED STATION

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 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1919 to September 1938, October 1947 to September 1986. Monthly figures only for April and May 1923, published in WSP 1315-B. Prior to October 1954, published as "near Craftonville."

REVISED RECORDS.—WDR CA-92-1: (M). WDR-CA-04-1: (M).

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 canal 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.—No regulation above station. Mill Creek power canal Nos. 1, 2, and 3 divert from points 100 ft, 3 mi, and 6 mi above station, respectively.

EXTREMES FOR PERIOD OF RECORD.—Creek only: Maximum discharge, 20,000 ft<sup>3</sup>/s, estimated (revised), Jan. 25, 1969, gage height 16.8 ft, from floodmark; no flow at times in some years.

Combined creek and canals: Maximum discharge, 20,000 ft<sup>3</sup>/s, Jan. 25, 1969; minimum daily, 2.7 ft<sup>3</sup>/s, Feb. 23, 1949.

REVISIONS.—The maximum discharge (creek only) for water year 1976 has been revised to unknown, Sept. 11, 1976, gage height, 10.95 ft.

## 11055000 MILL CREEK NEAR MENTONE, CA

LOCATION.—Lat 34°04'40", long 117°05'54", in SE 1/4 SW 1/4 sec.16, T.1 S., R.2 W., [San Bernardino County](#), Hydrologic Unit 18070203, at Garnet Street Bridge, 1.55 mi upstream from mouth, and 1.5 mi northeast of Mentone.

DRAINAGE AREA.—49.1 mi<sup>2</sup>.

PERIOD OF RECORD.—February 1939 to September 1965, October 1997 to current year. Monthly discharge only for February 1939, published in WSP 1315-B. Instantaneous values only, based on discharge measurements, since October 1997.

GAGE.—None. Elevation of station is 2,010 ft above NGVD of 1929, from topographic map. February 1939 to September 1965, water-stage recorder and broad-crested weir at site 1.2 mi downstream.

REMARKS.—No regulation above station. Mill Creek Power Canals Nos. 1 and 3 divert from points 3.8 mi and 9.8 mi above station, respectively, and a varying portion of the remaining flow is sometimes diverted at a point 0.7 mi upstream for ground-water recharge. Power Canal No. 2, which diverted from a point 6.8 mi upstream from station, was damaged during an earthquake in 1992, has not been used since 1992, and has been permanently discontinued. Pumping of wells along stream above station for irrigation. See schematic diagram of [Santa Ana River Basin](#).

COOPERATION.—Discharge measurements are provided by the San Bernardino Valley Water Conservation District during most years; no measurements were provided during water year 2004. Many observations of no flow were made during the year and provided to the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD (1939–65).—Maximum discharge, 1,500 ft<sup>3</sup>/s, Dec. 23, 1945, gage height, 6.5 ft, site and datum then in use, on basis of slope-area measurement of maximum flow; no flow for parts of each year.

EXTREMES FOR CURRENT YEAR.—No flow observed many times during year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	0.00	0.00	---	0.00	0.00	---	---
2	0.00	---	---	0.00	0.00	0.00	0.00	---	---	---	0.00	---
3	---	---	---	---	0.00	0.00	---	0.00	---	---	0.00	---
4	---	---	0.00	---	0.00	0.00	---	0.00	0.00	---	0.00	---
5	---	---	0.00	0.00	0.00	---	0.00	0.00	---	---	0.00	---
6	---	0.00	---	0.00	0.00	---	---	0.00	---	0.00	0.00	---
7	---	---	---	0.00	---	---	---	0.00	0.00	0.00	---	0.00
8	---	---	0.00	0.00	---	---	---	---	0.00	0.00	---	0.00
9	---	---	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00
10	---	---	---	---	0.00	0.00	---	0.00	0.00	---	0.00	0.00
11	---	---	---	---	0.00	0.00	---	0.00	0.00	---	0.00	---
12	---	---	---	0.00	0.00	0.00	---	0.00	---	0.00	0.00	---
13	---	0.00	---	0.00	0.00	---	---	0.00	---	0.00	---	0.00
14	---	---	---	0.00	---	---	---	0.00	0.00	---	---	0.00
15	---	---	---	0.00	---	---	---	---	0.00	0.00	0.00	0.00
16	---	---	0.00	0.00	---	---	0.00	---	0.00	0.00	0.00	0.00
17	---	---	---	---	0.00	---	---	0.00	0.00	---	0.00	0.00
18	---	0.00	---	---	0.00	0.00	---	0.00	0.00	---	0.00	---
19	---	---	0.00	---	0.00	0.00	---	0.00	---	0.00	0.00	---
20	---	---	---	0.00	0.00	---	---	0.00	---	0.00	0.00	0.00
21	---	---	---	0.00	---	---	---	0.00	0.00	0.00	---	0.00
22	0.00	---	0.00	0.00	---	---	0.00	---	0.00	0.00	---	0.00
23	---	---	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00
24	---	---	---	---	0.00	0.00	---	0.00	0.00	---	0.00	0.00
25	---	---	---	---	0.00	0.00	---	0.00	0.00	---	0.00	---
26	---	---	---	0.00	---	---	0.00	0.00	---	0.00	0.00	---
27	---	---	---	0.00	0.00	---	0.00	0.00	---	0.00	0.00	0.00
28	---	---	---	0.00	---	---	0.00	0.00	0.00	0.00	---	0.00
29	---	---	0.00	0.00	---	0.00	---	---	0.00	0.00	---	0.00
30	---	---	0.00	0.00	---	0.00	0.00	---	0.00	0.00	0.00	0.00
31	---	---	---	---	---	0.00	---	---	---	---	0.00	---



## 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, and 1.8 mi northeast of East Highlands.

DRAINAGE AREA.—16.9 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1919 to current year; combined records of creek and diversions, March 1951 to current year.

REVISED RECORDS.—WSP 1635: 1924, 1926, 1935–36(M), 1943, 1944(M), 1945, 1946(M), 1947, 1950(M). WSP 1715: 1956–58(M). WSP 1928: Drainage area.

GAGE.—Water-stage recorder and concrete control on creek. Since March 1951, water-stage recorder and weir on upper diversion, discontinued Sept. 30, 1991, reactivated July 27, 1993; 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 NGVD of 1929, from topographic map. Prior to Oct. 1, 1969, creek gage at datum 4.00 ft higher. Diversions all at different datums.

REMARKS.—Records good except for estimated daily discharges, which are poor. No regulation upstream from station. Diversion from Alder Creek to Upper Plunge Creek area was active 1904–67. Diversions for irrigation are made at sites 0.5 mi (station 11055450), 1.0 mi (station 11055400), and 2.5 mi (station 11055350) upstream from streamflow station. Water has been diverted upstream from station for irrigation during entire period of record. For combined discharge of Plunge Creek and diversions, see station 11055501. No flow in lower diversion since May 29, 1966. See schematic diagram of Santa Ana River Basin.

EXTREMES FOR PERIOD OF RECORD.—Creek only: Maximum discharge, 5,340 ft<sup>3</sup>/s, Mar. 2, 1938, on basis of slope-area measurement of peak flow, maximum recorded gage height, 7.41 ft, Nov. 29, 1970; no flow at times in some years. Combined creek and diversions: Maximum discharge, 4,770 ft<sup>3</sup>/s, Dec. 6, 1966; no flow Nov. 12, 1964, Sept. 29, 1965, Aug. 4, 1987, several days in November 1988, September 1991, many days in 1992, and several days in September 2003.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s, or maximum, from rating curve extended above 356 ft<sup>3</sup>/s, on basis of slope-conveyance measurement at gage height 7.41 ft:

Date	Time	Creek only		Combined creek and diversions
		Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Discharge (ft <sup>3</sup> /s)
Dec. 25	1830	243	4.31	243
Feb. 26	0745	267	4.38	267

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.12	1.2	1.2	3.0	1.9	7.7	3.3	e1.5	0.92	0.80	0.37	0.32
2	0.12	1.0	1.2	3.4	2.1	20	3.5	e1.5	0.91	0.76	0.42	0.31
3	0.23	1.0	1.2	3.9	5.4	e15	3.4	e1.6	0.97	0.81	0.45	0.37
4	0.35	1.1	1.2	3.0	2.4	e11	3.2	e1.6	0.85	0.79	0.43	0.43
5	0.27	1.1	1.2	2.7	2.1	e8.5	3.1	e1.5	0.77	0.65	0.39	0.35
6	0.23	0.92	1.2	2.7	2.0	e7.6	3.0	e1.4	0.79	0.55	0.36	0.32
7	0.19	0.83	1.3	2.5	e2.0	e6.9	2.9	e1.3	1.0	0.61	0.32	0.32
8	0.18	0.81	1.5	2.6	e2.0	e6.7	2.9	1.2	1.2	0.76	0.31	0.31
9	0.15	0.80	1.3	2.5	e2.0	e6.7	2.8	1.2	1.2	0.75	0.29	0.38
10	0.22	0.83	1.4	2.5	e2.0	e6.5	2.7	1.2	1.2	0.68	0.29	0.40
11	0.26	0.91	1.5	2.3	e1.9	e6.3	2.6	1.3	1.0	0.56	0.31	0.37
12	0.23	2.0	1.6	2.1	e1.9	e6.1	2.5	1.4	0.91	0.40	0.32	0.36
13	0.23	2.2	1.4	2.0	e1.9	e6.0	2.4	1.3	0.87	0.36	e3.5	0.38
14	0.23	1.3	1.4	1.9	e2.1	e5.6	2.4	1.0	0.86	0.33	e1.1	0.54
15	0.24	1.3	1.4	1.9	e2.0	e5.2	2.4	0.97	0.86	0.33	e0.73	0.59
16	0.25	3.7	1.4	1.9	e1.9	e4.9	2.4	1.1	0.89	0.36	e0.55	0.52
17	0.24	1.7	1.4	2.0	e1.9	e4.6	6.9	1.2	0.88	0.34	e0.50	0.47
18	0.26	1.5	1.4	2.0	2.1	e4.4	3.2	1.1	0.83	0.36	e0.48	0.50
19	0.26	1.3	1.3	2.0	2.2	e4.2	e2.8	1.1	0.92	0.34	0.35	0.61
20	0.24	1.2	1.3	2.0	2.6	e4.0	e2.5	1.1	0.92	0.33	0.39	0.74
21	0.23	1.2	1.4	2.0	3.0	e3.9	e2.5	1.2	0.89	0.35	0.43	0.62
22	0.23	1.1	1.4	1.9	6.4	e3.8	e2.2	1.3	0.87	0.36	0.44	0.57
23	0.22	1.2	1.4	1.9	e15	e3.7	e2.1	1.2	0.77	0.38	0.40	0.55
24	0.23	1.3	1.5	1.9	7.0	e3.6	e2.0	1.2	0.69	0.36	0.42	0.47
25	0.20	1.4	40	2.0	5.6	e3.5	e2.0	1.2	0.59	0.30	0.40	0.47
26	0.19	1.4	12	1.9	76	e3.5	e1.8	1.2	0.61	0.29	0.46	0.44
27	0.29	1.3	3.9	1.9	22	e3.4	e1.7	1.1	0.62	0.30	0.48	0.42
28	0.35	1.3	2.7	1.9	12	e3.3	e1.7	1.1	0.72	0.32	0.45	0.47
29	0.57	1.3	2.5	1.9	8.8	e3.3	e1.6	1.3	0.77	0.35	0.41	0.62
30	0.70	1.2	2.5	1.9	---	e3.3	e1.6	1.1	0.81	0.35	0.38	0.88
31	0.82	---	2.7	1.9	---	e3.2	---	0.95	---	0.35	0.34	---
TOTAL	8.53	39.40	98.8	70.0	200.2	186.4	80.1	38.42	26.09	14.58	16.47	14.10
MEAN	0.28	1.31	3.19	2.26	6.90	6.01	2.67	1.24	0.87	0.47	0.53	0.47
MAX	0.82	3.7	40	3.9	76	20	6.9	1.6	1.2	0.81	3.5	0.88
MIN	0.12	0.80	1.2	1.9	1.9	3.2	1.6	0.95	0.59	0.29	0.29	0.31
AC-FT	17	78	196	139	397	370	159	76	52	29	33	28

e Estimated.

## SANTA ANA RIVER BASIN

## 11055500 PLUNGE CREEK NEAR EAST HIGHLANDS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.29	1.98	6.27	12.1	21.2	22.0	12.4	4.12	1.09	0.32	0.17	0.33
MAX	3.47	44.7	106	170	224	176	74.2	51.7	15.1	5.52	4.87	10.9
(WY)	1984	1966	1967	1993	1969	1938	1958	1998	1998	1998	1983	1978
MIN	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1920	1921	1930	1963	1961	1961	1961	1919	1919	1919	1919	1919

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1919 - 2004	
ANNUAL TOTAL	1637.15		793.09			
ANNUAL MEAN	4.49		2.17		6.83	
HIGHEST ANNUAL MEAN					42.5	
LOWEST ANNUAL MEAN					0.05	
HIGHEST DAILY MEAN	101	Mar 16	76	Feb 26	1840	Jan 25 1969
LOWEST DAILY MEAN	0.02	Sep 23	0.12	Oct 1	0.00	May 1 1919
ANNUAL SEVEN-DAY MINIMUM	0.07	Sep 18	0.21	Oct 6	0.00	May 1 1919
MAXIMUM PEAK FLOW			267	Feb 26	5340	Mar 2 1938
MAXIMUM PEAK STAGE			4.38	Feb 26	7.41	Nov 29 1970
ANNUAL RUNOFF (AC-FT)	3250		1570		4950	
10 PERCENT EXCEEDS	10		3.7		13	
50 PERCENT EXCEEDS	1.9		1.2		0.22	
90 PERCENT EXCEEDS	0.15		0.32		0.00	

## 11055501 PLUNGE CREEK NEAR EAST HIGHLANDS, CA—Continued

## PLUNGE CREEK AND DIVERSIONS NEAR EAST HIGHLANDS, CA

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.12	1.2	1.2	3.0	1.9	7.7	3.3	e1.5	0.92	0.80	0.37	0.32
2	0.12	1.0	1.2	3.4	2.1	20	3.5	e1.5	0.91	0.76	0.42	0.31
3	0.23	1.0	1.2	3.9	5.7	e15	3.4	e1.6	0.97	0.81	0.45	0.37
4	0.35	1.1	1.2	3.0	2.6	e11	3.2	e1.6	0.85	0.79	0.43	0.43
5	0.27	1.1	1.2	2.7	2.2	e8.5	3.1	e1.5	0.77	0.65	0.39	0.35
6	0.23	0.92	1.2	2.7	2.0	e7.6	3.0	e1.4	0.79	0.55	0.36	0.32
7	0.19	0.83	1.3	2.5	e2.0	e6.9	2.9	e1.3	1.0	0.61	0.32	0.32
8	0.18	0.81	1.5	2.6	e2.0	e6.7	2.9	1.2	1.2	0.76	0.31	0.31
9	0.15	0.80	1.3	2.5	e2.0	e6.7	2.8	1.2	1.2	0.75	0.29	0.38
10	0.22	0.83	1.4	2.5	e2.0	e6.5	2.7	1.2	1.2	0.68	0.29	0.40
11	0.26	0.91	1.5	2.3	e1.9	e6.3	2.6	1.3	1.0	0.56	0.31	0.37
12	0.23	2.0	1.6	2.1	e1.9	e6.1	2.5	1.4	0.91	0.40	0.32	0.36
13	0.23	2.2	1.4	2.0	e1.9	e6.0	2.4	1.3	0.87	0.36	e3.5	0.38
14	0.23	1.3	1.4	1.9	e2.1	e5.6	2.4	1.0	0.86	0.33	e1.1	0.54
15	0.24	1.3	1.4	1.9	e2.0	e5.2	2.4	0.97	0.86	0.33	e0.73	0.59
16	0.25	3.7	1.4	1.9	e1.9	e4.9	2.4	1.1	0.89	0.36	e0.55	0.52
17	0.24	1.7	1.4	2.0	e1.9	e4.6	6.9	1.2	0.88	0.34	e0.50	0.47
18	0.26	1.5	1.4	2.0	2.1	e4.4	3.2	1.1	0.83	0.36	e0.48	0.50
19	0.26	1.3	1.3	2.0	2.2	e4.2	e2.8	1.1	0.92	0.34	0.35	0.61
20	0.24	1.2	1.3	2.0	2.6	e4.0	e2.5	1.1	0.92	0.33	0.39	0.74
21	0.23	1.2	1.4	2.0	3.0	e3.9	e2.5	1.2	0.89	0.35	0.43	0.62
22	0.23	1.1	1.4	1.9	6.4	e3.8	e2.2	1.3	0.87	0.36	0.44	0.57
23	0.22	1.2	1.4	1.9	e15	e3.7	e2.1	1.2	0.77	0.38	0.40	0.55
24	0.23	1.3	1.5	1.9	7.0	e3.6	e2.0	1.2	0.69	0.36	0.42	0.47
25	0.20	1.4	40	2.0	5.6	e3.5	e2.0	1.2	0.59	0.30	0.40	0.47
26	0.19	1.4	12	1.9	76	e3.5	e1.8	1.2	0.61	0.29	0.46	0.44
27	0.29	1.3	3.9	1.9	22	e3.4	e1.7	1.1	0.62	0.30	0.48	0.42
28	0.35	1.3	2.7	1.9	12	e3.3	e1.7	1.1	0.72	0.32	0.45	0.47
29	0.57	1.3	2.5	1.9	8.8	e3.3	e1.6	1.3	0.77	0.35	0.41	0.62
30	0.70	1.2	2.5	1.9	---	e3.3	e1.6	1.1	0.81	0.35	0.38	0.88
31	0.82	---	2.7	1.9	---	e3.2	---	0.95	---	0.35	0.34	---
TOTAL	8.53	39.40	98.8	70.0	200.8	186.4	80.1	38.42	26.09	14.58	16.47	14.10
MEAN	0.28	1.31	3.19	2.26	6.92	6.01	2.67	1.24	0.87	0.47	0.53	0.47
MAX	0.82	3.7	40	3.9	76	20	6.9	1.6	1.2	0.81	3.5	0.88
MIN	0.12	0.80	1.2	1.9	1.9	3.2	1.6	0.95	0.59	0.29	0.29	0.31
AC-FT	17	78	196	139	398	370	159	76	52	29	33	28

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2004, BY WATER YEAR (WY)

MEAN	1.36	3.43	7.13	16.1	22.3	23.3	13.5	7.17	3.45	1.75	1.24	1.36
MAX	7.23	45.2	106	170	224	126	79.0	52.5	17.1	7.44	7.43	14.1
(WY)	1984	1966	1967	1993	1969	1978	1958	1998	1998	1980	1983	1978
MIN	0.03	0.00	0.77	1.00	1.50	1.42	1.05	0.61	0.19	0.07	0.03	0.01
(WY)	1992	1992	1963	1963	1961	2002	2002	2002	2002	2002	1992	1992

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1951 - 2004

ANNUAL TOTAL	1637.15	793.69										
ANNUAL MEAN	4.49	2.17								8.47		
HIGHEST ANNUAL MEAN										44.4		1969
LOWEST ANNUAL MEAN										0.81		2002
HIGHEST DAILY MEAN	101	Mar 16				76	Feb 26			1840	Jan 25	1969
LOWEST DAILY MEAN	0.02	Sep 23				0.12	Oct 1			0.00	Nov 12	1964
ANNUAL SEVEN-DAY MINIMUM	0.07	Sep 18				0.21	Oct 6			0.00	Nov 15	1988
MAXIMUM PEAK FLOW						267	Feb 26			4770	Dec 6	1966
ANNUAL RUNOFF (AC-FT)	3250					1570				6140		
10 PERCENT EXCEEDS	10					3.7				15		
50 PERCENT EXCEEDS	1.9					1.2				2.2		
90 PERCENT EXCEEDS	0.15					0.32				0.58		

e Estimated.

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1919 to current year; combined records of creek and City Creek Water Co.'s canal, June 1924 to September 1986, October 1988 to current year.

REVISED RECORDS.—WSP 1635: 1920(M), 1923(M), 1937(M), 1939(M), 1946. WSP 1928: Drainage area.

GAGE.—Water-stage recorder on creek; water-stage recorder on canal. Elevation of creek gage is 1,580 ft above NGVD 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.—Records poor. No regulation upstream from station. City Creek Water Co.'s canal (station 11055700) diverted from a site 0.5 mi upstream from station for irrigation throughout period of record until Sept. 30, 1986, and resumed diversion on Mar. 31, 1989. Diversion canal damaged by storms of January 1993, with no flow in canal from Jan. 14, 1993, to Apr. 5, 1995. For combined discharge of City Creek and canal see station 11055801. See schematic diagram of Santa Ana River Basin.

EXTREMES FOR PERIOD OF RECORD.—Creek only: Maximum discharge, 8,000 ft<sup>3</sup>/s, Dec. 25, 2003, gage height unknown, on basis of slope-area measurement of peak flow, at site 0.50 mile downstream, maximum gage height, 11.06 ft, Dec. 25, 2003, from floodmark left by a debris flow near the gage; no flow for many days in some years. The maximum stage for the period of record is not related to the maximum discharge but rather is associated with a debris flow at the gaging station. The stage associated with the maximum discharge is unknown, but is known to have occurred on Dec. 25, 2003. The maximum discharge is based on hydraulic computations that were applied to a possible hyperconcentrated flow event. The peak flow was the result of an intense rain storm that occurred less than two months after a wildfire burned over 90 percent of the drainage basin.

Combined creek and canal: Maximum discharge, 8,000 ft<sup>3</sup>/s, Dec. 25, 2003; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 110 ft<sup>3</sup>/s, or maximum:

Date	Time	Creek only		Combined creek and canal
		Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Discharge (ft <sup>3</sup> /s)
Dec. 25	1620	8,000	unknown	8,000
Feb. 26	0650	372	4.60	374

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.30	0.79	1.5	14	e3.3	12	6.2	2.9	2.0	1.6	1.2	0.84
2	0.31	0.78	1.5	16	e4.4	17	6.4	2.6	2.0	1.6	1.2	0.74
3	0.36	0.83	1.4	18	e7.2	20	5.1	2.7	1.9	1.6	1.3	0.75
4	0.38	0.85	1.4	17	e3.3	20	4.7	2.6	1.9	1.6	1.3	0.74
5	0.37	0.83	1.4	14	e3.2	14	e4.5	2.5	1.8	1.6	1.2	0.76
6	0.37	0.85	1.4	13	e3.2	e12	e4.3	2.5	1.8	1.6	1.2	0.76
7	0.36	0.85	1.4	11	e3.2	e11	e4.3	2.7	1.9	1.5	1.2	0.75
8	0.37	0.86	1.4	9.3	e3.2	e10	4.4	2.9	1.9	1.5	1.2	0.75
9	0.36	0.81	1.4	8.3	e3.1	e8.0	3.9	2.8	1.9	1.5	1.2	0.79
10	0.37	0.85	1.5	6.4	e3.0	e6.8	3.8	2.8	1.9	1.5	1.2	0.76
11	0.36	0.89	1.7	5.4	e3.1	7.2	3.5	2.6	1.9	1.5	1.2	0.75
12	0.36	1.3	1.9	5.1	e3.2	5.7	3.3	2.8	1.8	1.4	1.2	0.75
13	0.36	1.4	1.7	4.1	e3.2	4.9	3.0	e2.7	1.8	1.4	1.5	0.78
14	0.35	1.0	1.7	3.2	e3.1	5.5	2.5	e2.6	1.8	1.4	1.3	0.82
15	0.36	0.97	1.7	3.0	e3.1	5.1	2.4	e2.6	1.8	1.4	1.4	0.82
16	0.38	6.4	1.6	2.9	e3.2	5.1	2.3	e2.5	1.8	1.4	1.4	0.82
17	0.38	2.9	1.6	3.0	e3.1	5.3	7.2	e2.5	1.8	1.4	1.2	0.83
18	0.39	2.2	1.6	2.7	e15	5.5	6.4	e2.4	1.7	1.4	1.4	0.83
19	0.39	2.1	1.6	3.5	e17	5.6	4.2	e2.4	1.7	1.4	e1.3	0.84
20	0.39	2.2	1.6	3.6	e12	5.3	e3.3	e2.4	1.7	1.3	e1.2	0.88
21	0.42	2.2	1.6	3.7	e25	5.1	e3.1	e2.4	1.7	1.3	e1.2	0.85
22	0.42	2.1	1.6	3.6	e38	5.1	e3.0	e2.3	1.7	1.3	e1.0	0.85
23	0.41	2.0	1.6	3.6	e22	4.7	e2.9	e2.3	1.7	1.3	e1.0	0.85
24	0.42	1.8	1.7	3.5	20	5.4	e2.8	e2.3	1.7	1.3	e0.99	0.84
25	0.46	1.8	e552	3.4	21	5.5	e2.8	e2.3	1.7	1.3	e0.98	0.82
26	0.56	1.7	e17	e3.2	e110	5.0	e2.7	e2.2	1.7	1.3	e0.95	0.82
27	0.68	1.6	e16	e3.3	e33	4.8	e2.7	2.2	1.7	1.3	e0.96	0.84
28	0.70	1.6	e15	e3.3	24	4.6	e2.7	2.3	1.7	1.3	0.98	0.89
29	0.70	1.6	e14	e3.4	17	4.6	e2.7	3.0	1.7	1.3	0.92	0.93
30	0.74	1.5	e14	e3.4	---	5.1	2.8	2.2	1.7	1.2	0.89	0.98
31	0.77	---	e13	e3.3	---	4.9	---	2.0	---	1.2	0.87	---
TOTAL	13.55	47.56	678.5	201.2	413.1	240.8	113.9	78.0	53.8	43.7	36.04	24.43
MEAN	0.44	1.59	21.9	6.49	14.2	7.77	3.80	2.52	1.79	1.41	1.16	0.81
MAX	0.77	6.4	552	18	110	20	7.2	3.0	2.0	1.6	1.5	0.98
MIN	0.30	0.78	1.4	2.7	3.0	4.6	2.3	2.0	1.7	1.2	0.87	0.74
AC-FT	27	94	1350	399	819	478	226	155	107	87	71	48

e Estimated.

## 11055800 CITY CREEK NEAR HIGHLAND, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.06	3.35	8.53	16.2	29.9	28.5	17.4	7.38	2.83	1.09	0.60	0.62
MAX	8.48	43.4	89.5	199	451	219	148	52.3	26.1	11.7	9.56	5.70
(WY)	1984	1966	1967	1993	1969	1938	1926	1998	1998	1980	1983	1976
MIN	0.00	0.00	0.00	0.13	0.35	0.18	0.03	0.00	0.00	0.00	0.00	0.00
(WY)	1927	1922	1930	1936	1924	1926	1934	1934	1924	1924	1920	1920

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1920 - 2004	
ANNUAL TOTAL	2479.14		1944.58			
ANNUAL MEAN	6.79		5.31		9.68	
HIGHEST ANNUAL MEAN					75.3 1969	
LOWEST ANNUAL MEAN					0.46 1961	
HIGHEST DAILY MEAN	552	Dec 25	552	Dec 25	3360	Feb 25 1969
LOWEST DAILY MEAN	0.05	Aug 13	0.30	Oct 1	0.00	Jul 18 1920
ANNUAL SEVEN-DAY MINIMUM	0.07	Aug 12	0.35	Oct 1	0.00	Jul 18 1920
MAXIMUM PEAK FLOW			a8000	Dec 25	a8000	Dec 25 2003
MAXIMUM PEAK STAGE			b11.06	Dec 25	b11.06	Dec 25 2003
ANNUAL RUNOFF (AC-FT)	4920		3860		7010	
10 PERCENT EXCEEDS	13		8.1		19	
50 PERCENT EXCEEDS	2.1		1.8		1.4	
90 PERCENT EXCEEDS	0.15		0.75		0.00	

a The peak discharge for the flood of Dec. 25, 2003 is based on hydraulic computations that were applied to a possible hyperconcentrated flow event.

b Maximum stage for the 2004 water year and period of record is not related to the maximum discharge but rather is associated with a debris flow at the gaging station. The stage associated with the maximum discharge is unknown, but is known to have occurred on Dec. 25, 2003. The maximum peak flow is based on a slope-area measurement that was made 0.5 mile downstream from the gaging station.

## 11055801 CITY CREEK NEAR HIGHLAND, CA—Continued

## CITY CREEK AND CITY CREEK WATER CO.'S CANAL NEAR HIGHLAND, CA

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.30	0.79	1.5	14	e3.3	12	6.2	2.9	2.0	1.6	1.2	0.84
2	0.31	0.78	1.5	16	e4.4	17	6.4	2.6	2.0	1.6	1.2	0.74
3	0.36	0.83	1.4	18	e7.2	20	5.1	2.7	1.9	1.6	1.3	0.75
4	0.38	0.85	1.4	17	e3.3	20	4.7	2.6	1.9	1.6	1.3	0.74
5	0.37	0.83	1.4	14	e3.2	14	e4.5	2.5	1.8	1.6	1.2	0.76
6	0.37	0.85	1.4	13	e3.2	e12	e4.3	2.5	1.8	1.6	1.2	0.76
7	0.36	0.85	1.4	11	e3.2	e11	e4.3	2.7	1.9	1.5	1.2	0.75
8	0.37	0.86	1.4	9.3	e3.2	e10	4.4	2.9	1.9	1.5	1.2	0.75
9	0.36	0.81	1.4	8.3	e3.1	e8.0	3.9	2.8	1.9	1.5	1.2	0.79
10	0.37	0.85	1.5	6.4	e3.0	e6.8	3.8	2.8	1.9	1.5	1.2	0.76
11	0.36	0.89	1.7	5.4	e3.1	7.2	3.5	2.6	1.9	1.5	1.2	0.75
12	0.36	1.3	1.9	5.1	e3.2	5.7	3.3	2.8	1.8	1.4	1.2	0.75
13	0.36	1.4	1.7	4.1	e3.2	4.9	3.0	e2.7	1.8	1.4	1.5	0.78
14	0.35	1.0	1.7	3.2	e3.1	5.5	2.5	e2.6	1.8	1.4	1.3	0.82
15	0.36	0.97	1.7	3.0	e3.1	5.1	2.4	e2.6	1.8	1.4	1.4	0.82
16	0.38	6.4	1.6	2.9	e3.2	5.1	2.3	e2.5	1.8	1.4	1.4	0.82
17	0.38	2.9	1.6	3.0	e3.1	5.3	7.2	e2.5	1.8	1.4	1.2	0.83
18	0.39	2.2	1.6	2.7	e15	5.5	6.4	e2.4	1.7	1.4	1.4	0.83
19	0.39	2.1	1.6	3.5	e17	5.6	4.2	e2.4	1.7	1.4	e1.3	0.84
20	0.39	2.2	1.6	3.6	e12	5.3	e3.3	e2.4	1.7	1.3	e1.2	0.88
21	0.42	2.2	1.6	3.7	e25	5.1	e3.1	e2.4	1.7	1.3	e1.2	0.85
22	0.42	2.1	1.6	3.6	e38	5.1	e3.0	e2.3	1.7	1.3	e1.0	0.85
23	0.41	2.0	1.6	3.6	e22	4.7	e2.9	e2.3	1.7	1.3	e1.0	0.85
24	0.42	1.8	1.7	3.5	20	5.4	e2.8	e2.3	1.7	1.3	e0.99	0.84
25	0.46	1.8	e552	3.4	21	5.5	e2.8	e2.3	1.7	1.3	e0.98	0.82
26	0.56	1.7	e17	e3.2	e110	5.0	e2.7	e2.2	1.7	1.3	e0.95	0.82
27	0.68	1.6	e16	e3.3	e33	4.8	e2.7	2.2	1.7	1.3	e0.96	0.84
28	0.70	1.6	e15	e3.3	24	4.6	e2.7	2.3	1.7	1.3	0.98	0.89
29	0.70	1.6	e14	e3.4	17	4.6	e2.7	3.0	1.7	1.3	0.92	0.93
30	0.74	1.5	e14	e3.4	---	5.1	2.8	2.2	1.7	1.2	0.89	0.98
31	0.77	---	e13	e3.3	---	4.9	---	2.0	---	1.2	0.87	---
TOTAL	13.55	47.56	678.5	201.2	413.1	240.8	113.9	78.0	53.8	43.7	36.04	24.43
MEAN	0.44	1.59	21.9	6.49	14.2	7.77	3.80	2.52	1.79	1.41	1.16	0.81
MAX	0.77	6.4	552	18	110	20	7.2	3.0	2.0	1.6	1.5	0.98
MIN	0.30	0.78	1.4	2.7	3.0	4.6	2.3	2.0	1.7	1.2	0.87	0.74
AC-FT	27	94	1350	399	819	478	226	155	107	87	71	48

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.12	4.59	8.93	17.0	30.9	29.6	18.9	9.84	5.26	2.54	1.58	1.52
MAX	10.2	44.1	89.9	199	451	221	148	54.2	26.9	13.3	11.0	7.05
(WY)	1984	1966	1967	1993	1969	1938	1926	1998	1998	1998	1983	1983
MIN	0.13	0.36	0.69	1.96	1.76	2.07	2.05	0.72	0.23	0.09	0.05	0.07
(WY)	1991	1991	1991	2002	2002	2002	2002	1934	2002	2002	1989	1990

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1924 - 2004

ANNUAL TOTAL	2479.14	1944.58		
ANNUAL MEAN	6.79	5.31	11.0	
HIGHEST ANNUAL MEAN			77.8	1969
LOWEST ANNUAL MEAN			1.04	2002
HIGHEST DAILY MEAN	552	Dec 25	3360	Feb 25 1969
LOWEST DAILY MEAN	0.05	Aug 13	0.30	Oct 1 1924
ANNUAL SEVEN-DAY MINIMUM	0.07	Aug 12	0.35	Oct 1 1951
MAXIMUM PEAK FLOW			a8000	Dec 25 2003
ANNUAL RUNOFF (AC-FT)	4920	3860	7940	
10 PERCENT EXCEEDS	13	8.1	19	
50 PERCENT EXCEEDS	2.1	1.8	3.6	
90 PERCENT EXCEEDS	0.15	0.75	0.39	

a The peak discharge for the flood of Dec. 25, 2003 is based on hydraulic computations that were applied to a possible hyperconcentrated flow event.

e Estimated.

REVISION OF RECORDS FOR A DISCONTINUED STATION  
11056500 LITTLE SAN GORGONIO RIVER NEAR BEAUMONT, CA

LOCATION.—Lat 34°01'45", long 116°56'43", in SW 1/4 NW 1/4 sec. 1, T.2 S., R.1 W., [San Bernardino County](#), Hydrologic Unit 18070203, on right bank, at upstream side of bridge on Oak Glen Road, 3.0 mi upstream from Wallace Creek, and 7 mi north of Beaumont.

DRAINAGE AREA.—1.74 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1948 to September 1985.

REVISED RECORDS.—WDR CA-79-1: 1969(M). WDR CA-92-1: (M). WDR CA-04-1: (M).

GAGE.—Water-stage recorder and V-notched concrete control. Elevation of gage is 4,320 ft above NGVD of 1929, from topographic map. Prior to July 20, 1970, at site 62 ft downstream on left bank at same datum. July 30, 1970, to Sept. 15, 1982, concrete control 20 ft downstream at same datum.

REMARKS.—

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (revised), 427 ft<sup>3</sup>/s, Sept. 10, 1976, gage height, 5.30 ft, on basis of slope-area measurement made at peak flow; no flow for several months in most years.

REVISIONS.—The maximum discharge for water year 1984 has been revised to 260 ft<sup>3</sup>/s (estimated), gage height 6.62 ft, July 8, 1984.

## 11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CA

LOCATION.—Lat 34°03'41", long 117°16'00", in NW 1/4 NE 1/4 sec.26, T.1 S., R.4 W., San Bernardino County, Hydrologic Unit 18070203, on left bank, 1,500 ft upstream from Redlands Boulevard Bridge, and 0.6 mi northwest of Loma Linda.

DRAINAGE AREA.—125 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1954 to September 1965, February 1968 to September 1975, April 1979 to current year. Discharge measurements only, October 1997 to September 1998.

WATER TEMPERATURE: Water years 1979–81.

SEDIMENT DATA: Water years 1979–81, 1991–94.

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Elevation of gage is 1,040 ft above NGVD of 1929, from topographic map. Prior to April 1979, water-stage recorder at site 0.45 mi downstream at different datum. April 1979 to Dec. 7, 1997, at site 0.25 mi downstream at different datum.

REMARKS.—Records fair. Since Dec. 7, 1997, channel is a trapezoidal concrete floodway. No regulation upstream from station. Natural flow affected by pumping and return flow from irrigated areas. See schematic diagram of Santa Ana River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 15,000 ft<sup>3</sup>/s, Feb. 25, 1969, gage height, 8.2 ft, from floodmark, from rating curve extended above 2,100 ft<sup>3</sup>/s, on basis of slope-conveyance study of peak flow, at site and datum then in use; no flow for many days most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s, or maximum, from rating curve extended above 79 ft<sup>3</sup>/s, on basis of step-backwater analysis:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2315	500	2.25	Mar. 2	0330	252	1.83
Feb. 26	1015	677	2.48				

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.50	0.27	0.01	0.19	13	2.1	2.0	0.97	1.4	0.66	0.66
2	0.00	0.37	0.27	6.7	5.5	89	16	2.0	0.95	1.2	0.69	0.61
3	0.00	0.32	0.26	0.09	14	13	6.3	1.8	0.92	0.99	1.8	0.97
4	0.00	0.20	0.23	0.00	1.6	5.3	4.2	1.6	0.87	0.89	3.6	1.2
5	0.00	0.10	0.20	0.00	0.28	3.6	3.6	1.5	0.81	0.76	1.7	1.1
6	0.01	0.15	0.18	0.00	0.47	1.4	3.2	1.4	0.82	0.69	1.2	1.1
7	0.02	0.12	0.22	0.00	0.78	1.5	3.0	1.3	0.76	0.63	0.92	1.0
8	0.12	0.13	0.19	0.00	0.96	1.3	2.8	1.3	0.75	0.96	0.72	1.0
9	0.16	0.17	0.18	0.00	1.0	3.9	2.4	1.2	0.72	0.82	0.57	0.96
10	0.08	0.17	0.18	0.00	0.89	2.4	2.1	1.1	0.71	0.93	0.49	1.0
11	0.05	0.15	0.87	0.00	0.95	0.87	2.0	1.1	0.65	0.78	0.31	1.1
12	0.26	11	0.54	0.00	0.83	1.0	1.9	1.0	0.67	1.2	0.28	1.1
13	0.43	0.19	0.43	0.00	0.83	1.7	1.8	0.99	0.60	2.7	0.31	0.97
14	0.10	0.10	0.67	0.00	0.66	1.3	1.6	1.0	0.58	4.5	0.35	0.94
15	0.09	0.15	0.50	0.00	0.79	1.1	1.6	1.0	0.59	1.4	0.43	1.2
16	0.08	3.2	0.27	0.00	0.87	0.84	1.5	1.4	0.58	1.4	0.58	1.4
17	0.10	1.4	0.27	0.00	1.3	0.60	9.5	1.8	0.56	2.5	0.47	1.8
18	0.06	1.6	0.27	0.00	8.0	0.44	10	2.1	0.55	2.5	0.44	2.3
19	0.01	1.4	0.26	0.00	6.8	0.40	7.4	2.4	0.55	2.0	0.49	2.8
20	0.15	1.2	0.26	0.03	11	0.54	6.8	2.4	0.53	1.3	0.41	2.8
21	0.14	1.2	0.28	0.03	17	0.89	5.9	2.9	0.55	0.69	0.34	2.9
22	0.08	0.65	0.27	0.00	43	0.71	4.2	3.0	0.56	0.98	0.27	2.6
23	0.22	0.39	0.28	0.01	76	0.37	3.2	3.6	0.76	1.1	0.27	2.6
24	0.39	0.36	0.28	0.05	6.2	0.20	3.1	3.7	0.83	0.86	0.27	2.5
25	0.42	0.34	33	0.16	3.3	0.29	3.0	3.6	0.96	0.85	0.43	2.5
26	0.38	0.32	28	0.17	188	0.16	2.9	3.5	1.1	1.1	0.73	2.4
27	0.18	0.30	0.19	0.08	53	0.79	2.5	3.2	1.4	1.0	1.1	2.4
28	0.04	0.27	0.05	0.02	3.1	1.2	2.4	2.5	1.5	1.5	2.7	2.3
29	0.00	0.27	0.04	0.00	0.79	0.71	2.2	1.9	1.5	1.5	2.9	2.3
30	0.00	0.27	0.03	0.02	---	0.60	2.0	1.0	1.4	1.2	2.3	2.2
31	0.08	---	0.00	0.13	---	0.51	---	1.0	---	0.68	1.3	---
TOTAL	3.65	26.99	68.94	7.50	448.09	149.62	121.2	60.29	24.70	41.01	29.03	50.71
MEAN	0.12	0.90	2.22	0.24	15.5	4.83	4.04	1.94	0.82	1.32	0.94	1.69
MAX	0.43	11	33	6.7	188	89	16	3.7	1.5	4.5	3.6	2.9
MIN	0.00	0.10	0.00	0.00	0.19	0.16	1.5	0.99	0.53	0.63	0.27	0.61
AC-FT	7.2	54	137	15	889	297	240	120	49	81	58	101



## 11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.81	1.51	2.04	8.63	11.8	6.88	1.76	0.84	0.73	0.64	0.59	0.74
MAX	2.27	11.6	11.6	113	186	53.7	16.8	3.65	2.20	3.65	1.76	3.03
(WY)	1988	1983	1985	1993	1969	1991	1958	1969	1989	1968	1965	1965
MIN	0.00	0.00	0.16	0.08	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1996	1996	1996	1972	1968	1997	1979	1996	1996	1995	1995	1995

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1955 - 2004	
ANNUAL TOTAL	1398.23		1031.73			
ANNUAL MEAN	3.83		2.82		3.06	
HIGHEST ANNUAL MEAN					21.7 1969	
LOWEST ANNUAL MEAN					0.45 2002	
HIGHEST DAILY MEAN	300	Mar 15	188	Feb 26	3500	Feb 25 1969
LOWEST DAILY MEAN	0.00	Apr 6	0.00	Oct 1	0.00	Feb 4 1968
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 6	0.00	Jan 4	0.00	Apr 15 1969
MAXIMUM PEAK FLOW			677	Feb 26	15000	Feb 25 1969
MAXIMUM PEAK STAGE			2.48	Feb 26	8.20	Feb 25 1969
ANNUAL RUNOFF (AC-FT)	2770		2050		2220	
10 PERCENT EXCEEDS	1.6		3.5		2.0	
50 PERCENT EXCEEDS	0.10		0.83		0.55	
90 PERCENT EXCEEDS	0.00		0.04		0.00	

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—December 1919 to current year. Discharge measurements only from Nov. 8, 2002, to Sept. 30, 2003. Prior to October 1952, published as "Strawberry Creek near Arrowhead Springs."

REVISED RECORDS.—WSP 1635: 1924(M), 1927, 1928(M), 1929, 1932(M). WSP 1928: Drainage area.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 1,590 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor through July and good thereafter. No regulation upstream from station. One small diversion dam for domestic use upstream from station. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,000 ft<sup>3</sup>/s, Dec. 25, 2003, gage height, 11.49 ft, from floodmark left by debris flow, on basis of critical-depth measurement of peak flow; no flow for a portion of the day at times in 1929, 1931–35, and May 31, 2002 (during fire suppression activities). The peak discharge for the flood of Dec. 25, 2003 is based on hydraulic computations that were applied to a possible debris or hyperconcentrated flow. It is also likely that the peak stage of 11.49 ft was left by a debris or hyperconcentrated flow event at the gage, that is not associated with the site of the critical-depth survey, 400 ft downstream of the gage. The peak of Dec. 25, 2003, was the result of an intense rain storm less than two months after a wildfire burned over 90 percent of the drainage basin.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 40 ft<sup>3</sup>/s, on basis of critical-depth and slope-area measurements of the maximum peak flow and from rating curve extended above 120 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 8.35 ft:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	e1700	6,000	11.49	Feb. 26	0800	e124	7.35
Feb. 22	1800	e69	4.55				

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.57	e0.85	e1.3	e2.9	1.0	e6.2	e1.7	1.3	0.68	0.72	0.64	0.55
2	e0.57	e0.80	e1.2	e3.6	1.7	e7.0	e1.7	1.2	0.80	0.75	0.60	0.55
3	e0.57	e0.78	e1.3	e4.0	e7.6	e9.1	e1.7	1.1	0.81	0.74	0.62	0.58
4	e0.57	e0.78	e1.2	e2.7	e1.2	e8.8	e1.6	1.0	0.79	0.78	0.62	0.57
5	e0.57	e0.78	e1.2	e2.2	e1.2	e6.1	e1.6	0.95	0.84	0.79	0.64	0.64
6	e0.57	e0.79	e1.1	e2.0	e1.2	e5.0	e1.6	0.94	0.87	0.71	0.59	0.53
7	e0.57	e0.79	e1.1	e1.9	e1.1	e4.5	e1.6	0.92	0.90	0.78	0.59	0.47
8	e0.57	e0.80	e1.0	e1.9	e1.1	e3.4	1.7	1.1	1.1	0.74	0.65	0.44
9	e0.57	e0.80	e1.1	e1.9	e1.1	e3.3	1.7	1.1	1.0	0.73	0.54	0.46
10	e0.57	e0.80	e1.1	e1.8	e1.2	e3.2	1.7	1.0	0.94	0.70	0.52	0.44
11	e0.57	e0.89	e1.1	e1.8	e1.3	e3.0	1.6	1.1	0.86	0.69	0.54	0.43
12	e0.58	e0.90	e1.1	e1.7	e1.3	e2.6	1.6	1.1	0.81	0.62	0.57	0.43
13	e0.60	e0.85	e1.2	e1.7	e1.3	e2.3	1.6	1.1	0.81	0.63	0.84	0.45
14	e0.61	e0.83	e1.2	e1.7	e1.5	e2.3	1.6	0.91	0.73	0.62	0.62	0.62
15	e0.62	e2.8	e1.2	e1.7	e1.5	e2.2	1.6	0.94	0.79	0.81	0.65	0.58
16	e0.64	e1.9	e1.2	e1.7	e1.6	e2.1	1.6	0.93	0.78	0.85	0.64	0.60
17	e0.65	e1.9	e1.3	e1.6	e1.6	e2.1	4.9	0.95	0.77	e0.78	0.60	0.50
18	e0.66	e1.8	e1.3	e1.6	e5.0	e2.0	3.0	0.96	0.73	e0.67	0.66	0.56
19	e0.67	e1.7	e1.3	e1.6	e6.0	e2.0	2.0	0.94	0.79	e0.60	0.67	0.59
20	e0.68	e1.7	e1.3	e1.5	e4.0	e1.9	1.8	0.91	0.78	e0.50	0.67	0.54
21	e0.69	e1.6	e1.3	e1.4	e10	e1.9	1.8	1.0	0.78	e0.45	0.64	0.54
22	e0.71	e1.5	e1.3	e1.3	e26	e1.9	1.7	1.0	0.75	e0.42	0.70	0.52
23	e0.72	e1.5	e1.3	e1.3	e7.0	e1.8	1.5	0.93	0.85	0.46	0.70	0.47
24	e0.73	e1.5	e1.4	e1.6	e6.3	e1.8	1.5	0.97	0.80	0.51	0.76	0.41
25	e0.74	e1.4	e380	1.9	e8.5	e1.8	1.4	0.95	0.83	0.44	0.73	0.50
26	e0.74	e1.4	e8.0	1.7	e49	e1.8	1.4	0.96	0.77	0.44	0.70	0.44
27	e0.75	e1.4	e6.0	1.5	e14	e1.8	1.3	0.82	0.80	0.43	0.65	0.41
28	e0.76	e1.3	e5.2	1.3	e9.5	e1.8	1.2	0.87	0.74	0.48	0.62	0.44
29	e0.77	e1.3	e4.1	1.3	e6.7	e1.8	1.2	1.1	0.74	0.43	0.67	0.45
30	e0.78	e1.3	e3.6	1.2	---	e1.8	1.2	0.97	0.73	0.51	0.58	0.51
31	e0.79	---	e3.2	1.2	---	e1.7	---	0.86	---	0.60	0.56	---
TOTAL	20.16	37.44	439.2	57.2	180.5	99.0	52.1	30.88	24.37	19.38	19.78	15.22
MEAN	0.65	1.25	14.2	1.85	6.22	3.19	1.74	1.00	0.81	0.63	0.64	0.51
MAX	0.79	2.8	380	4.0	49	9.1	4.9	1.3	1.1	0.85	0.84	0.64
MIN	0.57	0.78	1.0	1.2	1.0	1.7	1.2	0.82	0.68	0.42	0.52	0.41
AC-FT	40	74	871	113	358	196	103	61	48	38	39	30

e Estimated.

## 11058500 EAST TWIN CREEK NEAR ARROWHEAD SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.47	2.47	4.86	7.66	12.1	13.2	7.98	4.85	2.85	1.65	1.25	1.14
MAX	11.4	20.3	43.6	95.7	102	101	38.3	30.6	15.9	9.40	11.9	4.94
(WY)	1984	1966	1967	1993	1993	1991	1978	1998	1998	1983	1983	1983
MIN	0.20	0.47	0.51	0.91	1.14	1.16	0.56	0.65	0.56	0.18	0.20	0.20
(WY)	1965	1965	1990	1963	1964	2002	1977	2002	2002	1964	1964	1964

## SUMMARY STATISTICS

## FOR 2004 WATER YEAR

## WATER YEARS 1921 - 2004

ANNUAL TOTAL	995.23		
ANNUAL MEAN	2.72		5.09
HIGHEST ANNUAL MEAN			23.1 1993
LOWEST ANNUAL MEAN			0.85 1961
HIGHEST DAILY MEAN	380	Dec 25	795 Feb 25 1969
LOWEST DAILY MEAN	0.41	Sep 24	0.10 Aug 23 1929
ANNUAL SEVEN-DAY MINIMUM	0.45	Sep 7	0.11 Jul 11 1964
MAXIMUM PEAK FLOW	a6000	Dec 25	a6000 Dec 25 2003
MAXIMUM PEAK STAGE	b11.49	Dec 25	b11.49 Dec 25 2003
ANNUAL RUNOFF (AC-FT)	1970		3690
10 PERCENT EXCEEDS	2.8		9.0
50 PERCENT EXCEEDS	0.99		1.9
90 PERCENT EXCEEDS	0.56		0.51

a The peak discharge for the flood of Dec. 25, 2003 is based on hydraulic computations that were applied to a possible debris or hyperconcentrated flow event.

b The maximum stage for the 2004 water year and period of record is probably not related to the maximum discharge but rather is associated with a debris or hyperconcentrated flow at the gaging station.

## 340436117173001 E STREET PRECIPITATION GAGE, AT SAN BERNARDINO, CA

LOCATION.—Lat 34°04'38", long 117°17'30", in San Bernardino Grant, [San Bernardino County](#), Hydrologic Unit 18070203, in San Bernardino Valley Municipal Water District compound and 0.15 mi east of E Street, in San Bernardino.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—January to September 2004.

INSTRUMENTATION.—Recording tipping-bucket rain gage since January 2004. Elevation of gage is 985 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily rainfall, 1.23 in., Feb. 26, 2004; no rainfall for many days each year.

EXTREMES FOR CURRENT YEAR.—Maximum daily rainfall, 1.23 in., Feb. 26; no rainfall for many days.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	0.00	0.92	0.31	0.00	0.00	0.00	0.00	0.00
2	---	---	---	---	0.54	0.16	0.03	0.00	0.00	0.00	0.00	0.00
3	---	---	---	---	0.07	0.00	0.17	0.00	0.00	0.00	0.00	0.00
4	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
10	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
14	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	---	---	---	---	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
16	---	---	---	---	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
17	---	---	---	---	0.00	0.00	0.38	0.00	e0.00	0.00	0.00	0.00
18	---	---	---	---	0.48	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
19	---	---	---	---	e0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
20	---	---	---	---	e0.28	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
21	---	---	---	---	e0.25	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
22	---	---	---	---	e0.55	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
23	---	---	---	---	e0.30	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
24	---	---	---	---	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
25	---	---	---	---	0.30	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
26	---	---	---	---	1.23	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
27	---	---	---	---	0.04	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
28	---	---	---	---	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
29	---	---	---	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
30	---	---	---	0.00	---	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
31	---	---	---	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	---	---	---	0.00	4.04	1.08	0.89	0.00	0.00	0.00	0.01	0.02
MAX	---	---	---	0.00	1.23	0.92	0.38	0.00	0.00	0.00	0.01	0.02
MIN	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

e Estimated.

## 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, on left bank, 0.4 mi downstream from E Street Bridge, 0.4 mi upstream from Warm Creek, 1.2 mi downstream from San Timoteo Creek, 26 mi downstream from Big Bear Lake, and 2.8 mi south of San Bernardino.

DRAINAGE AREA.—541 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—March 1939 to September 1954, October 1966 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 940 ft above NGVD of 1929, from topographic map. Prior to Nov. 10, 1950, water-stage recorder on right bank 0.4 mi upstream at datum 24.50 ft higher. Nov. 11, 1950, to September 1954, water-stage recorder on both banks 0.4 mi upstream at datum 24.50 ft higher. October 1966 to September 1976, water-stage recorder on right bank 0.4 mi upstream at datum 14.50 ft higher. October 1976 to September 1977, gage was removed for channel construction. October 1977 to Jan. 28, 1981, water-stage recorder on right bank, 0.5 mi upstream at elevation 10 ft higher, from topographic map.

REMARKS.—Records poor. Flow partly regulated by Big Bear Lake (station 11049000) and, since November 1999, by Seven Oaks Flood-Control Reservoir, capacity, 145,600 acre-ft. Natural flow of stream affected by ground-water withdrawals and diversion for domestic use and irrigation upstream from station. Effluent from sewage reclamation plant 1.0 mi upstream caused sustained flow past gage from 1967 to Mar. 21, 1996. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 28,000 ft<sup>3</sup>/s, Feb. 25, 1969, gage height, 11.9 ft, site and datum then in use; no flow for many days many years prior to 1967 and since Mar. 21, 1996.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,000 ft<sup>3</sup>/s, from rating curve extended above 5,930 ft<sup>3</sup>/s, on basis of critical-depth computations, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1830	12,100	6.70	Feb. 26	0800	5,590	5.81
Feb. 3	0015	2,460	5.15	Mar. 2	0415	1,640	4.86
Feb. 20	1915	1,020	4.50	Apr. 1	2000	1,870	4.95
Feb. 22	2330	1,570	4.82				

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	e2.0	0.00	1.1	e0.83	22	81	2.2	0.00	e1.0	e0.00	e0.00
2	0.00	e0.75	0.00	73	43	409	43	0.00	0.49	e0.65	e0.00	e0.00
3	0.00	e0.40	0.00	18	191	60	30	0.00	e0.55	e0.49	e0.00	e0.00
4	0.00	e0.15	0.00	e9.0	e3.0	34	3.7	0.00	1.6	e0.52	e2.2	e0.00
5	0.00	e0.00	0.00	e6.0	e0.33	13	13	0.00	0.47	e0.91	e0.40	e0.00
6	0.00	0.00	0.00	e5.4	0.23	7.7	1.9	0.00	0.21	e1.6	e0.00	e0.00
7	0.00	0.00	0.00	e3.2	1.3	5.8	1.3	0.00	0.29	e1.1	e0.00	e0.00
8	0.00	0.00	0.00	e2.2	1.00	8.8	2.1	0.11	1.4	e0.70	e0.00	e0.00
9	0.00	0.00	0.00	e2.1	1.3	10	1.8	0.00	0.49	e0.45	e0.00	e0.75
10	0.00	0.00	0.25	e2.0	1.5	5.2	1.4	0.00	0.28	e0.40	e0.00	e0.00
11	0.00	0.00	2.8	e1.9	1.3	7.4	1.1	0.00	0.21	e0.35	e0.00	e0.00
12	0.00	99	0.24	e1.9	3.1	8.5	2.9	0.01	0.70	e0.37	e0.00	e0.00
13	0.00	2.9	0.00	e1.8	2.2	5.5	1.3	0.12	0.32	e2.1	e3.0	e0.00
14	0.00	0.00	4.0	e1.3	1.1	3.1	0.36	0.04	0.48	e3.0	e1.0	e0.00
15	0.00	0.00	2.4	e1.0	1.1	3.0	0.47	0.17	1.0	e1.9	e0.00	e0.00
16	0.00	41	1.6	e0.90	1.2	2.4	0.93	0.00	0.43	e0.70	e0.00	e0.00
17	0.00	0.04	2.1	e0.85	1.5	5.6	121	0.00	0.23	e0.40	e0.00	e0.00
18	0.00	0.00	1.4	e0.70	67	1.3	40	0.01	0.00	e0.37	e0.00	e0.00
19	0.00	1.4	2.1	e0.51	38	0.54	11	0.08	0.00	e0.35	e0.00	e0.00
20	0.00	0.00	2.0	e0.47	129	0.92	13	0.14	0.00	e0.90	e0.00	e0.00
21	0.00	0.43	2.0	e0.55	120	2.1	7.6	0.48	0.00	e1.4	e0.00	e0.00
22	0.00	0.00	2.0	e0.61	286	1.4	6.1	0.00	0.00	e0.85	e0.00	e0.00
23	0.00	0.00	2.9	e0.51	332	0.58	4.1	0.32	0.27	e0.60	e0.00	e0.00
24	0.00	0.00	4.9	e1.3	49	0.26	1.9	0.26	0.37	e0.45	e0.00	e0.00
25	0.00	0.00	1030	e1.2	22	1.6	2.0	0.13	1.3	e0.34	e0.00	e0.00
26	0.00	0.00	146	e1.3	1410	1.6	2.7	0.12	2.0	e0.31	e0.00	e0.00
27	0.00	0.00	8.9	e0.47	60	2.2	1.8	0.04	2.1	e0.10	e0.00	e0.00
28	0.00	0.00	4.9	e0.21	5.2	2.3	2.0	0.00	1.3	e0.00	e0.00	e0.00
29	0.00	0.00	7.9	e0.80	2.6	1.5	0.99	0.00	e1.4	e0.00	e0.00	e0.00
30	0.00	0.00	3.9	e0.90	---	1.7	2.4	0.00	e1.4	e0.00	e0.00	e0.00
31	0.00	---	1.4	e2.2	---	2.1	---	0.00	---	e0.00	e0.00	---
TOTAL	0.00	148.07	1233.69	143.38	2775.79	631.10	402.85	4.23	19.29	22.31	6.60	0.75
MEAN	0.00	4.94	39.8	4.63	95.7	20.4	13.4	0.14	0.64	0.72	0.21	0.03
MAX	0.00	99	1030	73	1410	409	121	2.2	2.1	3.0	3.0	0.75
MIN	0.00	0.00	0.00	0.21	0.23	0.26	0.36	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	294	2450	284	5510	1250	799	8.4	38	44	13	1.5

e Estimated.

## 11059300 SANTA ANA RIVER AT E STREET, NEAR SAN BERNARDINO, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1954, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.88	3.47	20.9	23.7	20.6	37.4	27.2	11.3	2.39	.93	.87	.63
MAX	3.35	21.3	117	109	72.2	183	237	145	31.2	9.87	8.37	6.32
(WY)	1942	1945	1946	1943	1945	1943	1941	1941	1941	1940	1940	1939
MIN	.000	.007	.000	1.90	2.41	1.70	1.14	.14	.000	.000	.000	.000
(WY)	1951	1952	1951	1948	1942	1951	1951	1942	1950	1950	1942	1948

## SUMMARY STATISTICS

## WATER YEARS 1939 - 1954

ANNUAL MEAN	12.7
HIGHEST ANNUAL MEAN	56.6 1941
LOWEST ANNUAL MEAN	.78 1951
HIGHEST DAILY MEAN	2350 Jan 23 1943
LOWEST DAILY MEAN	.00 Jun 19 1940
ANNUAL SEVEN-DAY MINIMUM	.00 Sep 10 1940
ANNUAL RUNOFF (AC-FT)	9190
10 PERCENT EXCEEDS	16
50 PERCENT EXCEEDS	1.0
90 PERCENT EXCEEDS	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	33.9	43.3	77.4	158	232	253	132	103	63.9	40.8	36.8	34.6
MAX	117	191	469	1327	2096	1279	742	707	339	162	160	75.0
(WY)	1984	1984	1967	1993	1980	1980	1980	1983	1983	1969	1983	1983
MIN	12.4	13.2	14.8	13.2	11.6	10.6	12.5	9.35	13.0	9.08	9.97	9.93
(WY)	1968	1972	1970	1972	1968	1972	1972	1967	1971	1967	1967	1967

## SUMMARY STATISTICS

## WATER YEARS 1967 - 1995

ANNUAL MEAN	100
HIGHEST ANNUAL MEAN	441 1980
LOWEST ANNUAL MEAN	17.2 1968
HIGHEST DAILY MEAN	14800 Feb 25 1969
LOWEST DAILY MEAN	6.4 Jul 13 1967
ANNUAL SEVEN-DAY MINIMUM	8.1 Sep 16 1967
MAXIMUM PEAK FLOW	28000 Feb 25 1969
MAXIMUM PEAK STAGE	11.90 Feb 25 1969
ANNUAL RUNOFF (AC-FT)	72490
10 PERCENT EXCEEDS	165
50 PERCENT EXCEEDS	35
90 PERCENT EXCEEDS	14

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.87	21.0	23.2	50.6	154	38.7	35.6	49.4	14.1	4.27	8.35	10.1
MAX	38.1	56.2	42.6	230	729	114	190	430	116	20.9	66.1	75.8
(WY)	1996	1997	1998	1997	1998	1998	1998	1998	1998	1999	1998	1998
MIN	0.00	0.67	1.16	0.00	0.82	0.10	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	2003	2001	2001	2003	2002	1997	1997	1996	1996	1996	1996	1996

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1996 - 2004

ANNUAL TOTAL	8629.06	5388.06	
ANNUAL MEAN	23.6	14.7	34.1
HIGHEST ANNUAL MEAN			152 1998
LOWEST ANNUAL MEAN			1.70 2002
HIGHEST DAILY MEAN	1030 Dec 25	1410 Feb 26	5050 Feb 24 1998
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Mar 22 1996
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Mar 22 1996
MAXIMUM PEAK FLOW		12100 Dec 25	21100 Feb 23 1998
MAXIMUM PEAK STAGE		6.70 Dec 25	7.70 Feb 23 1998
ANNUAL RUNOFF (AC-FT)	17120	10690	24720
10 PERCENT EXCEEDS	17	8.1	47
50 PERCENT EXCEEDS	0.00	0.40	0.53
90 PERCENT EXCEEDS	0.00	0.00	0.00

11059300 SANTA ANA RIVER AT E STREET, NEAR SAN BERNARDINO, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1968–72, 1983–86, 1988 to current year.

CHEMICAL ANALYSES: Water years 1969 (partial-record station), 1970–72.

SPECIFIC CONDUCTANCE: Water years 1968–72.

WATER TEMPERATURE: Water years 1968, 1983.

SEDIMENT DATA: Water years 1983–86, 1988 to current year.

PERIOD OF DAILY RECORD.—October 1982 to September 1983.

WATER TEMPERATURE: November 1982 to September 1983.

SUSPENDED-SEDIMENT DISCHARGE: October 1982 to September 1983.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	Temper- ature, water, deg C (00010)	Suspnd. sedi- ment, falldia dst wat percent <.002mm (70337)	Suspnd. sedi- ment, falldia dst wat percent <.004mm (70338)	Suspnd. sedi- ment, falldia dst wat percent <.008mm (70339)	Suspnd. sedi- ment, falldia dst wat percent <.016mm (70340)	Suspnd. sedi- ment, falldia dst wat percent <.031mm (70341)
NOV								
12...	1525	38	16.0	--	--	--	--	--
DEC								
27...	0915	10	5.5	--	--	--	--	--
FEB								
03...	1505	34	14.5	42	60	71	80	83
23...	1010	221	11.0	36	45	55	66	72
26...	0935	2450	11.5	13	19	27	39	52
MAR								
02...	1440	123	13.5	41	52	64	74	79
APR								
08...	1040	2.6	17.5	--	--	--	--	--
JUL								
06...	1700	1.6	30.0	--	--	--	--	--

Date	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Suspnd. sedi- ment, sieve diametr percent <.125mm (70332)	Suspnd. sedi- ment, sieve diametr percent <.25mm (70333)	Suspnd. sedi- ment, sieve diametr percent <.5 mm (70334)	Suspnd. sedi- ment, sieve diametr percent <1 mm (70335)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
NOV							
12...	74	82	95	99	100	906	93
DEC							
27...	98	99	100	--	--	699	19
FEB							
03...	86	90	97	100	--	1560	143
23...	76	83	94	98	100	3720	2220
26...	59	72	90	98	100	22800	151000
MAR							
02...	80	84	93	97	100	4540	1510
APR							
08...	96	97	97	98	100	237	1.7
JUL							
06...	95	97	99	100	--	73	.32

## 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 Highway 215 Bridge, and 2.0 mi southwest of San Bernardino.

DRAINAGE AREA.—11.0 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—February 1964 to September 1972, October 1974 to current year.

REVISED RECORDS.—WDR CA-83-1: Drainage area. WDR CA-92-1: 1978(M), 1980–81(M), 1983–86(M).

GAGE.—Water-stage recorder. Elevation of gage is 960 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1974, at site 0.1 mi upstream at different datum.

REMARKS.—Records fair. Natural channel prior to October 1972; concrete-lined channel since October 1974. Possible diversion during high flows into Warm Creek from Lytle Creek flood detention basin 3.4 mi upstream. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,500 ft<sup>3</sup>/s, Mar. 4, 1978, gage height, 4.88 ft, from rating curve extended above 420 ft<sup>3</sup>/s, on basis of step-backwater analysis, maximum gage height, 6.33 ft, Nov. 22, 1965, site and datum then in use; no flow at times in some years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.64	5.2	0.25	0.03	0.19	30	8.7	0.82	1.5	1.4	2.4	1.6
2	0.60	1.1	0.23	37	39	25	1.1	0.89	0.84	1.4	2.1	1.5
3	0.62	1.6	0.28	0.52	12	0.16	7.1	0.82	0.91	1.4	1.5	1.5
4	0.62	1.00	0.43	0.03	1.1	0.07	0.94	0.83	0.94	1.4	1.3	1.5
5	0.59	0.85	0.27	0.02	0.86	0.06	0.44	0.93	0.86	1.4	1.3	1.6
6	0.59	0.86	0.14	1.2	0.87	0.05	0.62	0.81	0.90	1.4	1.3	1.6
7	0.60	0.84	2.4	1.9	0.84	0.03	0.89	0.76	1.0	1.5	0.94	1.8
8	0.72	0.70	1.4	0.07	0.77	0.03	0.95	0.72	0.99	1.4	1.0	1.8
9	0.60	0.86	0.94	0.06	1.0	0.02	0.88	0.76	1.4	1.4	0.96	1.9
10	0.63	0.98	0.81	0.08	1.1	0.20	0.75	0.82	0.80	1.5	1.9	1.5
11	0.63	0.96	14	0.60	1.2	0.60	0.67	0.91	0.89	1.6	1.8	1.8
12	0.17	30	0.86	1.7	1.2	0.12	1.1	0.94	0.80	1.5	1.5	1.6
13	0.15	0.42	0.23	3.9	1.1	0.03	0.70	0.98	0.82	1.3	3.9	1.5
14	0.35	0.80	1.6	3.2	1.2	0.31	0.76	0.98	0.94	1.5	2.0	1.3
15	0.40	1.3	0.90	3.2	1.1	0.12	0.76	0.93	1.3	1.3	1.8	1.3
16	0.45	13	0.91	2.1	1.1	0.05	1.2	0.97	1.2	1.1	1.0	1.2
17	0.43	0.95	0.95	0.30	1.5	0.08	14	1.2	1.2	1.1	1.2	2.0
18	0.23	0.47	0.97	0.25	25	0.13	0.84	1.1	1.8	1.2	0.98	1.3
19	0.20	0.26	0.80	0.24	0.62	0.15	0.57	1.1	1.4	1.2	0.92	1.3
20	0.21	0.19	0.22	0.45	29	0.21	0.62	0.91	1.2	1.3	0.79	1.4
21	0.79	0.24	0.21	0.38	6.3	0.29	0.42	0.85	1.5	1.4	0.73	1.1
22	0.31	0.17	0.96	0.42	60	0.59	0.62	0.74	1.4	1.4	0.67	1.5
23	0.36	0.35	1.3	0.55	23	0.37	0.80	0.90	1.3	1.3	0.76	1.5
24	0.47	0.41	0.34	0.26	0.17	0.25	0.70	1.6	1.3	1.6	1.1	1.6
25	0.51	0.40	86	0.27	4.4	0.15	0.72	1.1	1.3	1.6	1.2	1.5
26	0.58	0.37	0.47	0.43	157	0.20	0.87	1.3	1.4	1.4	1.1	1.8
27	0.64	0.14	0.01	0.36	4.8	0.12	0.90	1.3	1.4	1.4	1.2	1.5
28	0.64	0.14	0.02	0.33	0.22	0.25	1.2	1.4	1.4	1.6	1.2	1.6
29	0.80	0.14	0.99	0.31	0.09	0.24	0.82	0.85	1.5	2.0	1.2	1.8
30	0.76	0.15	1.2	1.4	---	0.27	0.78	0.88	1.3	1.3	1.3	1.9
31	0.87	---	1.2	0.16	---	0.27	---	0.87	---	2.3	1.5	---
TOTAL	16.16	64.85	121.29	61.72	376.73	60.42	51.42	29.97	35.49	44.6	42.55	46.8
MEAN	0.52	2.16	3.91	1.99	13.0	1.95	1.71	0.97	1.18	1.44	1.37	1.56
MAX	0.87	30	86	37	157	30	14	1.6	1.8	2.3	3.9	2.0
MIN	0.15	0.14	0.01	0.02	0.09	0.02	0.42	0.72	0.80	1.1	0.67	1.1
AC-FT	32	129	241	122	747	120	102	59	70	88	84	93



11060400 WARM CREEK NEAR SAN BERNARDINO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1972, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.11	2.77	4.73	4.68	4.19	1.15	1.82	.033	.000	.000	.003	.006
MAX (WY)	.49 1970	13.1 1966	14.0 1972	32.7 1969	29.6 1969	4.35 1970	11.5 1965	.24 1969	.000 1965	.003 1968	.026 1967	.050 1965
MIN (WY)	.000 1965	.000 1969	.41 1969	.000 1972	.000 1967	.000 1972	.000 1966	.000 1965	.000 1965	.000 1965	.000 1965	.000 1966

SUMMARY STATISTICS

WATER YEARS 1965 - 1972

ANNUAL MEAN	1.61
HIGHEST ANNUAL MEAN	5.16 1969
LOWEST ANNUAL MEAN	.33 1968
HIGHEST DAILY MEAN	488 Jan 25 1969
LOWEST DAILY MEAN	.00 Oct 1 1964
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1 1964
MAXIMUM PEAK FLOW	2200 Jan 25 1969
MAXIMUM PEAK STAGE	6.33 Nov 22 1965
ANNUAL RUNOFF (AC-FT)	1170
10 PERCENT EXCEEDS	.00
50 PERCENT EXCEEDS	.00
90 PERCENT EXCEEDS	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2004, BY WATER YEAR (WY)

MEAN	6.61	8.67	10.5	16.1	34.6	31.0	13.2	10.9	8.10	7.07	6.89	6.37
MAX (WY)	32.4 1984	33.1 1986	41.6 1985	41.2 1993	418 1978	376 1978	44.2 1986	86.7 1980	43.6 1980	34.5 1980	50.6 1983	30.3 1983
MIN (WY)	0.12 1978	0.09 1996	0.40 1980	0.07 2003	0.72 2002	1.95 2004	0.17 1977	0.32 2002	0.07 1978	0.06 2002	0.06 1979	0.02 1979

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1975 - 2004

ANNUAL TOTAL	1738.61	952.00	
ANNUAL MEAN	4.76	2.60	13.2
HIGHEST ANNUAL MEAN			70.5 1978
LOWEST ANNUAL MEAN			1.23 2002
HIGHEST DAILY MEAN	228 Mar 15	157 Feb 26	3400 Mar 1 1978
LOWEST DAILY MEAN	0.01 Dec 27	0.01 Dec 27	0.00 Nov 29 1974
ANNUAL SEVEN-DAY MINIMUM	0.05 Jan 1	0.06 Mar 3	0.00 Dec 7 1974
MAXIMUM PEAK FLOW		705 Dec 25	8500 Mar 4 1978
MAXIMUM PEAK STAGE		2.21 Dec 25	4.88 Mar 4 1978
ANNUAL RUNOFF (AC-FT)	3450	1890	9580
10 PERCENT EXCEEDS	7.0	1.9	26
50 PERCENT EXCEEDS	0.80	0.94	3.3
90 PERCENT EXCEEDS	0.07	0.19	0.10

## 11060400 WARM CREEK NEAR SAN BERNARDINO, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1999 to current year.

CHEMICAL DATA: Water years 1999 to current year.

SPECIFIC CONDUCTANCE: Water years 1999–2001.

WATER TEMPERATURE: Water years 1999–2001.

SEDIMENT DATA: Water years 1999 to current year.

REMARKS.—Water-quality data collected for the National Water-Quality Assessment (NAWQA) Program.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
OCT									
16...	0900	.32	738	10.5	110	8.7	544	18.0	16.0
DEC									
11...	0900	.58	736	11.8	120	9.5	496	14.0	14.5
JAN									
15...	0920	3.2	735	13.2	130	8.8	506	12.5	13.0
FEB									
12...	0830	1.3	741	10.2	93	8.4	574	11.0	10.0
MAR									
11...	0900	.77	735	9.0	98	8.6	554	24.5	17.5
APR									
13...	0850	1.0	736	10.2	112	8.8	583	16.0	18.0
JUN									
18...	0900	2.1	736	11.1	136	8.7	592	20.5	23.5
AUG									
13...	0930	1.6	736	11.3	142	8.8	591	27.0	25.0

Date	Alkalinity, wat flt inc tit field, mg/L as CaCO <sub>3</sub> (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)
OCT									
16...	149	172	10	43.7	43.0	<.04	1.09	.068	<.006
DEC									
11...	118	e105	e18	55.4	34.1	<.04	.40	.016	.076
JAN									
15...	170	193	7	18.1	50.1	<.04	4.09	.010	e.004
FEB									
12...	128	152	2	57.9	65.3	<.04	.37	.068	.150
MAR									
11...	137	156	5	52.3	45.9	<.04	2.04	.027	.040
APR									
13...	122	135	6	71.2	32.1	<.04	.69	.020	.010
JUN									
18...	147	169	5	51.3	53.4	<.04	.92	.062	.012
AUG									
13...	141	155	8	41.7	70.7	<.04	2.02	.051	.013

&lt; Actual value is known to be less than the value shown.

e Estimated.

## 11060400 WARM CREEK NEAR SAN BERNARDINO, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat un- f by anal ysis, mg/L (62855)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)
OCT									
16...	.029	1.47	<.006	<.006	<.006	<.004	<.005	<.007	<.050
DEC									
11...	.134	.85	<.006	<.006	<.006	<.005	<.005	<.007	<.050
JAN									
15...	.014	4.09	<.006	<.006	<.006	<.005	<.005	<.007	<.050
FEB									
12...	.46	1.96	<.006	<.006	<.006	<.005	<.005	<.007	<.050
MAR									
11...	.067	2.14	<.006	<.006	<.006	<.005	<.005	<.007	<.050
APR									
13...	.047	1.06	<.006	<.006	<.006	<.005	<.005	<.007	<.050
JUN									
18...	e.076	1.51	<.006	<.006	<.006	<.005	<.005	<.007	<.050
AUG									
13...	.066	2.47	<.006	e.006	<.006	<.005	<.005	.008	<.050
Date	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	Cyana- zine, water, fltrd, ug/L (04041)	DCPA, water, fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)
OCT									
16...	<.010	<.002	<.041	<.020	<.005	<.006	<.018	.005	<.004
DEC									
11...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.004	<.012
JAN									
15...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012
FEB									
12...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.003	<.012
MAR									
11...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012
APR									
13...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.003	<.012
JUN									
18...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012
AUG									
13...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	e.002	<.012
Date	Diazin- on, water, fltrd, ug/L (39572)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal- flur- alin, water, fltrd 0.7u GF ug/L (82663)	Etho- prop- water, fltrd 0.7u GF ug/L (82672)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)
OCT									
16...	e.004	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005
DEC									
11...	.027	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
JAN									
15...	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
FEB									
12...	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
MAR									
11...	.026	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
APR									
13...	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
JUN									
18...	<.005	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
AUG									
13...	e.002	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024

&lt; Actual value is known to be less than the value shown.

e Estimated.

## 11060400 WARM CREEK NEAR SAN BERNARDINO, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala- thion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)
OCT									
16...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002
DEC									
11...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
JAN									
15...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
FEB									
12...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
MAR									
11...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
APR									
13...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
JUN									
18...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
AUG									
13...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003

Date	Naprop- amide, water, fltrd 0.7u GF ug/L (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)
OCT									
16...	<.007	<.003	<.010	<.004	<.022	<.011	e.01	<.004	<.010
DEC									
11...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025
JAN									
15...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025
FEB									
12...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025
MAR									
11...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025
APR									
13...	<.007	<.003	<.010	<.004	e.009	<.011	.01	<.004	<.025
JUN									
18...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025
AUG									
13...	<.007	<.003	<.010	<.004	<.022	<.011	M	<.007	<.025

Date	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
OCT									
16...	<.011	<.02	.007	<.02	<.034	<.02	<.005	<.002	<.009
DEC									
11...	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009
JAN									
15...	<.011	<.02	.463	<.02	<.034	<.02	<.010	<.002	<.009
FEB									
12...	<.011	<.02	2.78	<.02	<.034	<.02	<.010	<.002	<.009
MAR									
11...	<.011	<.02	4.96	<.02	<.034	<.02	<.010	<.002	<.009
APR									
13...	<.011	<.02	.155	<.02	<.034	<.02	<.010	<.002	<.009
JUN									
18...	<.011	<.02	.559	<.02	<.034	<.02	<.010	<.002	<.009
AUG									
13...	<.011	<.02	.060	e.01	<.034	<.02	<.010	<.002	<.009

&lt; Actual value is known to be less than the value shown.

e Estimated.

M Presence of material verified but not quantified.

## 11060400 WARM CREEK NEAR SAN BERNARDINO, CA—Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sediment, sieve diameter, percent <.063mm (70331)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT						
16...SS	0900	.32	16.0	67	4	<.01
DEC						
11...SS	0900	.58	14.5	54	5	.01
JAN						
15...SS	0920	3.2	13.0	88	2	.02
FEB						
12...SS	0830	1.3	10.0	94	168	.59
MAR						
11...SS	0900	.77	17.5	51	4	.01
APR						
13...SS	0850	1.0	18.0	72	8	.02
JUN						
18...SS	0900	2.1	23.5	82	19	.11
AUG						
13...SS	0930	1.6	25.0	96	19	.08

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking downstrm 1 bank (00009)
JUN							
18...*	0914	.10	11.8	9.0	504	23.5	6.30
18...*	0915	.24	11.3	8.9	540	23.5	4.90
18...*	0916	.33	10.9	8.9	584	24.0	3.50
18...*	0917	.35	10.8	8.8	593	24.0	2.10
18...*	0918	.36	10.7	8.8	593	24.0	.70

SS Suspended-sediment data determined from a sample collected and processed according to National Water-Quality Assessment (NAWQA) Program protocol.

\* Instantaneous discharge at the time of cross-sectional measurements: Jun 18, 2.1 ft<sup>3</sup>/s.





## 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, 25 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 mi<sup>2</sup>.

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.—WSP 1011: 1943. WDR CA-83-1: Drainage area. WDR CA-98-1: 1969(M).

GAGE.—Water-stage recorder and crest-stage gage on creek. Elevation of gage is 2,380 ft above NGVD 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. Water-stage recorder and sharp-crested weir on conduit since June 3, 1949. Water-stage recorder and sharp-crested weir on infiltration line from Oct. 1, 1971, to Sept. 30, 1992; nonrecording flow meter on diversion pipe since Oct. 1, 1992.

REMARKS.—Records poor. No regulation upstream from station. Southern California Edison Co.'s Lytle Creek Conduit (station 11060900) diverts 2.3 mi upstream for power development and Fontana Water Co. collects water from an infiltration line (station 11061000) upstream for irrigation and domestic use. Abrupt changes in the combined discharge of Lytle Creek and diversions occurs at times, due to changes in diversion, the distances between diversion and gage locations, time of travel, and changes in surface and subsurface storage. Spill can occur from Southern California Edison Co.'s Lytle Creek forebay during unusually high flows. Water can be pumped from channel by two pumps at Miller Narrows at a point approximately 2 mi upstream. No water has been pumped out of channel since 1971. For records of combined discharge of Lytle Creek and diversions, see station 11062001. Records pertaining to distribution of flows diverted from Lytle Creek are available in the files of the U.S. Geological Survey. See schematic diagram of Santa Ana River Basin.

COOPERATION.—Records for Lytle Creek Conduit were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1932. Records for Fontana Water Co.'s infiltration line were provided by Fontana Water Co.

EXTREMES FOR PERIOD OF RECORD.—Creek only: Maximum discharge, 25,200 ft<sup>3</sup>/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow, maximum gage height, 15.0 ft, Jan. 25, 1969; no flow at times most years.

Combined creek and diversions: Maximum discharge, 25,200 ft<sup>3</sup>/s, Mar. 2, 1938; minimum daily, 2.4 ft<sup>3</sup>/s, Feb. 2, 7, 2003.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s, or maximum:

Date	Time	Creek only		Combined creek and diversions
		Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Discharge (ft <sup>3</sup> /s)
Dec. 25	e1730	3,600	a14.17	3,600
Feb. 26	0230	1,420	5.70	1,430

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.13	0.36	e10	0.72	37	15	0.00	0.00	0.00	0.60	1.7
2	0.00	0.00	0.35	e16	2.4	44	19	0.00	0.00	0.00	1.2	1.3
3	0.00	0.18	0.35	e12	8.2	31	31	0.00	0.00	0.00	0.81	1.4
4	0.00	0.00	0.29	e11	3.6	32	31	0.00	0.00	0.00	0.82	1.9
5	0.00	0.00	0.23	e11	0.00	29	33	0.00	0.00	0.00	2.1	1.5
6	0.00	0.00	0.25	e10	0.00	27	19	0.00	0.00	0.00	1.0	1.6
7	0.00	0.00	0.39	e10	0.00	27	4.8	0.00	0.00	0.00	1.0	1.7
8	0.00	0.00	e0.40	e9.6	0.00	28	4.0	0.00	0.00	0.00	1.1	1.4
9	0.00	0.00	e0.32	e9.8	0.00	25	6.5	0.00	0.00	0.00	1.7	1.2
10	0.00	0.00	e0.60	e9.6	0.00	24	8.6	0.00	0.00	0.00	1.3	0.89
11	0.00	0.00	0.70	e8.2	0.11	23	9.0	0.00	0.00	0.00	1.4	0.82
12	0.00	0.70	0.62	9.1	0.40	23	6.7	0.00	0.00	0.00	2.0	1.0
13	0.00	5.0	0.56	9.2	0.54	23	4.9	0.00	0.00	0.00	2.3	1.1
14	0.00	2.5	0.59	7.5	0.50	22	3.8	0.00	0.00	0.00	2.2	1.9
15	0.00	3.1	0.62	7.2	0.89	21	2.0	0.00	0.00	0.00	1.9	1.3
16	0.00	2.4	0.69	7.3	1.1	20	1.7	0.00	0.00	0.00	1.9	0.94
17	0.00	1.9	0.66	7.1	1.2	19	2.8	0.00	0.00	0.00	1.5	0.86
18	0.00	1.6	0.62	8.2	3.4	18	2.6	0.00	0.00	0.00	1.4	0.92
19	0.00	1.3	0.57	9.0	4.3	18	1.6	0.00	0.00	0.00	1.5	1.5
20	0.00	0.95	0.57	8.5	1.8	17	1.4	0.00	0.00	0.02	1.5	0.91
21	0.00	0.98	0.55	9.8	8.8	16	2.1	0.00	0.00	0.23	1.5	1.4
22	0.00	1.6	0.62	8.6	69	14	1.3	0.00	0.00	0.43	1.9	1.8
23	0.00	1.1	0.64	4.5	19	12	1.1	0.00	0.00	0.46	2.0	1.3
24	0.00	0.72	0.56	2.8	21	10	0.59	0.00	0.00	0.44	2.4	0.98
25	0.00	0.47	e598	1.9	31	9.1	0.37	0.00	0.00	0.00	1.5	0.80
26	0.00	0.48	e85	1.5	286	12	0.04	0.00	0.00	0.06	1.2	0.64
27	0.00	0.60	e17	1.3	e36	15	0.00	0.00	0.00	0.25	1.5	0.74
28	0.00	0.61	e10	1.1	e30	16	0.00	0.00	0.00	0.32	1.8	0.84
29	0.00	0.51	e8.5	2.0	e29	14	0.00	0.00	0.00	0.51	1.9	0.67
30	0.00	0.39	e9.0	3.1	---	14	0.00	0.00	0.00	0.79	2.0	0.58
31	0.00	---	e11	1.1	---	15	---	0.00	---	0.64	1.9	---
TOTAL	0.00	27.22	750.61	228.0	558.96	655.1	213.90	0.00	0.00	4.15	48.83	35.59
MEAN	0.00	0.91	24.2	7.35	19.3	21.1	7.13	0.00	0.00	0.13	1.58	1.19
MAX	0.00	5.0	598	16	286	44	33	0.00	0.00	0.79	2.4	1.9
MIN	0.00	0.00	0.23	1.1	0.00	9.1	0.00	0.00	0.00	0.00	0.60	0.58
AC-FT	0.00	54	1490	452	1110	1300	424	0.00	0.00	8.2	97	71

e Estimated.

a From floodmark at right side of channel. This mark is not representative of the water surface across the entire channel, due to bypass flow and a complex flow pattern at the time of the peak.



## 11062000 LYTLE CREEK NEAR FONTANA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.03	7.44	9.92	25.2	41.2	50.8	28.4	19.5	14.4	10.6	7.25	5.65
MAX	48.2	275	151	552	633	752	254	189	157	131	80.5	65.7
(WY)	1984	1966	1967	1969	1980	1938	1978	1993	1983	1983	1969	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1919	1919	1919	1919	1919	1919	1919	1919	1919	1919	1919	1919

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1919 - 2004	
ANNUAL TOTAL	2636.65		2522.36			
ANNUAL MEAN	7.22		6.89		18.8	
HIGHEST ANNUAL MEAN					177 1969	
LOWEST ANNUAL MEAN					0.00 1919	
HIGHEST DAILY MEAN	598	Dec 25	598	Dec 25	8950	Mar 2 1938
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1918
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 7	0.00	Oct 1	0.00	Oct 1 1918
MAXIMUM PEAK FLOW			3600 Dec 25		25200 Mar 2 1938	
MAXIMUM PEAK STAGE			a14.17 Dec 25		15.00 Jan 25 1969	
ANNUAL RUNOFF (AC-FT)	5230		5000		13610	
10 PERCENT EXCEEDS	9.9		16		43	
50 PERCENT EXCEEDS	0.00		0.69		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated.

a From floodmark at right side of channel. This mark is not representative of the water surface across the entire channel, due to bypass flow and a complex flow pattern at the time of the peak.

## 11062001 LYTLE CREEK NEAR FONTANA, CA—Continued

LYTLE CREEK, SOUTHERN CALIFORNIA EDISON CO.'S LYTLE CREEK CONDUIT, AND  
FONTANA WATER CO.'S INFILTRATION LINE DIVERSION

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	9.6	12	e17	17	49	24	18	14	12	11	11
2	8.2	9.5	12	e24	17	55	28	18	14	13	11	11
3	8.6	10	12	e20	13	43	39	16	14	12	11	10
4	8.4	11	12	e20	12	47	39	16	14	13	11	12
5	8.3	11	12	e20	17	48	42	16	14	12	12	11
6	8.3	10	12	e20	16	48	31	17	13	12	11	11
7	8.4	11	12	e19	17	47	22	17	14	12	11	11
8	8.3	11	e13	e19	16	48	21	17	14	12	11	11
9	8.3	11	e13	e18	16	46	23	17	14	12	11	10
10	8.8	11	e13	e18	16	45	25	17	14	12	11	10
11	8.3	11	13	e16	17	43	25	17	14	12	12	10
12	8.3	12	13	17	17	44	23	16	13	12	11	10
13	8.4	10	13	17	18	43	22	16	13	11	12	10
14	8.3	6.0	13	15	17	42	26	16	13	11	12	11
15	8.4	6.2	13	14	18	41	24	16	13	11	12	11
16	8.5	5.6	13	14	18	40	23	16	13	11	12	10
17	8.6	8.7	13	14	16	38	25	16	13	12	12	10
18	8.5	13	13	15	18	37	24	16	13	11	12	10
19	8.6	13	13	16	12	38	22	16	13	11	12	11
20	8.5	13	13	15	12	36	22	16	13	11	12	10
21	8.6	13	13	16	14	35	22	16	13	11	12	11
22	8.5	13	13	15	75	33	21	16	13	12	12	11
23	8.4	13	13	18	25	31	22	16	12	12	12	11
24	8.5	13	13	20	28	28	20	16	12	11	12	10
25	8.2	13	e609	19	39	27	19	16	12	11	12	9.9
26	8.4	12	e90	19	296	28	19	16	13	10	11	9.9
27	8.9	13	e24	18	e47	27	19	15	12	11	11	10
28	8.9	13	e17	18	e43	27	19	16	13	11	12	9.0
29	8.9	12	e17	18	e41	23	19	15	13	11	12	11
30	9.2	12	e17	18	---	22	18	15	13	11	12	10
31	9.3	---	e19	17	---	23	---	14	---	11	12	---
TOTAL	263.6	330.6	1098	544	928	1182	728	501	396	357	360	313.8
MEAN	8.50	11.0	35.4	17.5	32.0	38.1	24.3	16.2	13.2	11.5	11.6	10.5
MAX	9.3	13	609	24	296	55	42	18	14	13	12	12
MIN	7.8	5.6	12	14	12	22	18	14	12	10	11	9.0
AC-FT	523	656	2180	1080	1840	2340	1440	994	785	708	714	622

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 2004, BY WATER YEAR (WY)

MEAN	25.9	28.0	30.5	54.5	66.8	76.8	55.3	46.0	38.3	32.4	29.3	26.9
MAX	71.9	285	168	650	653	785	264	225	164	131	107	81.5
(WY)	1984	1966	1967	1916	1980	1938	1978	1978	1978	1969	1969	1978
MIN	6.50	8.05	7.65	9.03	11.7	12.1	10.8	10.9	8.63	6.99	6.32	5.79
(WY)	2003	1991	1951	2003	1899	1965	1899	1961	2002	2002	2002	2002

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1899 - 2004

ANNUAL TOTAL	7069.5	7002.0		
ANNUAL MEAN	19.4	19.1	42.7	
HIGHEST ANNUAL MEAN			194	1969
LOWEST ANNUAL MEAN			10.7	1951
HIGHEST DAILY MEAN	609	Dec 25	8960	Mar 2 1938
LOWEST DAILY MEAN	2.4	Feb 2	2.4	Feb 2 2003
ANNUAL SEVEN-DAY MINIMUM	2.5	Feb 2	8.3	Oct 1 2003
MAXIMUM PEAK FLOW			3600	Dec 25 25200
ANNUAL RUNOFF (AC-FT)	14020	13890	30930	
10 PERCENT EXCEEDS	28	28	77	
50 PERCENT EXCEEDS	12	13	26	
90 PERCENT EXCEEDS	8.0	9.4	12	

e Estimated.

## 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 Burlington Northern & Santa Fe Railway Co. bridge, 150 ft upstream from confluence with Cajon Creek, and 1.1 mi north of Keenbrook.

DRAINAGE AREA.—15.1 mi<sup>2</sup>.

PERIOD OF RECORD.—December 1919 to September 1938, June 1949 to current year.

REVISED RECORDS.—WSP 1635: 1920–22(M), 1924–25(M), 1926–27, 1928(M), 1930, 1931(M), 1932–33, 1934–36(M). WSP 1928: Drainage area.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 2,605.92 ft above NGVD 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.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. See schematic diagram of Santa Ana River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,180 ft<sup>3</sup>/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow, maximum recorded gage height, 10.70 ft, Jan. 25, 1969; no flow Aug. 6–8, Sept. 29, 30, 1965.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 80 ft<sup>3</sup>/s, or maximum, from rating curve extended above 322 ft<sup>3</sup>/s, on basis of slope-conveyance measurement at gage height 9.07 ft:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1745	516	5.27	Feb. 26	0515	230	3.77

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.14	0.20	0.10	0.38	0.38	e0.62	0.28	0.28	0.57	0.38	0.14	e0.35
2	0.14	0.13	0.11	0.38	0.40	e7.9	0.28	e0.26	0.58	0.38	0.14	0.38
3	0.14	0.14	0.14	0.32	0.40	e0.95	0.28	e0.24	0.58	0.43	0.14	0.38
4	0.14	0.14	0.14	0.28	0.38	e0.41	0.28	e0.23	0.58	0.47	e0.14	0.38
5	0.14	0.14	0.16	0.28	0.38	0.38	0.28	e0.22	0.58	0.47	e0.14	0.38
6	0.14	0.13	0.16	0.28	0.38	0.35	0.28	0.20	0.59	0.47	e0.14	0.38
7	0.14	0.15	0.19	0.28	0.38	0.52	0.28	0.20	0.66	0.47	e0.15	0.35
8	0.14	0.20	0.20	0.33	0.38	0.48	0.28	0.36	0.68	0.47	e0.20	0.38
9	0.14	0.16	0.17	0.38	0.38	0.47	0.23	0.38	0.65	0.47	e0.20	0.38
10	0.14	0.14	0.14	0.38	0.38	0.47	0.23	0.38	0.63	0.45	e0.20	0.38
11	0.14	0.16	0.14	0.38	0.38	0.47	0.21	0.38	0.62	0.45	e0.20	0.38
12	0.14	0.41	0.14	0.38	0.38	0.47	0.34	0.38	0.63	0.26	e0.18	0.38
13	0.12	0.20	0.14	0.38	0.38	0.47	0.30	0.38	0.64	0.28	e0.16	0.39
14	0.11	0.19	0.17	0.38	0.38	0.47	0.28	0.38	0.61	0.27	e0.17	0.47
15	0.10	0.14	0.16	0.38	0.38	0.47	0.28	0.38	0.60	0.20	e0.22	0.38
16	0.14	0.14	0.14	0.38	0.38	0.47	0.28	0.42	0.59	0.25	e0.20	0.39
17	0.15	0.15	0.13	0.38	0.38	0.47	0.28	0.48	0.63	0.24	e0.20	0.32
18	0.18	0.12	0.12	0.38	0.38	0.47	0.28	0.56	0.59	0.28	e0.20	0.28
19	0.17	0.10	0.14	0.38	0.38	0.47	0.28	0.47	0.61	0.28	e0.20	0.30
20	0.14	0.14	0.14	0.38	0.38	0.47	0.28	0.49	0.41	0.28	e0.20	0.28
21	0.14	0.14	0.14	0.38	0.38	0.49	0.28	0.47	0.38	0.24	e0.20	0.26
22	0.14	0.14	0.14	0.38	16	0.38	0.28	0.47	0.38	0.24	e0.27	0.25
23	0.14	0.10	0.14	0.38	e2.4	0.38	0.28	0.47	0.39	0.20	e0.28	0.26
24	0.14	0.10	0.14	0.38	e0.56	0.38	0.28	0.55	0.47	0.25	e0.28	0.25
25	0.14	0.10	59	0.38	e0.42	0.38	0.28	0.47	0.47	0.24	e0.28	0.25
26	0.18	0.08	e3.4	0.38	e48	0.30	0.28	0.47	0.47	0.20	e0.28	0.23
27	0.12	0.09	e0.29	0.38	e1.4	0.28	0.28	0.47	0.47	0.19	e0.28	0.22
28	0.14	0.11	0.25	0.38	e0.68	0.27	0.28	0.47	0.47	0.20	e0.28	0.22
29	0.18	0.11	0.21	0.38	e0.52	0.28	0.28	0.47	0.49	0.20	e0.30	0.20
30	0.17	0.11	0.20	0.38	---	0.27	0.28	0.47	0.40	0.18	e0.33	0.19
31	0.15	---	0.28	0.38	---	0.23	---	0.54	---	0.14	e0.38	---
TOTAL	4.43	4.36	67.12	11.27	78.00	20.89	8.31	12.39	16.42	9.53	6.68	9.64
MEAN	0.14	0.15	2.17	0.36	2.69	0.67	0.28	0.40	0.55	0.31	0.22	0.32
MAX	0.18	0.41	59	0.38	48	7.9	0.34	0.56	0.68	0.47	0.38	0.47
MIN	0.10	0.08	0.10	0.28	0.38	0.23	0.21	0.20	0.38	0.14	0.14	0.19
AC-FT	8.8	8.6	133	22	155	41	16	25	33	19	13	19

e Estimated.

## SANTA ANA RIVER BASIN

## 11063500 LONE PINE CREEK NEAR KEENBROOK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.95	1.14	1.83	2.23	4.04	4.34	1.97	1.59	1.29	1.07	1.03	1.00
MAX	5.35	6.51	15.0	24.1	40.6	98.1	11.0	8.91	7.41	5.95	6.61	6.09
(WY)	1984	1966	1923	1969	1969	1938	1980	1980	1980	1993	1993	1993
MIN	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09
(WY)	1991	1991	1991	1991	1964	1964	1961	1928	1928	1928	1965	1965

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1920 - 2004	
ANNUAL TOTAL	387.48		249.04			
ANNUAL MEAN	1.06		0.68		1.88	
HIGHEST ANNUAL MEAN					11.4	
LOWEST ANNUAL MEAN					0.11	
HIGHEST DAILY MEAN	95	Feb 12	59	Dec 25	1480	Mar 2 1938
LOWEST DAILY MEAN	0.08	Nov 26	0.08	Nov 26	0.00	Aug 6 1965
ANNUAL SEVEN-DAY MINIMUM	0.10	Nov 23	0.10	Nov 23	0.06	Aug 2 1965
MAXIMUM PEAK FLOW			516	Dec 25	6180	Mar 2 1938
MAXIMUM PEAK STAGE			5.27	Dec 25	10.70	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	769		494		1360	
10 PERCENT EXCEEDS	0.68		0.49		4.0	
50 PERCENT EXCEEDS	0.20		0.28		0.60	
90 PERCENT EXCEEDS	0.13		0.14		0.10	

## 11063510 CAJON CREEK BELOW LONE PINE CREEK, NEAR KEENBROOK, CA

LOCATION.—Lat 34°15'48", long 117°27'58", in NW 1/4 NW 1/4 sec.13, T.2 N., R.6 W., San Bernardino County, Hydrologic Unit 18070203, on left bank, 0.25 mi downstream from Lone Pine Creek, and 0.95 mi north of Keenbrook.

DRAINAGE AREA.—56.5 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1971 to September 1977, October 1983 to current year.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 2,600 ft above NGVD of 1929, from topographic map. Oct. 1, 1971, to Sept. 30, 1977, at site 0.25 mi upstream at abandoned diversion dam at different datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Concrete control installed Oct. 1, 1987. No regulation or diversion upstream from station. See schematic diagram of Santa Ana River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,700 ft<sup>3</sup>/s, Feb. 8, 1993, gage height, 8.48 ft, from rating curve extended above 180 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 8.48 ft; minimum daily, 1.6 ft<sup>3</sup>/s, Aug. 23–25, 28, 29, 2004.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 250 ft<sup>3</sup>/s, or maximum, from rating curve extended above 373 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 8.48 ft:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1730	2,400	7.16	Feb. 26	0530	766	6.02

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.6	2.8	e4.8	e4.0	10	e6.5	e4.2	e3.8	e2.4	2.2	2.3
2	2.8	2.6	2.8	e5.7	e5.5	35	e6.1	e4.3	e3.9	e2.4	2.2	2.3
3	2.9	2.6	2.8	e5.2	e7.0	e17	e5.8	e4.2	e3.8	e2.4	2.2	2.2
4	2.8	2.5	2.8	e5.0	e4.5	e14	e5.5	e4.3	e3.7	e2.4	2.3	2.2
5	2.7	2.5	2.8	e4.8	e4.4	e12	e5.9	e4.3	e3.5	e2.4	2.4	2.2
6	2.7	2.4	3.0	e4.7	e4.5	e11	e5.9	e4.2	e3.5	2.4	2.5	2.3
7	2.6	2.4	3.3	e4.5	e4.4	e11	e5.7	e4.2	e3.4	2.4	2.3	2.3
8	2.6	2.4	2.9	e4.5	e4.3	e10	e5.6	e4.1	e3.4	2.4	e2.5	2.2
9	2.6	2.4	2.8	e4.4	e4.4	e9.9	e5.4	e4.1	e3.3	2.6	e2.1	2.2
10	2.7	2.5	3.1	e4.3	e4.5	e9.2	e5.2	e4.1	e3.3	2.4	1.8	2.2
11	2.6	2.5	3.3	e4.2	e4.3	e8.9	e5.7	e4.1	e3.3	e2.4	2.0	2.2
12	2.4	3.3	3.1	e4.2	e4.4	e8.7	e5.5	e4.2	e3.2	e2.3	2.0	2.0
13	2.3	3.2	3.0	e4.2	e4.4	e7.8	e5.4	e4.2	e3.1	e2.2	2.1	2.1
14	2.3	2.8	2.8	e4.0	e4.5	e7.6	e5.2	e4.1	e3.0	2.0	2.1	2.2
15	2.3	2.8	2.8	e4.1	e4.5	7.3	e5.0	e4.2	e2.8	1.9	1.9	2.3
16	2.3	2.7	2.8	e4.1	e4.4	6.7	e5.0	e4.3	e2.7	1.9	1.8	2.2
17	2.3	2.7	2.8	e4.0	e4.4	7.9	e5.0	e4.1	e2.7	2.0	1.8	2.2
18	2.3	2.7	2.8	e4.1	e5.9	7.7	e5.1	e4.1	e2.6	2.1	1.8	2.2
19	2.3	2.6	2.8	e4.0	e5.5	7.9	e5.0	e4.1	e2.5	2.0	1.9	2.1
20	2.4	2.7	2.8	e4.0	e5.0	7.4	e5.0	e4.0	e2.5	2.0	1.9	2.1
21	2.4	2.8	2.9	e3.9	e6.7	6.1	e4.8	e4.0	e2.5	2.0	1.8	2.1
22	2.5	2.8	2.8	e3.9	92	5.7	e4.7	e3.9	e2.5	2.2	1.7	2.0
23	2.5	2.8	2.9	e4.0	23	5.8	e4.6	e3.9	e2.5	2.2	1.6	2.0
24	2.5	2.8	3.3	e4.0	13	7.2	e4.4	e3.8	e2.4	2.2	1.6	2.0
25	2.5	2.8	208	e4.5	12	7.8	e4.4	e3.8	e2.4	2.0	1.6	2.0
26	2.5	2.8	5.2	e4.2	179	7.9	e4.4	e3.9	e2.4	1.9	1.8	2.0
27	2.5	2.6	e5.1	e4.1	26	7.1	e4.3	e3.9	e2.4	2.1	1.8	2.0
28	2.3	2.7	e5.0	e4.3	15	6.8	e4.2	e3.8	e2.5	2.1	1.6	2.1
29	2.3	2.8	e5.0	e4.1	12	6.9	e4.2	e3.8	e2.5	2.1	1.6	2.2
30	2.4	2.8	e4.9	e4.0	---	6.4	e4.2	e3.9	e2.4	2.2	1.7	2.2
31	2.4	---	e4.8	e4.0	---	6.0	---	e3.9	---	2.1	1.9	---
TOTAL	77.4	80.6	308.0	133.8	473.5	290.7	153.7	126.0	88.5	68.1	60.5	64.6
MEAN	2.50	2.69	9.94	4.32	16.3	9.38	5.12	4.06	2.95	2.20	1.95	2.15
MAX	2.9	3.3	208	5.7	179	35	6.5	4.3	3.9	2.6	2.5	2.3
MIN	2.3	2.4	2.8	3.9	4.0	5.7	4.2	3.8	2.4	1.9	1.6	2.0
AC-FT	154	160	611	265	939	577	305	250	176	135	120	128

e Estimated.

## 11063510 CAJON CREEK BELOW LONE PINE CREEK, NEAR KEENBROOK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.04	5.47	8.66	17.3	24.1	16.2	9.95	7.82	5.80	4.84	4.49	5.20
MAX	14.8	13.2	26.5	134	121	51.5	27.7	18.1	15.8	16.0	15.1	24.5
(WY)	1984	1984	1972	1993	1993	1995	1993	1998	1993	1993	1993	1976
MIN	2.00	1.97	2.05	2.33	3.52	3.41	2.93	2.85	1.98	2.05	1.95	1.99
(WY)	1991	1992	1991	1991	2002	2002	1977	2002	1990	1990	2004	1990

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1972 - 2004	
ANNUAL TOTAL	2913.9		1925.4			
ANNUAL MEAN	7.98		5.26		9.50	
HIGHEST ANNUAL MEAN					35.5 1993	
LOWEST ANNUAL MEAN					3.13 2002	
HIGHEST DAILY MEAN	497	Feb 12	208	Dec 25	1100	Feb 23 1998
LOWEST DAILY MEAN	2.3	Oct 13	1.6	Aug 23	1.6	Aug 23 2004
ANNUAL SEVEN-DAY MINIMUM	2.3	Oct 13	1.7	Aug 23	1.7	Aug 23 2004
MAXIMUM PEAK FLOW			2400	Dec 25	6700	Feb 8 1993
MAXIMUM PEAK STAGE			7.16	Dec 25	8.48	Feb 8 1993
ANNUAL RUNOFF (AC-FT)	5780		3820		6880	
10 PERCENT EXCEEDS	9.6		6.7		15	
50 PERCENT EXCEEDS	3.3		2.9		5.4	
90 PERCENT EXCEEDS	2.5		2.1		2.7	

## 341556117240601 RIDGE TOP PRECIPITATION GAGE NEAR DEVORE, CA

LOCATION.—Lat 34°15'50", long 117°24'05", in NE 1/4 NE 1/4 sec.16, T.2 N., R.5 W., San Bernardino County, Hydrologic Unit 18070203, on San Bernardino National Forest, at head of Kimbark Canyon, and 2.9 mi north of Devore.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—July to September 2004.

INSTRUMENTATION.—Recording tipping-bucket rain gage since July 2004. Elevation of gage is 5,150 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily rainfall, 0.06 in, Sept. 19, 2004; no rainfall for many days each year.

EXTREMES FOR CURRENT YEAR.—Maximum daily rainfall, 0.06 in, Sept. 19; no rainfall for many days.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.00	0.00
2	---	---	---	---	---	---	---	---	---	---	0.00	0.00
3	---	---	---	---	---	---	---	---	---	---	0.00	0.00
4	---	---	---	---	---	---	---	---	---	---	0.00	0.00
5	---	---	---	---	---	---	---	---	---	---	0.00	0.00
6	---	---	---	---	---	---	---	---	---	---	0.00	0.00
7	---	---	---	---	---	---	---	---	---	---	0.00	0.00
8	---	---	---	---	---	---	---	---	---	---	0.00	0.00
9	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
10	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
11	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
12	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
13	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
14	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
15	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
16	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
17	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
18	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
19	---	---	---	---	---	---	---	---	---	0.00	0.00	0.06
20	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
21	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
22	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
23	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
24	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
25	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
26	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
27	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
28	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
29	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
30	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
31	---	---	---	---	---	---	---	---	---	0.00	0.00	---
TOTAL	---	---	---	---	---	---	---	---	---	0.00	0.00	0.06
MAX	---	---	---	---	---	---	---	---	---	0.00	0.00	0.06
MIN	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00

## 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 mi<sup>2</sup>.

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.

REVISED RECORDS.—WSP 1928: Drainage area.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 2,080 ft above NGVD 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.—Records fair except for estimated daily discharges, which are poor. No regulation upstream from station. City of San Bernardino diverts upstream from station at times, with diverted flows routed to recharge basins downstream from station. Natural flow affected by pumping along creek. Records given below are for creek only unless otherwise indicated. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD (1913–14 and since 1919).—Maximum discharge, 3,720 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 5.40 ft, site and datum then in use, on basis of slope-area measurement of peak flow. The peak discharge on Dec. 25, 2003 was the result of a debris flow, due to an intense rain storm less than two months after a wildfire burned over 90 percent of the drainage basin. The peak discharge for this event is unknown, maximum gage height, 15.48 ft, Dec. 25, 2003, from floodmarks left by debris flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s, or maximum, from rating curve extended above 158 ft<sup>3</sup>/s:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	e1700	unknown	15.48	Feb. 26	e0630	e105	unknown

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.49	1.6	3.0	e2.7	e4.3	e3.3	1.2	2.0	1.0	1.0	0.84
2	0.00	0.57	1.6	4.7	e6.6	e8.2	e3.3	1.5	1.9	0.93	1.1	0.74
3	0.00	0.85	1.6	8.7	e3.1	e8.5	4.0	1.4	1.8	0.98	1.1	0.75
4	0.00	0.79	1.5	6.1	e3.0	e7.0	3.7	1.7	1.8	1.1	1.1	0.74
5	0.00	0.73	1.4	3.5	e2.9	5.9	3.7	1.7	1.8	1.1	1.2	0.75
6	0.00	0.72	1.4	3.9	e3.0	3.9	3.4	1.7	1.8	1.1	1.2	0.75
7	0.00	0.73	1.7	3.4	e3.0	e3.7	3.2	1.9	1.8	1.1	1.3	0.75
8	0.00	0.70	1.7	3.4	e2.9	e3.6	3.1	1.9	1.8	1.1	1.3	0.83
9	0.00	0.68	1.7	3.6	e2.8	e3.6	2.8	2.0	1.8	1.1	1.2	0.84
10	0.00	0.67	3.2	e3.5	e2.8	e3.5	2.7	2.1	1.8	1.1	1.1	0.83
11	0.00	0.69	5.8	e3.4	e2.8	e3.5	2.6	1.7	1.8	1.0	1.2	0.85
12	0.00	2.7	5.5	e3.2	e2.9	3.9	2.4	1.4	1.6	0.94	1.2	0.87
13	0.00	1.7	5.5	e3.1	e2.9	3.8	2.4	1.3	1.4	0.84	1.3	0.82
14	0.00	1.5	5.5	e3.1	e2.9	3.7	2.3	1.3	1.4	0.83	1.2	0.85
15	0.00	1.8	5.3	e3.1	e2.8	3.6	2.2	1.3	1.4	0.93	1.2	0.84
16	0.00	2.1	5.2	e3.0	e2.7	e3.6	2.2	1.4	1.4	0.98	1.2	0.82
17	0.00	1.7	5.1	e3.0	e2.8	e3.6	2.4	1.5	1.3	0.96	1.2	0.77
18	0.00	1.7	5.0	e2.8	e2.7	e3.5	2.7	1.6	1.2	0.96	1.2	0.78
19	0.00	1.7	3.3	e2.9	e4.0	e3.5	2.7	1.7	1.2	1.1	1.2	0.85
20	0.00	1.5	2.2	e2.9	e9.0	e3.6	2.1	1.5	1.2	1.1	1.3	0.87
21	0.00	1.6	2.2	e2.8	e11	e3.5	2.6	1.5	1.2	1.3	1.2	0.90
22	0.00	1.5	2.2	e2.7	e13	e3.5	2.3	1.6	1.3	1.3	1.2	0.86
23	0.00	1.6	2.2	e2.7	e7.0	e3.5	2.0	1.6	1.2	1.2	1.2	0.87
24	0.00	1.7	2.1	e2.7	e4.8	e3.4	2.0	1.6	1.2	1.1	1.1	0.92
25	0.00	1.6	e155	e2.8	e8.0	e3.4	1.7	1.6	1.2	1.0	0.98	0.83
26	0.00	1.5	e30	e2.7	e31	e3.5	1.7	1.9	1.1	1.0	0.95	0.79
27	0.00	1.5	e6.6	e2.7	e4.6	e3.4	1.9	1.7	1.1	0.96	0.90	0.77
28	0.00	1.7	e4.0	e2.6	e4.4	e3.4	1.9	1.6	1.0	1.0	0.80	0.85
29	0.00	1.7	e3.0	e2.5	e4.2	e3.4	1.7	1.9	0.97	1.1	0.81	0.91
30	0.00	1.6	e3.0	e2.5	---	e3.3	1.4	1.8	0.97	1.1	0.80	0.99
31	0.00	---	3.1	e2.6	---	e3.3	---	1.9	---	1.1	0.82	---
TOTAL	0.00	40.02	279.2	103.6	156.3	126.1	76.4	50.5	43.44	32.41	34.56	24.83
MEAN	0.00	1.33	9.01	3.34	5.39	4.07	2.55	1.63	1.45	1.05	1.11	0.83
MAX	0.00	2.7	155	8.7	31	8.5	4.0	2.1	2.0	1.3	1.3	0.99
MIN	0.00	0.49	1.4	2.5	2.7	3.3	1.4	1.2	0.97	0.83	0.80	0.74
AC-FT	0.00	79	554	205	310	250	152	100	86	64	69	49

e Estimated.



## 11063680 DEVIL CANYON CREEK NEAR SAN BERNARDINO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.36	0.98	1.84	3.63	6.78	7.34	4.36	2.24	1.02	0.54	0.35	0.33
MAX	3.36	12.9	14.0	44.4	108	72.9	28.3	15.2	9.49	5.09	3.83	3.33
(WY)	1984	1966	1967	1993	1980	1938	1978	1983	1998	1998	1993	1976
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1926	1926	1926	1926	1948	1951	1951	1951	1947	1926	1925	1924

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1920 - 2004	
ANNUAL TOTAL	1036.72		967.36			
ANNUAL MEAN	2.84		2.64		2.44	
HIGHEST ANNUAL MEAN					16.1	1980
LOWEST ANNUAL MEAN					0.00	1951
HIGHEST DAILY MEAN	155	Dec 25	155	Dec 25	556	Jan 25 1969
LOWEST DAILY MEAN	0.00	Aug 21	0.00	Oct 1	0.00	Sep 23 1921
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 21	0.00	Oct 1	0.00	Sep 23 1921
MAXIMUM PEAK FLOW			(a) Dec 25		3720	Jan 25 1969
MAXIMUM PEAK STAGE			15.48 Dec 25		15.48	Dec 25 2003
ANNUAL RUNOFF (AC-FT)	2060		1920		1770	
10 PERCENT EXCEEDS	5.4		3.8		5.2	
50 PERCENT EXCEEDS	2.0		1.6		0.20	
90 PERCENT EXCEEDS	0.00		0.70		0.00	

(a) Maximum discharge is unknown, but is known to have occurred on Dec. 25, 2003. This peak was a debris flow, due to an intense rain storm over a recently burned drainage area.

## 11063682 EAST BRANCH CALIFORNIA AQUEDUCT AT DEVIL CANYON POWERPLANT, NEAR SAN BERNARDINO, CA

LOCATION.—Lat 34°12'20", long 117°20'01", in San Bernardino Corporate Grant, T.1 N., R.4 W., [San Bernardino County](#), Hydrologic Unit 18090208, in powerplant 5 mi northwest of San Bernardino.

PERIOD OF RECORD.—October 1995 to current year. Prior to October 1995, in files of California Department of Water Resources. Published as "Devil Canyon Powerplant" prior to October 1999.

GAGE.—Acoustic-velocity meters on 5 pipes. Elevation of gage is 1,939 ft above NGVD of 1929 (levels by California Department of Water Resources).

REMARKS.—This record is the total flow of the East Branch California Aqueduct, including flow through the powerplant and bypass flow, if any. See schematic diagram of the [Mojave River Basin](#).

COOPERATION.—Records were computed by the California Department of Water Resources, under the general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,840 ft<sup>3</sup>/s, Sept. 30, 2004; no flow at times in some years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1540	384	1040	1110	1510	1060	1530	1570	1580	1610	1570	1570
2	1520	441	1060	1330	1550	898	1550	1560	1710	1620	1450	1500
3	1600	487	1190	1110	1470	993	1460	1540	1640	1620	1610	1550
4	1500	580	1130	1210	1290	1400	1100	1490	1660	1600	1560	1490
5	1680	357	1140	1260	1220	1290	1300	1600	1560	1550	1580	1560
6	1640	723	1120	1390	1410	1370	1290	1500	1320	1590	1580	1480
7	1580	1240	990	1390	1390	1440	1160	1510	709	1600	1590	1640
8	1560	1420	995	1440	1460	1450	1100	1610	803	1600	1590	1620
9	1550	1250	1010	1420	1510	1490	1330	1480	998	1570	1600	1650
10	1650	1420	1080	1420	1430	1410	1270	1540	1210	1640	1620	1620
11	1500	1510	1020	1500	1400	1540	1260	1600	1140	1650	1550	1530
12	1470	1490	1000	1090	1390	1370	1470	1590	1520	1600	1540	1610
13	1600	1570	973	1060	1510	1500	1360	1590	1630	1550	1650	1690
14	1570	1490	990	1110	1380	1370	1480	1600	1690	1610	1510	1540
15	1590	1550	1040	1170	1370	1530	1480	1610	1630	1580	1530	1600
16	1570	1190	1020	1450	1340	1350	1470	1680	1630	1640	1600	1660
17	1640	986	991	1540	1310	1380	1370	1680	1650	1610	1610	1520
18	1510	941	1020	1520	1180	1350	1290	1620	1590	1570	1570	1650
19	1680	1000	1000	1460	1150	1480	1310	1640	1690	1660	1580	1570
20	1750	969	1050	1380	1130	1320	1230	1680	1590	1600	1600	1620
21	1600	1110	1040	1610	1050	1450	1490	1590	1540	1540	1570	1680
22	1690	1080	981	1550	1030	1440	1440	1720	1630	1530	1440	1630
23	1610	1030	891	1430	1110	1660	1570	1670	1520	1660	1650	1650
24	1660	1080	849	1310	1040	1690	1570	1580	1510	1540	1560	1640
25	1430	943	741	1360	1040	1560	1560	1580	1680	1660	1500	1620
26	799	896	742	1510	1010	1360	1440	1610	1480	1510	1520	1640
27	1340	781	397	1430	1050	1360	1390	1610	1560	1680	1540	1680
28	950	983	302	1540	1070	1300	1440	1620	1540	1580	1550	1660
29	924	922	783	1460	1040	1360	1380	1680	1710	1520	1500	1500
30	437	851	901	1510	---	1330	1450	1640	1560	1540	1570	1840
31	447	---	1120	1520	---	1490	---	1700	---	1580	1540	---
TOTAL	44587	30674	29606	42590	36840	42991	41540	49690	44680	49410	48430	48210
MEAN	1438	1022	955	1374	1270	1387	1385	1603	1489	1594	1562	1607
MAX	1750	1570	1190	1610	1550	1690	1570	1720	1710	1680	1650	1840
MIN	437	357	302	1060	1010	898	1100	1480	709	1510	1440	1480
AC-FT	88440	60840	58720	84480	73070	85270	82390	98560	88620	98000	96060	95620

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

	1996	1997	1998	1999	2000	2001	2002	2003	2004			
MEAN	814	654	624	623	593	740	995	1084	1080	1174	1193	1150
MAX	1438	1337	1313	1374	1270	1387	1385	1603	1489	1594	1565	1607
(WY)	2004	2001	2001	2004	2004	2004	2004	2004	2004	2004	2003	2004
MIN	189	145	119	82.6	3.23	102	577	585	712	749	825	631
(WY)	1996	1996	1999	1997	1997	1997	1999	1999	1998	1998	1998	1998

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1996 - 2004
ANNUAL TOTAL	461534	509248	
ANNUAL MEAN	1264	1391	895
HIGHEST ANNUAL MEAN			1391
LOWEST ANNUAL MEAN			515
HIGHEST DAILY MEAN	1750	Oct 20	1840
LOWEST DAILY MEAN	302	Dec 28	302
ANNUAL SEVEN-DAY MINIMUM	448	Oct 30	448
ANNUAL RUNOFF (AC-FT)	915500	1010000	648400
10 PERCENT EXCEEDS	1590	1650	1500
50 PERCENT EXCEEDS	1420	1500	976
90 PERCENT EXCEEDS	710	992	168

## 11065000 LYTTLE 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1957 to September 1983, October 1984 to current year.

REVISED RECORDS.—WDR CA-83-1: Drainage area.

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Datum of gage is 974.67 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.—Records fair except for discharges below 10 ft<sup>3</sup>/s and estimated daily discharges, which are poor. Flow partly regulated by Lytle Creek spreading grounds 3.2 mi upstream. Diversions upstream from 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 ft<sup>3</sup>/s, Mar. 4, 1978, gage height, 14.8 ft, from rating curve extended above 4,200 ft<sup>3</sup>/s, on basis of discharge for design flood at gage height 21.4 ft; no flow for many days most years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.33	0.00	e0.00	0.00	e14	e6.0	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	e10	18	e20	e1.1	0.00	0.00	0.00	0.00	0.00
3	0.00	0.03	0.00	e0.02	22	e1.2	e0.30	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	e0.00	0.67	e0.20	e0.04	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	e0.00	0.15	e0.03	e0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	20	e0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	4.7	e0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	e0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	7.6	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	18	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	2.2	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	4.0	0.00	0.00	0.00	e0.00	e11	0.00	0.00	0.00	0.00	0.00
18	0.00	17	0.00	0.00	15	e0.00	e0.10	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	4.0	e0.00	e0.02	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	18	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.32	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	76	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	1150	0.00	2.2	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	e55	0.00	e691	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	e2.0	0.00	e2.0	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	e0.05	0.00	e0.10	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	e0.80	0.00	e0.00	e0.00	e0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	e1.0	0.00	---	e0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	e0.00	0.00	---	e0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	41.56	1241.15	10.02	849.44	35.43	18.56	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	1.39	40.0	0.32	29.3	1.14	0.62	0.00	0.00	0.00	0.00	0.00
MAX	0.00	18	1150	10	691	20	11	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	82	2460	20	1680	70	37	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004, BY WATER YEAR (WY)

MEAN	0.70	4.34	7.95	18.1	29.5	18.5	3.98	3.81	2.13	1.20	0.77	0.70
MAX	15.8	79.1	104	318	363	326	57.3	87.6	61.3	35.4	17.1	9.58
(WY)	1981	1966	1966	1969	1980	1978	1969	1969	1978	1978	1969	1980
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1958	1958	1959	1963	1961	1959	1961	1959	1958	1958	1958	1958

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004	
ANNUAL TOTAL	2792.59		2196.16			
ANNUAL MEAN	7.65		6.00		7.55	
HIGHEST ANNUAL MEAN					65.4	
LOWEST ANNUAL MEAN					0.01	
HIGHEST DAILY MEAN	1150	Dec 25	1150	Dec 25	5040	Jan 25 1969
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1957
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1957
MAXIMUM PEAK FLOW			8990		17500	Mar 4 1978
MAXIMUM PEAK STAGE			9.56		14.80	Mar 4 1978
ANNUAL RUNOFF (AC-FT)	5540		4360		5470	
10 PERCENT EXCEEDS	0.00		0.06		3.1	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated.

## 11066460 SANTA ANA RIVER AT METROPOLITAN WATER DISTRICT 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, near left side of Metropolitan Water District 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—March 1970 to current year.

REVISED RECORDS.—WDR CA-83-1: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 685 ft above NGVD of 1929, from topographic map. Prior to Apr. 15, 1985, water-stage recorder at site 300 ft upstream on left bank at different datum. From Apr. 15 to Sept. 30, 1985, water-stage recorder near right bank (atop pier 9 of Metropolitan Water District pipeline crossing), at same site and datum. From Oct. 1, 1985, to June 16, 1993, water-stage recorder and crest-stage gage on right bank at same site and datum. From June 17, 1993, to Sept. 30, 2003, water-stage recorder and crest-stage gage on left bank at same site and datum.

REMARKS.—Records poor. Flow partly regulated by Big Bear Lake (station 11049000) and, since November 1999, by Seven Oaks Flood-Control Reservoir, capacity, 145,600 acre-ft. Natural streamflow affected by ground-water withdrawals, diversions for irrigation, return flows from irrigated areas, and discharges of treated effluent. The records at this station are equivalent to those collected at "Santa Ana River at Riverside Narrows, near Arlington" minus the flow at "Riverside Water-Quality Control Plant at Riverside Narrows, near Arlington". See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 31,300 ft<sup>3</sup>/s, Feb. 24, 1998, gage height, 14.69 ft, on basis of area-velocity study, maximum gage height, 20.23 ft, site and datum then in use, Mar. 4, 1978; minimum daily, 15 ft<sup>3</sup>/s, Sept. 7, 8, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge since at least 1927, 100,000 ft<sup>3</sup>/s, Mar. 2, 1938, on basis of slope-area measurement, at site 1.1 mi downstream. Flood of Jan. 22, 1862, 320,000 ft<sup>3</sup>/s, on basis of slope-conveyance study, at site 8.2 mi upstream. Stage at that site was 5 ft higher than that of Mar. 2, 1938.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2200	19,700	13.22	Feb. 23	0300	1,700	7.95
Jan. 2	1930	1,550	7.52	Feb. 26	0945	15,000	11.98
Feb. 3	0245	1,710	7.93	Mar. 2	0245	1,980	8.02

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e80	78	68	105	93	134	106	e71	e70	e69	e61	e63
2	e79	77	67	340	97	873	154	e74	e70	e67	e61	e60
3	e77	80	e69	295	452	246	108	e74	e66	e65	e62	e61
4	e78	e82	69	155	115	175	88	e70	e69	e66	e63	e60
5	e77	81	e69	111	112	162	77	e67	e68	e63	e64	e60
6	e75	80	e70	107	e101	149	76	e69	e66	e65	e63	e61
7	e76	78	70	90	e100	137	e76	e67	e69	e62	e62	e60
8	e76	83	e70	84	e100	124	e77	e73	e67	e67	e64	e59
9	e75	78	e71	92	e97	120	e75	e72	e67	e61	e61	e58
10	e73	76	e72	84	e96	113	e74	e72	e68	e63	e61	e58
11	e72	84	73	93	e95	103	e73	e71	e66	e68	e61	e60
12	e71	234	83	82	e97	95	e72	e72	e66	e64	e62	e58
13	e69	131	81	91	e98	e90	e73	e72	e66	e61	e63	e58
14	e70	106	78	89	e96	e89	e73	e74	e67	e60	e62	e60
15	e70	103	76	94	e96	e87	e72	e72	e67	e59	e63	e61
16	e69	148	79	96	e95	e87	e72	e71	e68	e59	e63	e62
17	e68	101	76	91	e97	e89	115	e73	e64	e58	e65	e67
18	e69	97	71	90	e156	e88	158	e72	e65	e57	e68	e63
19	e68	96	76	92	e217	e89	82	e71	e68	e56	e66	e64
20	e70	94	78	93	282	e87	84	e70	e65	e57	e64	e65
21	e71	88	75	90	320	e86	e79	e68	e65	e58	e62	e67
22	68	89	75	92	616	e85	e73	e72	e66	e56	e61	e67
23	70	72	74	90	710	e84	e71	e71	e67	e57	e61	e65
24	69	84	75	96	131	e83	e74	e70	e69	e57	e63	e67
25	72	74	2390	91	105	e82	e72	e69	e69	e56	e62	e68
26	78	70	491	91	3570	e83	e71	e71	e65	e58	e62	e69
27	74	81	e125	89	406	e83	e71	e69	e64	e59	e60	e70
28	72	72	e120	98	195	e82	e70	e68	e66	e58	e62	e73
29	74	e74	e110	90	122	e80	e73	e70	e67	e59	e62	e72
30	68	e72	e105	98	---	e83	e74	e72	e68	e60	e61	e72
31	69	---	111	96	---	84	---	e70	---	e60	e63	---
TOTAL	2247	2763	5217	3395	8867	4052	2513	2197	2008	1885	1938	1908
MEAN	72.5	92.1	168	110	306	131	83.8	70.9	66.9	60.8	62.5	63.6
MAX	80	234	2390	340	3570	873	158	74	70	69	68	73
MIN	68	70	67	82	93	80	70	67	64	56	60	58
AC-FT	4460	5480	10350	6730	17590	8040	4980	4360	3980	3740	3840	3780

e Estimated.

## 11066460 SANTA ANA RIVER AT METROPOLITAN WATER DISTRICT CROSSING, NEAR ARLINGTON, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	62.6	82.7	106	220	283	301	143	116	79.4	56.0	55.4	56.6
MAX	194	259	292	1839	1411	1806	604	666	351	145	233	129
(WY)	1988	1984	1984	1993	1980	1995	1983	1983	1983	1983	1983	1976
MIN	20.5	21.2	23.3	24.7	23.1	23.7	23.1	22.3	20.2	16.8	17.9	18.0
(WY)	1974	1975	1974	1972	1972	1972	1971	1972	1981	1981	1981	1974

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	45630		38990			
ANNUAL MEAN	125		107		130	
HIGHEST ANNUAL MEAN					416	
LOWEST ANNUAL MEAN					29.0	
HIGHEST DAILY MEAN	2460	Mar 16	3570	Feb 26	11500	Mar 2 1983
LOWEST DAILY MEAN	67	May 19	56	Jul 19	15	Sep 7 1980
ANNUAL SEVEN-DAY MINIMUM	69	Dec 1	57	Jul 19	16	Jul 1 1981
MAXIMUM PEAK FLOW			19700	Dec 25	31300	Feb 24 1998
MAXIMUM PEAK STAGE			13.22	Dec 25	20.23	Mar 4 1978
ANNUAL RUNOFF (AC-FT)	90510		77340		94380	
10 PERCENT EXCEEDS	102		112		180	
50 PERCENT EXCEEDS	82		72		71	
90 PERCENT EXCEEDS	72		61		24	

11066460 SANTA ANA RIVER AT METROPLITAN WATER DISTRICT 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.

SPECIFIC CONDUCTANCE: Water years 1970–78, 1999–2000.

WATER TEMPERATURE: Water years 1999–2000.

SEDIMENT DATA: Water years 1999–2000.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Residue on evap. at 180degC wat flt mg/L (70300)
OCT					
07...	1245	76	957	24.0	582
21...	1345	71	948	25.0	592
NOV					
04...	1300	87	936	20.0	586
18...	1220	100	920	19.0	566
DEC					
08...	1400	71	922	20.0	568
17...	1410	77	947	18.5	592
JAN					
07...	1315	89	927	18.0	586
20...	1315	89	921	17.0	583
FEB					
03...	1230	241	553	14.5	--
18...	1400	154	767	18.0	--
MAR					
01...	1330	97	954	14.5	589
12...	1220	94	949	21.5	614
26...	1240	83	947	19.0	601
APR					
05...	1300	76	945	18.0	600
20...	1205	84	941	22.0	600
MAY					
04...	1030	71	979	30.0	618
18...	1315	70	968	27.0	617
JUN					
07...	1310	69	924	23.0	604
22...	1115	65	963	23.5	632
JUL					
01...	1400	68	934	28.0	619
20...	1145	58	925	28.0	608
AUG					
03...	1245	62	930	26.0	616
23...	1215	61	946	24.0	609
SEP					
08...	1115	59	966	23.0	620
21...	1335	66	950	23.5	610







## REVISION OF RECORDS FOR A DISCONTINUED STATION

11067000 DAY CREEK NEAR ETIWANDA, CA

LOCATION.—Lat 34°11'06", long 117°32'20", in NW 1/4 NW 1/4 SW 1/4 sec.8 T.1 N., R.6 W., [San Bernardino County](#), Hydrologic Unit 18070203, on left bank, 0.5 mi downstream from confluence of two main forks, and 4 mi north of Etiwanda.

DRAINAGE AREA.—4.56 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1927 to September 1972. Combined records of creek and diversion, October 1950 to September 1972. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.—WDR-CA-04-2: (M).

GAGE.—Water-stage recorder. Broad-crested weir since September 1938 on creek; water-stage recorder and Parshall flume on diversion. Altitude of gage is 2,870 ft (from topographic map). See WSP 1315-B for history of changes prior to Sept. 2, 1938.

REMARKS.—No regulation above station. Etiwanda Water Co. has diverted water above station during the entire period of record. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (revised), 4,200 ft<sup>3</sup>/s, Mar. 2, 1938, by rainfall-run-off studies; no flow Oct. 5 to Nov. 1, 1950.

REVISIONS.—The maximum discharge for water year 1970 has been revised to unknown, Jan. 25, 1969, gage height 15.27 ft. Event identified as a major debris flow rather than a water flood.







## 11069500 SAN JACINTO RIVER NEAR SAN JACINTO, CA

LOCATION.—Lat 33°44'17", long 116°49'59", in SE 1/4 NE 1/4 sec.13, T.5 S., R.1 E., [Riverside County](#), Hydrologic Unit 18070202, on left bank, 0.6 mi downstream from bridge on State Highway 74, 1.5 mi downstream from North Fork San Jacinto River, 7.8 mi southeast of San Jacinto, and 9.5 mi downstream from Lake Hemet.

DRAINAGE AREA.—142 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1920 to September 1991, October 1996 to current year. River only records for October 1969 to September 1980 and October 1981 to September 1991 are at site upstream of Lake Hemet Municipal Water District's lower canal and are equivalent to other records if lower canal diversion is deducted from flow past station. Records of lower canal diversion are available at Lake Hemet Municipal Water District. Combined records of river and diversions are equivalent for October 1948 to September 1981. Combined records of river and diversion for October 1981 to September 1990, published in WDR CA-82-1 to WDR CA-90-1, are not equivalent due to diversion for municipal supply upstream of gages beginning in 1982. Monthly discharge only for October 1920 and July to September 1926 are published in WSP 1315-B.

REVISED RECORDS.—WSP 881: 1938. WSP 1635: 1950. WSP 1928: Drainage area. WDR CA-97-1: Date of peak discharge for Water Year 1991.

GAGE.—Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 1,910 ft above NGVD of 1929, from topographic map. From 1927 to 1991 gage operated at various locations and datums approximately 0.6 mi upstream. See WDR CA-91-1 for further description.

REMARKS.—Records good. Flow partly regulated by Lake Hemet. Lake Hemet Municipal Water District's upper canal diverts 4.5 mi upstream from station. Several other small diversions in the basin. Diversions upstream from station began prior to 1920. See schematic of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—(River only) Maximum discharge, 45,000 ft<sup>3</sup>/s, Feb. 16, 1927, gage height unknown, on basis of slope-area measurement of peak flow; no flow for several months in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s, or maximum, from rating curve extended above 275 ft<sup>3</sup>/s, on basis of critical depth computations:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 27	0045	110	3.57

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.18	2.8	0.21	18	0.67	0.11	0.03	0.01	0.00	0.00
2	0.00	0.00	0.18	2.9	0.20	18	0.69	0.09	0.04	0.01	0.00	0.00
3	0.00	0.00	0.17	8.0	2.2	25	0.66	1.3	0.04	0.02	0.00	0.00
4	0.00	0.00	0.16	7.0	2.0	21	3.3	2.4	0.03	0.02	0.00	0.00
5	0.00	0.00	0.14	5.1	0.75	17	3.0	0.92	0.03	0.01	0.00	0.00
6	0.00	0.00	0.14	3.8	0.46	17	3.1	1.7	0.02	0.01	0.00	0.00
7	0.00	0.00	0.15	3.3	0.24	20	2.5	0.16	0.03	0.01	0.00	0.00
8	0.00	0.00	0.15	2.5	0.19	26	0.57	0.10	0.03	0.01	0.00	0.00
9	0.00	0.00	0.15	1.1	0.19	25	0.49	0.08	0.03	0.00	0.00	0.00
10	0.00	0.00	0.19	0.59	0.19	23	0.89	0.07	0.04	0.00	0.00	0.00
11	0.00	0.00	0.22	0.49	0.19	23	4.7	0.08	0.03	0.00	0.00	0.00
12	0.00	1.4	0.27	1.1	0.19	21	2.0	0.28	0.03	0.00	0.00	0.00
13	0.00	4.7	0.25	1.1	0.19	18	0.49	0.79	0.02	0.00	0.00	0.00
14	0.00	0.18	0.24	0.25	0.20	14	0.41	0.48	0.02	0.00	0.00	0.00
15	0.00	0.11	0.19	0.24	0.20	15	0.37	0.11	0.02	0.00	0.00	0.00
16	0.00	1.2	0.20	0.23	0.21	11	0.36	0.07	0.02	0.00	0.00	0.00
17	0.00	1.2	0.19	0.21	0.20	9.4	0.51	0.07	0.02	0.00	0.00	0.00
18	0.00	0.64	0.18	0.20	0.24	6.3	3.4	0.06	0.02	0.00	0.00	0.00
19	0.00	0.16	0.17	0.19	0.32	4.7	3.7	0.06	0.03	0.00	0.00	0.00
20	0.00	0.14	0.18	0.19	0.50	4.1	3.2	0.05	0.03	0.00	0.00	0.00
21	0.00	0.17	0.18	0.19	2.2	4.6	1.9	0.06	0.03	0.00	0.00	0.00
22	0.00	0.17	0.17	0.19	4.3	6.5	0.93	0.05	0.03	0.00	0.00	0.00
23	0.00	0.18	0.19	0.19	10	8.3	0.42	0.05	0.03	0.00	0.00	0.00
24	0.00	0.18	0.18	0.19	9.9	8.5	0.34	0.05	0.03	0.00	0.00	0.00
25	0.00	0.18	0.33	0.19	7.1	6.9	0.29	0.05	0.02	0.00	0.00	0.00
26	0.00	0.19	26	0.19	37	7.6	0.25	0.05	0.02	0.00	0.00	0.00
27	0.00	0.18	11	0.19	62	7.9	0.23	0.05	0.02	0.00	0.00	0.00
28	0.00	0.18	6.1	0.19	33	7.2	0.20	0.06	0.03	0.00	0.00	0.00
29	0.00	0.18	4.7	0.19	23	2.9	0.21	0.06	0.03	0.00	0.00	0.00
30	0.00	0.18	3.8	0.20	---	0.79	0.17	0.04	0.01	0.00	0.00	0.00
31	0.00	---	3.1	0.23	---	0.67	---	0.03	---	0.00	0.00	---
TOTAL	0.00	11.52	59.45	43.43	197.57	398.36	39.95	9.53	0.81	0.10	0.00	0.00
MEAN	0.00	0.38	1.92	1.40	6.81	12.9	1.33	0.31	0.03	0.00	0.00	0.00
MAX	0.00	4.7	26	8.0	62	26	4.7	2.4	0.04	0.02	0.00	0.00
MIN	0.00	0.00	0.14	0.19	0.19	0.67	0.17	0.03	0.01	0.00	0.00	0.00
AC-FT	0.00	23	118	86	392	790	79	19	1.6	0.2	0.00	0.00

## SANTA ANA RIVER BASIN

## 11069500 SAN JACINTO RIVER NEAR SAN JACINTO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.67	3.98	14.4	18.4	52.9	64.5	46.6	21.7	6.10	1.20	1.06	1.14
MAX	14.2	164	283	230	1039	743	312	224	81.8	13.0	13.6	23.1
(WY)	1980	1966	1967	1969	1980	1938	1941	1983	1998	1979	1983	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1923	1924	1930	1936	1951	1947	1934	1934	1931	1924	1923	1922

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1921 - 2004	
ANNUAL TOTAL	2500.21		760.72			
ANNUAL MEAN	6.85		2.08		19.0	
HIGHEST ANNUAL MEAN					156	
LOWEST ANNUAL MEAN					0.05	
HIGHEST DAILY MEAN	211	Mar 16	62	Feb 27	7590	Feb 21 1980
LOWEST DAILY MEAN	0.00	Jul 14	0.00	Oct 1	0.00	Oct 1 1920
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 14	0.00	Oct 1	0.00	Oct 1 1920
MAXIMUM PEAK FLOW			110	Feb 27	45000	Feb 16 1927
MAXIMUM PEAK STAGE			3.57	Feb 27	Unknown	
ANNUAL RUNOFF (AC-FT)	4960		1510		13750	
10 PERCENT EXCEEDS	22		6.2		35	
50 PERCENT EXCEEDS	0.21		0.09		0.10	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11070020 BAUTISTA CREEK AT HEAD OF FLOOD CONTROL CHANNEL, NEAR HEMET, CA

LOCATION.—Lat 33°42'42", long 116°52'04", in NW 1/4 NE 1/4 sec.27, T.5 S., R.1 E., [Riverside County](#), Hydrologic Unit 18070202, on right bank, at head of concrete-lined flood channel, 3.7 mi upstream from mouth, and 3.0 mi southeast of Valle Vista.

DRAINAGE AREA.—47.6 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1987 to current year.

GAGE.—Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 2,080 ft above NGVD of 1929, from topographic map. Prior to October 1988 at datum 10.00 ft lower.

REMARKS.—No regulation upstream from station. Sand and gravel operations upstream from station may reduce runoff and cause peak attenuation. Minor diversion upstream from station for irrigation. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,310 ft<sup>3</sup>/s, Jan. 16, 1993, gage height, 3.53 ft, from rating curve developed on basis of critical-depth computations at concrete control; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.—No flow for entire water year.

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.01	0.01	2.44	2.52	2.78	0.34	0.05	0.00	0.07	0.04	0.03
MAX	0.06	0.21	0.12	31.1	22.3	26.4	3.39	0.58	0.01	1.11	0.55	0.50
(WY)	1997	1997	1988	1993	1993	1995	1998	1998	1995	1999	1994	1995
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1988	1988	1989	1989	1989	1989	1989	1988	1988	1988	1989	1988

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1988 - 2004
ANNUAL TOTAL	0.00	0.00	
ANNUAL MEAN	0.00	0.00	0.68
HIGHEST ANNUAL MEAN			4.35 1993
LOWEST ANNUAL MEAN			0.00 1989
HIGHEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	298 Jan 16 1993
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1987
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1987
MAXIMUM PEAK FLOW			1310 Jan 16 1993
MAXIMUM PEAK STAGE			3.53 Jan 16 1993
ANNUAL RUNOFF (AC-FT)	0.00	0.00	496
10 PERCENT EXCEEDS	0.00	0.00	0.00
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 11070150 SAN JACINTO RIVER ABOVE STATE STREET, NEAR SAN JACINTO, CA

LOCATION.—Lat 33°49'17", long 116°58'21", in NE 1/4 SW 1/4 sec.15, T.4 S., R.1 W., [Riverside County](#), Hydrologic Unit 18070202, on left bank, 400 ft upstream from State Street Bridge, 5.5 mi downstream from confluence with Bautista Creek, and 2.5 mi northwest of San Jacinto.

DRAINAGE AREA.—252 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1996 to current year.

REVISED RECORDS.—WDR CA-00-1: 1998.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,500 ft above NGVD of 1929, from topographic map.

REMARKS.—Sand and gravel operations upstream from station may reduce runoff and cause peak attenuation. Flow partly regulated by Lake Hemet. Lake Hemet Municipal Water District's upper canal diverts 4.0 mi upstream from station on San Jacinto River near San Jacinto (station 11069500). See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,570 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 4.53 ft, from rating curve extended above 880 ft<sup>3</sup>/s; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.—No flow for entire water year.

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.00	0.00	0.01	12.4	4.86	16.9	9.98	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.01	0.08	99.9	38.9	135	79.9	0.00	0.00	0.00	0.00
(WY)	1997	1997	2003	1997	1998	1998	1998	1998	1997	1997	1997	1997
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1997	1997	1997	1998	1997	1997	1997	1997	1997	1997	1997	1997

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1997 - 2004
ANNUAL TOTAL	2.10	0.00	
ANNUAL MEAN	0.01	0.00	3.61
HIGHEST ANNUAL MEAN			28.9 1998
LOWEST ANNUAL MEAN			0.00 1999
HIGHEST DAILY MEAN	0.65 Feb 13	0.00 Oct 1	600 Feb 24 1998
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1996
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1996
MAXIMUM PEAK FLOW			1570 Feb 23 1998
MAXIMUM PEAK STAGE			4.53 Feb 23 1998
ANNUAL RUNOFF (AC-FT)	4.2	0.00	2610
10 PERCENT EXCEEDS	0.00	0.00	0.00
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00



## 11070210 SAN JACINTO RIVER AT RAMONA EXPRESSWAY, NEAR LAKEVIEW, CA

LOCATION.—Lat 33°50'23", long 117°08'06", in SW 1/4 NW 1/4 sec.7, T.4 S., R.2 W., [Riverside County](#), Hydrologic Unit 18070202, on right bank, at downstream end of Ramona Expressway Bridge, and 1.0 mi northwest of Lakeview.

DRAINAGE AREA.—365 mi<sup>2</sup>.

PERIOD OF RECORD.—October 2000 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,420 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. Sand and gravel operations upstream from station may reduce runoff and cause peak attenuation. Natural storage of floodwaters in the Mystic Lake area, approximately 3 mi upstream, also reduces peak flows at times in some years. Low flows sustained, at times, by releases of reclaimed water upstream from station. Flow partly regulated by Lake Hemet. Lake Hemet Municipal Water District's upper canal diverts water at a point 4.0 mi upstream from station on San Jacinto River near San Jacinto (station 11069500). See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3.6 ft<sup>3</sup>/s, Mar. 17, 2003, gage height, 8.07 ft, from rating curve extended above 2.6 ft<sup>3</sup>/s, maximum gage height, 8.07 ft, Mar. 17, 2003; no flow for many days most years.

EXTREMES FOR CURRENT YEAR.—No flow for entire water year.

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.22	0.22	0.21	0.35	0.46	0.45	0.29	0.20	0.19	0.24	0.11	1.39
MAX	0.60	0.85	0.82	1.37	1.83	0.99	1.07	0.81	0.77	0.95	0.43	6.96
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	2002	2002	2003	2003	2004	2004	2003	2003	2002	2002	2002	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 2000 - 2004
ANNUAL TOTAL	25.14	0.00	
ANNUAL MEAN	0.07	0.00	0.24
HIGHEST ANNUAL MEAN			0.87 2001
LOWEST ANNUAL MEAN			0.00 2004
HIGHEST DAILY MEAN	3.5 Mar 18	0.00 Oct 1	9.1 Aug 23 2000
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 16 2000
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Aug 22 2001
MAXIMUM PEAK FLOW			3.6 Mar 17 2003
MAXIMUM PEAK STAGE			8.07 Mar 17 2003
ANNUAL RUNOFF (AC-FT)	50	0.00	177
10 PERCENT EXCEEDS	0.00	0.00	0.96
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 11070270 PERRIS VALLEY STORM DRAIN AT NUEVO ROAD, NEAR PERRIS, CA

LOCATION.—Lat 33°48'04", long 117°12'19", in SW 1/4 SW 1/4 sec.21, T.4 S., R.3 W., [Riverside County](#), Hydrologic Unit 18070202, on right bank, 1.9 mi northeast of Perris, and 2.0 mi upstream from San Jacinto River.

DRAINAGE AREA.—93.3 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1969 to September 1975, October 1989 to September 1997, and October 1998 to current year.

PRECIPITATION DATA: Water years 1970–75, 1990–1997.

REVISED RECORDS.—WDR CA-92-1: 1991(M).

GAGE.—Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 1,410 ft above NGVD of 1929, from topographic map. October 1998 to September 2002, at same site at datum 10 feet higher.

REMARKS.—Records fair. New control installed October 2002. Some regulation by percolation basins upstream from station. Some pumping for irrigation upstream from station. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,400 ft<sup>3</sup>/s, Feb. 12, 1992, gage height, 17.81 ft, from rating curve extended above 2,120 ft<sup>3</sup>/s, on basis of slope area measurement of peak flow; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,100 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0900	981	14.37

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.08	2.4	0.07	0.06	0.06	0.26	1.2	0.09	0.07	0.21	0.17	0.01
2	0.07	0.00	0.10	1.6	2.0	185	16	0.08	0.04	0.18	0.06	0.02
3	0.06	0.01	0.07	24	47	7.9	3.2	0.09	0.01	0.21	0.05	0.01
4	0.05	0.01	0.04	3.3	4.1	0.19	0.78	0.05	0.02	0.19	0.05	0.01
5	0.02	0.05	0.08	0.33	0.61	0.04	0.06	0.04	0.01	0.08	0.03	0.02
6	0.01	0.05	0.08	0.04	0.03	0.00	0.00	0.04	0.07	0.12	0.03	0.04
7	0.03	0.03	0.62	0.08	0.00	0.00	0.01	0.04	0.04	0.20	0.03	0.01
8	0.03	0.03	0.07	0.06	0.00	0.00	0.02	0.04	0.03	0.19	0.02	0.06
9	0.03	0.02	0.11	0.07	0.00	0.00	0.06	0.05	0.06	0.05	0.02	0.19
10	0.02	0.05	0.15	0.06	0.00	0.00	0.10	0.02	0.08	0.00	0.03	0.57
11	0.04	0.04	0.12	0.04	0.03	0.00	0.06	0.04	0.10	0.00	0.03	0.67
12	0.02	57	0.15	0.06	0.03	0.00	0.00	0.07	0.07	0.00	0.05	0.69
13	0.03	15	0.16	0.07	0.04	0.00	0.00	0.06	0.09	0.00	1.2	0.56
14	0.04	0.52	0.07	0.08	0.13	0.00	0.01	0.04	0.05	0.00	0.66	0.61
15	0.03	0.02	0.06	0.14	0.11	0.00	0.02	0.06	0.06	0.00	0.65	0.59
16	0.03	0.59	0.04	0.12	0.19	0.00	0.04	0.09	0.09	0.00	0.44	0.55
17	0.04	6.2	0.06	0.12	0.28	0.00	30	0.05	0.14	0.00	0.37	0.77
18	0.05	10	0.08	0.08	13	0.00	20	0.13	0.12	0.00	0.37	0.37
19	0.02	1.2	0.15	0.08	41	0.00	2.1	0.12	0.17	0.00	0.39	0.11
20	0.03	0.33	0.12	0.06	3.5	0.01	0.37	0.10	0.20	0.00	0.33	0.08
21	0.02	0.04	0.09	0.10	7.7	0.01	0.11	0.05	0.26	0.00	0.21	0.53
22	0.02	0.03	0.09	0.15	132	0.00	0.04	0.05	0.28	0.01	0.37	0.46
23	0.02	0.00	0.22	0.18	152	0.00	0.02	0.05	0.25	0.02	0.25	1.2
24	0.01	0.05	0.09	0.11	2.8	0.01	0.05	0.02	0.21	0.02	0.16	2.1
25	0.02	0.06	57	0.08	0.14	0.02	0.02	0.00	0.18	0.04	0.12	0.87
26	0.00	0.08	48	0.20	302	0.01	0.00	0.04	0.12	0.12	0.09	0.23
27	0.01	0.03	10	0.17	11	0.00	0.00	0.03	0.15	0.37	0.08	0.07
28	0.01	0.04	1.1	0.21	0.48	0.00	0.00	0.04	0.12	0.19	0.02	0.03
29	0.01	0.08	0.03	0.09	0.02	0.00	0.02	0.08	0.04	0.39	0.03	0.05
30	0.02	0.06	0.01	0.20	---	0.00	0.03	0.05	0.06	0.39	0.03	0.05
31	0.02	---	0.09	0.08	---	0.00	---	0.06	---	0.39	0.01	---
TOTAL	0.89	94.02	119.12	32.02	720.25	193.45	74.32	1.77	3.19	3.37	6.35	11.53
MEAN	0.03	3.13	3.84	1.03	24.8	6.24	2.48	0.06	0.11	0.11	0.20	0.38
MAX	0.08	57	57	24	302	185	30	0.13	0.28	0.39	1.2	2.1
MIN	0.00	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01
AC-FT	1.8	186	236	64	1430	384	147	3.5	6.3	6.7	13	23

## 11070270 PERRIS VALLEY STORM DRAIN AT NUEVO ROAD, NEAR PERRIS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.24	1.39	3.68	18.0	20.7	12.2	1.62	0.15	0.16	0.12	0.04	0.24
MAX	1.68	9.87	35.1	167	87.5	70.7	11.9	1.06	1.73	1.85	0.20	4.21
(WY)	1997	1997	1993	1993	1993	1991	2003	1990	1995	1999	2004	1997
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1970	1972	1970	1975	1971	1972	1970	1970	1970	1970	1970	1970

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	3321.92		1260.28			
ANNUAL MEAN	9.10		3.44		4.81	
HIGHEST ANNUAL MEAN					24.4	
LOWEST ANNUAL MEAN					0.30	
HIGHEST DAILY MEAN	535	Mar 16	302	Feb 26	1270	Jan 16 1993
LOWEST DAILY MEAN	0.00	Feb 19	0.00	Oct 26	0.00	Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	0.01	Oct 23	0.00	Mar 6	0.00	Oct 1 1969
MAXIMUM PEAK FLOW			981	Feb 26	4400	Feb 12 1992
MAXIMUM PEAK STAGE			14.37	Feb 26	17.81	Feb 12 1992
ANNUAL RUNOFF (AC-FT)	6590		2500		3480	
10 PERCENT EXCEEDS	0.60		0.94		0.34	
50 PERCENT EXCEEDS	0.08		0.06		0.00	
90 PERCENT EXCEEDS	0.02		0.00		0.00	

## 11070365 SAN JACINTO RIVER NEAR SUN CITY, CA

LOCATION.—Lat 33°44'46", long 117°13'51", in SW 1/4 SE 1/4 sec.7, T.5 S., R.3 W., [Riverside County](#), Hydrologic Unit 18070202, on left bank, 0.6 mi downstream from Goetz Road Bridge, 6.0 mi northeast of Railroad Canyon Dam, and 3.2 mi northwest of Sun City.

DRAINAGE AREA.—560 mi<sup>2</sup>.

PERIOD OF RECORD.—October 2000 to current year.

GAGE.—Water-stage recorder, crest-stage gage, and culvert/concrete road crossing control. Elevation of gage is 1,400 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. Sand and gravel operations upstream from station may reduce runoff and cause peak attenuation. Natural storage of floodwaters in the Mystic Lake area also reduces peak flows at times in some years. Flow partly regulated by Lake Hemet. Lake Hemet Municipal Water District's upper canal diverts at a point 4.0 mi upstream from station on San Jacinto River near San Jacinto (station 11069500). See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,960 ft<sup>3</sup>/s, Mar. 16, 2003, gage height, 12.08 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	1400	921	11.21

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	137	1.1	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	24	29	35	2.0	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	8.5	13	2.0	0.71	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.82	0.32	0.18	0.03	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	5.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	5.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	6.7	0.00	0.00	0.00	0.00	20	0.00	0.00	0.00	0.00	0.00
19	0.00	4.3	0.00	0.00	38	0.00	3.8	0.00	0.00	0.00	0.00	0.00
20	0.00	0.54	0.00	0.00	6.1	0.00	0.19	0.00	0.00	0.00	0.00	0.00
21	0.00	0.12	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	176	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	79	0.00	323	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	14	0.00	47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	3.4	0.00	2.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.52	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.18	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.01	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	70.92	97.11	33.73	751.72	174.18	27.83	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	2.36	3.13	1.09	25.9	5.62	0.93	0.00	0.00	0.00	0.00	0.00
MAX	0.00	48	79	24	323	137	20	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	141	193	67	1490	345	55	0.00	0.00	0.00	0.00	0.00

## 11070365 SAN JACINTO RIVER NEAR SUN CITY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.15	1.34	3.89	5.15	34.3	17.6	9.29	0.04	0.00	0.00	0.00	0.00
MAX	0.58	2.36	11.2	19.5	83.1	57.1	18.5	0.17	0.00	0.00	0.00	0.00
(WY)	2001	2004	2003	2001	2003	2003	2003	2003	2001	2001	2001	2001
MIN	0.00	0.00	0.00	0.00	0.00	2.79	0.93	0.00	0.00	0.00	0.00	0.00
(WY)	2002	2001	2001	2002	2002	2002	2004	2001	2001	2001	2001	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	4825.97		1155.49			
ANNUAL MEAN	13.2		3.16		5.81	
HIGHEST ANNUAL MEAN					13.8	
LOWEST ANNUAL MEAN					1.65	
HIGHEST DAILY MEAN	1290	Mar 16	323	Feb 26	1290	Mar 16 2003
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 2000
MAXIMUM PEAK FLOW			921	Feb 26	1960	Mar 16 2003
MAXIMUM PEAK STAGE			11.21	Feb 26	12.08	Mar 16 2003
ANNUAL RUNOFF (AC-FT)	9570		2290		4210	
10 PERCENT EXCEEDS	5.2		0.22		0.64	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11070465 SALT CREEK AT MURRIETA ROAD, NEAR SUN CITY, CA

LOCATION.—Lat 33°41'39", long 117°12'17", in SW 1/4 NW 1/4 sec.33, T.5 S., R.3 W., [Riverside County](#), Hydrologic Unit 18070202, on right bank, 20 ft upstream from Murrieta Road crossing, 2.2 mi upstream from Railroad Canyon Reservoir, and 1.1 mi southwest of Sun City.

DRAINAGE AREA.—116 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1983 to September 1985, October 2000 to current year.

GAGE.—Water-stage recorder and crest-stage gages. October 1983 to September 1985, at same site at different datum. Elevation of gage is 1,405 ft above NGVD of 1929, from topographic map.

REMARKS.—Records rated fair. Flow partly regulated by Paloma Valley Reservoir. Diversions for irrigation and domestic use occur at times upstream from station. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 559 ft<sup>3</sup>/s, Feb. 25, 2003, gage height, 10.63 ft; no flow for many days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 4,120 ft<sup>3</sup>/s, Mar. 2, 1983, gage height, 6.88 ft, datum then in use, provided by Riverside County Flood Control and Water Conservation District.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	3.2	0.00	0.00	0.00	0.02	1.7	0.00	0.00	0.00	0.00	0.00
2	0.00	0.18	0.00	0.18	0.12	36	5.6	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.97	9.6	3.9	4.4	0.00	0.00	0.00	0.13	0.00
4	0.00	0.00	0.00	0.00	0.04	1.2	0.32	0.00	0.00	0.00	0.00	0.00
5	0.00	0.96	0.00	0.00	0.07	0.42	0.22	0.00	0.00	0.00	0.00	0.00
6	0.00	1.3	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00
7	0.00	1.2	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
8	0.00	1.1	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00
9	0.00	0.98	0.00	0.00	0.00	0.06	0.00	0.00	1.8	0.00	0.00	0.00
10	0.00	0.81	0.00	0.00	0.00	0.03	0.00	0.00	2.0	0.00	0.00	0.00
11	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00	1.9	0.00	0.00	0.00
12	0.00	13	0.00	0.00	0.00	0.00	0.00	0.00	1.8	0.00	0.00	0.00
13	0.00	9.9	0.00	0.00	0.00	0.00	0.00	0.00	1.4	0.00	14	0.00
14	0.00	4.8	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.58	0.00
15	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	2.0	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.5	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	2.7	0.00	0.02	0.00	0.00	0.00
18	0.00	0.00	0.00	0.02	8.4	0.00	0.18	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.08	3.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	2.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	13	0.00	3.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	10	0.00	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	2.5	0.00	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.04	0.00	2.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.01	---	0.00	0.00	0.00	0.00	0.00	0.00	0.01
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	38.43	25.54	1.26	260.65	41.63	16.13	0.00	12.85	0.00	14.71	0.01
MEAN	0.00	1.28	0.82	0.04	8.99	1.34	0.54	0.00	0.43	0.00	0.47	0.00
MAX	0.00	13	13	0.97	85	36	5.6	0.00	2.0	0.00	14	0.01
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	76	51	2.5	517	83	32	0.00	25	0.00	29	0.02

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

	0.35	0.39	2.46	0.77	6.93	2.34	1.09	0.07	0.07	0.04	0.29	0.02
MEAN	0.35	0.39	2.46	0.77	6.93	2.34	1.09	0.07	0.07	0.04	0.29	0.02
MAX	1.98	1.28	10.0	4.19	20.8	11.1	5.46	0.31	0.43	0.25	1.26	0.11
(WY)	1984	2004	1985	2001	2003	2003	2003	2003	2004	1984	1984	1984
MIN	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1985	2003	2001	1984	1984	1984	1985	1984	1984	1985	1985	1985

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1984 - 2004

ANNUAL TOTAL	1162.87	411.21	
ANNUAL MEAN	3.19	1.12	1.20
HIGHEST ANNUAL MEAN			3.22 2003
LOWEST ANNUAL MEAN			0.07 2002
HIGHEST DAILY MEAN	218 Feb 25	85 Feb 26	218 Feb 25 2003
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 3 1983
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Oct 5 1983
MAXIMUM PEAK FLOW		180 Feb 26	559 Feb 25 2003
MAXIMUM PEAK STAGE		8.73 Feb 26	10.63 Feb 25 2003
ANNUAL RUNOFF (AC-FT)	2310	816	872
10 PERCENT EXCEEDS	0.97	1.0	0.14
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 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, 2.0 mi east of Elsinore, 2.1 mi downstream from Railroad Canyon Dam, and 36 mi downstream from Lake Hemet.

DRAINAGE AREA.—723 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1916 to current year. Monthly figures for 1927–50, adjusted for diversion, published in WSP 1315-B.

REVISED RECORDS.—WDR CA-72-1: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 1,270 ft above NGVD 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, at different datum.

REMARKS.—Records fair. Flow partly regulated by Lake Hemet, capacity, 13,500 acre-ft, and 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 took place in some years prior to water year 1994. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 16,000 ft<sup>3</sup>/s, Feb. 17, 1927, gage height, 11.8 ft, from rating curve extended above 2,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; no flow for many days in most years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	0.42	0.45	0.69	0.76	1.2	0.66	0.41	0.26	0.19	0.14	0.14
2	0.02	0.37	0.46	0.75	0.86	7.0	0.89	0.39	0.25	0.19	0.15	0.14
3	0.03	0.37	0.48	0.86	1.9	1.8	0.77	0.33	0.26	0.19	0.15	0.16
4	0.03	0.38	0.49	0.75	0.97	1.3	0.66	0.30	0.24	0.18	0.15	0.18
5	0.03	0.39	0.49	0.73	0.84	1.2	0.64	0.28	0.23	0.18	0.14	0.16
6	0.04	0.39	0.49	0.73	0.78	1.1	0.64	0.28	0.23	0.18	0.14	0.14
7	0.04	0.38	0.50	0.73	0.76	1.0	0.60	0.26	0.23	0.18	0.14	0.14
8	0.04	0.38	0.51	0.76	0.76	0.97	0.61	0.26	0.24	0.18	0.14	0.14
9	0.05	0.38	0.51	0.74	0.75	0.93	0.60	0.26	0.23	0.18	0.13	0.23
10	0.06	0.39	0.53	0.73	0.74	0.92	0.59	0.27	0.23	0.17	0.13	0.17
11	0.06	0.40	0.53	0.79	0.74	0.89	0.57	0.31	0.23	0.18	0.13	0.15
12	0.06	1.4	0.54	0.75	0.73	0.89	0.56	0.32	0.25	0.17	0.13	0.15
13	0.07	0.62	0.56	0.94	0.73	0.89	0.56	0.32	0.23	0.16	0.15	0.15
14	0.07	0.50	0.57	0.77	0.73	0.91	0.55	0.29	0.22	0.17	0.17	0.15
15	0.08	0.46	0.57	0.76	0.74	0.89	0.53	0.27	0.22	0.17	0.14	0.16
16	0.11	0.46	0.58	0.75	0.73	0.82	0.51	0.26	0.22	0.17	0.14	0.17
17	0.11	0.45	0.65	0.76	0.74	0.83	0.72	0.26	0.22	0.17	0.14	0.18
18	0.10	0.43	0.63	0.74	0.85	0.79	0.74	0.28	0.20	0.17	0.14	0.17
19	0.10	0.43	0.61	0.78	1.3	0.74	0.57	0.30	0.21	0.16	0.14	0.17
20	0.11	0.42	0.61	0.79	0.86	0.72	0.57	0.31	0.21	0.15	0.14	0.18
21	0.12	0.44	0.61	0.92	1.0	0.69	0.55	0.32	0.22	0.15	0.14	0.18
22	0.12	0.43	0.61	0.80	3.9	0.67	0.52	0.33	0.24	0.15	0.14	0.16
23	0.13	0.42	0.63	0.76	2.5	0.66	0.49	0.33	0.25	0.15	0.15	0.15
24	0.14	0.44	0.66	0.76	1.2	0.68	0.48	0.33	0.28	0.15	0.15	0.15
25	0.15	0.46	1.2	0.76	0.96	0.68	0.48	0.34	0.23	0.15	0.15	0.16
26	0.16	0.46	3.1	0.76	19	0.66	0.44	0.33	0.20	0.14	0.15	0.17
27	0.17	0.45	0.93	0.74	2.3	0.65	0.41	0.33	0.19	0.14	0.15	0.16
28	0.20	0.45	0.79	0.79	1.4	0.60	0.41	0.35	0.20	0.14	0.15	0.18
29	0.22	0.46	0.74	0.77	1.3	0.58	0.45	0.37	0.20	0.14	0.15	0.19
30	0.25	0.45	0.73	0.76	---	0.57	0.44	0.33	0.19	0.14	0.15	0.20
31	0.28	---	0.71	0.76	---	0.59	---	0.29	---	0.14	0.14	---
TOTAL	3.17	13.88	21.47	23.88	50.83	32.82	17.21	9.61	6.81	5.08	4.45	4.93
MEAN	0.10	0.46	0.69	0.77	1.75	1.06	0.57	0.31	0.23	0.16	0.14	0.16
MAX	0.28	1.4	3.1	0.94	19	7.0	0.89	0.41	0.28	0.19	0.17	0.23
MIN	0.02	0.37	0.45	0.69	0.73	0.57	0.41	0.26	0.19	0.14	0.13	0.14
AC-FT	6.3	28	43	47	101	65	34	19	14	10	8.8	9.8

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2004, BY WATER YEAR (WY)

MEAN	0.56	0.74	4.81	33.8	85.2	69.3	22.3	5.29	0.75	0.57	0.37	0.48
MAX	22.0	28.1	268	1303	2116	802	333	132	13.8	19.7	14.6	15.4
(WY)	1938	1938	1922	1916	1980	1983	1941	1983	1937	1938	1937	1938
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1917	1917	1917	1921	1921	1921	1921	1921	1919	1918	1918	1917

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1916 - 2004

ANNUAL TOTAL	4905.87	194.14		
ANNUAL MEAN	13.4	0.53	16.5	
HIGHEST ANNUAL MEAN			232	1980
LOWEST ANNUAL MEAN			0.00	1921
HIGHEST DAILY MEAN	1390	Mar 16	19	Feb 26
LOWEST DAILY MEAN	0.00	Jul 12	0.02	Oct 1
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 4	0.03	Oct 1
MAXIMUM PEAK FLOW			64	Feb 26
MAXIMUM PEAK STAGE			5.03	Feb 26
ANNUAL RUNOFF (AC-FT)	9730		385	11.80
10 PERCENT EXCEEDS	3.9		0.86	3.2
50 PERCENT EXCEEDS	0.44		0.37	0.10
90 PERCENT EXCEEDS	0.01		0.14	0.00

## 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, and 1.5 mi upstream from topographic boundary of Prado Flood-Control Basin.

DRAINAGE AREA.—224 mi<sup>2</sup>, excludes 768 mi<sup>2</sup> above Lake Elsinore.

PERIOD OF RECORD.—October 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 NGVD of 1929, from topographic map. December 1967 to September 1974, water-stage recorder at site 1.2 mi downstream at different datum (published as station 11072200, "Temescal Creek at Corona"). October 1980 to July 1983 at site 500 ft downstream at different datum.

REMARKS.—Records fair. Flow regulated by several small storage reservoirs. Many diversions upstream from station for irrigation. Water discharged to channel from Arlington Desalter at times since September 1990; records for water years 1981 to 1990 and 1991 to current year are not equivalent. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,720 ft<sup>3</sup>/s, Mar. 1, 1983, gage height, 11.67 ft, site and datum then in use, on basis of slope-conveyance study; minimum daily, 0.27 ft<sup>3</sup>/s, Sept. 25, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 8,850 ft<sup>3</sup>/s, Feb. 25, 1969, gage height, 8.17 ft, from floodmark, at old site (station 11072200) 1.2 mi downstream on basis of slope-area measurement of peak flow.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	44	8.1	20	12	54	48	14	4.9	6.1	4.1	4.4
2	15	15	8.5	55	72	78	23	9.0	5.2	6.6	4.0	4.7
3	12	13	9.0	18	46	31	19	5.2	6.5	7.0	5.6	3.7
4	15	13	10	14	12	23	14	6.6	7.1	8.7	5.4	3.1
5	14	13	10	13	9.0	20	9.9	6.7	5.6	9.5	4.3	2.7
6	13	10	11	13	8.1	19	8.9	5.9	5.4	9.4	3.7	3.3
7	15	9.7	14	15	9.3	17	8.4	7.9	6.4	12	3.7	3.1
8	14	8.3	11	13	8.4	13	6.9	6.8	5.5	11	3.3	2.7
9	14	8.5	10	12	7.8	9.8	7.3	7.6	5.9	6.0	4.3	2.9
10	14	8.8	10	11	8.3	8.8	7.9	8.7	5.7	5.5	5.3	2.1
11	14	7.7	13	11	9.3	7.8	7.1	7.3	4.5	4.7	4.1	1.6
12	11	74	12	9.1	9.7	8.1	9.3	7.7	4.3	5.3	2.4	1.9
13	10	16	11	8.1	10	6.8	14	7.2	4.1	4.4	2.0	2.7
14	13	12	12	7.8	11	6.0	18	7.7	3.8	4.5	2.0	2.2
15	13	14	10	8.4	11	4.5	18	7.5	3.5	3.6	2.5	2.4
16	11	28	11	8.9	10	4.6	18	6.8	3.4	4.0	2.8	3.0
17	10	9.0	11	7.9	10	5.2	65	7.2	4.8	4.5	2.9	2.2
18	12	11	12	8.2	94	4.6	23	6.1	5.9	5.7	3.4	2.6
19	12	9.0	13	9.7	16	3.2	13	6.0	4.5	4.6	4.1	2.4
20	11	12	14	9.1	47	3.5	13	6.0	4.9	5.7	4.6	3.2
21	11	12	14	9.9	29	4.9	15	5.4	5.2	4.9	5.2	3.4
22	14	10	15	9.0	103	6.0	15	4.5	3.6	5.3	5.1	3.3
23	14	9.2	16	8.7	82	5.6	14	5.2	3.9	4.3	4.9	3.1
24	11	9.3	23	7.7	10	7.1	12	5.7	3.8	5.5	4.2	3.5
25	11	10	165	8.1	21	12	13	4.8	4.1	5.3	5.9	2.9
26	12	8.2	33	8.2	401	12	14	4.8	4.3	5.3	5.3	3.6
27	9.2	9.6	25	8.9	42	13	12	4.6	4.3	5.3	5.1	3.7
28	8.5	8.2	23	9.3	18	12	13	5.0	4.5	4.8	5.5	2.9
29	8.5	8.3	23	10	12	12	15	4.9	4.9	4.1	5.1	3.7
30	9.9	9.1	21	8.9	---	13	16	4.9	5.9	3.6	5.3	4.1
31	9.6	---	20	11	---	13	---	4.7	---	3.6	4.2	---
TOTAL	371.7	429.9	598.6	371.9	1138.9	438.5	490.7	202.4	146.4	180.8	130.3	91.1
MEAN	12.0	14.3	19.3	12.0	39.3	14.1	16.4	6.53	4.88	5.83	4.20	3.04
MAX	15	74	165	55	401	78	65	14	7.1	12	5.9	4.7
MIN	8.5	7.7	8.1	7.7	7.8	3.2	6.9	4.5	3.4	3.6	2.0	1.6
AC-FT	737	853	1190	738	2260	870	973	401	290	359	258	181



11072100 TEMESCAL CREEK ABOVE MAIN STREET, AT CORONA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1990, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.62	15.1	23.8	23.0	14.5	40.9	13.1	12.0	9.35	7.15	6.45	6.99
MAX	16.1	55.9	126	116	25.5	237	39.3	43.7	30.0	10.9	13.4	11.3
(WY)	1986	1981	1981	1981	1981	1983	1983	1983	1983	1985	1990	1985
MIN	2.36	4.67	2.53	7.01	7.42	6.26	4.02	3.77	1.12	1.20	1.79	1.09
(WY)	1985	1987	1982	1989	1982	1990	1989	1982	1982	1982	1982	1981

SUMMARY STATISTICS

WATER YEARS 1981 - 1990

ANNUAL MEAN	12.4
HIGHEST ANNUAL MEAN	33.7 1981
LOWEST ANNUAL MEAN	6.10 1987
HIGHEST DAILY MEAN	1720 Mar 1 1983
LOWEST DAILY MEAN	.27 Sep 25 1981
ANNUAL SEVEN-DAY MINIMUM	.56 Sep 23 1981
MAXIMUM PEAK FLOW	4720 Mar 1 1983
MAXIMUM PEAK STAGE	11.67 Mar 1 1983
ANNUAL RUNOFF (AC-FT)	8990
10 PERCENT EXCEEDS	27
50 PERCENT EXCEEDS	6.1
90 PERCENT EXCEEDS	2.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)

MEAN	12.2	14.6	17.1	37.7	80.8	58.8	35.4	21.2	13.9	12.4	11.8	12.0
MAX	16.3	24.3	26.4	161	351	349	190	100	34.3	24.9	20.1	15.1
(WY)	1997	1994	1993	1995	1993	1995	1995	1995	1995	1993	1993	1994
MIN	6.22	5.55	9.35	10.7	10.5	5.19	2.89	3.24	3.25	3.56	4.20	3.04
(WY)	1996	1996	1999	2003	2002	2001	1991	1992	2003	1994	2004	2004

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1991 - 2004

ANNUAL TOTAL	7957.7	4591.2	
ANNUAL MEAN	21.8	12.5	27.0
HIGHEST ANNUAL MEAN			81.8 1995
LOWEST ANNUAL MEAN			12.5 2004
HIGHEST DAILY MEAN	626 Mar 16	401 Feb 26	2090 Feb 24 1998
LOWEST DAILY MEAN	1.8 Jan 25	1.6 Sep 11	0.34 Jul 3 1992
ANNUAL SEVEN-DAY MINIMUM	2.6 Jun 10	2.3 Sep 9	0.89 Jan 13 1992
MAXIMUM PEAK FLOW		1110 Feb 26	3660 Feb 24 1998
MAXIMUM PEAK STAGE		4.78 Feb 26	6.54 Feb 24 1998
ANNUAL RUNOFF (AC-FT)	15780	9110	19570
10 PERCENT EXCEEDS	33	18	37
50 PERCENT EXCEEDS	12	8.5	13
90 PERCENT EXCEEDS	3.3	3.6	4.2

## REVISION OF RECORDS FOR A DISCONTINUED STATION

11073000 SAN ANTONIO CREEK NEAR CLAREMONT, CA

LOCATION.—Lat 34°12'58", long 117°40'04", in SE 1/4 SW 1/4 NE 1/4 sec. 36, T.2 N., R.8 W., [Los Angeles County](#), Hydrologic Unit 18070203, on right bank, 0.5 mi upstream from Southern California Edison Co.'s Sierra powerplant, and 8.8 mi northeast of Claremont.

DRAINAGE AREA.—16.5 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1917 to September 1972. Combined records of creek and conduit, March 1901 to December 1916 (fragmentary, published as "near Upland"), January 1917 to September 1972.

REVISED RECORDS.—WDR-CA-04-1: (M).

GAGE.—Water-stage recorder; broad-crested weir since January 1939 on creek; water-stage recorder and sharp-crested weir on conduit. River pickup discontinued and abandoned Jan. 5, 1969. Datum of gage is 3,396 ft above NGVD of 1929. See WSP 1315-B for history of changes prior to Jan. 9, 1939. Prior to July 28, 1969, at datum 1.0 ft higher.

REMARKS.—No regulation above station. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 21,400 ft<sup>3</sup>/s, estimated, Mar. 2, 1938, on basis of slope-area measurement and rainfall-runoff studies; no flow Aug. 24–27, 31, Sept. 1, Oct. 17–21, 1951.

Combined creek and conduit: Maximum discharge, 21,400 ft<sup>3</sup>/s, Mar. 2, 1938; minimum daily, 0.30 ft<sup>3</sup>/s, Dec. 8–19, 1954, Dec. 12–17, 1963.

REVISIONS.—The maximum discharge for water years 1966 and 1969 have been revised to 1,800 ft<sup>3</sup>/s, Nov. 22, 1965, gage height 6.08 ft, and 6,500 ft<sup>3</sup>/s, Jan. 25, 1969, gage height 11.13 ft.

## 11073300 SAN ANTONIO CREEK AT RIVERSIDE DRIVE, NEAR CHINO, CA

LOCATION.—Lat 34°01'07", long 117°43'47", in Santa Ana del Chino Grant, [San Bernardino County](#), Hydrologic Unit 18070203, on right bank, at south end of Riverside Drive Bridge, 0.4 mi upstream from confluence with Chino Creek, 10.2 mi downstream from San Antonio Dam, and 2.4 mi northwest of Chino.

DRAINAGE AREA.—36.6 mi<sup>2</sup>.

PERIOD OF RECORD.—December 1998 to current year.

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Elevation of gage is 735 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for discharges below 20 ft<sup>3</sup>/s and estimated daily discharges, which are poor. Flow mostly regulated by San Antonio Flood-Control Reservoir, capacity, 7,700 acre-ft. Natural streamflow affected by ground-water withdrawals, diversions for power, domestic use, irrigation, and return flow from irrigated areas. Flow at gage is primarily urban runoff, except when releases are made from San Antonio Dam. Releases of imported water are made to San Antonio Creek by the California Water Project at times in some years, from Rialto Pipeline below San Antonio Dam, at a site 10 mi upstream. During the current year, the California Water Project reported releases of 8,040 acre-ft. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,750 ft<sup>3</sup>/s, Nov. 24, 2001, gage height, 4.84 ft, from rating curve extended above 576 ft<sup>3</sup>/s, on basis of step-backwater analysis; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	12	0.18	0.46	0.42	68	21	0.50	22	21	0.46	e34
2	e23	0.52	0.20	27	63	55	0.53	0.37	0.26	19	0.50	32
3	e23	0.73	0.20	0.69	9.8	0.50	1.9	0.41	0.36	17	0.51	28
4	e26	0.48	0.33	1.9	0.40	0.48	0.90	0.37	0.32	18	0.50	30
5	e27	0.52	0.23	2.3	0.37	0.45	0.49	0.38	0.32	23	0.51	e44
6	e10	14	0.20	0.77	0.36	0.44	0.45	0.35	0.27	21	0.51	e40
7	0.27	e53	1.7	e3.0	0.33	0.42	0.52	0.30	0.41	23	0.48	30
8	0.29	e54	0.31	e2.0	0.34	0.44	0.32	0.29	0.36	24	0.48	20
9	0.38	e54	0.23	e4.0	0.40	0.47	0.40	0.30	0.40	25	0.54	19
10	0.60	e86	0.24	1.2	0.60	0.52	0.93	0.31	0.30	e26	0.55	0.57
11	0.29	118	0.35	5.3	0.55	0.47	0.59	0.29	0.27	e25	0.53	0.50
12	20	102	0.29	0.52	0.51	0.62	0.61	0.29	0.31	e24	0.52	0.47
13	57	0.72	0.28	0.46	0.72	0.94	0.57	0.33	0.28	24	0.53	0.51
14	70	0.96	0.72	0.62	0.42	0.56	0.50	15	0.27	21	0.52	0.52
15	124	4.4	0.31	0.80	0.39	0.53	0.51	47	0.25	25	0.53	0.58
16	152	3.8	0.25	0.61	0.41	0.52	0.75	e49	0.27	22	0.56	e12
17	153	0.55	0.23	0.46	0.51	0.51	10	e50	0.31	24	0.54	22
18	151	0.65	0.21	0.46	33	0.56	0.29	e51	0.38	25	0.52	21
19	139	0.40	0.23	0.47	0.71	0.61	0.33	e55	0.35	25	0.52	e20
20	85	0.38	0.22	0.45	2.2	0.61	0.35	e57	0.36	24	0.52	e24
21	23	0.41	0.24	0.55	10	0.61	0.32	57	0.35	20	0.52	e67
22	0.48	0.43	0.27	0.67	196	0.60	0.30	58	8.4	15	0.52	e108
23	0.47	0.39	0.31	0.41	61	0.67	0.29	60	47	0.31	0.52	e110
24	0.53	0.36	0.67	0.38	0.51	0.75	0.25	61	49	0.32	8.0	e112
25	0.56	0.31	140	0.40	59	0.77	0.30	58	e57	0.29	26	e85
26	0.74	0.21	0.80	0.43	309	0.98	0.31	e61	e57	0.18	e24	0.24
27	0.72	0.21	0.51	0.41	0.42	0.87	0.34	e59	e57	0.35	e20	0.26
28	0.72	0.26	0.52	0.42	0.45	0.80	0.37	e60	e52	0.43	e27	0.34
29	0.67	0.22	0.53	0.43	0.43	0.81	0.40	61	20	0.47	24	0.36
30	0.47	0.20	2.0	0.43	---	0.93	0.35	56	11	0.48	25	0.42
31	0.49	---	0.63	0.44	---	0.87	---	57	---	0.45	e25	---
TOTAL	1116.68	510.11	153.39	58.44	752.25	141.31	45.17	976.49	386.80	494.28	190.89	862.77
MEAN	36.0	17.0	4.95	1.89	25.9	4.56	1.51	31.5	12.9	15.9	6.16	28.8
MAX	153	118	140	27	309	68	21	61	57	26	27	112
MIN	0.27	0.20	0.18	0.38	0.33	0.42	0.25	0.29	0.25	0.18	0.46	0.24
AC-FT	2210	1010	304	116	1490	280	90	1940	767	980	379	1710

e Estimated.

## SANTA ANA RIVER BASIN

## 11073300 SAN ANTONIO CREEK AT RIVERSIDE DRIVE, NEAR CHINO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	34.4	19.1	12.9	12.3	20.5	5.83	3.75	6.00	2.64	4.64	9.99	7.87
MAX	98.1	63.2	46.9	53.9	55.3	16.4	7.15	31.5	12.9	15.9	40.9	28.8
(WY)	2000	2001	2000	2000	2000	2003	2000	2004	2004	2004	2002	2004
MIN	0.32	0.59	0.19	0.53	1.70	1.47	1.02	0.01	0.11	0.43	0.20	0.04
(WY)	2002	2000	2001	2003	2002	2001	2002	1999	2001	2000	2000	1999

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	3960.46		5688.58			
ANNUAL MEAN	10.9		15.5		12.5	
HIGHEST ANNUAL MEAN					22.6	
LOWEST ANNUAL MEAN					5.82	
HIGHEST DAILY MEAN	346	Mar 15	309	Feb 26	346	Mar 15 2003
LOWEST DAILY MEAN	0.05	Jan 1	0.18	Dec 1	0.00	Dec 21 1998
ANNUAL SEVEN-DAY MINIMUM	0.21	Nov 27	0.21	Nov 27	0.00	Dec 26 1998
MAXIMUM PEAK FLOW			1480	Feb 26	2750	Nov 24 2001
MAXIMUM PEAK STAGE			3.56	Feb 26	4.84	Nov 24 2001
ANNUAL RUNOFF (AC-FT)	7860		11280		9080	
10 PERCENT EXCEEDS	25		57		50	
50 PERCENT EXCEEDS	0.66		0.53		0.54	
90 PERCENT EXCEEDS	0.26		0.29		0.06	

## 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 old Schaefer Avenue Bridge, 0.8 mi downstream from San Antonio Creek, and 1.5 mi southwest of Chino.

DRAINAGE AREA.—48.9 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1969 to current year.

CHEMICAL DATA: Water year 1998.

SEDIMENT DATA: Water year 1998.

REVISED RECORDS.—WDR CA-84-1: 1983(M). WDR CA-95-1: 1992, 1993.

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Concrete dikes formed low-water control from October 1975 to Apr. 16, 1991. Elevation of gage is 685 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair above 10 ft<sup>3</sup>/s and poor below. Since 1997, due to construction in area of gage, Schaefer Avenue no longer extends to the Chino Creek crossing. The Schaefer Avenue Bridge, however, remains. Flow mostly regulated by San Antonio Flood-Control Reservoir, capacity, 7,700 acre-ft. Natural streamflow affected by extensive ground-water withdrawals, diversions for power, domestic use, irrigation, and return flow from irrigated areas. Releases of imported water are made to the basin by the California Water Project at times in some years, via San Antonio Creek from Rialto Pipeline below San Antonio Dam, at a site approximately 11 mi upstream. During the current year, 8,040 acre-ft was released. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,700 ft<sup>3</sup>/s, Feb. 27, 1983, gage height, 10.32 ft, from rating curve extended above 560 ft<sup>3</sup>/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, reached a stage of 9.23 ft, present datum, discharge, 9,200 ft<sup>3</sup>/s, on basis of contracted-opening measurement at site 6.1 mi downstream.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	29	1.8	1.4	1.8	119	52	2.2	26	21	1.4	36
2	24	2.5	1.8	38	117	107	2.1	2.0	1.8	20	1.5	34
3	24	2.7	1.6	2.2	16	4.6	3.0	2.0	2.1	20	1.5	30
4	27	2.2	2.4	2.8	2.3	3.2	2.9	1.9	1.8	23	1.8	32
5	28	2.3	1.7	2.7	2.0	2.8	2.3	1.8	1.8	27	1.7	47
6	11	16	1.8	1.7	2.0	2.2	1.9	1.6	1.4	25	1.3	42
7	1.6	56	9.6	4.0	1.9	2.1	2.1	1.6	1.6	24	1.2	32
8	1.6	58	3.0	3.2	2.2	2.1	1.4	1.5	1.4	26	1.2	25
9	2.1	55	1.8	4.5	2.3	2.1	2.1	1.7	1.5	26	1.3	21
10	2.8	88	1.9	2.1	3.4	2.4	2.1	1.6	1.3	28	1.4	1.6
11	2.3	122	2.3	4.6	2.9	2.2	1.7	1.7	1.2	28	1.4	1.5
12	21	170	1.8	1.9	2.6	2.3	1.6	1.5	1.3	26	1.4	1.3
13	63	3.6	1.7	1.6	3.4	2.6	1.6	1.5	1.3	26	1.4	1.5
14	79	2.8	6.1	2.1	2.1	2.3	1.5	17	1.3	25	1.4	1.5
15	134	5.8	2.2	2.6	1.9	2.2	1.5	52	1.3	26	1.5	1.5
16	155	7.5	1.9	2.9	2.0	2.4	1.5	51	1.3	24	1.6	13
17	151	2.2	2.0	2.0	2.5	1.9	15	53	1.5	24	1.5	24
18	152	2.3	2.1	2.0	69	2.1	1.9	53	1.6	27	1.4	23
19	138	1.7	1.8	2.1	3.3	1.9	1.8	56	1.5	28	1.5	21
20	98	1.6	1.9	2.0	5.7	1.9	1.6	58	1.5	27	1.7	25
21	27	1.8	1.8	2.3	15	1.9	1.6	59	1.6	24	1.7	70
22	3.1	2.3	1.9	2.7	395	1.8	1.6	62	9.9	17	1.6	110
23	1.8	1.8	2.0	1.9	109	1.9	2.2	64	50	1.2	1.7	112
24	2.0	1.8	3.9	2.5	3.9	1.6	1.5	63	51	1.2	8.2	115
25	2.1	1.8	285	2.5	133	1.7	1.5	62	58	1.1	28	88
26	2.5	1.8	4.0	2.1	617	1.8	1.5	64	59	1.1	25	1.1
27	2.6	1.6	2.3	1.7	4.1	1.5	1.6	61	59	1.4	21	1.1
28	2.6	1.6	2.0	1.9	3.0	1.6	1.8	63	55	1.3	28	1.2
29	2.6	1.7	2.1	1.9	2.6	1.6	2.1	63	24	1.3	28	1.1
30	1.5	1.7	3.1	1.8	---	1.6	2.0	61	12	1.3	28	1.0
31	1.6	---	1.8	1.8	---	1.7	---	64	---	1.5	27	---
TOTAL	1190.8	649.1	361.1	109.5	1528.9	288.0	119.0	1048.6	434.0	553.4	227.3	914.4
MEAN	38.4	21.6	11.6	3.53	52.7	9.29	3.97	33.8	14.5	17.9	7.33	30.5
MAX	155	170	285	38	617	119	52	64	59	28	28	115
MIN	1.5	1.6	1.6	1.4	1.8	1.5	1.4	1.5	1.2	1.1	1.2	1.0
AC-FT	2360	1290	716	217	3030	571	236	2080	861	1100	451	1810

## SANTA ANA RIVER BASIN

## 11073360 CHINO CREEK AT SCHAEFER AVENUE, NEAR CHINO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.7	17.0	25.8	32.1	38.4	28.2	9.76	13.5	18.2	18.9	16.5	14.5
MAX	126	113	189	186	193	257	68.6	104	184	176	191	198
(WY)	1979	1976	1976	1976	1980	1978	1974	1997	1976	1974	1974	1997
MIN	0.06	0.23	0.53	0.55	0.33	0.30	0.14	0.22	0.06	0.07	0.14	0.13
(WY)	1978	1978	1970	1972	1972	1972	1977	1973	1977	1977	1976	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	5971.52		7424.1			
ANNUAL MEAN	16.4		20.3		20.7	
HIGHEST ANNUAL MEAN					92.4 1974	
LOWEST ANNUAL MEAN					3.24 1970	
HIGHEST DAILY MEAN	780	Mar 15	617	Feb 26	2060	Mar 1 1978
LOWEST DAILY MEAN	0.87	Aug 3	1.0	Sep 30	0.00	May 21 1977
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 22	1.2	Jul 23	0.02	Oct 28 1977
MAXIMUM PEAK FLOW			2780	Feb 26	12700	Feb 27 1983
MAXIMUM PEAK STAGE			6.72	Feb 26	10.32	Feb 27 1983
ANNUAL RUNOFF (AC-FT)	11840		14730		15020	
10 PERCENT EXCEEDS	27		59		74	
50 PERCENT EXCEEDS	2.1		2.2		1.3	
90 PERCENT EXCEEDS	1.5		1.5		0.38	

## 11073493 WEST BRANCH CUCAMONGA CHANNEL ABOVE ELY PERCOLATION BASINS, AT ONTARIO, CA

LOCATION.—Lat 34°02'15", long 117°37'09", in SE 1/4 SW 1/4 sec.33, T.1 S., R.7 W., San Bernardino County, Hydrologic Unit 18070203, on right bank, 700 ft upstream from northwest corner of westernmost of Ely Percolation Basins, in Ontario.

DRAINAGE AREA.—6.01 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1996 to current year.

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Elevation of gage is 850 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Flow at gage is primarily urban runoff. Irrigation return flow and various industrial releases represent most of the base flow at this site. See schematic diagram of Santa Ana River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,750 ft<sup>3</sup>/s, Mar. 15, 2003, gage height, 4.60 ft, from rating curve extended above 415 ft<sup>3</sup>/s, on basis of step-backwater computations; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s, or maximum, from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1715	763	3.25	Feb. 22	1215	451	2.67
Feb. 2	2200	318	2.37	Feb. 26	0500	880	3.44

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.15	8.4	0.06	0.00	0.25	16	16	0.23	0.19	0.24	0.12	2.4
2	0.20	0.06	0.04	9.7	23	48	0.94	0.17	0.21	0.26	0.25	1.7
3	0.20	0.05	0.44	0.95	32	3.3	2.7	0.20	0.20	0.21	0.28	2.9
4	0.19	0.03	0.92	0.03	0.47	0.97	0.60	0.28	0.22	0.20	0.33	2.7
5	0.22	0.04	0.22	0.03	0.23	1.0	0.56	0.33	0.24	0.19	0.19	2.7
6	0.36	0.02	0.04	0.02	0.70	0.64	0.64	0.32	0.21	0.20	0.16	2.7
7	0.20	0.01	1.2	0.57	2.4	0.88	0.55	0.34	0.35	0.20	0.15	2.6
8	0.22	0.00	0.13	0.23	2.0	0.72	0.30	0.32	0.17	0.15	0.16	2.3
9	0.29	0.01	0.40	0.11	1.6	1.0	0.27	0.69	0.14	0.10	0.19	2.9
10	0.24	0.01	0.72	0.09	1.9	0.65	0.25	0.47	0.18	0.10	0.17	2.7
11	0.19	0.04	0.93	0.10	2.1	0.87	0.15	0.51	0.13	0.10	0.21	2.9
12	0.20	34	0.00	0.11	2.1	2.5	0.20	0.35	0.14	0.15	0.15	2.9
13	0.16	5.8	0.00	0.13	3.4	0.64	0.27	0.36	0.17	0.17	0.84	2.9
14	0.16	0.62	0.16	0.21	3.1	0.59	0.18	0.47	0.24	0.44	1.9	2.8
15	0.14	0.37	0.01	0.24	0.55	0.76	0.21	0.58	0.26	0.29	2.2	2.8
16	0.10	2.8	0.01	0.22	0.60	0.72	0.20	0.59	0.21	0.30	2.3	2.9
17	0.10	0.11	0.01	0.16	0.76	1.1	7.9	0.38	0.20	0.43	2.3	2.9
18	0.12	0.01	0.02	0.17	16	0.67	0.27	0.28	0.23	0.28	2.6	3.0
19	0.12	0.05	0.04	0.16	1.4	0.64	0.18	0.35	0.20	0.29	2.9	2.9
20	0.12	0.05	0.03	0.18	2.3	0.50	0.32	0.34	0.19	0.34	2.9	2.8
21	0.11	0.06	0.03	0.15	6.1	0.46	0.13	0.11	0.21	0.44	2.9	3.1
22	0.14	0.04	0.05	0.21	101	0.57	0.06	0.05	0.23	0.27	2.8	3.5
23	0.13	0.02	0.03	0.19	59	1.3	0.15	0.08	0.27	0.15	2.6	3.5
24	0.14	0.03	0.53	0.22	6.0	0.43	0.17	0.06	0.27	0.12	2.2	3.4
25	0.11	0.03	86	0.16	17	0.44	0.16	0.06	0.26	0.12	1.8	3.6
26	0.09	0.02	5.2	0.24	200	0.37	0.22	0.06	0.24	0.19	1.9	3.6
27	0.10	0.02	0.01	0.52	4.2	0.37	0.21	0.08	0.24	e0.14	2.3	3.6
28	0.19	0.03	0.01	0.31	0.92	0.26	0.26	0.11	0.21	e0.59	2.4	3.6
29	0.24	0.03	0.00	0.32	0.99	0.37	0.27	0.12	0.23	e0.20	2.7	3.7
30	0.27	0.04	0.00	0.40	---	0.60	0.22	0.12	0.36	0.05	2.8	4.0
31	0.10	---	0.01	0.62	---	0.51	---	0.14	---	0.11	2.8	---
TOTAL	5.30	52.80	97.25	16.75	492.07	87.83	34.54	8.55	6.60	7.02	47.50	90.0
MEAN	0.17	1.76	3.14	0.54	17.0	2.83	1.15	0.28	0.22	0.23	1.53	3.00
MAX	0.36	34	86	9.7	200	48	16	0.69	0.36	0.59	2.9	4.0
MIN	0.09	0.00	0.00	0.00	0.23	0.26	0.06	0.05	0.13	0.05	0.12	1.7
AC-FT	11	105	193	33	976	174	69	17	13	14	94	179

e Estimated.

## 11073493 WEST BRANCH CUCAMONGA CHANNEL ABOVE ELY PERCOLATION BASINS, AT ONTARIO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.70	4.63	4.02	6.32	13.8	5.01	3.92	2.77	1.03	0.98	0.96	1.38
MAX	3.02	13.1	10.0	20.3	38.6	13.9	6.60	8.92	2.71	2.45	2.21	3.00
(WY)	1997	2003	1997	1997	1998	2003	2003	1998	1998	1998	2002	2004
MIN	0.17	0.09	0.61	0.54	1.59	1.33	1.15	0.28	0.22	0.16	0.11	0.16
(WY)	2004	2000	2000	2004	1997	1997	2004	2004	2004	1997	2000	2000

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1997 - 2004	
ANNUAL TOTAL	1588.61		946.21			
ANNUAL MEAN	4.35		2.59		3.81	
HIGHEST ANNUAL MEAN					7.57 1998	
LOWEST ANNUAL MEAN					1.94 1999	
HIGHEST DAILY MEAN	275	Mar 15	200	Feb 26	275	Mar 15 2003
LOWEST DAILY MEAN	0.00	Nov 8	0.00	Nov 8	0.00	Jun 11 1997
ANNUAL SEVEN-DAY MINIMUM	0.02	Nov 4	0.02	Nov 4	0.01	Jul 15 1997
MAXIMUM PEAK FLOW			880	Feb 26	1750	Mar 15 2003
MAXIMUM PEAK STAGE			3.44	Feb 26	4.60	Mar 15 2003
ANNUAL RUNOFF (AC-FT)	3150		1880		2760	
10 PERCENT EXCEEDS	4.9		2.9		3.9	
50 PERCENT EXCEEDS	1.3		0.26		1.6	
90 PERCENT EXCEEDS	0.05		0.04		0.09	







## 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, and 4.6 mi west of Mira Loma.

DRAINAGE AREA.—75.8 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1968 to July 1977, December 1978 to current year.

CHEMICAL DATA: Water years 1999–2000.

SPECIFIC CONDUCTANCE: Water years 1999–2000.

WATER TEMPERATURE: Water years 1999–2000.

SEDIMENT DATA: Water years 1999–2000.

GAGE.—Water-stage recorder, crest-stage gage, and concrete-lined flood-control channel. Elevation of gage is 660 ft above NGVD of 1929, from topographic map. Prior to July 1977 at site 100 ft downstream at different datum.

REMARKS.—Records fair above 200 ft<sup>3</sup>/s and poor below. Channel is a trapezoidal concrete floodway; records for low and medium flows prior to July 31, 1977, are not equivalent (channel concrete lined since July 31, 1977). Inland Empire Utilities Agency Tertiary Plant No. 1 began discharging effluent 3.3 mi upstream from station on May 8, 1985. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 16,100 ft<sup>3</sup>/s, Feb. 27, 1983, gage height, 7.85 ft, from floodmark, on basis of slope-conveyance study of peak flow; prior to operation of Plant No. 1, no flow for most of some years, minimum daily since 1985, 2.5 ft<sup>3</sup>/s, June 6, 1987.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	132	57	55	61	130	291	46	57	e52	59	45
2	53	59	57	97	355	282	90	47	57	e52	52	52
3	55	55	59	56	132	66	118	42	59	e53	25	52
4	56	53	54	61	50	52	74	47	56	e52	55	50
5	60	49	48	65	46	52	56	49	58	e50	e57	49
6	65	52	52	61	44	52	48	49	59	e52	e57	47
7	63	54	69	65	48	48	47	50	57	e51	e56	50
8	61	52	51	65	53	48	47	47	55	53	59	49
9	55	49	52	64	47	51	48	51	55	55	48	51
10	53	52	65	66	49	52	50	51	57	51	45	51
11	52	56	90	70	45	52	53	51	56	51	45	49
12	52	341	60	83	61	52	51	52	e56	47	26	51
13	53	93	55	61	55	52	50	51	e55	52	40	51
14	55	62	59	61	45	51	47	48	e55	51	50	48
15	59	59	59	67	46	48	47	50	e54	51	55	49
16	58	97	53	56	50	47	47	50	e56	49	51	50
17	60	55	56	61	54	47	198	54	e57	48	52	52
18	60	50	61	65	274	47	92	55	e55	53	52	50
19	60	52	58	65	48	49	58	56	e55	e55	51	51
20	58	53	60	66	55	47	53	52	e54	e56	53	51
21	58	53	68	63	73	49	52	51	e55	e57	51	52
22	59	56	61	57	1130	49	52	53	e54	e57	52	49
23	56	58	57	56	247	47	48	56	e54	e58	58	46
24	56	56	64	59	73	47	48	61	e52	e60	54	48
25	52	57	1630	62	159	45	49	56	e53	e59	46	50
26	50	55	85	62	1860	42	47	51	e53	e57	56	49
27	56	59	59	61	84	45	47	50	e51	e56	54	44
28	60	54	54	63	61	48	44	49	e53	e55	54	48
29	60	56	65	63	55	45	47	52	e53	52	51	48
30	56	57	62	61	---	43	48	53	e52	51	52	49
31	55	---	62	63	---	42	---	54	---	59	51	---
TOTAL	1756	2086	3442	1980	5360	1827	2047	1584	1653	1655	1567	1481
MEAN	56.6	69.5	111	63.9	185	58.9	68.2	51.1	55.1	53.4	50.5	49.4
MAX	65	341	1630	97	1860	282	291	61	59	60	59	52
MIN	50	49	48	55	44	42	44	42	51	47	25	44
AC-FT	3480	4140	6830	3930	10630	3620	4060	3140	3280	3280	3110	2940

e Estimated.

## SANTA ANA RIVER BASIN

## 11073495 CUCAMONGA CREEK NEAR MIRA LOMA, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1977, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.021	1.15	1.55	18.2	4.65	1.91	1.35	.065	.001	.000	.000	.11
MAX	.19	6.07	7.91	149	30.7	7.94	13.1	.54	.007	.000	.000	1.03
(WY)	1972	1971	1972	1969	1969	1969	1969	1977	1969	1968	1968	1976
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1969	1969	1970	1975	1972	1972	1968	1968	1968	1968	1968	1968

## SUMMARY STATISTICS

## WATER YEARS 1968 - 1977

ANNUAL TOTAL	
ANNUAL MEAN	2.73
HIGHEST ANNUAL MEAN	16.8 1969
LOWEST ANNUAL MEAN	.16 1976
HIGHEST DAILY MEAN	2600 Jan 25 1969
LOWEST DAILY MEAN	.00 Feb 1 1968
ANNUAL SEVEN-DAY MINIMUM	.00 Feb 1 1968
MAXIMUM PEAK FLOW	9100 Jan 25 1969
MAXIMUM PEAK STAGE	7.08 Jan 25 1969
ANNUAL RUNOFF (AC-FT)	1980
10 PERCENT EXCEEDS	.10
50 PERCENT EXCEEDS	.00
90 PERCENT EXCEEDS	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1984, BY WATER YEAR (WY)

MEAN	3.49	11.3	7.69	34.1	65.0	46.3	12.1	3.43	.48	.37	1.47	1.08
MAX	11.1	27.9	24.7	149	216	205	63.4	19.8	2.30	1.22	6.99	3.45
(WY)	1984	1983	1984	1983	1980	1983	1983	1983	1983	1983	1983	1983
MIN	.091	.002	.006	1.67	1.29	2.44	.056	.063	.008	.019	.009	.011
(WY)	1981	1980	1980	1984	1984	1984	1981	1979	1979	1981	1979	1979

## SUMMARY STATISTICS

## WATER YEARS 1979 - 1984

ANNUAL TOTAL	
ANNUAL MEAN	17.5
HIGHEST ANNUAL MEAN	53.4 1983
LOWEST ANNUAL MEAN	1.51 1981
HIGHEST DAILY MEAN	2530 Mar 1 1983
LOWEST DAILY MEAN	.00 Feb 6 1979
ANNUAL SEVEN-DAY MINIMUM	.00 Feb 6 1979
MAXIMUM PEAK FLOW	16100 Feb 27 1983
MAXIMUM PEAK STAGE	7.85 Feb 27 1983
ANNUAL RUNOFF (AC-FT)	12700
10 PERCENT EXCEEDS	10
50 PERCENT EXCEEDS	.13
90 PERCENT EXCEEDS	.01

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

MEAN	37.6	44.0	49.8	75.1	101	66.4	45.2	36.2	35.5	34.0	33.8	37.5
MAX	56.6	102	111	265	304	198	96.7	69.4	57.1	53.4	51.8	52.0
(WY)	2004	2003	2004	1993	1998	1995	2003	2003	1992	2004	1992	1986
MIN	20.4	23.4	21.0	26.1	34.9	25.3	20.5	18.5	18.1	19.3	18.5	16.4
(WY)	1987	1989	1987	1989	1989	1988	1987	1988	1988	1987	1987	1988

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1986 - 2004

ANNUAL TOTAL	28457	26438	
ANNUAL MEAN	78.0	72.2	49.4
HIGHEST ANNUAL MEAN			78.1 2003
LOWEST ANNUAL MEAN			26.6 1987
HIGHEST DAILY MEAN	1690 Mar 15	1860 Feb 26	2490 Feb 20 1996
LOWEST DAILY MEAN	36 Feb 7	25 Aug 3	2.5 Jun 6 1987
ANNUAL SEVEN-DAY MINIMUM	42 Feb 4	44 Aug 9	12 Aug 25 1988
MAXIMUM PEAK FLOW		14100 Dec 25	14100 Dec 25 2003
MAXIMUM PEAK STAGE		6.06 Dec 25	6.06 Dec 25 2003
ANNUAL RUNOFF (AC-FT)	56440	52440	35800
10 PERCENT EXCEEDS	69	65	59
50 PERCENT EXCEEDS	54	53	35
90 PERCENT EXCEEDS	44	47	20

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA

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 mi<sup>2</sup>, excludes 768 mi<sup>2</sup> 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 NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Mar. 18, 1940, at about same site at various datums.

REMARKS.—Records good below 500 ft<sup>3</sup>/s and fair above, except for estimated daily discharges, which are poor. Flow regulated since 1940 by Prado Flood-Control Reservoir, capacity, 196,200 acre-ft. Natural streamflow affected by extensive ground-water withdrawals, diversion for irrigation, discharges of treated effluent, and return flow from irrigated areas. Releases of imported water are made to the basin by the California Water Project at times in some years, via San Antonio Creek from Rialto Pipeline below San Antonio Dam. During the current year, the California Water Project released 8,040 acre-ft to the basin. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,440 ft<sup>3</sup>/s, Feb. 21, 1980, gage height, 6.88 ft; maximum gage height, 7.29 ft, Jan. 19, 1993; minimum daily, 2.4 ft<sup>3</sup>/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 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow at site 2.5 mi downstream.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	331	257	285	387	432	263	372	239	200	159	178
2	226	241	266	289	283	462	416	367	184	201	157	185
3	227	235	248	291	221	461	507	385	189	209	e150	181
4	226	236	244	292	220	462	295	395	186	207	e168	184
5	237	230	242	379	218	460	308	399	192	201	164	185
6	235	209	238	426	214	454	338	389	196	201	160	186
7	208	219	237	425	212	451	333	369	195	200	157	180
8	204	235	238	426	209	464	338	287	191	196	151	180
9	199	241	234	429	342	487	339	219	184	204	150	185
10	204	245	229	426	388	488	333	218	194	208	146	170
11	207	252	226	423	387	497	327	206	183	198	e118	157
12	208	265	227	423	392	496	333	205	187	193	e146	161
13	244	273	227	420	396	495	334	200	185	193	165	168
14	241	306	227	417	392	497	328	199	186	185	151	173
15	284	303	274	412	385	495	327	231	187	186	159	176
16	327	299	283	406	380	493	327	243	179	186	169	179
17	328	302	275	403	405	488	328	246	179	183	151	197
18	334	304	270	400	285	483	323	245	178	183	158	195
19	328	302	263	396	247	480	331	245	177	180	147	194
20	315	298	251	389	249	419	333	246	184	181	151	196
21	238	294	243	399	250	257	331	242	185	182	149	196
22	195	289	238	341	258	233	337	242	188	177	150	235
23	192	283	233	308	1360	221	339	246	214	152	154	246
24	189	280	214	308	1350	219	319	252	232	155	154	252
25	189	278	226	301	2700	217	317	247	230	161	165	243
26	184	276	307	377	4430	218	331	237	235	159	179	190
27	193	270	303	404	2490	221	334	246	237	172	178	168
28	194	267	231	398	881	222	330	246	233	170	183	160
29	196	264	232	393	572	226	341	249	230	157	186	158
30	195	261	264	386	---	233	378	245	188	154	185	205
31	213	---	282	366	---	252	---	240	---	157	178	---
TOTAL	7187	8088	7729	11738	20503	11983	10118	8358	5947	5691	4938	5663
MEAN	232	270	249	379	707	387	337	270	198	184	159	189
MAX	334	331	307	429	4430	497	507	399	239	209	186	252
MIN	184	209	214	285	209	217	263	199	177	152	118	157
AC-FT	14260	16040	15330	23280	40670	23770	20070	16580	11800	11290	9790	11230

e Estimated.

## SANTA ANA RIVER BASIN

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	114	143	208	320	418	394	252	183	150	124	102	97.9
MAX	344	322	709	3543	2733	2556	1101	915	736	446	352	372
(WY)	1984	1997	1967	1993	1998	1980	1980	1998	1983	1998	1983	1997
MIN	22.4	33.5	39.5	49.2	49.8	54.3	43.3	35.2	29.0	17.7	14.8	16.2
(WY)	1962	1963	1963	1963	1961	1961	1961	1961	1961	1960	1960	1960

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	125541		107943			
ANNUAL MEAN	344		295		208	
HIGHEST ANNUAL MEAN					789	
LOWEST ANNUAL MEAN					36.4	
HIGHEST DAILY MEAN	3850	Feb 13	4430	Feb 26	6440	Feb 23 1980
LOWEST DAILY MEAN	90	May 18	118	Aug 11	2.4	Jul 29 1978
ANNUAL SEVEN-DAY MINIMUM	181	Aug 23	147	Aug 8	3.0	Sep 24 1973
MAXIMUM PEAK FLOW			6230	Feb 25	7440	Feb 21 1980
MAXIMUM PEAK STAGE			7.26	Feb 25	7.29	Jan 19 1993
ANNUAL RUNOFF (AC-FT)	249000		214100		150600	
10 PERCENT EXCEEDS	503		418		361	
50 PERCENT EXCEEDS	270		238		129	
90 PERCENT EXCEEDS	199		168		40	

## 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.

SPECIFIC CONDUCTANCE: Water years 1967 to current year.

WATER TEMPERATURE: Water years 1967 to current year.

BIOLOGICAL DATA: Water years 1975–81.

CHLORIDE: Water year 1967–94, 1999 to current year.

SEDIMENT DATA: Water years 1974–94, 1999 to current year.

PERIOD OF DAILY RECORD.—Water years 1968 to current year.

SPECIFIC CONDUCTANCE: February to September 1968, October 1969 to current year.

WATER TEMPERATURE: February to September 1968, October 1969 to current year.

CHLORIDE: October 1970 to September 1971.

SUSPENDED-SEDIMENT DISCHARGE: October 1973 to June 1982.

INSTRUMENTATION.—Water-quality monitor recording specific conductance and water temperature since October 1969.

REMARKS.—Specific conductance records rated fair except for Oct. 29 to Nov. 24, Jan. 14–26, Mar. 11 to May 9, which are rated good; Feb. 26 to Mar. 10, which are rated excellent, and Nov. 25 to Dec. 2, Jan. 27 to Feb. 2, Feb. 19–25, May 10 to Sept. 30, which are rated poor.

Temperature records rated good except for Apr. 10 to Sept. 30, which are rated excellent; and Oct. 18 to Jan. 12, which are rated fair. Specific conductance and water temperature records are affected by releases from Prado Dam. Interruptions in record at times due to malfunction of recording or sensing equipment. Sediment data and a portion of chemical data collected for the National Water-Quality Assessment (NAWQA) Program.

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, 1,140 microsiemens, May 8; minimum recorded, 233 microsiemens, Feb. 27.

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 25; minimum recorded, 10.5°C, Jan. 8.

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
OCT									
03...	0945	226	--	--	--	--	891	18.5	21.0
15...	1700	283	748	8.2	96	8.2	796	23.5	22.0
17...	0945	333	--	--	--	--	755	22.5	19.5
31...	0930	197	--	--	--	--	961	16.5	16.5
NOV									
21...	1110	293	--	--	--	--	905	16.5	16.0
DEC									
02...	0755	366	--	--	--	--	956	9.0	14.0
10...	1630	226	750	9.9	98	8.1	988	15.0	14.0
15...	0955	324	--	--	--	--	965	13.0	12.5
JAN									
02...	1130	289	--	--	--	--	697	11.0	11.5
14...	1215	416	--	--	--	--	849	21.0	12.5
14...	1700	416	748	9.9	94	7.8	871	21.0	12.0
FEB									
04...	1045	218	--	--	--	--	689	17.5	13.5
11...	1500	383	751	9.2	89	8.0	842	21.0	13.0
19...	1240	246	--	--	--	--	868	19.5	15.0
MAR									
01...	1105	538	--	--	--	--	408	16.0	13.5
10...	1650	495	746	8.9	90	7.9	562	29.0	15.0
19...	1515	481	--	--	--	--	705	--	19.0
APR									
02...	0905	263	--	--	--	--	895	22.0	19.0
12...	1430	336	750	8.9	99	8.1	966	26.5	19.5
15...	1055	329	--	--	--	--	960	22.0	20.0
MAY									
07...	1145	376	--	--	--	--	1080	29.0	23.5
21...	1100	237	--	--	--	--	940	23.5	20.5
JUN									
04...	1110	178	--	--	--	--	1020	28.0	23.5
17...	1220	166	--	--	--	--	1020	25.5	23.5
17...	1700	195	748	7.7	99	8.5	947	25.0	27.0
JUL									
02...	0740	201	--	--	--	--	930	19.0	21.0
14...	1000	218	--	--	--	--	965	30.5	24.5
AUG									
05...	1000	163	--	--	--	--	995	25.5	22.5
12...	1100	80	--	--	--	--	1010	29.5	26.0
12...	1550	257	749	8.1	99	8.1	1020	29.5	24.5
SEP									
03...	1220	174	--	--	--	--	927	28.0	24.5
17...	0930	200	--	--	--	--	914	21.5	23.0



## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT									
03...	--	--	--	--	--	557	--	--	--
15...	154	188	--	92.5	81.2	--	e.04	3.53	.029
17...	--	--	--	--	--	465	--	--	--
31...	--	--	--	--	--	605	--	--	--
NOV									
21...	--	--	--	--	--	566	--	--	--
DEC									
02...	--	--	--	--	--	601	--	--	--
10...	205	250	--	114	108	--	.09	6.21	.071
15...	--	--	--	--	--	600	--	--	--
JAN									
02...	--	--	--	--	--	454	--	--	--
14...	--	--	--	--	--	517	--	--	--
14...	193	236	--	94.2	85.1	--	.14	4.01	.142
FEB									
04...	--	--	--	--	--	433	--	--	--
11...	184	224	--	92.1	90.5	--	<.04	4.56	.109
19...	--	--	--	--	--	545	--	--	--
MAR									
01...	--	--	--	--	--	257	--	--	--
10...	138	168	--	53.7	53.1	--	<.04	2.46	.086
19...	--	--	--	--	--	448	--	--	--
APR									
02...	--	--	--	--	--	586	--	--	--
12...	215	262	--	105	92.6	--	.12	4.21	.109
15...	--	--	--	--	--	584	--	--	--
MAY									
07...	--	--	--	--	--	652	--	--	--
21...	--	--	--	--	--	561	--	--	--
JUN									
04...	--	--	--	--	--	618	--	--	--
17...	--	--	--	--	--	640	--	--	--
17...	197	231	5	110	90.2	--	<.04	3.89	.062
JUL									
02...	--	--	--	--	--	555	--	--	--
14...	--	--	--	--	--	577	--	--	--
AUG									
05...	--	--	--	--	--	590	--	--	--
12...	--	--	--	--	--	611	--	--	--
12...	204	249	--	121	103	--	<.04	5.44	.107
SEP									
03...	--	--	--	--	--	553	--	--	--
17...	--	--	--	--	--	564	--	--	--

e Estimated.

&lt; Actual value is known to be less than the value shown.

## SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)
OCT									
03...	--	--	--	--	--	--	--	--	--
15...	.486	.96	4.52	<.006	<.006	<.006	<.004	<.005	<.007
17...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
NOV									
21...	--	--	--	--	--	--	--	--	--
DEC									
02...	--	--	--	--	--	--	--	--	--
10...	.558	.75	6.73	<.006	e.004	<.006	<.005	<.005	.009
15...	--	--	--	--	--	--	--	--	--
JAN									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	.398	.61	5.24	<.006	<.006	<.006	<.005	<.005	<.007
FEB									
04...	--	--	--	--	--	--	--	--	--
11...	.490	.65	5.47	<.006	e.007	<.006	<.005	<.005	<.010
19...	--	--	--	--	--	--	--	--	--
MAR									
01...	--	--	--	--	--	--	--	--	--
10...	.359	.47	3.11	<.006	<.006	<.006	<.005	<.005	.009
19...	--	--	--	--	--	--	--	--	--
APR									
02...	--	--	--	--	--	--	--	--	--
12...	.599	.73	4.71	<.006	<.010	<.006	<.005	<.005	.008
15...	--	--	--	--	--	--	--	--	--
MAY									
07...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUN									
04...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
17...	.553	.836	5.30	<.006	<.006	<.006	<.005	<.005	<.007
JUL									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
AUG									
05...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	.703	.92	6.26	<.006	<.006	<.006	<.075	<.005	.007
SEP									
03...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--

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

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Azin- phos- methyl, water, fltrd 0.7u GF (82686)	Ben- flur- alin, water, fltrd 0.7u GF (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF (82680)	Carbo- furan, water, fltrd 0.7u GF (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF (82687)	Cyana- zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF (82682)
OCT									
03...	--	--	--	--	--	--	--	--	--
15...	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	e.002
17...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
NOV									
21...	--	--	--	--	--	--	--	--	--
DEC									
02...	--	--	--	--	--	--	--	--	--
10...	<.050	<.010	<.004	e.008	<.020	<.005	<.006	<.018	.004
15...	--	--	--	--	--	--	--	--	--
JAN									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	.006
FEB									
04...	--	--	--	--	--	--	--	--	--
11...	<.050	<.010	<.004	e.023	<.020	<.005	<.006	<.018	.007
19...	--	--	--	--	--	--	--	--	--
MAR									
01...	--	--	--	--	--	--	--	--	--
10...	<.050	<.010	<.004	e.018	<.020	<.005	<.006	<.018	.011
19...	--	--	--	--	--	--	--	--	--
APR									
02...	--	--	--	--	--	--	--	--	--
12...	<.050	<.010	<.004	e.016	<.020	<.005	<.006	<.018	.005
15...	--	--	--	--	--	--	--	--	--
MAY									
07...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUN									
04...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
17...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003
JUL									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
AUG									
05...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	<.050	<.010	<.004	e.074	<.020	<.005	<.006	<.018	e.003
SEP									
03...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--

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e Estimated.

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethal- flur- alin, water, fltrd 0.7u GF (82663)	Etho- prop, water, fltrd 0.7u GF (82672)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)
OCT									
03...	--	--	--	--	--	--	--	--	--
15...	<.004	.007	<.005	<.02	<.002	<.009	<.005	<.009	<.005
17...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
NOV									
21...	--	--	--	--	--	--	--	--	--
DEC									
02...	--	--	--	--	--	--	--	--	--
10...	e.005	.014	<.009	<.02	<.004	<.009	<.005	<.029	e.005
15...	--	--	--	--	--	--	--	--	--
JAN									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	<.012	<.020	<.009	<.02	<.004	<.009	<.005	<.029	<.013
FEB									
04...	--	--	--	--	--	--	--	--	--
11...	e.005	.020	<.009	<.02	<.004	<.009	<.005	<.029	<.013
19...	--	--	--	--	--	--	--	--	--
MAR									
01...	--	--	--	--	--	--	--	--	--
10...	<.012	.025	<.009	<.02	<.004	<.009	<.005	<.029	<.013
19...	--	--	--	--	--	--	--	--	--
APR									
02...	--	--	--	--	--	--	--	--	--
12...	e.005	.015	<.009	<.02	<.004	<.009	<.005	<.029	<.013
15...	--	--	--	--	--	--	--	--	--
MAY									
07...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUN									
04...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
17...	<.012	<.010	<.009	<.02	<.004	<.009	<.005	<.029	<.013
JUL									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
AUG									
05...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	e.004	.006	<.009	<.02	<.004	<.009	<.005	<.029	<.013
SEP									
03...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--

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e Estimated.

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Fipro- nil sulfone water, fltrd, ug/L (62166)	Fipro- nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala- thion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)
OCT									
03...	--	--	--	--	--	--	--	--	--
15...	<.005	<.007	<.003	<.004	<.035	<.027	<.006	e.007	<.006
17...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
NOV									
21...	--	--	--	--	--	--	--	--	--
DEC									
02...	--	--	--	--	--	--	--	--	--
10...	<.024	e.005	<.003	<.004	<.035	<.027	<.015	<.013	<.006
15...	--	--	--	--	--	--	--	--	--
JAN									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
FEB									
04...	--	--	--	--	--	--	--	--	--
11...	<.024	<.016	<.003	<.004	<.035	e.023	<.015	<.013	<.006
19...	--	--	--	--	--	--	--	--	--
MAR									
01...	--	--	--	--	--	--	--	--	--
10...	<.024	<.016	<.003	<.004	<.035	e.018	<.015	e.006	<.006
19...	--	--	--	--	--	--	--	--	--
APR									
02...	--	--	--	--	--	--	--	--	--
12...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
15...	--	--	--	--	--	--	--	--	--
MAY									
07...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUN									
04...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
17...	<.024	<.016	<.003	<.007	<.035	<.027	<.015	<.013	<.006
JUL									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
AUG									
05...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	<.024	<.016	<.003	<.004	<.035	<.027	<.015	<.013	<.006
SEP									
03...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--

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

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Molin- nate, water, fltrd 0.7u GF (82671)	Naprop- amide, water, fltrd 0.7u GF (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF (82669)	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Phorate water fltrd 0.7u GF (82664)	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF (82676)
OCT									
03...	--	--	--	--	--	--	--	--	--
15...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	e.01	<.004
17...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--
NOV									
21...	--	--	--	--	--	--	--	--	--
DEC									
02...	--	--	--	--	--	--	--	--	--
10...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004
15...	--	--	--	--	--	--	--	--	--
JAN									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
14...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.02	<.004
FEB									
04...	--	--	--	--	--	--	--	--	--
11...	<.030	<.007	<.003	<.010	<.004	<.022	<.011	.03	.037
19...	--	--	--	--	--	--	--	--	--
MAR									
01...	--	--	--	--	--	--	--	--	--
10...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.02	<.004
19...	--	--	--	--	--	--	--	--	--
APR									
02...	--	--	--	--	--	--	--	--	--
12...	<.003	<.007	<.003	<.010	<.007	<.022	<.011	.03	<.004
15...	--	--	--	--	--	--	--	--	--
MAY									
07...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUN									
04...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
17...	<.003	<.007	<.003	<.010	<.007	<.022	<.011	<.01	<.004
JUL									
02...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--
AUG									
05...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.015
SEP									
03...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--

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e Estimated.

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF (82679)	Propar- gite, water, fltrd 0.7u GF (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd 0.7u GF (82665)	Terbu- fos, water, fltrd 0.7u GF (82675)	Thio- bencarb water fltrd 0.7u GF (82681)	Tri- allate, water, fltrd 0.7u GF (82678)	Tri- flur- alin, water, fltrd 0.7u GF (82661)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
15...	<.010	<.011	<.02	.017	<.02	<.034	<.02	<.005	<.002	<.009
17...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
NOV										
21...	--	--	--	--	--	--	--	--	--	--
DEC										
02...	--	--	--	--	--	--	--	--	--	--
10...	<.025	<.011	<.02	.117	<.02	<.034	<.02	<.010	<.002	<.009
15...	--	--	--	--	--	--	--	--	--	--
JAN										
02...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	<.025	<.011	<.02	1.43	<.02	<.034	<.02	<.010	<.002	<.009
FEB										
04...	--	--	--	--	--	--	--	--	--	--
11...	<.025	.014	<.02	9.04	<.02	<.034	<.02	<.010	<.002	e.005
19...	--	--	--	--	--	--	--	--	--	--
MAR										
01...	--	--	--	--	--	--	--	--	--	--
10...	<.025	<.011	<.02	2.88	<.02	<.034	<.02	<.010	<.002	<.009
19...	--	--	--	--	--	--	--	--	--	--
APR										
02...	--	--	--	--	--	--	--	--	--	--
12...	<.025	<.011	<.02	.788	.03	<.034	<.02	<.010	<.002	<.009
15...	--	--	--	--	--	--	--	--	--	--
MAY										
07...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
JUN										
04...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	<.025	<.016	<.02	.069	<.02	<.043	<.02	<.010	<.002	<.009
JUL										
02...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
AUG										
05...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	<.025	<.011	<.02	.041	<.02	<.034	<.02	<.010	<.002	<.009
SEP										
03...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--

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

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CENTIMETER AT 25 DEG. C) WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	897	861	1000	667	1010	984	700	653	1030	999	421	383
2	911	876	962	896	1000	972	747	688	1020	942	552	388
3	917	863	951	936	1000	969	808	694	975	485	656	513
4	931	851	971	940	998	968	790	734	771	569	532	449
5	879	824	978	931	999	940	837	756	807	701	486	433
6	868	839	956	919	999	956	759	711	867	775	470	422
7	909	862	931	852	993	958	775	715	885	762	496	436
8	926	888	869	833	964	929	777	709	878	782	568	474
9	907	853	869	828	979	934	758	705	815	695	527	490
10	927	862	855	822	1000	963	770	732	779	720	569	491
11	910	857	823	780	989	952	823	759	839	743	630	516
12	898	849	824	671	960	873	812	762	868	795	596	540
13	866	772	754	642	970	898	832	797	900	850	617	572
14	831	787	739	638	982	957	863	821	911	878	678	610
15	802	766	729	634	974	937	901	859	912	891	750	661
16	783	741	805	705	987	942	887	860	930	890	753	709
17	774	729	810	786	1010	986	885	838	959	927	781	730
18	739	683	917	797	1010	993	868	833	967	926	775	703
19	701	670	942	860	1000	987	891	807	958	792	739	704
20	751	637	949	888	995	960	938	780	867	819	779	728
21	803	729	942	917	975	954	998	884	859	776	791	753
22	847	803	932	901	988	958	977	906	776	700	844	791
23	911	835	931	898	999	965	951	917	742	431	835	816
24	907	867	955	917	976	955	946	928	526	444	866	834
25	920	889	980	948	955	314	963	931	447	385	880	847
26	935	887	984	956	347	323	991	943	451	261	891	864
27	925	889	1000	967	471	347	1000	942	287	233	917	881
28	970	911	1030	999	531	471	1020	996	341	284	925	885
29	975	941	1010	987	693	531	1010	982	415	311	930	913
30	970	955	1010	985	736	668	1030	999	---	---	949	925
31	985	948	---	---	748	685	1020	996	---	---	946	931
MONTH	985	637	1030	634	1010	314	1030	653	1030	233	949	383
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	947	927	968	943	933	847	959	904	1010	970	929	897
2	937	920	985	945	998	933	944	903	992	940	923	868
3	931	915	998	953	999	970	945	889	983	950	939	877
4	936	920	1020	977	1020	947	932	844	1020	948	921	863
5	941	928	1030	995	975	898	896	818	1000	955	926	829
6	948	936	1040	1020	925	845	858	822	1010	976	904	852
7	953	944	1080	1020	890	822	886	843	1020	948	926	846
8	951	942	1140	1080	936	884	908	871	985	921	948	890
9	957	931	1110	1040	966	918	938	889	965	925	929	847
10	953	924	1050	973	962	907	966	921	977	940	923	886
11	944	916	997	970	1010	950	977	930	1010	---	938	889
12	942	914	1030	970	1020	949	974	945	1050	992	924	885
13	962	882	1050	973	1000	930	990	958	1060	986	936	892
14	954	930	998	939	989	941	992	926	1040	980	950	894
15	957	913	972	847	977	911	962	916	1020	957	953	927
16	961	927	887	850	955	901	955	907	1020	965	959	919
17	981	925	901	859	1010	904	953	888	1010	973	941	895
18	975	885	917	882	959	866	957	901	1000	950	944	889
19	949	880	928	837	896	848	938	900	998	943	901	826
20	963	934	910	852	918	849	941	903	1000	935	866	836
21	955	935	935	865	953	895	948	897	1010	946	881	813
22	953	934	928	874	939	894	949	877	1010	953	820	772
23	973	943	935	871	918	831	948	888	996	964	800	773
24	981	949	935	892	896	835	972	909	1010	979	812	774
25	983	952	938	892	897	860	943	913	1010	928	842	809
26	979	949	935	862	909	845	961	931	973	926	935	817
27	977	946	882	826	923	861	1000	961	966	908	1000	918
28	964	925	858	822	937	894	1000	956	965	879	1010	943
29	979	921	843	805	940	902	997	963	937	890	993	957
30	979	933	859	816	1020	940	1010	964	931	896	992	960
31	---	---	874	839	---	---	1020	965	942	890	---	---
MONTH	983	880	1140	805	1020	822	1020	818	1060	879	1010	772



## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH					
1	24.5	22.5	18.5	16.0	14.5	14.0	11.5	11.0	15.0	14.5	13.5	13.0				
2	23.5	21.0	18.5	15.5	14.5	14.0	11.5	11.5	14.5	14.0	14.0	13.0				
3	22.5	21.0	17.0	15.5	14.5	14.0	11.5	11.0	14.5	13.0	14.5	13.5				
4	22.5	19.5	18.0	15.5	14.5	14.0	12.0	11.0	13.5	13.0	14.0	13.5				
5	23.0	20.0	18.0	15.0	15.0	14.0	12.0	11.0	14.0	13.0	14.0	13.5				
6	23.5	21.0	18.5	15.5	15.0	14.5	11.5	11.0	14.0	13.0	14.0	13.5				
7	23.5	21.0	18.0	16.0	16.5	15.0	11.5	11.0	13.5	13.0	15.0	14.0				
8	25.0	21.0	18.0	16.0	17.0	15.5	11.5	10.5	14.0	12.5	15.0	14.0				
9	23.5	20.5	18.0	17.5	15.5	14.0	11.0	11.0	13.5	12.0	15.0	14.5				
10	23.0	21.5	19.0	18.0	14.5	14.0	11.5	11.0	13.0	12.0	16.0	14.5				
11	24.5	20.5	19.0	17.5	14.5	14.0	12.0	11.0	12.5	12.0	15.5	15.0				
12	25.0	20.5	18.0	16.5	14.0	13.0	11.5	11.5	13.5	12.5	16.0	15.0				
13	23.5	20.5	16.5	16.0	13.0	12.5	12.5	11.5	13.0	12.0	16.5	15.5				
14	23.5	20.5	16.0	15.5	13.0	12.0	12.5	12.0	12.5	12.0	16.5	16.0				
15	23.0	20.5	15.5	15.5	13.0	12.0	12.5	12.0	12.5	12.0	17.5	16.5				
16	23.0	19.5	16.0	15.5	12.5	11.5	13.0	12.5	13.5	12.5	18.0	17.5				
17	23.5	19.5	16.0	15.5	12.5	11.5	13.0	12.5	14.5	13.0	18.5	17.5				
18	24.0	20.0	16.0	15.5	13.5	12.0	13.5	13.0	14.5	14.0	18.5	18.0				
19	24.0	20.5	16.0	15.5	14.0	12.5	14.0	13.5	15.0	14.0	19.0	18.5				
20	24.0	20.0	16.0	15.5	14.5	13.0	14.5	13.5	15.0	14.5	19.0	18.5				
21	23.5	20.0	16.0	16.0	16.5	14.0	14.5	14.0	15.0	14.5	19.0	18.5				
22	23.5	20.0	16.5	15.0	16.5	14.5	14.0	13.5	15.0	14.5	19.5	19.0				
23	23.5	19.0	15.0	14.0	15.5	13.5	13.5	13.5	14.5	14.0	19.5	19.0				
24	22.5	19.5	14.0	13.5	15.5	13.5	13.5	13.0	14.0	13.5	19.5	19.0				
25	21.5	19.0	14.0	13.0	16.0	13.5	13.5	13.0	13.5	13.5	19.5	19.0				
26	20.0	18.0	14.0	13.5	13.5	12.0	13.5	13.0	14.0	13.0	19.5	19.0				
27	21.0	17.5	14.5	13.5	12.5	12.0	13.5	13.0	13.5	13.0	19.5	19.0				
28	20.5	17.0	14.5	13.5	12.5	11.5	14.0	13.5	13.0	13.0	20.0	18.5				
29	20.0	17.5	14.5	13.5	12.0	11.5	14.0	13.5	13.5	13.0	20.0	19.0				
30	20.0	18.5	14.5	14.0	12.0	11.5	14.5	14.0	---	---	19.5	19.0				
31	18.5	16.5	---	---	12.0	11.5	15.0	13.0	---	---	19.5	19.0				
MONTH	25.0	16.5	19.0	13.0	17.0	11.5	15.0	10.5	15.0	12.0	20.0	13.0				
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER					
1	19.5	19.0	22.0	21.0	27.0	21.5	26.0	21.0	27.5	23.0	27.5	23.0				
2	19.0	18.5	22.5	21.5	28.0	21.5	26.5	21.0	27.0	23.0	27.0	23.0				
3	19.0	18.5	23.0	22.0	28.5	22.0	25.5	22.0	26.5	22.0	26.0	23.5				
4	19.0	18.5	23.5	22.5	29.0	22.0	27.0	22.0	27.5	22.5	26.5	21.5				
5	19.0	18.5	24.0	23.5	29.0	22.0	27.5	22.5	27.5	22.5	26.5	22.0				
6	19.0	18.5	24.0	23.5	28.0	22.0	27.5	23.0	28.0	22.0	25.5	22.0				
7	19.0	18.5	25.0	23.0	24.5	22.0	26.5	23.0	27.5	22.0	26.5	22.0				
8	19.0	19.0	26.0	21.0	26.0	21.0	26.0	22.5	28.0	23.0	26.5	23.0				
9	19.5	19.0	26.0	20.0	25.0	20.0	27.0	22.0	29.0	23.5	27.5	24.5				
10	19.5	19.0	25.5	20.0	26.5	20.0	28.5	22.5	29.0	23.5	29.0	24.5				
11	20.5	19.0	25.5	20.0	27.0	20.5	28.5	22.5	26.5	---	28.5	24.5				
12	20.0	19.5	25.5	20.0	27.5	21.0	29.0	23.5	27.0	25.5	28.0	24.0				
13	20.0	19.5	26.0	19.5	28.0	21.5	29.5	24.0	28.0	24.5	27.0	23.5				
14	20.0	19.5	27.0	20.5	28.0	21.5	28.5	23.5	28.5	24.0	25.5	23.0				
15	20.0	19.5	25.5	21.0	27.5	22.0	27.5	24.0	28.0	24.0	25.5	23.0				
16	20.5	19.5	25.5	20.5	26.5	22.0	28.5	23.5	27.5	23.5	26.5	23.5				
17	20.0	19.5	24.0	21.0	27.5	22.0	28.5	23.0	27.5	23.0	26.0	23.0				
18	19.5	18.0	25.0	21.0	27.0	21.5	29.0	23.0	27.5	23.0	25.5	22.5				
19	19.0	18.0	25.0	20.5	25.0	21.5	29.5	23.5	27.0	22.5	24.5	22.5				
20	19.5	18.5	24.5	20.5	26.5	21.0	29.5	23.5	26.5	22.5	24.0	20.5				
21	19.5	18.5	24.0	20.5	26.0	21.5	29.5	24.0	26.0	23.0	22.5	20.0				
22	19.5	18.5	24.0	19.5	27.0	21.5	29.0	23.5	26.0	22.0	23.5	19.5				
23	20.5	19.0	23.0	20.0	26.5	22.5	29.0	23.5	26.0	22.0	23.5	19.5				
24	20.0	19.0	24.0	20.0	27.0	22.5	29.5	23.5	26.0	21.5	24.0	20.0				
25	20.5	19.5	22.5	20.0	27.0	22.0	30.0	23.5	25.5	22.0	24.5	20.5				
26	21.0	19.5	24.0	19.5	27.5	22.5	29.5	23.5	26.5	22.5	25.5	21.5				
27	21.0	20.0	24.5	19.5	26.5	22.0	29.0	23.0	26.5	23.0	25.5	21.5				
28	21.5	20.5	23.0	20.5	26.0	22.5	28.5	23.0	27.0	23.0	24.5	21.5				
29	21.5	21.0	25.0	20.0	25.5	21.5	28.0	22.5	26.5	23.0	24.0	21.5				
30	22.0	21.0	26.5	20.5	26.0	21.5	27.5	22.5	26.5	22.5	22.0	21.0				
31	---	---	27.0	21.5	---	---	28.0	22.5	27.0	22.5	---	---				
MONTH	22.0	18.0	27.0	19.5	29.0	20.0	30.0	21.0	29.0	21.5	29.0	19.5				

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA—Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sediment, sieve diameter, percent <.063mm (70331)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT						
15...SS	1700	283	22.0	88	261	199
DEC						
10...SS	1630	226	14.0	85	8	4.9
JAN						
14...SS	1700	416	12.0	94	13	15
FEB						
11...SS	1500	383	13.0	93	24	25
MAR						
10...SS	1650	495	15.0	100	19	25
APR						
12...SS	1430	336	19.5	54	3	2.7
JUN						
17...SS	1700	195	27.0	92	135	71
AUG						
12...SS	1550	257	24.5	58	98	68

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking downstrm 1 bank (00009)
JAN							
14...*	1255	--	--	--	838	12.5	36.0
14...*	1256	--	--	--	851	12.5	32.0
14...*	1257	--	--	--	855	12.5	28.0
14...*	1258	--	--	--	857	12.5	24.0
14...*	1259	--	--	--	858	12.5	20.0
14...*	1300	--	--	--	858	12.5	16.0
14...*	1301	--	--	--	854	12.5	12.0
14...*	1302	--	--	--	860	12.5	8.00
JUN							
17...*	1705	1.80	7.8	8.4	950	26.5	32.5
17...*	1707	1.90	7.7	8.4	950	27.0	27.0
17...*	1710	1.80	7.7	8.4	949	27.0	19.0
17...*	1712	1.80	7.7	8.4	949	27.0	12.0
17...*	1715	1.10	7.8	8.4	950	27.0	5.00
JUL							
14...*	1101	--	--	--	950	25.5	34.0
14...*	1102	--	--	--	960	25.5	30.0
14...*	1103	--	--	--	960	25.5	26.0
14...*	1104	--	--	--	960	25.5	22.0
14...*	1105	--	--	--	970	25.0	18.0
14...*	1106	--	--	--	970	25.5	14.0
14...*	1107	--	--	--	960	25.5	10.0
14...*	1108	--	--	--	970	25.0	6.00
14...*	1109	--	--	--	980	25.0	2.00

SS Suspended-sediment data determined from a sample collected and processed according to National Water-Quality Assessment (NAWQA) Program protocol.

\* Instantaneous discharge at the time of cross-sectional measurements: Jan. 14, 416 ft<sup>3</sup>/s; June 17, 192 ft<sup>3</sup>/s; July 14, 175 ft<sup>3</sup>/s.

## 11075720 CARBON CREEK BELOW CARBON CANYON DAM, CA

LOCATION.—Lat 33°54'48", long 117°50'30", 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1961 to current year.

REVISED RECORDS.—WDR CA-88-1: 1983(M).

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Datum of gage is 396.35 ft above NGVD of 1929, U.S. Army Corps of Engineers datum. Prior to Dec. 3, 1971, at datum 2.00 ft higher.

REMARKS.—Records fair except for discharges below 10 ft<sup>3</sup>/s, which are poor. Flow regulated by Carbon Canyon Flood-Control Reservoir, capacity, 6,610 acre-ft. No diversion upstream from station. See schematic diagram of Santa Ana River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 796 ft<sup>3</sup>/s, Mar. 1, 1983, gage height, 5.11 ft, present datum, from rating curve extended above 110 ft<sup>3</sup>/s, on basis of optical current-meter measurement at 241 ft<sup>3</sup>/s and normal depth solution for discharge computation at gage height 4.27 ft; no flow for many days each year.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.22	0.91	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.01	1.9	2.0	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	2.9	1.3	0.37	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.38	0.37	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.37	0.23	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	1.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	1.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	8.8	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	3.7	0.00	101	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	3.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	1.25	12.50	0.00	164.37	21.56	3.88	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.04	0.40	0.00	5.67	0.70	0.13	0.00	0.00	0.00	0.00	0.00
MAX	0.00	1.2	8.8	0.00	101	19	2.0	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	2.5	25	0.00	326	43	7.7	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

MEAN	0.06	0.22	0.54	2.54	5.63	4.56	0.82	0.42	0.15	0.06	0.02	0.02
MAX	0.73	1.94	6.36	32.4	46.9	36.2	6.08	7.40	1.99	0.95	0.36	0.37
(WY)	1996	1997	1967	1993	1980	1983	1998	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1962	1962	1963	1963	1964	1962	1962	1962	1962	1962	1962	1962

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1962 - 2004

ANNUAL TOTAL	284.44	203.56		
ANNUAL MEAN	0.78	0.56	1.23	
HIGHEST ANNUAL MEAN			7.27	1980
LOWEST ANNUAL MEAN			0.00	1972
HIGHEST DAILY MEAN	109	Mar 16	362	Feb 24 1998
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1 1961
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1 1961
MAXIMUM PEAK FLOW			240	Feb 26 1983
MAXIMUM PEAK STAGE			3.44	Feb 26 1983
ANNUAL RUNOFF (AC-FT)	564	404	893	
10 PERCENT EXCEEDS	0.04	0.00	0.86	
50 PERCENT EXCEEDS	0.00	0.00	0.00	
90 PERCENT EXCEEDS	0.00	0.00	0.00	

## 11075800 SANTIAGO CREEK AT MODJESKA, CA

LOCATION.—Lat 33°42'46", long 117°38'39", 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.

DRAINAGE AREA.—13.0 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1961 to current year.

REVISED RECORDS.—WDR CA-73-1: 1969. WDR CA-86-1: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,210 ft above NGVD of 1929, from topographic map. Prior to Sept. 10, 1969, at site 0.6 mi upstream at datum approximately 48 ft higher. Sept. 10, 1969, to Feb. 6, 1985, at site 0.6 mi upstream at datum approximately 44 ft higher.

REMARKS.—Records fair. Slight regulation by Modjeska Reservoir on Harding Creek. Santiago County Water District diverts water at Modjeska Reservoir on Harding Creek. See schematic diagram of Santa Ana River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,520 ft<sup>3</sup>/s, Feb. 25, 1969, gage height, 6.18 ft, site and datum then in use, from rating curve extended above 840 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow, maximum gage height, 12.03 ft, Feb. 23, 1998; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, from rating curve extended above 444 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0700	184	5.85

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.08	0.00	0.08	0.00	7.5	0.14	0.00	0.00	0.00	0.00	0.00
2	0.00	0.08	0.00	1.6	0.28	8.1	0.03	0.00	0.00	0.00	0.00	0.00
3	0.00	0.08	0.00	5.2	0.29	5.3	0.00	e0.00	0.00	0.00	0.00	0.00
4	0.00	0.08	0.04	3.4	0.00	4.4	0.00	e0.00	0.00	0.00	0.00	0.00
5	0.00	0.04	0.08	1.7	0.00	3.8	0.00	e0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.08	0.06	0.00	3.2	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.08	0.00	0.00	2.7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.08	0.00	0.00	2.4	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.08	0.00	0.00	2.2	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.08	0.00	0.00	1.9	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.08	0.00	0.00	1.6	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.08	0.00	0.00	1.5	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.08	0.00	0.00	1.3	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.08	0.00	0.00	1.1	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.08	0.00	0.00	1.0	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.08	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00
17	0.03	0.00	0.08	0.00	0.00	0.80	0.02	0.00	0.00	0.00	0.00	0.00
18	0.08	0.00	0.08	0.00	0.32	0.71	0.00	0.00	0.00	0.00	0.00	0.00
19	0.08	0.01	0.08	0.00	0.00	0.69	0.00	0.00	0.00	e0.00	0.00	0.00
20	0.08	0.00	0.08	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00
21	0.08	0.00	0.08	0.00	0.07	0.40	0.00	0.00	0.00	0.00	0.00	0.00
22	0.08	0.00	0.08	0.00	2.3	0.20	0.00	0.00	0.00	0.00	0.00	0.00
23	0.08	0.00	0.08	0.00	5.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.08	0.00	0.08	0.00	3.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.08	0.00	0.12	0.00	3.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.08	0.00	6.9	0.00	71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.08	0.00	1.2	0.00	34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.08	0.00	0.08	0.00	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.08	0.00	0.08	0.00	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.08	0.00	0.08	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.08	---	0.08	0.00	---	0.00	---	0.00	---	0.00	---	---
TOTAL	1.15	0.37	10.18	12.04	149.76	52.32	0.19	0.00	0.00	0.00	0.00	0.00
MEAN	0.04	0.01	0.33	0.39	5.16	1.69	0.01	0.00	0.00	0.00	0.00	0.00
MAX	0.08	0.08	6.9	5.2	71	8.1	0.14	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	2.3	0.7	20	24	297	104	0.4	0.00	0.00	0.00	0.00	0.00

e Estimated.

## 11075800 SANTIAGO CREEK AT MODJESKA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.17	1.58	5.00	15.3	35.9	22.0	6.14	3.28	1.36	0.37	0.12	0.06
MAX	5.00	33.5	97.4	179	404	137	33.7	27.0	8.76	2.84	1.68	1.07
(WY)	1984	1966	1967	1993	1998	1978	1983	1983	1998	1983	1983	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1962	1962	1963	1963	2002	2002	2002	1992	1987	1963	1962	1962

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	1686.99		226.01			
ANNUAL MEAN	4.62		0.62		7.45	
HIGHEST ANNUAL MEAN					47.2	1969
LOWEST ANNUAL MEAN					0.00	2002
HIGHEST DAILY MEAN	330	Mar 16	71	Feb 26	3590	Feb 24 1969
LOWEST DAILY MEAN	0.00	Jan 9	0.00	Oct 1	0.00	Oct 1 1961
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 12	0.00	Oct 1	0.00	Oct 1 1961
MAXIMUM PEAK FLOW			184	Feb 26	6520	Feb 25 1969
MAXIMUM PEAK STAGE			5.85	Feb 26	12.03	Feb 23 1998
ANNUAL RUNOFF (AC-FT)	3350		448		5400	
10 PERCENT EXCEEDS	6.6		0.30		9.7	
50 PERCENT EXCEEDS	0.02		0.00		0.13	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 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, 500 ft upstream from Bristol Street Bridge at Santa Ana, and 1,625 ft upstream from mouth at Santa Ana River.

DRAINAGE AREA.—98.6 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1928 to current year. Monthly discharge only October to December 1928, published in WSP 1315-B.

REVISED RECORDS.—WSP 1635: 1934, 1935(M), 1936. WSP 1928: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 120 ft above NGVD of 1929, from topographic map. Prior to Sept. 8, 1969, at site 0.1 mi upstream at different datum. Sept. 9, 1969, to July 21, 1976, at site 50 ft downstream at different datum. July 22, 1976, to Sept. 30, 1993, at site 77 ft upstream at datum 5.25 ft lower.

REMARKS.—Records fair. Gage out of operation from Aug. 8 to Dec. 18, 2002, for bridge construction. Flow regulated since December 1931 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 upstream from station by Irvine Company and Serrano and Carpenter Irrigation Districts. See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,600 ft<sup>3</sup>/s, Feb. 25, 1969, gage height, 9.10 ft, site and datum then in use, maximum gage height, 12.42 ft, Mar. 16, 2003; no flow for many days each year.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	5.9	0.00	0.00	0.00	2.7	4.0	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	2.8	18	8.3	0.04	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	5.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	3.2	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	1.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	18	0.00	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	1.4	0.00	151	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.01
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	5.90	19.40	2.80	281.15	14.20	4.04	0.00	0.00	0.00	0.00	0.01
MEAN	0.00	0.20	0.63	0.09	9.69	0.46	0.13	0.00	0.00	0.00	0.00	0.00
MAX	0.00	5.9	18	2.8	151	8.3	4.0	0.00	0.00	0.00	0.00	0.01
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	12	38	5.6	558	28	8.0	0.00	0.00	0.00	0.00	0.02

## 11077500 SANTIAGO CREEK AT SANTA ANA, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1963, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.079	.37	2.20	5.64	9.28	29.7	7.56	.32	.002	.000	.000	.053
MAX	2.61	3.03	9.71	62.3	94.6	329	159	3.85	.050	.000	.000	1.20
(WY)	1935	1945	1937	1952	1937	1938	1941	1941	1941	1931	1931	1939
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1931	1931	1931	1936	1952	1931	1932	1931	1931	1931	1931	1931

## SUMMARY STATISTICS

## WATER YEARS 1931 - 1963

ANNUAL MEAN	4.60
HIGHEST ANNUAL MEAN	40.0 1941
LOWEST ANNUAL MEAN	.067 1961
HIGHEST DAILY MEAN	2320 Mar 3 1938
LOWEST DAILY MEAN	.00 Oct 1 1930
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1 1930
MAXIMUM PEAK FLOW	4400 Mar 2 1938
MAXIMUM PEAK STAGE	9.85 Jan 16 1952
ANNUAL RUNOFF (AC-FT)	3330
10 PERCENT EXCEEDS	.40
50 PERCENT EXCEEDS	.00
90 PERCENT EXCEEDS	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.20	1.68	1.98	10.8	38.0	21.1	0.68	0.16	0.01	0.01	0.05	0.09
MAX	4.29	7.80	10.4	259	616	253	4.52	3.87	0.24	0.58	1.60	1.59
(WY)	1984	1983	1998	1993	1969	1978	1965	1998	1993	1984	1977	1976
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1965	1969	1964	1972	1964	1966	1966	1964	1964	1964	1964	1964

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1964 - 2004

ANNUAL TOTAL	450.20	327.50	
ANNUAL MEAN	1.23	0.89	6.17
HIGHEST ANNUAL MEAN			71.7 1969
LOWEST ANNUAL MEAN			0.18 1987
HIGHEST DAILY MEAN	122 Mar 15	151 Feb 26	4270 Feb 25 1969
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1963
MAXIMUM PEAK FLOW		736 Feb 26	6600 Feb 25 1969
MAXIMUM PEAK STAGE		11.46 Feb 26	12.42 Mar 16 2003
ANNUAL RUNOFF (AC-FT)	893	650	4470
10 PERCENT EXCEEDS	0.00	0.00	0.00
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 11078000 SANTA ANA RIVER AT SANTA ANA, CA

LOCATION.—Lat 33°45'04", long 117°54'27", in NW 1/4 SE 1/4 sec.10, T.5 S., R.10 W., Orange County, Hydrologic Unit 18070203, on right bank, 850 ft upstream from Fifth Street Bridge in Santa Ana, and 1.6 mi downstream from Santiago Creek.

DRAINAGE AREA.—1,700 mi<sup>2</sup>, excludes 768 mi<sup>2</sup> above Lake Elsinore.

PERIOD OF RECORD.—January 1923 to September 1989, October 1990 to current year. Discharge measurements only, October 1989 to September 1990.

CHEMICAL DATA: Water year 1998.

WATER TEMPERATURE: Water years 1968–69, 1971, 1973–80, 1982–87.

SEDIMENT DATA: Water years 1968–71, 1973–2003.

REVISED RECORDS.—WSP 1635: 1940(M), 1944. WDR CA-74-1: Drainage area. WDR CA-79-1: 1978(M).

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Elevation of gage is 70 ft above NGVD of 1929, from topographic map. October 1990 to Feb. 12, 1991, at site 900 ft downstream at different datum. Feb. 13, 1991, to Apr. 4, 1994, at datum 3 ft lower. See WDR CA-90-1 for complete history of location and datum changes.

REMARKS.—Records fair. Natural flow affected by ground-water withdrawals, diversions, importation by Metropolitan Water District, municipal use, and return flow from irrigation. Since 1940, flow partially regulated by Prado Flood-Control Reservoir, capacity, 196,200 acre-ft. Natural flow affected by three small flood-control reservoirs, combined capacity, 31,900 acre-ft; Big Bear Lake (station 11049000); Seven Oaks Flood-Control Reservoir, capacity, 145,600 acre-ft; and Santiago Reservoir, capacity, 25,000 acre-ft. Discharge up to 100 ft<sup>3</sup>/s can be diverted from Carbon Creek to Coyote Creek 1.5 mi upstream from mouth of Carbon Creek. Gage out of operation from Apr. 5, to Nov. 14, 1994, due to channel work (lining). See schematic diagram of [Santa Ana River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 46,300 ft<sup>3</sup>/s, Mar. 3, 1938, gage height, 10.20 ft, site and datum then in use, on basis of slope-area measurement of peak flow; no flow for many days each year.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	4.2	0.23	0.00	0.00	57	207	0.00	0.00	0.00	0.00	0.00
2	0.05	0.12	0.00	14	39	337	38	0.00	0.00	0.00	0.00	0.00
3	0.00	1.6	0.00	9.6	308	31	1.1	0.00	0.00	0.00	0.00	0.00
4	0.00	0.57	0.00	0.29	1.4	18	0.06	0.00	0.00	0.00	0.00	0.00
5	0.00	0.39	0.00	0.00	0.00	14	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.19	0.00	0.00	0.00	9.5	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.03	1.6	0.00	0.00	4.5	1.9	0.00	0.25	0.00	0.00	0.00
8	0.00	0.00	0.41	0.00	0.00	4.8	0.14	0.00	0.19	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	21	0.11	0.00	0.02	0.00	0.05	0.00
10	0.01	0.00	0.00	0.00	0.00	22	0.00	0.30	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	18	0.00	0.06	0.00	0.00	0.00	0.00
12	0.00	93	0.00	0.00	0.00	23	0.00	0.36	0.00	0.00	0.04	0.00
13	0.00	102	0.00	0.00	0.08	31	0.00	0.04	0.00	0.00	0.00	0.00
14	0.00	1.1	0.58	0.00	0.00	33	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.44	5.8	0.00	0.00	29	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.23	1.4	0.00	0.00	27	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.07	0.74	0.00	0.00	18	0.53	0.00	0.00	0.00	0.00	0.01
18	0.00	0.14	0.69	0.00	72	6.9	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.21	0.51	0.00	11	5.9	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.13	0.51	0.00	0.17	2.0	0.00	0.00	0.00	0.00	0.00	0.00
21	0.01	0.11	0.51	0.00	3.4	0.68	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.25	0.43	0.00	408	0.04	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.34	0.44	0.00	663	0.10	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.63	0.65	0.00	718	2.8	0.00	0.00	0.00	0.00	0.03	0.00
25	0.00	0.30	122	0.00	1890	0.00	0.00	0.00	0.00	0.00	0.22	0.00
26	0.00	0.22	91	0.00	3890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.05	298	0.00	2380	0.00	0.00	0.00	0.00	0.04	0.00	0.00
28	0.16	0.00	72	0.72	520	0.00	0.00	0.00	0.00	0.00	0.00	0.04
29	0.13	0.40	0.72	0.00	367	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.23	0.64	0.00	0.00	---	0.00	0.03	0.00	0.00	0.00	0.00	0.00
31	0.84	---	0.00	0.00	---	1.7	---	0.00	---	0.00	0.00	---
TOTAL	1.43	207.36	598.22	24.61	11271.05	717.92	248.87	0.76	0.46	0.04	0.34	0.05
MEAN	0.05	6.91	19.3	0.79	389	23.2	8.30	0.02	0.02	0.00	0.01	0.00
MAX	0.84	102	298	14	3890	337	207	0.36	0.25	0.04	0.22	0.04
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	2.8	411	1190	49	22360	1420	494	1.5	0.9	0.08	0.7	0.1



11078000 SANTA ANA RIVER AT SANTA ANA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1939, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.50	.46	5.97	5.50	106	137	29.0	.63	.000	.000	.000	.097
MAX	7.94	2.43	29.3	34.2	1028	2029	358	4.65	.000	.000	.000	1.65
(WY)	1935	1924	1939	1934	1927	1938	1926	1938	1923	1923	1923	1939
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1924	1925	1926	1926	1925	1929	1930	1925	1923	1923	1923	1923

SUMMARY STATISTICS

WATER YEARS 1923 - 1939

ANNUAL MEAN	23.7
HIGHEST ANNUAL MEAN	178 1938
LOWEST ANNUAL MEAN	.000 1931
HIGHEST DAILY MEAN	20300 Mar 3 1938
LOWEST DAILY MEAN	.00 Mar 16 1923
ANNUAL SEVEN-DAY MINIMUM	.00 Mar 21 1923
MAXIMUM PEAK FLOW	46300 Mar 3 1938
MAXIMUM PEAK STAGE	10.20 Mar 3 1938
ANNUAL RUNOFF (AC-FT)	17190
10 PERCENT EXCEEDS	3.6
50 PERCENT EXCEEDS	.00
90 PERCENT EXCEEDS	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

	1940	1940	1940	1940	1949	1949	1949	1949	1940	1940	1940	1940
MEAN	3.40	12.9	40.3	165	293	242	60.0	26.3	8.06	0.87	1.79	1.35
MAX	179	154	428	3962	3014	2342	889	686	433	31.0	102	40.6
(WY)	1984	1984	1985	1993	1980	1969	1980	1998	1983	1998	1983	1986
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1940	1940	1940	1976	1949	1949	1949	1940	1940	1940	1940	1940

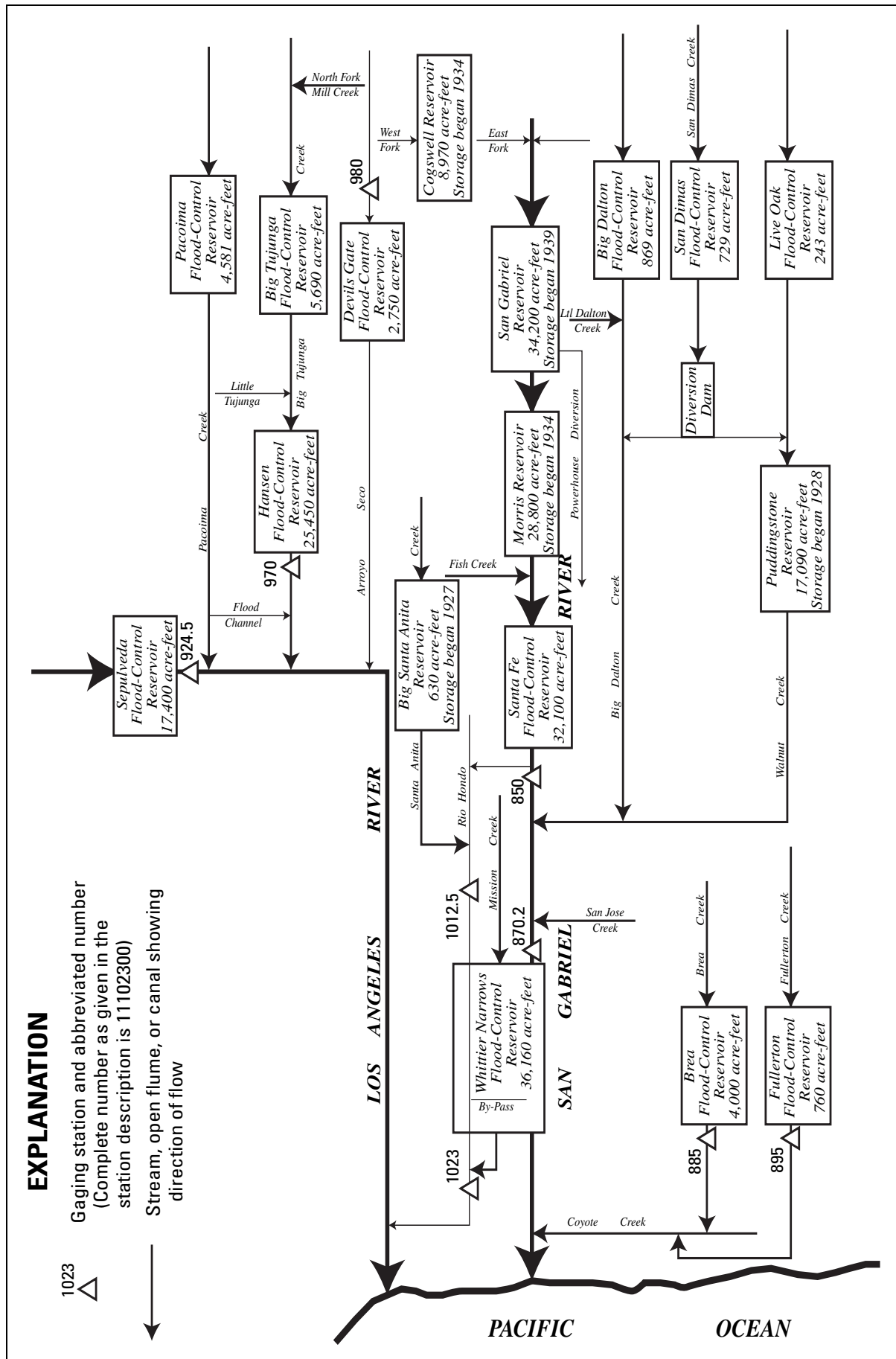
SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1940 - 2004

ANNUAL TOTAL	33900.67	13071.11	
ANNUAL MEAN	92.9	35.7	70.1
HIGHEST ANNUAL MEAN			612 1993
LOWEST ANNUAL MEAN			0.01 1949
HIGHEST DAILY MEAN	5250 Feb 14	3890 Feb 26	11400 Feb 25 1969
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1939
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 3	0.00 Oct 1 1939
MAXIMUM PEAK FLOW		6060 Feb 26	31700 Jan 4 1995
MAXIMUM PEAK STAGE		5.59 Feb 26	9.09 Jan 4 1995
ANNUAL RUNOFF (AC-FT)	67240	25930	50790
10 PERCENT EXCEEDS	8.1	9.5	13
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00



**EXPLANATION**

- 1023 Gaging station and abbreviated number (Complete number as given in the station description is 11102300)
- Stream, open flume, or canal showing direction of flow

Figure 18. Diversions and storage in San Gabriel and Los Angeles River Basins.

11085000 SAN GABRIEL RIVER BELOW SANTA FE DAM, NEAR BALDWIN PARK, CA

LOCATION.—Lat 34°06'44", long 117°58'07", in 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1942 to current year.

REVISED RECORDS.—WSP 1315-B and 1635: 1943(M). WSP 1928: Drainage area. WDR CA-99-1: 1998.

GAGE.—Water-stage recorder. Auxiliary gage 500 ft downstream with crest-stage gage and concrete control. Datum of gage is 400.00 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.—Records fair. Flow regulated by Cogswell and San Gabriel Flood-Control Reservoirs, combined capacity, 43,170 acre-ft; Morris Reservoir, capacity, 28,800 acre-ft; and Santa Fe Flood-Control Reservoir, capacity, 32,100 acre-ft. Diversions upstream from station for irrigation, power development, and ground-water replenishment. At times water is diverted from side of stilling basin to headwaters of Rio Hondo; 605 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 provided by Los Angeles County Department of Public Works.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 30,900 ft<sup>3</sup>/s, Jan. 26, 1969, gage height, 22.20 ft; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	2.3	1.1	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.45	15	0.04	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	3.3	0.90	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	1.3	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	13	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	5.7	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	16	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	35	0.00	74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.34	0.00	77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	1.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	51.34	0.00	216.92	18.20	1.14	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	1.66	0.00	7.48	0.59	0.04	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	35	0.00	77	15	1.1	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	102	0.00	430	36	2.3	0.00	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

	2.53	15.6	27.3	119	218	188	55.1	63.0	23.1	8.46	5.45	9.05
MEAN	74.6	577	514	2151	3259	2465	616	768	414	170	121	206
MAX (WY)	1993	1966	1947	1969	1969	1978	1978	1998	1958	1962	1962	1946
MIN (WY)	1943	1943	1943	1945	1947	1947	1945	1945	1945	1943	1943	1943

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1943 - 2004

ANNUAL TOTAL	1362.76	287.60	
ANNUAL MEAN	3.73	0.79	60.5
HIGHEST ANNUAL MEAN			540
LOWEST ANNUAL MEAN			0.00
HIGHEST DAILY MEAN	223	Feb 13	77
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00
MAXIMUM PEAK FLOW			91
MAXIMUM PEAK STAGE			11.19
ANNUAL RUNOFF (AC-FT)	2700	570	43830
10 PERCENT EXCEEDS	1.6	0.00	54
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

## REVISION OF RECORDS FOR A DISCONTINUED STATION

11086500 LITTLE DALTON CREEK NEAR GLENDORA, CA

LOCATION.—Lat 34°10'03", long 117°50'15", in NE 1/4 SE 1/4 SE 1/4 sec. 17, T.1 N., R.9 W., [Los Angeles County](#), Hydrologic Unit 18070106, on left bank, 0.2 mi upstream from Angeles National Forest boundary, and 2.6 mi northeast of Glendora.

DRAINAGE AREA.—2.72 mi<sup>2</sup>.

PERIOD OF RECORD.—December 1938 to September 1968, October 1969 to September 1971. January 1929 to November 1938, at site 0.8 mi downstream; records not equivalent because diversion was not included.

REVISED RECORDS.—WDR-CA-04-1: (M).

GAGE.—Water-stage recorder. Datum of gage is 1,334.38 ft above NGVD of 1929 (levels by Los Angeles County Flood Control District).

REMARKS.—No regulation above station. Prior to December 1938, diversion by Glendora Irrigating Company then in use. See schematic diagram of [San Gabriel and Los Angeles River Basins](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (revised), 1,700 ft<sup>3</sup>/s, Nov. 20, 1961, gage height, 5.24 ft; no flow at times n each year.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 2, 1938, 960 ft<sup>3</sup>/s, estimated. Flood of February 1914, 1,020 ft<sup>3</sup>/s, by slope-area measurement. Maximum discharge of Jan. 25, 1969, unknown (revised), gage height 10.89 ft, on basis of slope-area measurement of maximum flow.

REVISIONS.—The maximum discharge outside period of record for Jan. 25, 1969 has been revised to unknown.

11087020 SAN GABRIEL RIVER ABOVE WHITTIER NARROWS DAM, CA

LOCATION.—Lat 34°02'03", long 118°02'14", in La Puente Grant, Los Angeles County, Hydrologic Unit 18070106, at 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1955 to September 1957, October 1963 to current year.

REVISED RECORDS.—WDR CA-86-1: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 220 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. Flow regulated by several reservoirs, combined capacity, 123,000 acre-ft. Many diversions upstream from station for irrigation, power development, and ground-water replenishment. Colorado River water released to the San Gabriel River at site 14.9 mi upstream from gage, at Metropolitan Water District aqueduct crossing on San Dimas Creek for ground-water replenishment. Los Angeles County Department of Public Works diverted 605 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 provided by Los Angeles County Department of Public Works.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 46,600 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 10.90 ft, from rating curve extended above 29,000 ft<sup>3</sup>/s; no flow for part of some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	146	79	30	53	390	389	22	95	142	22	30
2	30	59	90	211	539	1050	52	20	45	140	18	45
3	32	61	59	38	340	253	42	18	34	96	15	43
4	39	61	19	34	312	39	34	17	18	24	14	44
5	37	59	16	48	247	32	31	36	28	22	12	42
6	34	60	19	26	248	40	26	71	26	21	15	43
7	32	57	53	25	252	39	24	44	29	108	19	58
8	34	61	34	20	252	32	28	49	20	113	21	33
9	31	57	19	21	230	74	27	45	21	118	17	43
10	29	57	18	26	146	145	37	44	19	109	15	56
11	36	59	20	26	141	141	36	50	18	86	15	63
12	34	720	20	66	149	142	25	51	23	97	14	65
13	34	110	38	124	142	154	25	71	20	160	65	57
14	30	67	68	128	159	151	25	87	21	147	135	57
15	30	68	29	130	142	148	30	99	20	124	72	56
16	35	90	22	137	144	149	24	94	20	125	17	55
17	50	68	20	140	135	158	53	127	17	119	15	60
18	58	69	26	138	483	157	48	132	17	95	14	70
19	52	68	26	137	58	155	45	104	23	106	15	62
20	53	59	38	131	51	159	159	89	25	127	16	60
21	53	64	29	132	133	153	176	74	25	127	20	58
22	54	74	36	130	1700	164	181	23	162	122	19	56
23	54	71	35	132	964	157	164	43	196	41	33	57
24	55	72	38	145	182	135	159	52	143	26	42	51
25	56	75	2280	97	746	140	163	52	147	25	40	58
26	57	226	107	26	3880	35	96	63	154	22	38	61
27	55	73	56	26	201	29	18	83	158	17	42	68
28	57	65	54	25	94	34	19	86	164	20	46	61
29	57	76	47	26	75	31	14	91	163	19	44	62
30	57	78	48	23	---	30	17	91	134	18	42	57
31	58	---	33	35	---	26	---	90	---	23	44	---
TOTAL	1358	2930	3476	2433	12198	4542	2167	2018	1985	2539	956	1631
MEAN	43.8	97.7	112	78.5	421	147	72.2	65.1	66.2	81.9	30.8	54.4
MAX	58	720	2280	211	3880	1050	389	132	196	160	135	70
MIN	29	57	16	20	51	26	14	17	17	17	12	30
AC-FT	2690	5810	6890	4830	24190	9010	4300	4000	3940	5040	1900	3240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

	MEAN	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	86.6	153	163	355	558	375	118	112	69.2	56.9	53.7	71.6
MAX	208	782	426	4150	4497	3796	590	1001	254	230	208	205
(WY)	1979	1966	1993	1993	1980	1978	1978	1998	1976	1973	1973	1978
MIN	0.00	0.00	9.84	19.0	0.00	0.00	0.47	0.14	0.00	0.00	0.00	0.00
(WY)	1956	1978	1977	1968	1956	1956	1956	1957	1956	1956	1956	1957

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1956 - 2004
ANNUAL TOTAL	39469	38233	
ANNUAL MEAN	108	104	179
HIGHEST ANNUAL MEAN			810
LOWEST ANNUAL MEAN			24.4
HIGHEST DAILY MEAN	4220	Feb 12	3880
LOWEST DAILY MEAN	11	May 23	12
ANNUAL SEVEN-DAY MINIMUM	20	May 28	16
MAXIMUM PEAK FLOW			16700
MAXIMUM PEAK STAGE			8.77
ANNUAL RUNOFF (AC-FT)	78290	75840	129700
10 PERCENT EXCEEDS	100	159	215
50 PERCENT EXCEEDS	48	55	67
90 PERCENT EXCEEDS	27	20	2.4

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1942 to current year.

REVISED RECORDS.—WSP 1041: 1944(M). WSP 1635: 1956, 1958. WSP 1928: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 200 ft above NGVD of 1929, from topographic map. Prior to Dec. 4, 1964, at datum 1.03 ft higher.

REMARKS.—Records poor below 10 ft<sup>3</sup>/s and fair above. Flow regulated by Brea Flood-Control Reservoir, capacity, 4,000 acre-ft. No diversion upstream from 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.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,700 ft<sup>3</sup>/s, Feb. 18, 1980; no flow for parts of some years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.69	9.2	0.45	2.3	1.5	23	38	0.55	0.23	0.24	0.17	0.27
2	0.58	0.12	0.39	13	34	101	4.5	0.46	e0.24	0.22	0.18	0.40
3	0.58	0.32	0.44	2.6	28	17	1.7	0.46	e0.22	0.21	0.11	0.29
4	0.58	0.59	0.61	1.7	3.2	11	1.1	0.43	e0.21	0.19	0.17	0.27
5	0.58	0.83	0.70	2.0	2.0	7.1	1.0	0.32	e0.20	0.19	0.23	0.27
6	0.58	1.0	0.75	3.2	1.6	6.0	0.93	0.24	e0.19	0.19	0.20	0.27
7	0.73	4.5	2.6	4.2	1.4	4.7	0.80	0.24	0.18	0.18	0.20	0.27
8	0.68	5.1	1.6	2.5	1.1	3.8	0.73	0.32	0.17	0.20	0.20	0.35
9	0.35	5.3	0.67	4.3	1.1	3.0	0.74	0.25	0.13	0.17	0.20	0.51
10	0.27	4.7	0.59	4.1	1.1	2.9	0.73	0.22	0.12	0.18	0.19	0.43
11	0.25	3.1	0.92	3.7	1.3	3.1	1.1	0.26	0.11	0.19	0.23	0.35
12	0.22	37	0.56	2.3	1.4	3.2	0.84	0.36	0.09	0.19	0.20	0.35
13	0.27	6.4	0.47	2.5	1.5	2.4	0.67	0.62	0.09	0.19	0.20	0.35
14	0.20	2.7	3.9	1.6	1.1	2.7	0.76	0.57	0.12	0.14	0.20	0.35
15	0.18	1.9	1.4	0.98	1.1	2.1	0.70	0.25	0.15	0.11	0.20	0.49
16	0.19	1.1	0.96	0.81	1.1	2.0	0.72	e0.28	0.21	0.11	0.20	0.47
17	0.21	0.79	0.35	0.73	1.0	2.1	3.9	e0.24	0.17	0.10	0.21	0.45
18	0.16	0.83	0.67	4.2	30	1.5	1.8	0.26	0.17	0.10	0.22	0.51
19	0.14	e0.70	1.0	4.4	5.0	1.1	0.86	0.37	0.17	0.11	0.23	0.52
20	0.14	0.61	1.9	3.9	8.9	1.0	e0.60	0.41	0.19	0.10	0.24	0.53
21	0.14	1.00	1.8	5.0	8.7	1.0	e0.58	0.39	0.15	0.11	0.23	0.51
22	0.15	0.53	1.2	4.3	159	1.0	e0.55	0.41	0.14	0.12	0.26	0.53
23	0.11	0.41	1.2	3.7	117	1.1	e0.60	0.61	0.12	0.15	0.26	0.47
24	0.11	0.43	1.7	0.74	10	1.0	e0.63	0.55	0.17	0.11	0.29	0.49
25	0.14	0.45	96	0.80	39	0.96	e0.59	0.54	0.19	0.14	0.27	0.48
26	0.15	e0.43	14	1.6	367	1.0	0.51	0.52	0.22	0.15	0.27	0.59
27	0.14	0.43	3.2	0.63	21	1.1	0.61	0.49	0.22	0.13	0.27	0.75
28	0.14	0.45	1.4	0.77	9.7	1.2	0.62	0.47	0.22	0.18	0.26	0.77
29	0.16	0.56	2.1	1.8	6.2	0.91	0.61	0.29	0.30	0.20	0.26	0.79
30	0.16	1.0	1.7	2.9	---	0.77	0.63	0.22	0.34	0.15	0.26	0.87
31	0.14	---	0.92	0.83	---	0.79	---	0.25	---	0.16	0.26	---
TOTAL	9.12	92.48	146.15	88.09	865.0	211.53	68.11	11.85	5.43	4.91	6.87	13.95
MEAN	0.29	3.08	4.71	2.84	29.8	6.82	2.27	0.38	0.18	0.16	0.22	0.47
MAX	0.73	37	96	13	367	101	38	0.62	0.34	0.24	0.29	0.87
MIN	0.11	0.12	0.35	0.63	1.0	0.77	0.51	0.22	0.09	0.10	0.11	0.27
AC-FT	18	183	290	175	1720	420	135	24	11	9.7	14	28

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

MEAN	1.12	3.24	4.94	9.97	15.6	10.1	3.48	1.45	0.81	0.59	0.65	0.89
MAX	15.3	31.6	26.6	95.8	165	79.9	50.3	31.9	7.83	3.92	4.68	7.02
(WY)	1984	1984	1989	1993	1980	1978	1983	1998	1998	1998	1983	1986
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1943	1943	1951	1951	1951	1951	1950	1942	1942	1942	1942	1942

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1942 - 2004

ANNUAL TOTAL	2217.30	1523.49	
ANNUAL MEAN	6.07	4.16	4.40
HIGHEST ANNUAL MEAN			23.9
LOWEST ANNUAL MEAN			0.00
HIGHEST DAILY MEAN	411	Mar 16	367
LOWEST DAILY MEAN	0.11	Oct 23	0.09
ANNUAL SEVEN-DAY MINIMUM	0.13	Oct 19	0.11
MAXIMUM PEAK FLOW			886
MAXIMUM PEAK STAGE			4.52
ANNUAL RUNOFF (AC-FT)	4400	3020	3190
10 PERCENT EXCEEDS	5.4	4.3	3.9
50 PERCENT EXCEEDS	0.67	0.55	0.29
90 PERCENT EXCEEDS	0.27	0.15	0.00

e Estimated.

a Instantaneous peak discharge and stage for the period of record are unknown, but probably occurred on Feb. 18, 1980.

## 11089500 FULLERTON CREEK BELOW FULLERTON DAM, NEAR BREA, CA

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, and 1.6 mi southeast of Brea.

DRAINAGE AREA.—4.94 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1941 to current year.

REVISED RECORDS.—WSP 1245: 1950(M). WSP 1928: Drainage area. WDR CA-82-1: 1981.

GAGE.—Water-stage recorder. Elevation of gage is 250 ft above NGVD 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.—Records good. Flow regulated by Fullerton Flood-Control Reservoir, capacity, 760 acre-ft (resurvey of 1970). Small tributary formerly entering below station diverted into reservoir since December 1954. See schematic diagram of [San Gabriel and Los Angeles River Basins](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 392 ft<sup>3</sup>/s, Mar. 1, 1983, gage height, 8.25 ft, present datum; no flow at times some years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.29	7.6	5.1	0.26	0.28	7.5	22	0.22	0.28	0.64	0.50	0.25
2	0.31	0.83	0.32	4.1	12	38	6.9	0.19	0.26	0.66	0.38	0.85
3	0.28	1.0	0.32	0.43	20	1.3	0.40	0.22	0.25	0.71	0.45	0.39
4	0.26	0.80	0.32	0.25	0.46	0.34	0.76	0.24	0.38	0.66	0.41	0.36
5	0.25	0.67	0.36	0.24	0.32	0.31	0.66	0.30	0.34	0.62	0.37	0.33
6	0.26	0.64	0.33	0.27	0.28	0.27	0.32	0.45	0.31	0.62	0.37	0.34
7	0.26	0.59	0.92	0.30	0.29	0.26	0.29	0.45	e0.35	0.66	0.37	0.44
8	0.24	0.48	0.53	0.31	0.29	0.30	0.31	0.47	e0.38	0.68	0.38	0.38
9	0.27	0.44	0.30	0.33	0.26	0.26	0.27	0.48	0.36	0.67	0.35	0.71
10	0.27	0.39	0.29	0.34	0.29	0.27	0.27	0.49	0.27	0.67	0.60	0.45
11	0.26	0.41	0.29	0.31	0.28	0.26	0.27	0.70	0.29	0.61	0.40	0.43
12	0.26	9.9	0.30	0.26	0.27	0.26	0.27	0.24	0.30	0.63	0.38	0.41
13	0.27	7.6	0.29	0.27	0.28	0.26	0.28	0.30	0.29	0.66	0.37	0.42
14	0.27	0.33	3.3	0.28	0.29	0.26	0.29	0.28	0.32	0.64	0.38	0.46
15	0.30	0.49	0.42	0.28	0.29	0.26	0.29	0.26	0.37	0.60	0.38	0.50
16	0.29	0.77	0.29	0.29	0.31	0.29	0.28	0.25	0.53	0.64	0.36	0.47
17	0.28	0.51	0.29	0.29	0.32	0.28	2.7	0.24	0.36	0.59	0.32	0.38
18	0.30	0.40	0.29	0.27	16	0.27	0.29	0.23	0.40	0.72	0.33	0.38
19	0.35	0.25	0.31	0.28	1.7	0.28	0.27	0.22	0.40	0.64	0.36	0.40
20	0.62	0.25	0.28	0.31	6.6	0.28	0.28	0.24	0.39	0.92	0.37	0.36
21	0.32	0.28	0.26	0.30	7.3	0.29	0.28	0.24	0.47	0.69	0.37	0.33
22	0.35	0.27	0.26	0.27	73	0.28	0.28	0.24	0.56	0.71	0.38	0.35
23	0.38	0.24	0.28	0.27	48	0.31	0.26	0.23	0.61	0.58	0.39	0.39
24	0.39	0.27	0.35	0.26	0.77	0.33	0.23	0.26	0.52	0.53	0.42	0.39
25	0.45	0.26	32	0.28	9.1	0.33	0.21	e0.28	0.59	0.55	0.40	0.39
26	0.39	0.31	6.8	0.27	174	0.32	0.20	e0.30	0.62	0.38	0.41	0.41
27	0.43	0.27	0.35	0.28	1.1	0.31	0.20	0.34	0.58	0.23	0.39	0.39
28	0.56	0.26	0.29	0.33	0.53	0.28	0.20	e0.30	0.68	0.83	0.47	0.41
29	0.57	0.44	0.29	0.95	0.50	0.28	0.21	0.29	0.67	0.47	0.68	0.40
30	0.54	2.4	0.24	0.28	---	0.36	0.21	0.54	0.64	0.46	0.78	0.36
31	0.56	---	0.34	0.28	---	0.30	---	0.51	---	0.51	0.58	---
TOTAL	10.83	39.35	56.31	13.44	375.11	54.90	39.68	10.00	12.77	19.18	13.10	12.53
MEAN	0.35	1.31	1.82	0.43	12.9	1.77	1.32	0.32	0.43	0.62	0.42	0.42
MAX	0.62	9.9	32	4.1	174	38	22	0.70	0.68	0.92	0.78	0.85
MIN	0.24	0.24	0.24	0.24	0.26	0.26	0.20	0.19	0.25	0.23	0.32	0.25
AC-FT	21	78	112	27	744	109	79	20	25	38	26	25

e Estimated.

## SAN GABRIEL RIVER BASIN

## 11089500 FULLERTON CREEK BELOW FULLERTON DAM, NEAR BREA, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1954, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.000	.030	.034	.99	.41	.75	.058	.000	.002	.001	.000	.000
MAX	.000	.31	.19	6.62	3.34	4.60	.36	.003	.020	.016	.000	.000
(WY)	1942	1945	1946	1952	1944	1943	1952	1945	1942	1942	1942	1942
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1942	1942	1942	1942	1942	1942	1942	1942	1943	1943	1942	1942

## SUMMARY STATISTICS

## WATER YEARS 1942 - 1954

ANNUAL MEAN	.19
HIGHEST ANNUAL MEAN	.92 1952
LOWEST ANNUAL MEAN	.000 1948
HIGHEST DAILY MEAN	79 Jan 19 1952
LOWEST DAILY MEAN	.00 Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1 1941
MAXIMUM PEAK FLOW	298 Mar 16 1943
MAXIMUM PEAK STAGE	3.80 Mar 16 1943
ANNUAL RUNOFF (AC-FT)	137
10 PERCENT EXCEEDS	.00
50 PERCENT EXCEEDS	.00
90 PERCENT EXCEEDS	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2004, BY WATER YEAR (WY)

	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
MEAN	0.55	1.23	2.00	4.05	5.53	3.35	1.04	0.52	0.35	0.32	0.36	0.45
MAX	5.31	5.76	9.96	28.0	32.1	18.6	6.28	5.87	1.66	1.01	1.72	2.53
(WY)	1984	1986	1993	1993	1998	1983	1958	1998	1995	1991	1977	1986
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1955	1955	1955	1963	1964	1966	1955	1961	1955	1955	1955	1955

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1955 - 2004

ANNUAL TOTAL	812.43	657.20	
ANNUAL MEAN	2.23	1.80	1.63
HIGHEST ANNUAL MEAN			5.16 1993
LOWEST ANNUAL MEAN			0.03 1964
HIGHEST DAILY MEAN	154 Mar 16	174 Feb 26	221 Mar 1 1983
LOWEST DAILY MEAN	0.14 Jan 25	0.19 May 2	0.00 Oct 1 1954
ANNUAL SEVEN-DAY MINIMUM	0.16 Jan 25	0.20 Apr 26	0.00 Oct 1 1954
MAXIMUM PEAK FLOW		357 Feb 26	392 Mar 1 1983
MAXIMUM PEAK STAGE		8.11 Feb 26	8.25 Mar 1 1983
INSTANTANEOUS LOW FLOW		0.02 Mar 3	0.02 Sep 19 2003
ANNUAL RUNOFF (AC-FT)	1610	1300	1180
10 PERCENT EXCEEDS	0.62	0.77	0.98
50 PERCENT EXCEEDS	0.33	0.34	0.33
90 PERCENT EXCEEDS	0.26	0.26	0.00



## 11092450 LOS ANGELES RIVER AT SEPULVEDA DAM, CA

LOCATION.—Lat 34°09'42", long 118°27'57", in Mission de San Fernando Grant, Los Angeles County, Hydrologic Unit 18070105, on right bank of outlet channel, 0.6 mi downstream from Sepulveda Dam, 200 ft upstream from Sepulveda Boulevard in city of Los Angeles, and 1.8 mi southwest of Van Nuys.

DRAINAGE AREA.—158 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1929 to February 1938, May 1938 to September 1979, October 2002 to current year. See WSP 1315-B and 1735 for history of records prior to September 1950.

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Datum of gage is 652.7 ft above NGVD of 1929. See WSP 1735 for history of changes prior to August 29, 1953.

REMARKS.—Records good above 800 ft<sup>3</sup>/s and poor below. Flow regulated since December 1941 by Sepulveda Flood-Control Reservoir, capacity, 17,400 acre-ft. Some diversion above station. At times, the city of Los Angeles discharges imported Owens River water into the Los Angeles River from upstream distributing reservoirs. Most of the base flow at this station represents releases of treated effluent from the city of Los Angeles Donald C. Tillman Water Reclamation Plant, upstream of Sepulveda Dam.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 14,700 ft<sup>3</sup>/s, Mar. 4, 1978, gage height, 12.04 ft; no flow Sept. 19, 20, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 2, 1938, 12,000 ft<sup>3</sup>/s, estimated.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	113	83	83	65	208	e191	54	60	64	54	55
2	85	72	85	600	434	307	69	55	58	63	54	57
3	85	75	84	97	141	78	64	53	59	64	52	58
4	80	72	79	84	80	77	66	50	60	63	52	59
5	79	75	78	85	72	75	61	51	61	61	60	57
6	84	72	84	115	72	75	67	49	63	65	60	55
7	85	71	96	140	69	74	61	48	62	65	61	58
8	86	74	81	133	69	74	63	50	59	64	57	39
9	86	77	80	126	72	76	62	53	61	63	55	51
10	86	76	82	120	73	75	64	51	61	63	54	55
11	83	76	82	109	74	74	64	52	64	57	53	53
12	81	80	82	85	72	76	62	53	65	62	57	54
13	83	81	80	76	73	75	60	54	64	62	56	54
14	82	81	161	72	70	75	60	56	64	60	56	58
15	70	81	75	64	69	78	60	52	64	60	59	59
16	71	85	71	73	70	78	66	52	66	62	57	57
17	73	80	73	81	71	79	62	52	66	61	61	55
18	72	80	72	87	271	78	58	53	64	57	62	54
19	72	80	73	88	80	75	59	51	66	59	46	53
20	73	82	74	88	e67	75	59	51	64	56	61	52
21	76	79	75	87	e137	74	60	51	67	52	60	49
22	74	77	76	85	1510	75	59	52	69	36	59	55
23	76	77	90	86	323	77	58	54	68	48	55	59
24	78	80	212	86	95	65	59	56	58	52	57	59
25	76	78	1280	86	1360	68	58	57	67	52	59	61
26	76	83	125	87	2780	75	56	58	67	47	53	59
27	77	79	84	81	e145	75	55	47	64	50	39	63
28	81	77	83	69	103	75	54	58	60	51	45	65
29	80	79	89	64	88	77	53	58	61	54	47	59
30	81	80	92	66	---	77	54	57	62	54	49	55
31	104	---	87	65	---	78	---	58	---	54	51	---
TOTAL	2473	2372	3968	3268	8605	2698	1944	1646	1894	1781	1701	1677
MEAN	79.8	79.1	128	105	297	87.0	64.8	53.1	63.1	57.5	54.9	55.9
MAX	104	113	1280	600	2780	307	191	58	69	65	62	65
MIN	70	71	71	64	65	65	53	47	58	36	39	39
AC-FT	4910	4700	7870	6480	17070	5350	3860	3260	3760	3530	3370	3330

e Estimated.

## LOS ANGELES RIVER BASIN

## 11092450 LOS ANGELES RIVER AT SEPULVEDA DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.1	55.0	57.2	102	121	80.1	34.7	18.5	13.5	15.7	17.8	16.5
MAX	83.6	491	247	767	644	739	202	163	85.1	90.7	84.9	83.9
(WY)	2003	1966	1966	1969	1962	1978	1958	2003	2003	2003	2003	2003
MIN	1.44	1.67	3.76	4.65	4.19	4.27	3.94	3.17	2.87	2.22	2.23	1.93
(WY)	1978	1978	1954	1976	1951	1951	1977	1951	1951	1951	1951	1951

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	51099		34027			
ANNUAL MEAN	140		93.0		45.2	
HIGHEST ANNUAL MEAN					158 1978	
LOWEST ANNUAL MEAN					7.09 1950	
HIGHEST DAILY MEAN	8750	Feb 12	2780	Feb 26	9750	Mar 4 1978
LOWEST DAILY MEAN	57	Jan 17	36	Jul 22	0.46	Nov 10 1977
ANNUAL SEVEN-DAY MINIMUM	71	Jan 1	48	Jul 22	0.84	Nov 25 1977
MAXIMUM PEAK FLOW			11000	Feb 26	14700	Mar 4 1978
MAXIMUM PEAK STAGE			9.82	Feb 26	12.04	Mar 4 1978
ANNUAL RUNOFF (AC-FT)	101400		67490		32730	
10 PERCENT EXCEEDS	100		87		57	
50 PERCENT EXCEEDS	84		67		8.9	
90 PERCENT EXCEEDS	75		53		4.2	

## 11097000 BIG TUJUNGA CREEK BELOW HANSEN DAM, CA

LOCATION.—Lat 34°15'13", long 118°23'17", in 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 from Hansen Dam, 0.1 mi upstream from Glen Oaks Boulevard, and 3 mi southeast of San Fernando.

DRAINAGE AREA.—153 mi<sup>2</sup>.

PERIOD OF RECORD.—May 1932 to February 1938, August 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1975, published as "Tujunga Creek below Hansen Dam."

REVISED RECORDS.—WDR CA-84-1: 1978(M). WDR CA-01-1: 1992.

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Datum of gage is 943.32 ft above NGVD of 1929 (U.S. Army Corps of Engineers benchmark). See WSP 1735 for history of changes prior to Oct. 1, 1953.

REMARKS.—Records fair except for discharges below 100 ft<sup>3</sup>/s, which are poor. Flow regulated since July 1931 by Big Tujunga Flood-Control Reservoir, capacity, 5,690 acre-ft, and since September 1940 by Hansen Flood-Control Reservoir, capacity, 25,450 acre-ft. Several small diversions for domestic use and irrigation. Since about 1948, Los Angeles County Department of Public Works has diverted water 0.3 mi upstream from gage to spreading grounds, as shown in footnote below table. See schematic diagram of San Gabriel and Los Angeles River Basins.

COOPERATION.—Records of diversion provided by Los Angeles County Department of Public Works.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 15,200 ft<sup>3</sup>/s, Feb. 10, 1978, Mar. 2, 1983, maximum gage height, 7.64 ft, Mar. 2, 1983; no flow for many days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 54,000 ft<sup>3</sup>/s, estimated, Mar. 2, 1938.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
3	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.11	0.00	0.00	0.00	96.29	0.20	0.00	0.29	0.00	0.57	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	3.32	0.01	0.00	0.01	0.00	0.02	0.00	0.00
MAX	0.09	0.00	0.00	0.00	61	0.20	0.00	0.29	0.00	0.42	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.2	0.00	0.00	0.00	191	0.4	0.00	0.6	0.00	1.1	0.00	0.00
a	156	142	333	193	1080	133	112	30	26	25	24	22

a Combined discharge, in acre-feet, of creek and diversion.

## LOS ANGELES RIVER BASIN

## 11097000 BIG TUJUNGA CREEK BELOW HANSEN DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.32	7.15	3.58	36.9	88.8	75.6	26.5	23.3	6.76	2.46	1.97	2.93
MAX	32.2	153	65.3	742	1218	1387	252	446	81.1	52.4	33.1	41.4
(WY)	1984	1984	1984	1993	1993	1983	1983	1998	1998	1998	1998	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1948	1948	1950	1949	1949	1950	1950	1949	1948	1948	1948	1948

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	843.96		97.46			
ANNUAL MEAN	2.31		0.27		22.8	
HIGHEST ANNUAL MEAN					224	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	129	Mar 16	61	Feb 26	11400	Mar 2 1983
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 2	0.00	Oct 1 1947
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 4	0.00	Oct 1 1947
MAXIMUM PEAK FLOW			105	Feb 26	15200	Feb 10 1978
MAXIMUM PEAK STAGE			1.34	Feb 26	7.64	Mar 2 1983
ANNUAL RUNOFF (AC-FT)	1670		193		16530	
10 PERCENT EXCEEDS	0.00		0.00		17	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—December 1910 to January 1913 (fragmentary), April 1913 to November 1915, April 1916 to current year.

REVISED RECORDS.—WSP 1315-B: 1914(M), 1918(M), 1920–21(M). WSP 1928: Drainage area.

GAGE.—Water-stage recorder. Broad-crested weir since November 1938. Datum of gage is 1,397.88 ft above NGVD 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.—Records fair above 1 ft<sup>3</sup>/s and poor below. No regulation or diversion upstream from station. See schematic diagram of San Gabriel and Los Angeles River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,620 ft<sup>3</sup>/s, Mar. 2, 1938, gage height, 9.42 ft, present datum, 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 150 ft<sup>3</sup>/s, or maximum, from rating curve extended above 1,170 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1825	160	2.94	Feb. 26	0515	705	4.07

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.11	0.59	0.25	1.5	1.0	12	2.0	0.75	0.25	0.27	0.05	0.00
2	0.11	0.22	0.36	2.1	1.8	27	2.0	0.63	0.26	0.25	0.06	0.00
3	0.13	0.23	0.35	1.9	5.9	16	2.0	0.59	0.28	0.22	0.06	0.01
4	0.12	0.22	0.36	1.6	2.8	12	1.9	0.59	0.30	0.21	0.05	0.04
5	0.11	0.20	0.31	1.8	2.1	9.5	1.9	0.60	0.29	0.18	0.06	0.01
6	0.11	0.18	0.28	1.6	1.8	8.2	1.8	0.58	0.31	0.17	0.04	0.00
7	0.10	0.18	0.40	1.5	1.6	7.4	1.8	0.53	0.42	0.18	0.02	0.00
8	0.09	0.17	0.40	1.5	1.5	6.6	1.7	0.54	0.47	0.19	0.03	0.00
9	0.08	0.19	0.38	1.4	1.4	5.8	1.7	0.53	0.39	0.16	0.01	0.00
10	0.12	0.18	0.41	1.3	1.3	5.2	1.6	0.58	0.34	0.11	0.01	0.00
11	0.14	0.18	0.43	1.2	1.3	4.4	1.5	0.58	0.31	0.12	0.01	0.00
12	0.09	0.25	0.50	1.2	1.2	4.0	1.4	0.59	0.31	0.15	0.01	0.00
13	0.06	0.27	0.50	1.1	1.2	3.8	1.3	0.54	0.29	0.12	0.03	0.00
14	0.07	0.22	0.60	1.1	1.2	3.2	1.3	0.49	0.29	0.13	0.04	0.00
15	0.10	0.23	0.62	1.1	1.2	3.0	1.3	0.48	0.29	0.16	0.05	0.04
16	0.11	0.24	0.54	1.1	1.2	2.9	1.3	0.52	0.31	0.20	0.05	0.06
17	0.09	0.24	0.51	1.1	1.2	2.8	1.6	0.53	0.36	0.19	0.05	0.06
18	0.07	0.25	0.52	1.1	1.7	2.6	1.6	0.48	0.33	0.02	0.04	0.06
19	0.05	0.24	0.52	1.1	2.1	2.4	1.7	0.45	0.36	0.04	0.02	0.08
20	0.05	0.21	0.57	1.1	2.3	2.3	1.6	0.46	0.35	0.04	0.03	0.09
21	0.04	e0.22	0.66	1.0	2.1	2.3	1.5	0.49	0.37	0.04	0.06	0.05
22	0.04	e0.23	0.64	1.0	9.9	2.3	1.4	0.47	0.33	0.06	0.07	0.03
23	0.05	e0.23	0.63	e1.1	9.1	2.3	1.2	0.47	0.31	0.12	0.07	0.03
24	0.08	e0.22	0.69	1.1	5.9	2.3	1.1	0.47	0.29	0.10	0.09	0.02
25	0.06	e0.24	29	1.1	5.3	2.3	1.0	0.46	0.25	0.05	0.07	0.03
26	0.05	e0.25	10	1.0	181	2.2	0.91	0.41	0.24	0.04	0.08	0.02
27	0.09	e0.23	2.9	1.1	26	2.2	0.83	0.40	0.24	0.06	0.05	0.02
28	0.10	e0.25	2.0	1.1	15	1.9	0.89	0.45	0.27	0.11	0.04	0.04
29	0.14	0.27	1.8	1.1	11	1.8	0.93	0.35	0.30	0.10	0.02	0.11
30	0.18	0.20	1.7	1.1	---	1.9	0.84	0.28	0.30	0.08	0.02	0.19
31	0.32	---	1.6	1.1	---	2.0	---	0.25	---	0.05	0.01	---
TOTAL	3.06	7.03	60.43	39.2	301.1	164.6	43.60	15.54	9.41	3.92	1.30	0.99
MEAN	0.10	0.23	1.95	1.26	10.4	5.31	1.45	0.50	0.31	0.13	0.04	0.03
MAX	0.32	0.59	29	2.1	181	27	2.0	0.75	0.47	0.27	0.09	0.19
MIN	0.04	0.17	0.25	1.0	1.0	1.8	0.83	0.25	0.24	0.02	0.01	0.00
AC-FT	6.1	14	120	78	597	326	86	31	19	7.8	2.6	2.0

e Estimated.

## LOS ANGELES RIVER BASIN

## 11098000 ARROYO SECO NEAR PASADENA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.12	3.70	8.42	17.7	32.5	27.4	13.7	7.03	3.41	1.64	0.98	1.01
MAX	8.54	97.4	132	251	344	235	91.5	77.1	22.9	10.7	7.70	8.26
(WY)	1984	1966	1922	1969	1914	1938	1941	1998	1998	1969	1983	1976
MIN	0.00	0.06	0.12	0.58	0.93	1.02	0.63	0.45	0.28	0.04	0.00	0.00
(WY)	1927	1934	1991	1991	1924	2002	2002	2002	2002	1960	1925	1925

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1911 - 2004	
ANNUAL TOTAL	1135.33		650.16			
ANNUAL MEAN	3.11		1.78		9.78	
HIGHEST ANNUAL MEAN					57.8 1969	
LOWEST ANNUAL MEAN					0.65 2002	
HIGHEST DAILY MEAN	131	Feb 12	181	Feb 26	3690	Feb 20 1914
LOWEST DAILY MEAN	0.02	Sep 22	0.00	Sep 1	0.00	Aug 18 1920
ANNUAL SEVEN-DAY MINIMUM	0.05	Oct 19	0.00	Sep 6	0.00	Aug 18 1920
MAXIMUM PEAK FLOW			705	Feb 26	8620	Mar 2 1938
MAXIMUM PEAK STAGE			4.07	Feb 26	9.42	Mar 2 1938
ANNUAL RUNOFF (AC-FT)	2250		1290		7090	
10 PERCENT EXCEEDS	6.2		2.3		16	
50 PERCENT EXCEEDS	0.96		0.36		1.8	
90 PERCENT EXCEEDS	0.10		0.04		0.18	

## 11101250 RIO HONDO ABOVE WHITTIER NARROWS DAM, CA

LOCATION.—Lat 34°03'30", long 118°04'15", 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 mi<sup>2</sup>.

PERIOD OF RECORD.—February 1956 to current year.

GAGE.—Water-stage recorder and concrete-lined trapezoidal channel. Datum of gage is 217.80 ft above NGVD of 1929.

REMARKS.—Records fair. 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 upstream from station for domestic use and irrigation. Los Angeles County Department of Public Works diverted 605 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 provided by the Los Angeles County Department of Public Works.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 18,200 ft<sup>3</sup>/s, Feb. 16, 1980, gage height, 7.35 ft; no flow at times in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.92	114	0.65	0.56	0.46	679	206	0.55	0.55	2.7	0.49	0.61
2	0.97	0.73	0.63	84	484	309	1.7	0.47	0.43	2.6	0.69	0.69
3	1.1	1.0	0.77	1.8	14	4.5	23	0.58	0.67	1.7	0.50	0.45
4	1.0	0.76	0.70	0.70	2.9	30	2.0	0.63	0.56	1.1	0.45	0.30
5	1.00	1.00	0.95	0.67	0.31	31	1.9	0.84	0.40	1.3	0.52	0.31
6	0.98	0.91	0.90	1.9	0.22	0.43	1.7	3.0	0.40	1.5	0.58	0.31
7	1.3	1.0	17	1.5	0.28	0.52	2.6	3.1	0.67	1.9	0.48	0.77
8	1.4	0.78	1.6	0.95	0.32	0.67	0.44	0.38	0.94	2.0	0.65	0.73
9	1.2	1.2	0.76	1.0	0.30	0.51	0.41	0.39	0.60	0.75	0.95	0.76
10	1.3	1.5	0.74	1.2	0.35	0.38	0.60	1.1	0.86	1.1	0.50	0.53
11	0.93	1.1	0.73	1.2	0.42	0.79	0.73	0.56	0.56	0.60	0.94	0.64
12	0.81	336	0.50	3.3	0.38	0.62	1.6	0.63	0.48	1.5	1.3	1.4
13	1.8	2.5	0.63	5.7	0.28	0.56	1.4	0.55	0.61	2.1	0.63	1.4
14	1.0	0.91	25	5.7	0.29	0.64	0.31	0.45	0.78	2.0	0.41	0.76
15	0.98	0.68	1.6	3.8	0.32	0.67	1.9	0.50	0.95	3.3	0.40	1.0
16	1.3	1.6	0.71	1.1	0.48	0.42	0.59	0.55	0.66	5.7	0.54	1.5
17	1.2	0.76	0.74	0.97	0.53	0.44	8.9	0.92	0.82	5.4	0.61	0.63
18	0.90	0.83	2.3	1.4	216	0.39	1.3	0.75	0.98	3.0	0.60	0.69
19	0.85	0.94	0.84	0.58	2.0	0.58	0.66	0.65	1.8	3.2	0.53	1.0
20	1.0	1.2	0.90	0.62	18	0.48	1.2	0.47	0.99	4.9	1.0	0.61
21	0.87	0.89	1.0	0.92	119	0.36	1.5	0.60	1.3	5.1	1.3	1.1
22	0.85	0.83	1.0	0.53	800	0.43	0.85	0.47	1.6	5.2	0.54	0.58
23	0.96	0.51	1.4	0.60	98	0.51	0.70	1.0	0.72	5.2	1.4	0.48
24	1.2	0.50	1.4	0.50	0.79	0.58	0.57	0.84	1.2	3.0	1.5	0.46
25	0.94	0.70	1070	0.78	770	0.40	0.49	0.65	1.7	0.38	2.1	0.34
26	0.81	0.80	4.2	1.1	1840	0.52	0.49	1.0	1.4	2.1	1.9	0.44
27	0.88	0.61	0.37	0.58	6.5	0.44	0.76	0.88	1.7	4.4	0.63	0.55
28	1.1	0.62	0.30	0.89	6.4	0.34	1.2	2.5	2.3	5.4	0.56	1.0
29	1.6	0.71	0.44	0.62	6.1	1.7	0.78	1.1	1.3	2.0	0.48	0.55
30	2.2	0.60	0.61	0.55	---	0.60	0.92	0.59	2.2	0.59	0.54	0.73
31	44	---	0.97	1.7	---	0.73	---	0.54	---	0.56	0.73	---
TOTAL	77.35	476.17	1140.34	127.42	4388.63	1068.21	267.20	27.24	30.13	82.28	24.45	21.32
MEAN	2.50	15.9	36.8	4.11	151	34.5	8.91	0.88	1.00	2.65	0.79	0.71
MAX	44	336	1070	84	1840	679	206	3.1	2.3	5.7	2.1	1.5
MIN	0.81	0.50	0.30	0.50	0.22	0.34	0.31	0.38	0.40	0.38	0.40	0.30
AC-FT	153	944	2260	253	8700	2120	530	54	60	163	48	42

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

MEAN	16.3	37.3	43.7	87.6	150	94.7	38.7	25.4	23.6	15.9	8.73	10.4
MAX	253	284	178	834	860	796	236	260	166	187	112	109
(WY)	1984	1966	1978	1993	1969	1983	1983	1998	1996	1983	1991	1982
MIN	0.59	0.09	0.49	0.95	0.34	0.31	0.47	0.41	0.13	0.26	0.04	0.10
(WY)	1978	1957	1959	1976	1961	1956	1977	1959	1956	1956	1956	1956

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1956 - 2004

ANNUAL TOTAL	11003.05	7730.74		
ANNUAL MEAN	30.1	21.1	45.8	
HIGHEST ANNUAL MEAN			187	1983
LOWEST ANNUAL MEAN			6.01	1961
HIGHEST DAILY MEAN	2680	Feb 12	7700	Jan 25 1969
LOWEST DAILY MEAN	0.30	Dec 28	0.22	Feb 6
ANNUAL SEVEN-DAY MINIMUM	0.64	Nov 23	0.31	Feb 5
MAXIMUM PEAK FLOW			10900	Feb 26
MAXIMUM PEAK STAGE			5.93	Feb 26
ANNUAL RUNOFF (AC-FT)	21820		15330	33150
10 PERCENT EXCEEDS	9.1		4.4	87
50 PERCENT EXCEEDS	1.3		0.84	1.8
90 PERCENT EXCEEDS	0.74		0.44	0.55

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1966 to current year.

GAGE.—Water-stage recorder and concrete-lined flood-control channel. Elevation of gage is 175 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good except for discharges below 500 ft<sup>3</sup>/s, which are poor. 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](#).

COOPERATION.—Discharge records for current year provided by Los Angeles County Department of Public Works for the following dates: Oct. 7–31, Nov. 2 to Dec. 24, Dec. 26 to Jan. 12, Jan. 26 to Feb. 1, Feb. 10–12, 19–21, Feb. 28 to Mar. 8, Mar. 22 to Apr. 21, Apr. 27 to June 28, July 1–7, and July 23 to Sept. 30.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 38,800 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 13.82 ft, from rating curve extended above 15,000 ft<sup>3</sup>/s, on basis of gate openings at dam at gage heights 12.32 and 13.82 ft; no flow at times in most years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e30	e55	5.1	12	36	247	252	0.15	67	48	0.00	0.00
2	e26	0.00	4.3	104	200	908	42	0.15	27	0.47	0.00	0.00
3	e27	0.00	0.02	21	460	229	4.4	0.00	15	0.40	0.00	0.00
4	e31	0.00	0.04	20	124	43	7.9	0.03	6.8	0.27	0.00	0.00
5	e31	0.00	0.08	29	112	32	6.8	4.2	5.1	0.21	0.00	0.00
6	e23	0.57	0.12	3.4	129	3.5	3.4	0.00	11	0.21	0.00	0.00
7	15	0.45	5.3	9.7	129	4.3	0.00	0.00	11	8.3	0.00	0.00
8	14	0.18	15	0.50	123	12	0.00	0.07	5.1	58	0.00	0.00
9	12	0.13	2.4	0.10	88	33	0.00	0.31	11	77	0.00	0.00
10	10	0.04	1.1	0.04	47	96	0.00	0.06	0.00	77	0.00	0.00
11	14	0.39	3.3	0.03	1.4	119	0.00	0.00	0.00	53	0.00	0.00
12	13	299	5.0	1.3	1.4	117	0.00	0.00	0.00	65	0.00	0.00
13	14	106	6.5	48	58	127	0.00	0.00	0.00	124	0.00	0.00
14	9.4	4.4	52	60	67	124	0.00	0.02	0.00	140	31	0.00
15	5.9	0.00	41	64	66	123	0.00	29	0.00	108	34	0.00
16	15	0.00	12	68	66	118	0.00	38	0.00	111	12	0.00
17	15	0.00	5.6	69	63	128	0.00	64	0.00	107	0.02	0.00
18	0.57	0.00	6.8	69	195	128	0.00	80	0.00	74	0.00	0.00
19	0.42	0.00	8.0	71	38	127	0.00	62	0.00	85	0.00	0.00
20	0.11	0.00	7.6	71	20	129	0.00	46	0.00	105	0.00	0.00
21	0.00	0.00	7.5	70	49	122	14	42	0.00	94	0.00	0.00
22	0.00	0.00	3.5	71	1050	59	71	6.4	28	81	0.00	0.00
23	0.14	0.00	16	72	590	2.4	74	5.7	118	20	0.00	0.00
24	0.41	0.00	17	78	95	0.56	69	20	92	1.3	0.00	0.00
25	0.27	0.00	1530	61	327	0.46	76	19	97	1.1	0.00	0.00
26	0.11	23	465	25	4410	0.86	58	21	105	9.6	0.00	0.00
27	0.01	24	14	16	258	1.3	4.1	47	112	0.01	0.00	0.00
28	0.01	3.3	38	18	23	0.86	1.1	55	121	0.00	0.00	0.00
29	0.00	5.4	27	19	15	0.00	0.64	61	121	0.00	0.00	0.00
30	0.00	5.6	16	15	---	0.00	0.21	61	105	0.00	0.00	0.00
31	0.02	---	19	20	---	0.08	---	58	---	0.00	0.00	---
TOTAL	307.37	527.46	2334.26	1186.07	8840.8	3035.32	684.55	720.09	1058.00	1448.87	77.02	0.00
MEAN	9.92	17.6	75.3	38.3	305	97.9	22.8	23.2	35.3	46.7	2.48	0.00
MAX	31	299	1530	104	4410	908	252	80	121	140	34	0.00
MIN	0.00	0.00	0.02	0.03	1.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	610	1050	4630	2350	17540	6020	1360	1430	2100	2870	153	0.00

e Estimated.



## 11102300 RIO HONDO BELOW WHITTIER NARROWS DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	93.1	133	156	318	495	323	114	105	95.1	66.4	48.6	65.2
MAX	302	362	522	2378	3459	2265	371	323	355	205	244	413
(WY)	1984	1992	1992	1993	1969	1983	1983	1998	1992	1993	1991	1991
MIN	0.00	7.08	10.3	29.2	22.1	15.6	4.25	0.00	0.00	0.00	0.00	0.00
(WY)	1978	1978	1977	1976	1984	1972	1977	1999	2001	2001	2000	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	34465.70		20219.81			
ANNUAL MEAN	94.4		55.2		166	
HIGHEST ANNUAL MEAN					638	
LOWEST ANNUAL MEAN					40.9	
HIGHEST DAILY MEAN	5310	Mar 15	4410	Feb 26	21200	Mar 2 1983
LOWEST DAILY MEAN	0.00	Apr 3	0.00	Oct 21	0.00	Oct 29 1966
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 3	0.00	Nov 15	0.00	Sep 10 1969
MAXIMUM PEAK FLOW			16200	Feb 26	38800	Jan 25 1969
MAXIMUM PEAK STAGE			8.71	Feb 26	13.82	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	68360		40110		120300	
10 PERCENT EXCEEDS	94		112		241	
50 PERCENT EXCEEDS	31		5.1		69	
90 PERCENT EXCEEDS	0.06		0.00		1.1	

## 11106550 CALLEGUAS CREEK NEAR CAMARILLO, CA

LOCATION.—Lat 34°10'46", long 119°02'20", in Guadaluca Grant, [Ventura County](#), Hydrologic Unit 18070103, on downstream side of county road bridge, 1.0 mi northeast of California State University Channel Islands, and 1.4 mi downstream from Conejo Creek.

DRAINAGE AREA.—248 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1969 to September 1983, October 1996 to current year. Prior to October 2003, published as "Calleguas Creek at Camarillo State Hospital."

GAGE.—Water-stage recorder. Datum of gage is 58.42 ft above NGVD of 1929 (levels by Ventura County Watershed Protection District).

REMARKS.—Records good. Flow partially diverted since April 2002, at Conejo Creek Diversion, located approximately 3.5 miles upstream and operated by Camrosa Water District. Pumping for irrigation in valley 1.0 mi above station. Sustained flow from city of Thousand Oaks Reclamation Plant.

COOPERATION.—Records were furnished by Ventura County Watershed Protection District and reviewed by U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 25,900 ft<sup>3</sup>/s, Mar. 1, 1983, gage height, 10.08 ft, maximum gage height, 10.54 ft, Feb. 16, 1980, from rating curve extended above 4,600 ft<sup>3</sup>/s, on basis of slope-conveyance study of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,100 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	2025	2,070	3.58	Feb. 26	0240	8,530	6.19

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	25	14	20	18	48	17	9.2	15	13	8.5	14
2	11	14	11	122	34	132	16	11	14	9.9	11	14
3	9.3	13	9.1	48	138	29	16	11	14	12	11	16
4	9.2	13	11	26	22	21	18	10	12	9.6	11	16
5	12	10	13	31	27	28	16	14	12	11	11	15
6	8.7	13	12	20	17	19	18	12	13	12	12	14
7	6.5	24	13	19	15	27	19	11	15	14	12	15
8	7.0	14	11	18	19	19	19	11	12	12	11	14
9	6.9	17	15	16	15	17	19	12	13	9.8	11	13
10	7.1	27	14	15	15	12	19	12	12	12	10	13
11	7.7	31	11	14	12	12	19	11	13	13	10	13
12	10	30	9.8	13	11	13	18	11	14	13	12	13
13	8.7	31	14	14	13	14	17	12	14	14	13	11
14	7.0	27	41	13	11	15	18	13	14	13	13	9.2
15	7.9	20	43	17	12	14	17	12	14	10	13	9.3
16	9.3	33	17	16	11	15	15	11	14	10	11	9.0
17	11	30	15	14	11	17	16	10	15	11	11	9.7
18	11	29	9.6	14	43	19	14	11	15	11	12	12
19	11	28	9.4	15	37	19	13	11	14	10	11	11
20	9.4	18	9.2	16	15	18	14	11	14	10	8.4	11
21	9.6	16	12	17	23	19	13	11	16	11	10	13
22	11	16	12	18	268	17	13	13	14	18	14	11
23	11	18	13	23	158	15	15	12	13	12	15	11
24	8.2	15	38	18	26	15	14	11	12	13	15	12
25	8.0	13	388	18	488	14	19	11	13	12	15	13
26	18	14	131	18	2540	15	17	10	14	12	15	10
27	9.0	14	21	18	80	16	14	11	13	12	16	9.7
28	8.8	14	14	18	41	16	15	13	13	11	18	10
29	8.3	13	14	18	34	16	14	12	13	9.0	18	8.7
30	8.8	15	26	17	---	16	12	12	13	8.3	16	8.0
31	12	---	23	18	---	16	---	14	---	8.1	15	---
TOTAL	293.3	595	994.1	682	4154	683	484	356.2	407	356.7	389.9	358.6
MEAN	9.46	19.8	32.1	22.0	143	22.0	16.1	11.5	13.6	11.5	12.6	12.0
MAX	18	33	388	122	2540	132	19	14	16	18	18	16
MIN	6.5	10	9.1	13	11	12	12	9.2	12	8.1	8.4	8.0
AC-FT	582	1180	1970	1350	8240	1350	960	707	807	708	773	711

11106550 CALLEGUAS CREEK NEAR CAMARILLO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.6	30.4	46.5	89.1	173	107	27.2	19.1	13.9	11.9	11.3	13.3
MAX	33.5	119	227	462	1147	677	72.4	73.0	33.7	24.5	23.6	36.4
(WY)	1997	1971	1998	1969	1998	1983	1983	1998	1998	1983	1983	1983
MIN	1.83	2.61	2.84	3.94	5.61	6.17	3.45	1.83	1.20	0.47	0.09	1.07
(WY)	1971	1969	1969	1970	1971	1972	1970	1970	1971	1971	1970	1970

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	16176.1		9753.8			
ANNUAL MEAN	44.3		26.6		45.7	
HIGHEST ANNUAL MEAN					149	1998
LOWEST ANNUAL MEAN					8.46	1970
HIGHEST DAILY MEAN	4420	Feb 12	2540	Feb 26	9690	Mar 1 1983
LOWEST DAILY MEAN	6.5	Oct 7	6.5	Oct 7	0.00	Apr 24 1970
ANNUAL SEVEN-DAY MINIMUM	7.7	Oct 6	7.7	Oct 6	0.00	Jul 19 1970
MAXIMUM PEAK FLOW			8530	Feb 26	25900	Mar 1 1983
MAXIMUM PEAK STAGE			6.19	Feb 26	10.54	Feb 16 1980
ANNUAL RUNOFF (AC-FT)	32090		19350		33090	
10 PERCENT EXCEEDS	34		26		41	
50 PERCENT EXCEEDS	14		14		15	
90 PERCENT EXCEEDS	9.7		9.7		3.3	

11106550 CALLEGUAS CREEK NEAR CAMARILLO, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1969–78, October 1996 to current year.

WATER TEMPERATURE: Water years 1970–78, October 1996 to current year.

SEDIMENT DATA: Water years 1969–78, October 1996 to current year.

PERIOD OF DAILY RECORD.—

SEDIMENT DATA: Water years 1969–78, October 1996 to September 2002.

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	Temper- ature, water, deg C (00010)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
DEC					
17...	0945	14	15.0	266	10
JAN					
13...	1225	14	17.0	11	.42
FEB					
03...	0840	126	10.5	3650	1240
22...	1152	383	--	3770	3900
22...	1218	375	--	3380	3420
26...	1632	352	--	8600	8180
MAR					
05...	0850	30	--	16	1.3
22...	1550	16	20.0	13	.56
APR					
16...	1025	13	19.0	7	.25

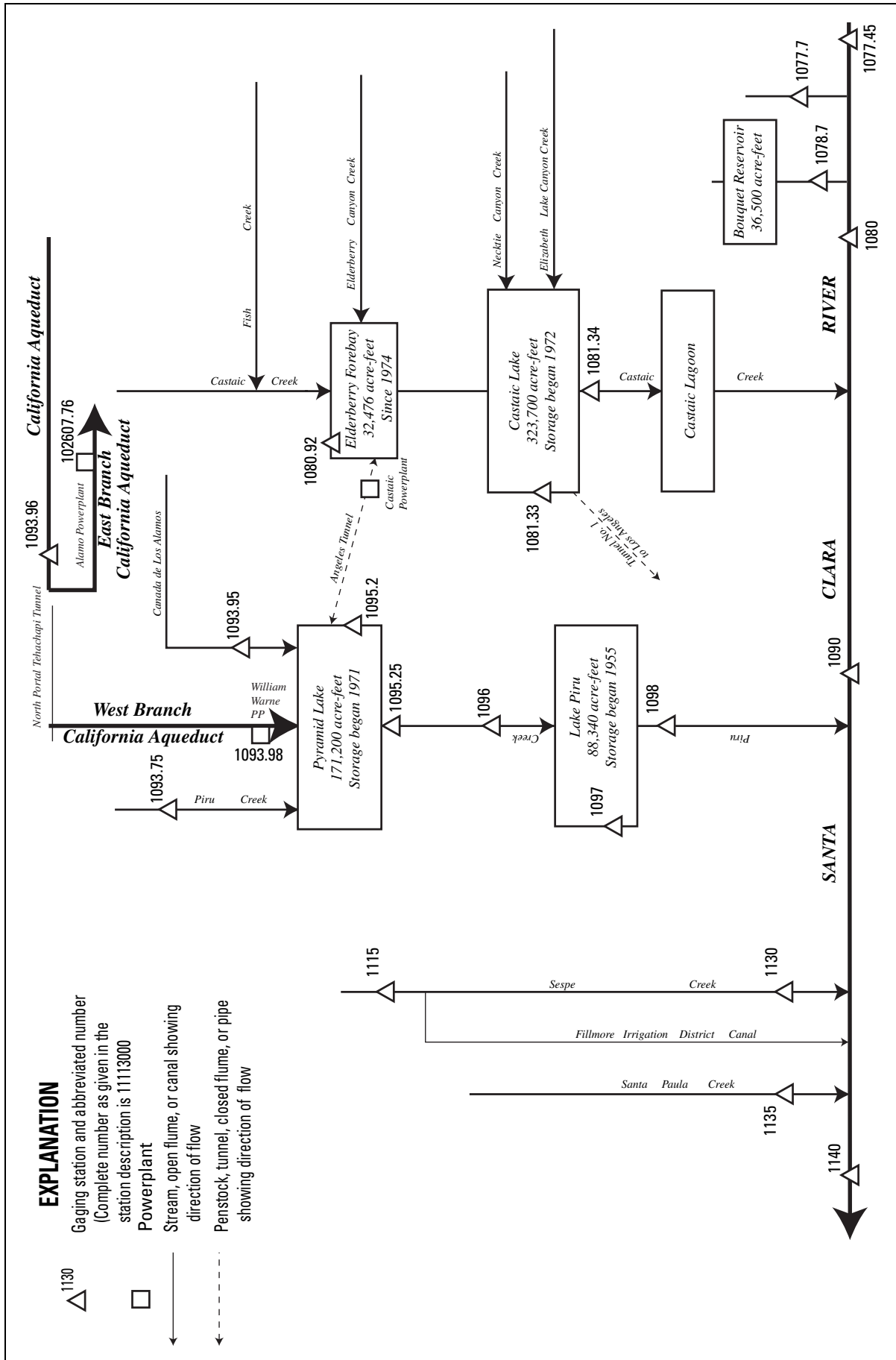


Figure 19. Diversions and storage in Santa Clara River Basin.

## 11107745 SANTA CLARA RIVER ABOVE RAILROAD STATION, NEAR LANG, CA

LOCATION.—Lat 34°25'47", long 118°21'16", in NE 1/4 SW 1/4 sec.16, T.4 N., R.14 W., Los Angeles County, Hydrologic Unit 18070102, on right bank, 0.2 mi upstream from railroad bridge, 1.8 mi downstream from Agua Dulce Canyon, and 1.0 mi southeast of Lang.

DRAINAGE AREA.—157 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1949 to September 1968, October 1969 to September 1977, February 2002 to current year. Monthly discharges only for water years 1950–68, 1970 published in WDR CA-71-1. Daily discharges are available in the files of the U.S. Geological Survey. Records prior to February 2002 were furnished by the Los Angeles County Department of Public Works and reviewed by the U.S. Geological Survey.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,790 ft above NAVD of 1988, from topographic map. For history of station locations during previous periods of station operation, see WDR CA-77-1.

REMARKS.—Records fair. No regulation above station. Small diversions for irrigation and recreation above station. See schematic diagram of Santa Clara River Basin. This station is designated by the Los Angeles County Department of Public Works as station F93B-R.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,200 ft<sup>3</sup>/s, Jan. 16, 1952, Nov. 21, 1967, gage height unknown, at site and datum then in use, maximum recorded gage height, 5.15 ft, Feb. 12, 2003, at present site and datum; no flow for all or most of each year.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 5,910 ft<sup>3</sup>/s, estimated, Feb. 25, 1969.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.02	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.02	0.00	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.04	0.00	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

	0.96	2.43	4.55	9.17	6.35	8.81	7.77	3.76	1.81	1.00	0.82	0.74
MEAN	0.96	2.43	4.55	9.17	6.35	8.81	7.77	3.76	1.81	1.00	0.82	0.74
MAX	5.18	21.9	53.7	157	34.3	115	76.5	30.6	12.2	3.45	2.24	1.60
(WY)	1970	1966	1966	1952	1962	1952	1958	1967	1967	1967	1952	1958
MIN	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1973	1976	1976	1976	1977	2002	2002	2002	2002	1977	1976	1972

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	548.15		15.02			
ANNUAL MEAN	1.50		0.04		4.08	
HIGHEST ANNUAL MEAN					29.3	
LOWEST ANNUAL MEAN					0.04	
HIGHEST DAILY MEAN	185	Feb 12	15	Feb 26	1280	Jan 18 1952
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Sep 4 1971
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Aug 30 1972
MAXIMUM PEAK FLOW			87		4200	
MAXIMUM PEAK STAGE			4.09		5.15	
ANNUAL RUNOFF (AC-FT)	1090		30		2950	
10 PERCENT EXCEEDS	2.6		0.00		6.9	
50 PERCENT EXCEEDS	0.00		0.00		1.2	
90 PERCENT EXCEEDS	0.00		0.00		0.00	



## SANTA CLARA RIVER BASIN

## 11107770 MINT CANYON CREEK AT SIERRA HIGHWAY, NEAR SAUGUS, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.00	0.04	0.02	2.02	0.12	0.09	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.06	0.05	5.96	0.34	0.26	0.00	0.00	0.00	0.00	0.00
(WY)	2003	2003	2002	2002	2003	2003	2003	2003	2002	2002	2002	2002
MIN	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	2003	2004	2004	2003	2002	2004	2004	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	185.40		4.40			
ANNUAL MEAN	0.51		0.01		0.26	
HIGHEST ANNUAL MEAN					0.51 2003	
LOWEST ANNUAL MEAN					0.01 2004	
HIGHEST DAILY MEAN	152	Feb 12	1.8	Feb 26	152	Feb 12 2003
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Nov 5 2001
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Nov 5 2001
MAXIMUM PEAK FLOW			20	Feb 26	539	Feb 12 2003
MAXIMUM PEAK STAGE			6.32	Feb 26	8.74	Nov 24 2001
ANNUAL RUNOFF (AC-FT)	368		8.7		189	
10 PERCENT EXCEEDS	0.00		0.00		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	



## 11107870 BOUQUET CREEK BELOW HASKELL CANYON CREEK, NEAR SAUGUS, CA

LOCATION.—Lat 34°25'52", long 118°31'57", in San Francisco Grant, Los Angeles County, Hydrologic Unit 18070102, on left bank, 500 ft upstream from Bouquet Canyon Road Bridge, 1.7 mi downstream from Haskell Canyon Creek, and 1.5 mi northeast of Saugus.

DRAINAGE AREA.—60.9 mi<sup>2</sup>.

PERIOD OF RECORD.—October 2003 to September 2004.

GAGE.—Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 1,185 ft above NGVD of 1929, from topographic map. October 1970 to September 1975 and January 2002 to September 2003, data published as "Bouquet Creek near Saugus" (station 11107860), at site 2.0 mi upstream, at different datum.

REMARKS.—Records fair. Partial regulation by Bouquet Reservoir, capacity, 36,500 acre-ft, principally used as equalizing reservoir to city of Los Angeles aqueduct. Some pumping of wells for irrigation upstream from station. This station is designated by the Los Angeles County Department of Public Works as station F377B-R.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 329 ft<sup>3</sup>/s, Feb. 25, 2004, gage height, 7.00 ft, from rating curve extended above 6.6 ft<sup>3</sup>/s, on basis of critical-depth computations; no flow at times in each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	2.9	0.00	0.00	0.00	2.2	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	1.7	7.1	0.44	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	1.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	1.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	1.8	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	3.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	4.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	3.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	3.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	19	0.00	39	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.41	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	2.01	2.96	20.40	1.70	147.41	2.64	1.80	0.54	0.00	0.00	0.00	0.00
MEAN	0.06	0.10	0.66	0.05	5.08	0.09	0.06	0.02	0.00	0.00	0.00	0.00
MAX	1.6	2.9	19	1.7	44	2.2	1.8	0.54	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	4.0	5.9	40	3.4	292	5.2	3.6	1.1	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004
MEAN	0.06	0.10	0.66	0.05	5.08	0.09	0.06	0.02	0.00	0.00	0.00	0.00
MAX	0.06	0.10	0.66	0.05	5.08	0.09	0.06	0.02	0.00	0.00	0.00	0.00
(WY)	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004
MIN	0.06	0.10	0.66	0.05	5.08	0.09	0.06	0.02	0.00	0.00	0.00	0.00
(WY)	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004

## SUMMARY STATISTICS

## FOR 2004 WATER YEAR

ANNUAL TOTAL	179.46
ANNUAL MEAN	0.49
HIGHEST DAILY MEAN	44 Feb 26
LOWEST DAILY MEAN	0.00 Oct 1
ANNUAL SEVEN-DAY MINIMUM	0.00 Oct 1
MAXIMUM PEAK FLOW	329 Feb 25
MAXIMUM PEAK STAGE	7.00 Feb 25
ANNUAL RUNOFF (AC-FT)	356
10 PERCENT EXCEEDS	0.00
50 PERCENT EXCEEDS	0.00
90 PERCENT EXCEEDS	0.00

## 11108000 SANTA CLARA RIVER NEAR SAUGUS, CA

LOCATION.—Lat 34°25'34", long 118°35'09", in San Francisco Grant, Los Angeles County, Hydrologic Unit 18070102, on left bank, on downstream side of The Old Road Bridge, and 2.8 mi northwest of Saugus.

DRAINAGE AREA.—411 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1929 to September 1955, February 2002 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Auxiliary gage 120 ft downstream with crest-stage gage and concrete drop structure. Elevation of gage is 1,045 ft above NAVD of 1988, from topographic map. Prior to Sept. 21, 1938, at site 1,000 ft downstream at different datum. Sept. 21, 1938, to September 1955, at same site at different datum.

REMARKS.—Records poor. Flow slightly regulated by Bouquet Reservoir, capacity, 36,500 acre-ft, principally used as an equalizing reservoir for the city of Los Angeles Aqueduct. Base flow may be affected by pumping from wells along the river for irrigation. Releases of treated wastewater from the city of Saugus Water Reclamation Plant supplies most of the base flow at this station. This station is designated by the Los Angeles County Department of Public Works as station F92B-R.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 24,000 ft<sup>3</sup>/s, estimated, Mar. 2, 1938, gage height unknown, maximum recorded gage height, 15.07 ft, Jan. 1, 1934, site and datum then in use; no flow at times in 1933, 1935–38, and 1955.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.1	2.2	2.3	2.1	8.0	1.5	1.7	1.1	1.3	1.0	0.73
2	2.1	2.4	2.4	11	23	8.7	1.7	1.6	1.0	1.2	1.1	0.67
3	2.1	2.4	2.5	3.3	5.8	4.9	2.1	1.4	0.98	1.2	1.0	0.60
4	2.1	2.0	2.4	2.6	2.7	3.4	2.7	e1.4	0.96	1.2	0.99	0.52
5	2.1	1.8	2.7	2.2	2.4	2.7	2.1	e1.4	0.97	1.2	0.95	0.52
6	2.1	1.9	2.9	2.3	4.8	2.7	2.2	e1.3	1.1	1.0	1.0	0.54
7	2.1	1.8	4.3	2.3	4.7	2.8	2.0	e1.3	1.0	0.99	0.94	0.50
8	2.1	1.9	3.1	2.3	4.5	2.6	1.6	e1.3	1.0	0.92	0.90	0.47
9	2.1	2.0	3.0	2.3	3.4	2.6	1.1	e1.3	1.0	0.83	0.78	0.51
10	2.2	1.8	3.2	2.4	2.8	2.6	1.8	e1.3	1.0	0.82	0.81	0.55
11	2.1	1.9	4.7	2.6	2.7	2.9	2.1	e1.3	1.0	0.83	0.74	0.48
12	2.0	2.3	4.4	2.5	2.5	2.4	2.0	e1.3	1.0	0.83	0.76	0.42
13	2.0	1.6	4.2	2.4	2.3	3.1	2.1	e1.3	1.1	0.78	0.72	0.45
14	1.8	1.5	8.6	2.4	2.1	3.2	1.4	e1.2	1.2	0.69	0.74	0.51
15	2.0	1.7	6.6	2.4	2.0	2.9	1.1	e1.2	1.2	0.80	0.72	0.51
16	2.2	1.6	6.0	2.5	2.2	2.5	e1.0	e1.2	1.3	0.82	0.74	0.51
17	1.6	1.6	6.6	2.5	2.0	2.5	e2.4	1.2	1.3	0.82	0.76	0.56
18	1.7	1.5	7.0	2.5	7.4	2.2	1.1	1.2	1.3	0.81	0.77	0.59
19	2.0	1.6	5.1	2.6	1.5	1.3	1.2	1.3	1.2	0.80	0.80	0.56
20	2.2	1.7	4.1	2.6	2.2	1.9	1.4	1.3	1.3	0.80	0.87	0.52
21	1.8	1.8	3.3	2.6	5.3	1.3	1.5	1.2	1.3	0.94	0.91	0.93
22	2.1	1.7	3.1	2.5	180	2.0	1.4	1.1	1.4	0.91	0.88	0.80
23	2.2	1.7	3.4	2.5	7.1	2.2	1.5	1.1	1.3	0.89	0.94	0.89
24	2.1	1.9	4.7	2.5	3.1	2.3	1.4	1.4	1.4	0.92	0.94	0.81
25	2.1	1.9	177	2.4	391	2.2	1.3	1.2	1.4	0.93	1.1	0.77
26	2.1	1.9	8.0	2.4	990	2.5	1.4	1.1	1.4	0.97	0.76	0.95
27	2.0	1.9	3.7	2.4	6.3	2.6	1.6	1.1	1.4	1.1	0.80	0.64
28	2.3	2.0	2.6	2.3	6.4	2.0	1.6	1.1	1.4	0.95	0.80	0.70
29	2.6	2.0	2.4	2.2	4.6	2.6	1.7	1.1	1.4	0.96	0.79	0.69
30	2.3	2.0	2.4	2.2	---	2.0	1.6	1.1	1.4	0.99	0.81	0.65
31	5.2	---	2.4	2.1	---	1.7	---	1.1	---	1.0	0.75	---
TOTAL	67.4	74.8	299.0	84.1	1676.9	89.3	49.6	39.1	35.81	29.20	26.57	18.55
MEAN	2.17	2.49	9.65	2.71	57.8	2.88	1.65	1.26	1.19	0.94	0.86	0.62
MAX	5.2	2.1	177	11	990	8.7	2.7	1.7	1.4	1.3	1.1	0.95
MIN	1.6	1.5	2.2	2.1	1.5	1.3	1.0	1.1	0.96	0.69	0.72	0.42
AC-FT	134	148	593	167	3330	177	98	78	71	58	53	37

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
MEAN	1.29	2.43	8.67	29.3	45.4	56.9	13.1	4.29	2.45	1.65	1.20	1.09				
MAX (WY)	6.45	12.1	35.5	297	504	396	139	32.4	10.1	6.39	4.35	4.57				
MIN (WY)	0.00	0.00	0.11	0.10	0.22	0.11	0.21	0.20	0.03	0.00	0.00	0.00				
(WY)	1937	1937	1938	1938	1953	1955	1954	1936	1936	1936	1936	1936				

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	4177.6		2490.33			
ANNUAL MEAN	11.4		6.80		14.0	
HIGHEST ANNUAL MEAN					68.6 1944	
LOWEST ANNUAL MEAN					0.30 1951	
HIGHEST DAILY MEAN	1600	Feb 12	990	Feb 26	9360	Feb 22 1944
LOWEST DAILY MEAN	1.5	Nov 14	0.42	Sep 12	0.00	Jul 16 1933
ANNUAL SEVEN-DAY MINIMUM	1.6	Nov 13	0.48	Sep 7	0.00	Jul 16 1933
MAXIMUM PEAK FLOW			5900		24000 Mar 2 1938	
MAXIMUM PEAK STAGE			6.33		15.07 Jan 1 1934	
ANNUAL RUNOFF (AC-FT)	8290		4940		10130	
10 PERCENT EXCEEDS	9.6		3.4		14	
50 PERCENT EXCEEDS	4.4		1.7		1.0	
90 PERCENT EXCEEDS	2.0		0.78		0.10	

e Estimated.

## 11108092 ELDERBERRY FOREBAY NEAR CASTAIC, CA

LOCATION.—Lat 34°33'46", long 118°37'58", in SW 1/4 SE 1/4 sec.36, T.6 N., R.17 W., Los Angeles County, Hydrologic Unit 18070102, Angeles National Forest, in outlet tower in Elderberry Forebay, and 5 mi north of Castaic.

PERIOD OF RECORD.—October 1995 to current year. Prior to October 1995 in files of California Department of Water Resources.

GAGE.—Water-stage recorder. Elevation of gage is NGVD of 1929 (levels by Los Angeles Department of Water and Power).

REMARKS.—Forebay is formed by a concrete dam on Castaic Creek completed in 1974. Capacity, 32,476 acre-ft, at spillway crest on dam, at elevation 1,540 ft. Storage at normal minimum pool, 12,228 acre-ft, at elevation 1,490 ft. Forebay receives water from Pyramid Lake (station 11109520) via Castaic Powerplant. Water is pumped at times to Pyramid Lake during off-peak periods to be re-released through the powerplant. Records represent total contents. See schematic diagram of [Santa Clara River Basin](#).

COOPERATION.—Records were provided by California Department of Water Resources, under the general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426. Contents not rounded to U.S. Geological Survey standards.

EXTREMES (AT 2400 HOURS) FOR PERIOD OF RECORD.—Maximum contents, 31,537 acre-ft, Oct. 5, 2000, elevation, 1,538.09 ft; minimum, 15,716 acre-ft, Feb. 9, 1996, elevation, 1,500.54 ft.

EXTREMES (AT 2400 HOURS) FOR CURRENT YEAR.—Maximum contents, 27,681 acre-ft, Oct. 21, elevation, 1,530.00 ft; minimum, 13,178 acre-ft, Nov. 17, elevation, 1,493.00 ft.

Capacity table (elevation in feet, and contents, in acre-feet)  
Based on table provided by California Department of Water Resources dated Jan. 27, 1995)

1,490	12,228	1,510	19,183	1,530	27,680	1,540	32,476
1,500	15,527	1,520	23,240				

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22354	19069	22564	20857	17947	20476	19903	20994	20080	23540	17936	23369
2	20278	19281	21099	21753	18472	20238	21161	20131	20357	25727	20917	22986
3	19610	19184	19923	21286	18540	20199	21181	20805	22690	18430	22354	24798
4	20199	19786	19416	21039	18517	20242	19950	20580	23028	19727	22363	22104
5	18992	20457	19688	21124	21844	20250	21815	19458	20556	17677	22648	20837
6	19668	19571	20797	21433	21926	19746	22304	19805	22146	19610	23841	20199
7	21486	19050	20199	22581	20290	19860	22888	18687	25865	19338	20298	21609
8	23884	20159	20199	21103	19641	22753	24261	16841	25335	20001	18423	22606
9	20516	21323	18498	21662	19774	20913	23608	15010	22405	20317	22217	23028
10	18048	22271	20877	19077	20893	20813	20913	18555	23109	20958	22816	23970
11	18650	23155	18048	19219	21535	21356	21860	20179	27446	19571	21695	22986
12	21039	18536	19088	21095	22371	20492	21811	20357	22572	22943	20199	21099
13	21939	14432	19050	20516	19672	20349	21819	21486	21010	22690	20869	21918
14	21201	13210	19532	21486	20084	19219	23557	19962	22363	23198	20556	22104
15	21527	13210	19883	21343	20524	21482	23041	18840	20199	24013	20877	22063
16	20837	13210	20159	22063	20781	20885	23854	19300	22217	23283	21650	22690
17	20437	13178	20797	19982	21136	20805	21638	21650	24457	18347	21609	24710
18	19261	13210	18536	19466	20433	20349	20080	21527	22804	17895	22313	21856
19	22313	13210	18011	21018	20905	20238	20765	21548	20191	24491	22021	18347
20	24382	13210	20476	21201	21741	20648	23194	20998	20041	25852	24013	19532
21	27681	13210	22396	20954	21893	20147	23703	22859	22774	21148	21897	21568
22	24426	17541	22313	20837	21221	24369	23062	18916	23754	23339	20357	21650
23	19844	18070	21120	22648	20648	24356	22564	17019	24404	20909	20917	23798
24	18291	19532	20917	19400	19727	24287	20508	21140	23454	18710	20437	26040
25	21282	17055	19532	18231	20437	23540	20476	19455	24974	17751	22564	23625
26	19649	18347	19844	22063	20286	24540	20930	20917	20958	20001	22690	19927
27	20457	19844	20636	22150	20349	20680	21095	21486	18347	21584	24666	20496
28	19825	22438	20716	21778	20889	19107	21732	21691	23711	21221	21201	20958
29	22438	21671	22774	22846	21704	21242	21018	23884	21732	22125	18460	23625
30	19571	20258	24057	23386	---	20938	21144	22021	21691	21161	20317	24100
31	17843	---	24274	20648	---	19868	---	21732	---	18291	20357	---
MAX	27681	23155	24274	23386	22371	24540	24261	23884	27446	25852	24666	26040
MIN	17843	13178	18011	18231	17947	19107	19903	15010	18347	17677	17936	18347
a	1506.45	1512.75	1522.40	1513.73	1516.33	1511.76	1514.96	1516.40	1516.30	1507.65	1513.00	1522.00
b	-2897	2415	4016	-3626	1056	-1836	1276	588	-41	-3400	2066	3743

CAL YR 2003 b 2878

WTR YR 2004 b 3360

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 11108133 CASTAIC LAKE NEAR CASTAIC, CA

LOCATION.—Lat 34°31'22", long 118°36'43", in NW 1/4 NE 1/4 sec.13, T.5 N., R.16 W., Los Angeles County, Hydrologic Unit 18070102, in intake tower in Castaic Lake, and 2.3 mi north of Castaic.

DRAINAGE AREA.—137 mi<sup>2</sup>, excludes 18.1 mi<sup>2</sup> noncontributing area in Elizabeth Canyon Creek Basin.

PERIOD OF RECORD.—October 1988 to current year. Prior to October 1988 in files of California Department of Water Resources.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.—Lake is formed by earthfill dam. Storage began April 1972. Dead storage below outlet tower to downstream distribution system, 1,799 acre-ft, elevation, 1,213 ft. Capacity below spillway level, 323,700 acre-ft, elevation, 1,515 ft. Lake receives West Branch California Aqueduct water diverted from Pyramid Lake (station 11109520) via Castaic Powerplant to Elderberry Forebay (station 11108092). Water is released downstream through Castaic Tunnel No. 1 and to Castaic Lagoon. Records represent total contents. See schematic diagram of [Santa Clara River Basin](#).

COOPERATION.—Records were collected by California Department of Water Resources, under the general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426. Contents not rounded to U.S. Geological Survey standards.

EXTREMES (AT 2400 HOURS) FOR PERIOD OF RECORD.—Maximum contents, 322,962 acre-ft, Mar. 25, 1998, elevation, 1,514.67 ft; minimum, 142,325 acre-ft, Jan. 7, 1995, elevation, 1,415.48 ft.

EXTREMES (AT 2400 HOURS) FOR CURRENT YEAR.—Maximum contents, 316,836 acre-ft, Mar. 5, elevation, 1,511.91 ft; minimum, 252,753 acre-ft, Nov. 22, elevation, 1,480.96 ft.

Capacity table (elevation in feet, and contents, in acre-feet)  
(Based on table provided by California Department of Water Resources in 1978)

1,450	196,414	1,470	231,964	1,490	270,629	1,510	310,451
1,460	213,807	1,480	250,894	1,500	291,186	1,520	334,985

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	297431	281496	260641	296889	303174	313930	311717	307211	283477	278377	289530	297676
2	294833	279626	261589	298293	304078	315117	312899	304940	284532	280632	287066	299104
3	294452	277662	263312	300022	305372	316042	315909	302744	284159	284283	287629	301027
4	294135	275746	263293	298230	306935	316240	315315	301585	281187	281990	289090	301092
5	295066	273798	261273	299830	304940	316836	313009	301585	278070	282919	290389	298464
6	294495	271737	261213	301177	305999	315975	313206	299210	275157	284097	291838	297633
7	293228	269565	262995	302679	307211	314457	313732	299530	272241	285527	292406	298144
8	293185	267458	264366	303712	305459	312593	314215	297485	273413	287212	289635	299872
9	293059	265421	265560	305394	306691	314633	314545	294727	274386	289739	286879	301435
10	290389	263332	266618	306626	307905	314501	314611	291838	275360	289049	287004	303324
11	289823	261312	269484	304552	308883	312571	312177	291144	275909	286608	288756	303518
12	290012	265481	267438	302550	310058	313886	312593	290829	278582	284180	289655	300813
13	290032	268902	266718	303002	311368	313754	313316	287942	276316	285797	290640	300621
14	290032	268601	267839	303281	309536	312198	313579	288756	273905	286983	289028	302336
15	289028	266798	269525	303410	307710	310124	313908	288631	277499	287545	286213	302851
16	286400	265062	270790	303604	308905	311237	314303	285756	277315	289362	286400	304013
17	284118	263154	272322	304099	310211	311390	314303	282939	277335	290242	287879	305502
18	284242	261194	272766	302035	311739	312549	312067	283932	279790	288171	288819	305783
19	282630	259045	270410	299936	313118	313864	311608	284988	281270	285486	290955	303002
20	284159	256788	269766	300193	314325	314391	312133	286296	278561	285548	293544	301113
21	282403	254854	271414	300129	315579	312198	312330	287504	275868	287379	293396	301242
22	283477	252753	273616	300193	314391	310233	312461	288547	276031	288568	290913	303496
23	284718	253686	275218	300642	313074	311258	312724	285548	278316	290200	291354	303475
24	283311	256181	276397	301113	313798	312286	312461	282630	280221	291312	292427	303690
25	281517	257513	275421	299061	313009	313294	310037	283683	282155	288610	294389	302357
26	283435	258160	273494	296932	314589	313645	309841	284739	282712	285797	296783	299424
27	283766	259045	273555	298592	314193	314897	310276	285797	280016	285610	298592	298485
28	284076	257062	276459	299680	312943	312768	310146	286816	277111	286671	296889	298720
29	282836	260069	279114	300514	311630	310342	310015	287900	276499	287598	294791	297229
30	283725	262777	282919	301606	---	311127	309775	284967	277601	290200	295638	297697
31	283290	---	287108	302400	---	311586	---	282176	---	291712	297017	---
MAX	297431	281496	287108	306626	315579	316836	315909	307211	284532	291712	298592	305783
MIN	281517	252753	260641	296889	303174	310124	309775	282176	272241	278377	286213	297229
a	1496.21	1486.07	1498.05	1505.28	1509.54	1509.52	1508.69	1495.67	1493.44	1500.25	1502.76	1503.08
b	-31035	-20513	24331	15292	9230	-44	-1811	-27599	-4575	14111	5305	680

CAL YR 2003 b -28845

WTR YR 2004 b -16628

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 11108134 CASTAIC CREEK BELOW METROPOLITAN WATER DISTRICT DIVERSION, BELOW CASTAIC LAKE, NEAR CASTAIC, CA

LOCATION.—Lat 34°31'10", long 118°36'34", in NE 1/4 SE 1/4 sec.13, T.5 N., R.17 W., [Los Angeles County](#), Hydrologic Unit 18070102, in outlet structure below Castaic Dam, and 1.9 mi north of Castaic.

DRAINAGE AREA.—138 mi<sup>2</sup>, excludes 18.1 mi<sup>2</sup> noncontributing area in Elizabeth Canyon Creek Basin.

PERIOD OF RECORD.—October 1994 to current year. Records for 1995 water year published as station 11108135. Records for station 11108135 for October 1976 to September 1978 and October 1988 to September 1994 are not equivalent at low flows due to evaporation and seepage. Published as "Castaic Creek Release Flow" prior to October 2000.

GAGE.—Flow meters on outlet pipes. Elevation of gage is 1,240 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Castaic Lake (station 11108133). See schematic diagram of [Santa Clara River Basin](#).

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 3,080 ft<sup>3</sup>/s, Feb. 23, 1998; no flow for many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 7,670 ft<sup>3</sup>/s, Mar. 2, 1983, at station 11108135.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	1.0	0.00	0.00	25	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	1.0	0.00	0.00	25	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	1.0	0.00	0.00	25	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	1.0	0.00	0.00	25	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	1.0	0.00	0.00	75	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	1.0	0.00	0.00	75	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	1.0	0.00	0.00	70	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	1.0	0.00	0.00	70	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	1.0	0.00	0.00	12	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	1.0	0.00	0.00	12	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	1.0	0.00	0.00	8.1	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	1.0	0.00	0.00	6.8	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	1.0	0.00	0.00	6.8	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	1.0	0.00	0.00	6.8	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	1.0	0.00	0.00	6.0	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	1.0	0.00	0.00	4.0	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	1.0	0.00	0.00	4.0	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	1.0	0.00	0.00	4.0	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	1.0	0.00	0.00	4.0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	1.0	0.00	0.00	4.0	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	1.0	0.00	0.00	4.0	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	1.0	0.00	0.00	5.0	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	1.0	0.00	0.00	5.0	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	1.0	0.00	0.00	4.0	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	1.0	0.00	0.00	3.0	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	1.0	0.00	0.00	3.0	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	1.0	0.00	10	3.0	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	1.0	0.00	10	3.0	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	1.0	0.00	10	3.0	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	1.0	0.00	---	3.0	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	30.00	0.00	30.00	504.50	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.97	0.00	1.03	16.3	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	1.0	0.00	10	75	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	60	0.00	60	1000	0.00	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004		
MEAN	0.49	1.10	2.11	2.93	38.0	36.7	27.9	19.8	9.40	5.65	3.70	0.78
MAX	4.94	11.0	15.1	19.3	352	175	81.4	123	57.3	34.2	29.9	7.80
(WY)	1999	1999	1999	1998	1998	1998	1996	1998	2000	1995	1995	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	1996	1996	1996	1995

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1995 - 2004

ANNUAL TOTAL	1552.50	564.50		
ANNUAL MEAN	4.25	1.54	12.2	
HIGHEST ANNUAL MEAN			63.9	1998
LOWEST ANNUAL MEAN			0.00	2002
HIGHEST DAILY MEAN	100	Apr 8	75	Mar 5
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1
ANNUAL RUNOFF (AC-FT)	3080		1120	
10 PERCENT EXCEEDS	8.0		1.0	
50 PERCENT EXCEEDS	0.00		0.00	0.00
90 PERCENT EXCEEDS	0.00		0.00	0.00



## 11109396 CALIFORNIA AQUEDUCT AT NORTH PORTAL TEHACHAPI TUNNEL, NEAR GORMAN, CA

LOCATION.—Lat 34°55'46", long 118°48'17", unsurveyed, in Los Alamos Y Caliente Grant, T.10 N., R.18 E., Kern County, Hydrologic Unit 18030003, at entrance to Tehachapi Tunnel, 1.5 mi southeast of A.D. Edmonston Pumping Plant, and 10 mi north of Gorman.

PERIOD OF RECORD.—October 1995 to current year. Prior to October 1995 in files of California Department of Water Resources. Published as "North Portal Tehachapi Tunnel near Gorman" prior to October 2000.

GAGE.—Acoustic-velocity meter. Elevation of gage is 3,220 ft above NGVD of 1929, from topographic map.

REMARKS.—Records represent flow pumped from the California Aqueduct through the A.D. Edmonston Pumping Plant to southern California. Downstream, the flow splits as it leaves Tehachapi Afterbay. The East Branch California Aqueduct flows through Alamo Powerplant (station 10260776), and the West Branch California Aqueduct flows through William Warne Powerplant (station 11109398). See schematic diagram of [Santa Clara River Basin](#).

COOPERATION.—Records were computed by California Department of Water Resources, under the general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project 2426.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 4,100<sup>3</sup>/s, Aug. 15, 2004; no flow at times in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2790	1550	2750	3090	3950	1760	2850	2870	3320	3100	3140	3090
2	3170	1100	2840	2570	2580	1960	3280	2720	3290	3230	3100	3280
3	3150	882	2570	3010	2870	2040	3350	2140	3440	3470	3320	3290
4	2290	1390	3160	3410	2590	2300	3150	1810	1950	3570	3150	4090
5	2470	1390	3400	2550	2560	2400	3060	2070	1710	3220	3370	4080
6	2620	1290	2510	2400	2570	2340	3160	2020	2800	3110	3310	3420
7	2660	1180	2630	2710	2570	2480	2470	2260	2540	3260	3170	2950
8	2600	1850	2660	2630	2760	2160	2370	1760	2480	3190	3930	3100
9	3090	1740	2770	2910	2930	2240	2690	1690	2750	3320	3180	3220
10	3870	2030	2570	3010	2990	1990	2160	1450	2410	3520	3220	3220
11	2610	2000	2770	3430	2910	2320	1780	3550	2960	3900	3070	3730
12	1980	2080	3430	1970	2830	2420	2480	2870	3280	2870	2960	3050
13	2640	2260	2820	2050	2780	2420	2590	3010	3330	3320	3170	3310
14	2570	1950	2760	1970	2830	2470	2910	3080	3110	3170	3660	3020
15	2560	444	2870	2090	2970	2690	2840	3250	3140	3000	4100	3120
16	3020	1010	2760	2120	2720	2610	2970	3900	3220	3170	3200	3200
17	3900	923	2710	2880	2750	2280	2690	2840	3370	3380	3260	3050
18	2370	1580	3090	3440	2420	2630	2920	2820	3200	4060	3140	3810
19	1840	1320	3900	2190	2320	2360	2810	3410	3450	3330	3360	4080
20	1750	1810	2870	2700	2580	2530	2510	3360	3410	3330	3090	3200
21	2180	2670	3210	1920	2360	2630	2570	3290	3240	3300	3660	3160
22	1970	2820	3260	2450	2060	2800	2740	3440	3140	3390	3990	3100
23	2360	2970	3210	2540	1400	2570	2870	3440	3310	3290	3260	3230
24	3010	2980	3430	2850	1240	2610	2850	3420	3240	3560	3260	3300
25	1960	3720	3900	3140	914	3170	2870	3240	3120	3770	3340	3700
26	1860	2870	3620	2090	1320	3190	2490	3250	3410	3110	3100	3360
27	1520	3060	2970	2620	1290	2750	2430	3250	3580	3190	3170	2930
28	2170	3740	2730	2810	1140	2850	2640	3380	3260	3220	3660	2840
29	1890	2600	2460	3070	1370	2730	2720	3370	3170	3370	3560	2670
30	1950	2760	1850	3120	---	2680	2580	3320	3070	3160	3020	3050
31	2880	---	1310	3410	---	2950	---	3320	---	3290	3250	---
TOTAL	77700	59969	89790	83150	68574	77330	81800	89600	91700	103170	103170	98650
MEAN	2506	1999	2896	2682	2365	2495	2727	2890	3057	3328	3328	3288
MAX	3900	3740	3900	3440	3950	3190	3350	3900	3580	4060	4100	4090
MIN	1520	444	1310	1920	914	1760	1780	1450	1710	2870	2960	2670
AC-FT	154100	118900	178100	164900	136000	153400	162300	177700	181900	204600	204600	195700

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

	1996	1997	1998	1999	2000	2001	2002	2003	2004			
MEAN	1628	1460	1562	1156	1002	1623	2076	2053	1965	2169	2237	2182
MAX	2506	2944	2896	2682	2365	2781	2855	2955	3057	3328	3337	3288
(WY)	2004	2001	2004	2004	2004	2003	2003	2003	2004	2004	2003	2004
MIN	104	349	213	62.5	48.1	219	970	859	1008	1220	1489	1160
(WY)	1996	1996	1999	1999	1999	1998	1998	1998	1998	1998	1997	1998

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1996 - 2004
ANNUAL TOTAL	903822	1024603	
ANNUAL MEAN	2476	2799	1763
HIGHEST ANNUAL MEAN			2799
LOWEST ANNUAL MEAN			941
HIGHEST DAILY MEAN	4070	May 18	4100
LOWEST DAILY MEAN	257	Jan 13	444
ANNUAL SEVEN-DAY MINIMUM	507	Jan 10	1240
ANNUAL RUNOFF (AC-FT)	1793000	2032000	1277000
10 PERCENT EXCEEDS	3510	3430	3050
50 PERCENT EXCEEDS	2660	2880	1770
90 PERCENT EXCEEDS	914	1910	452

## 11109398 WEST BRANCH CALIFORNIA AQUEDUCT AT WILLIAM WARNE POWERPLANT, NEAR GORMAN, CA

LOCATION.—Lat 34°41'07", long 118°47'16", in SW 1/4 NE 1/4 sec.21, T.7 N., R.18 W., Los Angeles County, Hydrologic Unit 18070102, in powerplant at upper end of Pyramid Lake, on Canado de Los Alamos arm, and 8.5 mi southeast of Gorman.

PERIOD OF RECORD.—October 1995 to current year. Prior to October 1995 in files of California Department of Water Resources. Published as "William Warne Powerplant" prior to October 1999.

GAGE.—Acoustic-velocity meters in both penstocks. Datum of gage is 2,582 ft above NGVD of 1929.

REMARKS.—Upstream the flow splits as it leaves the Tehachapi Tunnel. Flow at this site represents West Branch California Aqueduct water flowing southwest to Pyramid Lake (station 11109520). The East Branch California Aqueduct flows through Alamo Powerplant (station 10260776). See schematic diagram of [Santa Clara River Basin](#).

COOPERATION.—Records were computed by California Department of Water Resources, under the general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 2,830 ft<sup>3</sup>/s, Sept. 6, 2000; no flow at times in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	3.0	1630	1400	1530	851	972	970	1350	1530	1560	1480
2	931	0.00	1540	1360	1260	941	1280	741	1490	1540	1610	1660
3	1050	0.00	1590	1510	1210	841	1450	582	1560	1570	1570	1610
4	1220	0.00	1510	1520	1220	913	1190	232	72	1600	1620	1580
5	1010	0.00	1450	1390	1170	841	1300	396	0.00	1550	1440	1490
6	1070	0.00	941	1390	1080	884	1380	350	1450	1530	1660	1590
7	952	0.00	1140	1380	1110	721	1390	263	1490	1540	627	1530
8	964	513	1600	1210	936	932	1400	77	1570	1540	1590	1590
9	1040	591	1510	1470	1370	785	1500	0.00	1390	1550	1660	1600
10	1080	570	1500	1610	1390	868	1200	0.00	1000	1480	1650	1550
11	1060	446	1510	1430	1320	941	749	1200	1580	1430	1550	1640
12	1150	515	1380	951	1400	893	1290	1430	1590	1410	1570	1620
13	1070	522	1310	1090	1350	925	1150	1290	1570	1620	1550	1500
14	1200	508	1550	916	1420	848	1390	1200	1370	1540	1540	1610
15	619	0.00	1310	915	1650	1070	1170	1160	1580	1550	1460	1600
16	1150	0.00	1530	886	1180	1110	1370	1330	1370	1530	1640	1620
17	1030	292	1440	1080	1180	1030	1300	1140	1510	1510	1640	1550
18	804	33	1500	933	1140	1230	1570	1570	1380	1560	1520	1630
19	879	107	813	994	1200	702	1630	1400	1600	1540	1260	1390
20	734	84	1350	836	1210	1050	1570	1590	1590	1440	1650	1360
21	803	54	1340	231	1210	1110	1320	1560	1540	1410	1600	1350
22	985	1250	1480	387	1210	1260	790	1640	1600	1550	1650	1450
23	792	1480	1570	1390	295	1290	841	1550	1450	1480	1570	1340
24	597	1420	1470	1280	287	1310	859	1530	1500	1470	1600	1320
25	858	1510	1330	1340	224	1250	824	1450	1490	1370	1610	1300
26	893	1480	1410	1430	255	1190	817	1290	1520	1590	1590	1250
27	940	1480	1510	1360	608	1230	799	1420	1580	1510	1500	1480
28	764	1460	1540	1410	214	1290	869	1560	1500	1550	1520	963
29	853	1420	1020	1330	212	1270	973	1380	1550	1550	1460	1070
30	801	1390	1410	1360	---	1280	933	1460	1200	1610	1610	1070
31	1170	---	910	1350	---	1310	---	1570	---	1080	1600	---
TOTAL	29659	17128.00	43094	37139	29841	32166	35276	33331.00	41442.00	46730	47677	43793
MEAN	957	571	1390	1198	1029	1038	1176	1075	1381	1507	1538	1460
MAX	1220	1510	1630	1610	1650	1310	1630	1640	1600	1620	1660	1660
MIN	597	0.00	813	231	212	702	749	0.00	0.00	1080	627	963
AC-FT	58830	33970	85480	73670	59190	63800	69970	66110	82200	92690	94570	86860

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

	1996	1997	1998	1999	2000	2001	2002	2003	2004			
MEAN	692	807	716	505	413	738	909	796	670	754	814	816
MAX	1113	1562	1390	1198	1029	1320	1460	1445	1381	1507	1627	1460
(WY)	2001	2001	2004	2004	2004	2003	2003	2002	2004	2004	2003	2004
MIN	71.4	131	0.00	0.00	0.00	0.00	0.00	0.00	68.7	32.8	113	316
(WY)	1996	1999	1999	1999	1999	1998	1998	1998	1998	1997	1997	1998

## SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1996 - 2004	
ANNUAL TOTAL	368691.00		437276.00			
ANNUAL MEAN	1010		1195		721	
HIGHEST ANNUAL MEAN					1195	
LOWEST ANNUAL MEAN					318	
HIGHEST DAILY MEAN	1670	Apr 3	1660	Aug 6	2830	Sep 6 2000
LOWEST DAILY MEAN	0.00	Jan 7	0.00	Nov 2	0.00	Oct 1 1995
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 7	0.43	Nov 1	0.00	Oct 21 1995
ANNUAL RUNOFF (AC-FT)	731300		867300		522000	
10 PERCENT EXCEEDS	1640		1590		1520	
50 PERCENT EXCEEDS	1080		1350		723	
90 PERCENT EXCEEDS	0.00		556		0.00	



## 11109520 PYRAMID LAKE NEAR GORMAN, CA

LOCATION.—Lat 34°38'41", long 118°45'47", in NE 1/4 NW 1/4 sec.2, T.6 N., R.18 W., Los Angeles County, Hydrologic Unit 18070102, Angeles National Forest, in control structure near left abutment of Pyramid Dam on Piru Creek, and 11.7 mi southeast of Gorman.

DRAINAGE AREA.—295 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1988 to current year. Prior to October 1988 in files of California Department of Water Resources.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.—Reservoir is formed by earthfill dam. Storage began 1971. Dead storage below outlet to Angeles Tunnel, 5,720 acre-ft, elevation, 2,345 ft, included in contents. Capacity below invert of radial gate, 133,600 acre-ft, elevation, 2,547.72 ft; below top of radial gate, 169,901 acre-ft, elevation, 2,578 ft; below spillway level, 171,200 acre-ft, elevation, 2,579 ft. Lake receives imported water from West Branch California Aqueduct via William Warne Powerplant (station 11109398). Water is released through the Angeles Tunnel to Castaic Powerplant and during periods of low electricity demand, water from Elderberry Forebay (station 11108092) is pumped back to Pyramid Lake. Records represent total contents. See schematic diagram of [Santa Clara River Basin](#).

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2426. Contents not rounded to U.S. Geological Survey standards.

EXTREMES (at 2400 hours) FOR PERIOD OF RECORD.—Maximum contents, 170,457 acre-ft, Feb. 9, 1996, elevation, 2,578.43 ft; minimum, 137,883 acre-ft, Nov. 26, 1991, elevation, 2,551.53 ft.

EXTREMES (at 2400 hours) FOR CURRENT YEAR.—Maximum contents, 168,639 acre-ft, Feb. 15, elevation, 2,577.02 ft; minimum, 155,988 acre-ft, Sept. 24, elevation, 2,566.92 ft.

Capacity table (elevation in feet, and contents, in acre-feet)  
(Based on table provided by California Department of Water Resources in 1978)

2,545	130,601	2,555	141,850	2,565	153,364	2,575	166,057
2,550	136,154	2,560	147,680	2,570	159,778	2,580	172,497

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162208	166872	160138	163740	167805	165105	165663	163086	164662	162960	165244	162145
2	166210	166745	161246	162321	166821	164788	163338	165320	162923	159060	165295	161483
3	166668	166770	161508	162271	165765	164245	160909	165726	161183	163451	163917	157950
4	165853	166057	162822	165523	164699	164144	163086	165042	160809	165396	162772	160847
5	165308	165447	165244	164763	163778	163551	163715	164371	163312	167217	161258	165016
6	164573	166413	164018	163917	162822	165130	163212	164624	164485	164649	159072	166834
7	163249	166770	163099	162120	163665	166286	162383	163275	163388	164207	160150	165042
8	160001	166872	163174	163023	166171	165130	160772	164472	162734	162433	164966	162797
9	162873	166885	164839	161608	165688	164333	161458	166248	164510	160212	164637	161059
10	167191	166936	162421	164182	164005	164422	163766	162634	161845	160735	164043	158541
11	166197	166847	163426	166859	162760	165625	164169	160971	157274	164776	163501	159815
12	163048	166515	165004	166757	161458	164750	163778	160897	160138	164182	164485	164738
13	161458	166108	166260	166872	163551	164750	162697	162283	164725	163388	163048	164346
14	161745	166821	165638	165409	165904	166936	160735	162496	165930	161945	165206	162923
15	160585	166885	164093	165054	168639	166732	160660	163174	165206	161046	167652	162534
16	163539	166847	163312	163690	167703	166171	159419	165143	163451	159977	167012	161083
17	166541	167383	161720	165384	166477	165892	161833	164826	161445	163753	166171	157704
18	166439	167409	164106	167652	166184	165650	166451	164056	160710	166681	164750	160511
19	165384	167588	166248	168049	164966	163262	167051	162697	162158	162923	162684	166566
20	161758	167716	164687	166923	163627	162596	164624	162170	165244	161246	158393	166834
21	159927	167767	161370	165016	162898	165181	163866	158986	165320	163892	161096	164371
22	162195	165892	159815	163224	166006	163249	163413	162296	164523	160461	166082	161958
23	165333	165194	159877	161458	167051	162333	162634	167242	161908	161271	165042	159468
24	167639	161845	159258	164675	166490	161470	163866	165853	160809	162246	165244	155988
25	166655	164068	162033	168434	166694	161183	165739	166248	157679	165790	161920	159283
26	166197	162898	164472	167255	166197	159642	164422	163343	161171	166541	160150	165358
27	165638	161533	165320	165765	166477	162083	162948	161308	166783	164953	156281	165625
28	165587	161670	167421	165663	166184	165993	161445	160188	164169	164472	162008	164030
29	164030	159977	164270	164157	165688	166248	161670	156489	166872	162821	167549	162258
30	165981	159245	160909	163023	---	165663	160934	161296	165232	161483	166426	160971
31	168164	---	158825	165295	---	166413	---	164510	---	162321	165790	---
MAX	168164	167767	167421	168434	168639	166936	167051	167242	166872	167217	167652	166834
MIN	159927	159245	158825	161458	161458	159642	159419	156489	157274	159060	156281	155988
a	2576.65	2569.57	2569.23	2574.40	2574.71	2575.28	2570.93	2573.78	2574.35	2572.04	2574.79	2570.96
b	3072	-8919	-420	6470	393	725	-5479	3576	722	-2911	3469	-4819

CAL YR 2003 b -6648

WTR YR 2004 b -4121

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 11109525 PIRU CREEK BELOW PYRAMID LAKE, NEAR GORMAN, CA

LOCATION.—Lat 34°38'30", long 118°45'49", in SW 1/4 NW 1/4 sec.2, T.6 N., R.18 W., Los Angeles County, Hydrologic Unit 18070102, Los Padres National Forest, at downstream base of dam, and 11.7 mi southeast of Gorman.

DRAINAGE AREA.—295 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1988 to current year. Prior to October 1988 in files of California Department of Water Resources.

GAGE.—Flow meters with totalizer and rated radial gate on top of dam. Elevation of gage is 2,200 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated beginning 1971 by Pyramid Lake (station 11109520). See schematic diagram of [Santa Clara River Basin](#).

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project 2426.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 6,000 ft<sup>3</sup>/s, Feb. 23, 1998; minimum daily, 4.0 ft<sup>3</sup>/s, Nov. 1–5, 1996.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	6.3	6.0	13	10	40	26	26	26	26	26	25
2	9.5	6.1	6.0	13	10	60	26	26	26	26	26	25
3	8.1	6.1	6.0	13	20	45	26	26	26	26	26	24
4	8.0	6.1	6.0	12	15	35	26	26	26	26	26	24
5	8.5	6.1	6.0	13	15	25	26	26	26	26	26	23
6	7.0	6.1	6.1	12	15	26	26	26	26	26	26	23
7	6.0	6.1	6.1	13	15	26	26	26	26	26	26	22
8	6.0	6.1	6.0	12	15	20	26	26	26	26	26	22
9	6.0	6.1	6.0	10	15	20	26	26	26	26	26	21
10	6.1	6.1	6.0	10	11	20	26	26	26	26	26	21
11	6.1	6.1	6.0	10	11	20	26	26	26	26	26	20
12	6.1	6.1	6.1	10	11	20	26	26	26	26	26	20
13	6.1	6.1	6.1	10	11	20	26	26	26	26	26	19
14	6.1	6.0	6.0	10	11	20	26	26	26	26	26	19
15	6.1	6.0	6.0	10	11	20	26	26	26	26	26	18
16	6.1	6.1	6.0	10	11	20	26	26	26	26	26	18
17	6.1	6.1	6.1	10	11	20	26	26	26	26	26	16
18	6.1	6.0	6.1	10	11	20	26	26	26	26	27	16
19	6.1	6.0	6.1	10	11	20	26	26	26	26	27	16
20	6.1	6.0	6.1	10	11	20	26	26	26	26	26	16
21	6.3	6.0	6.1	10	150	20	26	26	26	26	26	15
22	6.3	6.0	6.0	10	20	20	26	26	26	26	26	15
23	6.3	6.0	6.0	10	75	20	26	26	26	26	26	14
24	6.3	6.0	6.0	10	75	20	26	26	26	26	26	14
25	6.3	6.0	6.0	10	40	20	26	26	26	26	26	13
26	6.3	6.0	6.1	10	864	21	26	26	26	26	26	12
27	6.3	6.0	6.1	10	125	22	26	26	26	26	26	11
28	6.3	6.0	6.1	10	75	23	26	26	26	26	26	11
29	6.3	6.0	36	10	50	24	26	26	26	26	26	10
30	6.2	6.0	199	10	---	25	26	26	26	26	26	10
31	6.2	---	199	10	---	26	---	26	---	26	26	---
TOTAL	204.8	181.7	603.2	331	1725	758	780	806	780	806	808	533
MEAN	6.61	6.06	19.5	10.7	59.5	24.5	26.0	26.0	26.0	26.0	26.1	17.8
MAX	9.5	6.3	199	13	864	60	26	26	26	26	27	25
MIN	6.0	6.0	6.0	10	10	20	26	26	26	26	26	10
AC-FT	406	360	1200	657	3420	1500	1550	1600	1550	1600	1600	1060

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2004, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	21.1	22.6	23.4	67.0	131	94.0	40.0	32.0	26.5	26.2	25.0	23.4				
MAX	75.6	90.2	64.0	422	780	492	132	97.3	51.1	51.5	42.6	54.7				
(WY)	1999	1999	1996	1995	1998	2001	1993	1991	2003	2003	2003	2000				
MIN	5.00	4.80	5.00	5.00	5.00	5.10	5.57	10.6	12.5	13.6	12.9	13.0				
(WY)	1997	1998	2001	1991	1991	1995	1992	1990	1990	1989	1989	1990				

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1989 - 2004	
ANNUAL TOTAL	10185.1		8316.7			
ANNUAL MEAN	27.9		22.7		43.9	
HIGHEST ANNUAL MEAN					119	
LOWEST ANNUAL MEAN					10.8	
HIGHEST DAILY MEAN	199	Dec 30	864	Feb 26	6000	Feb 23 1998
LOWEST DAILY MEAN	6.0	Jan 5	6.0	Oct 7	4.0	Nov 1 1996
ANNUAL SEVEN-DAY MINIMUM	6.0	Nov 18	6.0	Nov 18	4.1	Nov 24 1997
ANNUAL RUNOFF (AC-FT)	20200		16500		31780	
10 PERCENT EXCEEDS	52		26		60	
50 PERCENT EXCEEDS	13		22		25	
90 PERCENT EXCEEDS	6.0		6.1		5.1	

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1955 to current year.

SPECIFIC CONDUCTANCE: Water years 1972–80.

REVISED RECORDS.—WSP 1928: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 1,058.55 ft above NGVD of 1929 (levels by U.S. Forest Service). Prior to Dec. 15, 1972, at site 0.3 mi upstream at different datum.

REMARKS.—Records fair. Flow regulated beginning December 1971 by Pyramid Lake (station 11109520). Imported water from the California Water Project stored and released at Pyramid Dam. See schematic diagram of [Santa Clara River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 38,000 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 13.38 ft, from floodmark, from rating curve extended above 20,000 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 11.36 ft, maximum gage height, 18.6 ft, Feb. 25, 1969, site and datum then in use; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 2, 1938, reached a discharge of 35,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	19	6.5	13	10	80	28	23	22	21	19	21
2	4.1	7.2	6.6	15	12	e94	28	22	21	20	20	19
3	4.3	6.2	6.8	14	28	e71	28	23	22	20	20	19
4	4.6	6.0	6.8	13	21	e55	28	23	21	20	19	18
5	4.7	5.7	6.9	13	17	48	28	23	20	20	19	17
6	4.4	5.5	7.0	13	15	39	27	22	20	19	19	16
7	4.2	5.4	7.2	12	15	37	27	22	21	19	19	15
8	4.0	5.6	7.1	13	15	35	27	22	22	20	19	14
9	3.8	6.0	7.5	11	14	30	26	22	23	20	19	14
10	3.9	6.0	7.4	10	12	29	26	22	22	20	19	13
11	4.0	5.6	7.5	10	11	28	25	22	22	19	20	12
12	3.8	5.6	7.4	10	11	28	25	22	21	19	20	11
13	3.5	5.8	7.5	9.5	11	27	24	22	21	19	20	12
14	3.5	5.9	7.7	9.9	11	26	25	22	21	19	20	12
15	3.8	6.0	7.7	9.4	11	25	25	22	22	19	20	12
16	4.0	6.1	7.5	15	11	25	25	23	22	19	20	11
17	3.8	5.9	7.4	10	10	25	26	24	22	19	20	11
18	3.7	5.8	7.4	10	12	24	27	24	21	19	21	10
19	3.6	5.7	7.4	10	13	24	26	23	21	19	18	10
20	3.6	5.7	7.5	10	12	23	26	24	22	19	20	9.8
21	3.6	6.0	7.5	10	19	23	25	24	21	19	21	9.2
22	3.6	5.9	7.6	9.9	141	23	25	24	21	19	21	8.7
23	3.6	5.8	8.0	9.9	164	23	24	24	20	19	21	8.1
24	3.5	6.1	8.6	10	46	23	24	25	20	19	22	7.5
25	3.6	6.4	93	10	224	23	24	25	19	19	22	7.1
26	3.5	6.4	40	10	926	23	24	25	18	19	22	6.6
27	3.6	6.3	37	10	316	23	23	24	19	19	22	6.4
28	3.7	6.3	28	10	183	24	23	24	20	20	21	6.4
29	4.0	6.2	21	10	115	24	24	24	20	20	21	6.4
30	4.4	6.3	15	10	---	25	24	23	21	19	21	6.4
31	6.2	---	14	10	---	27	---	22	---	19	21	---
TOTAL	122.7	192.4	424.5	340.6	2406	1034	767	716	628	600	626	349.6
MEAN	3.96	6.41	13.7	11.0	83.0	33.4	25.6	23.1	20.9	19.4	20.2	11.7
MAX	6.2	19	93	15	926	94	28	25	23	21	22	21
MIN	3.5	5.4	6.5	9.4	10	23	23	22	18	19	18	6.4
AC-FT	243	382	842	676	4770	2050	1520	1420	1250	1190	1240	693

e Estimated.

## SANTA CLARA RIVER BASIN

## 11109600 PIRU CREEK ABOVE LAKE PIRU, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1971, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.14	54.7	52.8	106	229	100	102	33.7	12.6	4.22	2.00	1.86
MAX	11.9	503	291	992	1657	569	741	165	53.4	22.4	11.3	9.63
(WY)	1970	1966	1966	1969	1969	1969	1958	1967	1969	1969	1969	1969
MIN	.000	.34	2.91	9.24	7.50	7.26	3.96	1.34	.12	.000	.000	.000
(WY)	1956	1965	1957	1965	1965	1961	1961	1961	1961	1960	1957	1956

## SUMMARY STATISTICS

## WATER YEARS 1956 - 1971

ANNUAL MEAN	57.2
HIGHEST ANNUAL MEAN	294 1969
LOWEST ANNUAL MEAN	5.66 1961
HIGHEST DAILY MEAN	15600 Feb 25 1969
LOWEST DAILY MEAN	.00 Oct 1 1955
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1 1955
MAXIMUM PEAK FLOW	31200 Feb 25 1969
MAXIMUM PEAK STAGE	18.6 Feb 25 1969
ANNUAL RUNOFF (AC-FT)	41470
10 PERCENT EXCEEDS	84
50 PERCENT EXCEEDS	8.2
90 PERCENT EXCEEDS	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004, BY WATER YEAR (WY)

	1972	1973	1978	1984	1985	1988	1983	1983	1983	1978	2003	1998	1998
MEAN	15.9	19.0	35.5	102	241	191	80.3	50.2	30.7	22.3	19.1	17.3	
MAX	85.0	97.3	180	1154	2110	1126	289	204	93.7	47.9	40.0	56.4	
(WY)	1999	1999	1984	1995	1998	1983	1983	1983	1978	2003	1998	1998	
MIN	2.17	4.09	4.05	5.64	10.2	11.2	6.11	5.46	3.84	6.32	0.80	0.16	
(WY)	1973	1978	1990	1991	2002	1977	1977	1972	1976	1972	1972	1972	

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1972 - 2004

ANNUAL TOTAL	12018.6	8206.8	
ANNUAL MEAN	32.9	22.4	67.7
HIGHEST ANNUAL MEAN			240 1998
LOWEST ANNUAL MEAN			9.52 1990
HIGHEST DAILY MEAN	260 Apr 15	926 Feb 26	15000 Feb 23 1998
LOWEST DAILY MEAN	3.5 Oct 13	3.5 Oct 13	0.07 Jun 9 1972
ANNUAL SEVEN-DAY MINIMUM	3.6 Oct 20	3.6 Oct 20	0.09 Sep 3 1972
MAXIMUM PEAK FLOW		2030 Feb 26	38000 Feb 23 1998
MAXIMUM PEAK STAGE		5.65 Feb 26	18.60 Feb 25 1969
ANNUAL RUNOFF (AC-FT)	23840	16280	49030
10 PERCENT EXCEEDS	53	26	110
50 PERCENT EXCEEDS	21	19	22
90 PERCENT EXCEEDS	4.4	5.7	6.3

## 11109700 LAKE PIRU NEAR PIRU, CA

LOCATION.—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 mi<sup>2</sup>.

PERIOD OF RECORD.—May 1955 to current year. Prior to October 1985, monthend elevation and contents only.

GAGE.—Water-stage recorder. Datum of gage is NGVD 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.—Records good. Lake is formed by earthfill dam. Storage began May 20, 1955. Capacity below spillway level at elevation 1,055.0 ft, 87,190 acre-ft. Water is released from outlet to Piru Creek for ground-water recharge, domestic use, and irrigation on the Oxnard Plain. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of [Santa Clara River Basin](#).

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, 31,600 acre-ft, Sept. 14, elevation, 998.33 ft; minimum contents, 19,200 acre-ft, Nov. 23–Dec. 2; elevation, 979.45 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by United Water Conservation District in 1996)

970	14,300	1,000	32,800	1,030	59,400	1,050	81,200
980	19,500	1,010	40,800	1,040	69,900	1,060	93,400
990	25,700	1,020	49,700				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26300	19300	19200	20000	20600	26400	28000	29100	29900	30500	30900	31500
2	25500	19300	19200	20100	20600	26600	28100	29200	29900	30500	30900	31500
3	24900	19300	19300	20100	20700	26700	28100	29200	29900	30500	31000	31500
4	24200	19300	19300	20100	20700	26800	28100	29200	29900	30500	31000	31500
5	23500	19300	19300	20100	20800	26900	28200	29200	30000	30600	31000	31500
6	e22600	19300	19300	20200	20800	27000	28200	29200	30000	30600	31000	31500
7	21800	19300	19300	20200	20800	27000	28300	29300	30000	30600	31000	31500
8	21100	19300	19300	20200	20800	27100	28300	29300	30000	30600	31000	31500
9	20600	19300	19300	20200	20800	27100	28300	29300	30100	30600	31100	31500
10	20200	19300	19300	20200	20800	27200	28400	29300	30100	30700	31100	31500
11	19900	19300	19300	20200	20900	27200	28400	29400	30100	30700	31100	31500
12	19700	19300	19300	20300	20900	27300	28500	29400	30100	30700	31100	31500
13	19600	19300	19300	20300	20900	27300	28500	29400	30100	30700	31100	31500
14	19500	19300	19300	20300	20900	27400	28500	29400	30100	30700	31100	31600
15	19400	19300	19300	20300	20900	27400	28600	29400	30200	30700	31200	31500
16	19300	19300	19300	20300	20900	27400	28600	29500	30200	30700	31200	31500
17	19300	19300	e19400	20300	20900	27500	28700	29500	30200	30700	31200	31500
18	19300	19300	e19400	20400	21000	27500	28700	29500	30200	30800	31200	31500
19	19300	19300	19400	20400	21000	27600	28700	29600	30300	30800	31200	31500
20	19300	19300	19400	20400	21000	27600	28800	29600	30300	30800	31200	31500
21	19300	19300	19400	20400	21100	27600	28800	29600	30300	30800	31300	31500
22	19300	19300	19400	20400	21300	27700	28900	29600	30300	30800	31300	31500
23	19300	19200	19400	20400	21700	27700	28900	29700	30300	30800	31300	31500
24	19300	19200	19400	20400	21800	27800	28900	29700	30300	30800	31300	31500
25	19300	19200	19700	20500	22400	27800	28900	29700	30400	30900	31400	31500
26	19300	19200	19800	20500	25100	27800	29000	29700	30400	30900	31400	31500
27	19300	19200	19800	20500	25700	27800	29000	29800	30400	30900	31400	31400
28	19300	19200	19900	20500	26000	27900	29000	29800	30400	30900	31400	31400
29	19300	19200	19900	20500	26200	27900	29100	29800	30400	30900	31400	31400
30	19300	19200	19900	20500	---	27900	29100	29800	30400	30900	31400	31400
31	19300	---	20000	20500	---	28000	---	29900	---	30900	31500	---
MAX	26300	19300	20000	20500	26200	28000	29100	29900	30400	30900	31500	31600
MIN	19300	19200	19200	20000	20600	26400	28000	29100	29900	30500	30900	31400
a	979.63	979.51	980.78	981.75	990.81	993.35	994.97	996.03	996.83	997.46	998.20	998.15
b	-7800	-100	800	500	5700	1800	1100	800	500	500	600	-100

CAL YR 2003 b -84000

WTR YR 2004 b 4300

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1955 to September 1968, October 1973 to current year.

CHEMICAL DATA: Water years 1969, 1974–80.

SPECIFIC CONDUCTANCE: 1974–80.

WATER TEMPERATURE: Water year 1969.

REVISED RECORDS.—WSP 1928: Drainage area.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 858.8 ft above NGVD of 1929 (levels by United Water Conservation District).

REMARKS.—Records good. Since May 1955, flow regulated by Lake Piru (station 11109700), and since 1971, by Pyramid Lake (station 11109520). Imported water from the California Water Project stored by Pyramid Lake. Spill from Lake Piru bypasses gage. See schematic diagram of [Santa Clara River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 920 ft<sup>3</sup>/s, Sept. 6, 2000, gage height, 4.47 ft; no flow at times in some years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	402	8.5	4.5	4.8	6.0	4.5	4.8	5.0	5.2	4.5	3.7	3.8
2	401	8.4	4.5	4.8	6.1	4.5	4.8	5.0	5.2	4.6	3.7	3.9
3	399	8.4	4.5	4.8	6.3	4.5	4.8	5.0	5.2	4.5	3.7	3.9
4	401	8.4	4.5	4.8	6.3	4.5	4.8	5.0	5.2	4.5	3.8	3.9
5	395	8.4	4.5	4.8	6.3	4.5	5.0	5.0	5.2	4.5	3.9	3.9
6	394	8.4	4.5	4.8	6.3	4.5	5.0	5.0	5.2	4.6	3.9	3.9
7	393	8.4	4.5	4.8	6.3	4.5	5.0	5.0	5.2	4.8	3.9	3.9
8	392	8.4	4.5	4.8	6.0	4.5	5.0	5.0	5.2	4.6	4.0	3.9
9	274	8.4	4.5	4.8	6.0	4.5	5.0	5.0	5.2	4.6	4.0	3.8
10	211	8.4	4.5	4.8	6.0	4.5	5.0	5.0	5.2	4.8	3.9	3.7
11	168	8.4	4.5	4.8	6.0	4.5	5.0	5.0	5.1	4.8	3.9	3.7
12	99	8.4	4.5	4.8	6.0	4.5	5.0	5.0	5.0	4.8	3.9	3.7
13	72	8.4	4.5	4.8	6.0	4.5	5.0	5.0	5.0	4.7	3.8	3.7
14	55	8.4	4.5	4.8	6.0	4.5	5.0	5.0	5.0	4.8	3.7	3.7
15	55	8.4	4.4	4.8	6.0	4.7	5.0	5.0	5.0	4.8	3.7	3.7
16	48	8.4	4.4	4.8	6.0	4.8	5.0	5.0	4.9	4.8	3.8	3.7
17	21	8.4	4.3	4.9	6.0	4.8	5.0	5.0	4.8	4.8	3.9	3.8
18	9.8	8.4	4.3	5.0	6.0	4.8	5.0	5.0	4.8	4.9	3.9	3.9
19	9.8	8.4	4.3	5.1	4.7	4.8	5.0	5.0	4.8	5.0	3.9	3.9
20	8.9	8.4	4.3	5.2	4.8	4.8	5.0	5.0	4.8	4.9	3.9	3.9
21	6.6	8.4	4.3	5.1	5.2	4.8	5.0	5.1	4.8	4.8	3.8	3.9
22	6.4	8.4	4.3	5.0	5.5	4.8	5.0	5.2	4.5	4.1	3.7	3.9
23	6.7	8.4	4.3	5.0	5.5	4.8	5.0	5.0	4.5	4.8	3.7	3.9
24	6.4	8.4	4.3	5.0	5.5	4.8	5.0	5.0	4.5	4.8	3.7	3.8
25	6.3	6.5	4.5	5.0	5.2	4.8	5.0	5.0	4.5	4.8	3.7	3.9
26	6.3	4.8	4.5	5.0	5.3	4.8	5.0	5.0	4.5	3.3	3.7	3.9
27	6.3	4.6	4.5	4.1	5.2	4.8	5.0	5.0	4.4	2.4	3.7	3.9
28	6.3	4.5	4.6	5.8	4.8	4.8	5.0	5.0	4.4	2.9	3.7	3.9
29	6.3	4.5	4.8	6.0	4.7	4.8	5.0	5.0	4.5	3.7	3.7	3.9
30	7.7	4.5	4.8	6.0	---	4.8	5.0	5.0	4.5	3.7	3.7	3.9
31	8.5	---	4.8	6.0	---	4.8	---	5.2	---	3.7	3.7	---
TOTAL	4282.3	231.1	138.7	155.0	166.0	144.5	149.2	155.5	146.3	137.3	117.7	115.2
MEAN	138	7.70	4.47	5.00	5.72	4.66	4.97	5.02	4.88	4.43	3.80	3.84
MAX	402	8.5	4.8	6.0	6.3	4.8	5.0	5.2	5.2	5.0	4.0	3.9
MIN	6.3	4.5	4.3	4.1	4.7	4.5	4.8	5.0	4.4	2.4	3.7	3.7
AC-FT	8490	458	275	307	329	287	296	308	290	272	233	228

SANTA CLARA RIVER BASIN

11109800 PIRU CREEK BELOW SANTA FELICIA DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1968, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11.0	13.9	33.1	10.4	14.2	25.3	49.7	46.0	56.8	94.4	88.0	44.3
MAX	29.8	97.7	235	34.6	35.7	115	136	194	245	465	396	248
(WY)	1961	1967	1959	1966	1966	1963	1964	1966	1962	1958	1958	1967
MIN	.000	.86	.003	.15	.018	.006	5.59	6.76	6.76	6.82	6.93	5.94
(WY)	1956	1956	1956	1968	1957	1957	1957	1964	1964	1959	1959	1968

SUMMARY STATISTICS

WATER YEARS 1956 - 1968

ANNUAL MEAN	40.8
HIGHEST ANNUAL MEAN	102 1958
LOWEST ANNUAL MEAN	10.0 1961
HIGHEST DAILY MEAN	526 Sep 26 1959
LOWEST DAILY MEAN	.00 Oct 1 1955
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1 1955
MAXIMUM PEAK FLOW	544 Aug 18 1958
MAXIMUM PEAK STAGE	3.66 Aug 18 1958
ANNUAL RUNOFF (AC-FT)	29540
10 PERCENT EXCEEDS	101
50 PERCENT EXCEEDS	8.6
90 PERCENT EXCEEDS	1.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

MEAN	127	54.2	19.7	13.0	20.7	27.2	24.9	38.2	43.9	59.2	70.1	139
MAX	446	323	137	86.6	139	139	109	224	241	271	322	378
(WY)	1993	1993	1999	1994	1998	1998	1980	1988	1987	1986	1982	2001
MIN	4.17	4.30	3.91	0.00	0.05	0.16	0.09	0.00	1.49	4.09	3.80	3.84
(WY)	1987	2003	1978	1978	1983	1983	1983	1983	1983	1983	2004	2004

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1974 - 2004

ANNUAL TOTAL	16460.2	5938.8	
ANNUAL MEAN	45.1	16.2	53.2
HIGHEST ANNUAL MEAN			138 1993
LOWEST ANNUAL MEAN			7.03 1983
HIGHEST DAILY MEAN	481 Sep 11	402 Oct 1	560 Sep 7 2000
LOWEST DAILY MEAN	2.9 Aug 21	2.4 Jul 27	0.00 Feb 10 1976
ANNUAL SEVEN-DAY MINIMUM	3.0 Aug 21	3.3 Jul 26	0.00 Feb 10 1976
MAXIMUM PEAK FLOW		404 Oct 1	920 Sep 6 2000
MAXIMUM PEAK STAGE		3.45 Oct 1	4.47 Sep 6 2000
ANNUAL RUNOFF (AC-FT)	32650	11780	38560
10 PERCENT EXCEEDS	150	8.4	197
50 PERCENT EXCEEDS	5.6	4.8	6.9
90 PERCENT EXCEEDS	4.5	3.9	3.9

## 1111500 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1947 to September 1997, October 2002 to current year.

WATER TEMPERATURE: Water years 1962–78.

SEDIMENT DATA: Water year 1956 (partial record).

REVISED RECORDS.—WSP 1928: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 3,498.65 ft NGVD of 1929 (levels by Ventura County Flood Control District). Prior to Oct. 1, 2002, at datum 2 ft higher at same site.

REMARKS.—Records poor. No regulation or diversion upstream from station. See schematic diagram of [Santa Clara River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,600 ft<sup>3</sup>/s, Mar. 1, 1983, gage height, 15.02 ft, from rating curve extended above 3,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1545	188	3.08	Feb. 25	2345	787	4.80

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.21	0.57	0.92	1.6	1.0	2.5	2.3	1.4	0.64	0.24	0.08	0.03
2	0.22	0.57	0.98	2.7	1.7	3.6	2.3	1.3	0.63	0.24	0.08	0.03
3	0.22	0.60	1.00	2.0	e2.3	4.1	2.3	1.2	0.59	0.22	0.08	0.03
4	0.22	0.62	1.0	1.6	e2.1	5.3	2.2	1.2	0.58	0.21	0.07	0.03
5	0.22	0.64	1.0	1.4	e1.7	4.9	2.2	1.2	0.56	0.19	0.06	0.04
6	0.22	0.66	1.0	1.3	1.5	4.7	2.2	1.2	0.54	0.18	0.06	0.03
7	0.23	0.71	1.0	1.4	1.4	4.7	2.1	1.2	0.54	0.17	0.05	0.03
8	0.23	0.76	1.0	1.4	1.4	5.5	2.0	1.1	0.54	0.17	0.04	0.03
9	0.23	0.91	e1.0	1.3	1.4	5.9	1.9	1.1	0.55	0.17	0.04	0.03
10	0.25	0.79	e1.0	1.2	1.3	6.1	1.9	1.1	0.52	0.15	0.03	0.04
11	0.28	0.79	e1.1	1.1	1.3	5.1	1.9	1.1	0.50	0.14	0.03	0.05
12	0.28	0.88	e1.1	1.1	1.3	4.4	1.9	1.1	0.49	0.14	0.03	0.05
13	0.29	0.88	e1.1	1.1	1.3	4.0	2.0	1.1	0.47	0.13	0.03	0.06
14	0.30	0.89	e1.1	1.1	1.3	4.4	2.0	1.0	0.46	0.15	0.04	0.06
15	0.32	0.89	e1.1	1.1	1.3	5.0	2.0	0.94	0.45	0.15	0.04	0.07
16	0.33	0.89	e1.1	1.1	1.3	5.1	2.0	0.91	0.44	0.15	0.05	0.07
17	0.35	0.89	e1.1	1.1	1.3	4.6	2.2	0.95	0.43	0.14	0.05	0.09
18	0.36	0.88	e1.1	1.1	2.3	3.9	2.2	1.00	0.42	0.14	0.04	0.10
19	0.37	0.88	e1.0	1.1	2.0	3.8	2.0	0.94	0.41	0.13	0.04	0.12
20	0.38	0.87	1.0	1.1	1.5	3.7	1.9	0.97	0.39	0.13	0.04	0.13
21	0.39	0.87	1.0	1.1	1.7	3.4	1.8	1.0	0.38	0.11	0.05	0.14
22	0.41	0.90	1.0	1.1	37	3.4	1.8	0.96	0.36	0.10	0.05	0.15
23	0.42	0.92	1.1	1.1	15	3.2	1.8	0.92	0.35	0.10	0.07	0.14
24	0.44	0.92	1.0	1.1	3.5	3.1	1.7	0.95	0.33	0.08	0.08	0.14
25	0.44	0.92	22	1.1	155	2.8	1.6	0.94	0.32	0.07	0.07	0.13
26	0.45	0.93	4.6	1.0	206	2.7	1.5	0.92	0.30	0.07	0.05	0.14
27	0.46	0.89	2.6	1.0	5.0	2.7	1.5	0.87	0.28	0.08	0.04	0.14
28	0.47	0.89	2.2	1.1	1.7	2.6	1.4	0.82	0.28	0.08	0.04	0.17
29	0.48	0.91	1.9	1.0	1.7	2.5	1.5	0.77	0.27	0.08	0.04	0.19
30	0.50	0.91	1.7	1.00	---	2.5	1.5	0.74	0.26	0.07	0.04	0.21
31	0.58	---	1.6	1.0	---	2.5	---	0.68	---	0.07	0.04	---
TOTAL	10.55	24.63	61.40	38.50	457.3	122.7	57.6	31.58	13.28	4.25	1.55	2.67
MEAN	0.34	0.82	1.98	1.24	15.8	3.96	1.92	1.02	0.44	0.14	0.05	0.09
MAX	0.58	0.93	22	2.7	206	6.1	2.3	1.4	0.64	0.24	0.08	0.21
MIN	0.21	0.57	0.92	1.0	1.0	2.5	1.4	0.68	0.26	0.07	0.03	0.03
AC-FT	21	49	122	76	907	243	114	63	26	8.4	3.1	5.3

e Estimated.



## 11111500 SESPE CREEK NEAR WHEELER SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.80	4.70	8.11	32.1	60.6	51.7	22.9	8.01	2.88	1.31	0.66	0.80
MAX	10.3	131	85.5	456	561	553	233	59.5	18.6	8.08	5.11	10.7
(WY)	1984	1966	1966	1995	1993	1983	1958	1983	1983	1983	1983	1976
MIN	0.02	0.08	0.06	0.16	0.67	0.95	0.68	0.43	0.15	0.02	0.00	0.00
(WY)	1962	1951	1991	1991	1951	1951	1951	1961	1951	1951	1951	1951

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	3012.05		826.01			
ANNUAL MEAN	8.25		2.26		15.9	
HIGHEST ANNUAL MEAN					101	1993
LOWEST ANNUAL MEAN					0.33	1951
HIGHEST DAILY MEAN	529	Feb 12	206	Feb 26	6430	Mar 1 1983
LOWEST DAILY MEAN	0.21	Oct 1	0.03	Aug 10	0.00	Aug 25 1949
ANNUAL SEVEN-DAY MINIMUM	0.22	Sep 27	0.03	Sep 1	0.00	Aug 25 1949
MAXIMUM PEAK FLOW			787	Feb 25	11600	Mar 1 1983
MAXIMUM PEAK STAGE			4.80	Feb 25	15.02	Mar 1 1983
ANNUAL RUNOFF (AC-FT)	5970		1640		11550	
10 PERCENT EXCEEDS	12		2.6		18	
50 PERCENT EXCEEDS	1.1		0.91		1.5	
90 PERCENT EXCEEDS	0.29		0.06		0.10	

## 11113000 SESPE CREEK NEAR FILLMORE, CA

LOCATION.—Lat 34°26'30", long 118°55'35", in SE 1/4 NW 1/4 SE 1/4 sec.12, T.4 N., R.20 W., [Ventura County](#), Hydrologic Unit 18070102, on right bank, 0.7 mi downstream from Little Sespe Creek, 2.4 mi north on Grand Avenue, from Telegraph Road, and 2.7 mi north of Fillmore.

DRAINAGE AREA.—252 mi<sup>2</sup>.

PERIOD OF RECORD.—September 1911 to September 1913, October 1927 to September 1985, October 1990 to January 1993, October 1993 to current year; combined records of creek and canal, October 1927 to September 1939 monthly only, October 1939 to September 1985, October 1990 to January 1993. Prior to 1935, published as "at Sespe."

CHEMICAL ANALYSES: Water years 1967–81.

SPECIFIC CONDUCTANCE: Water years 1970–80.

WATER TEMPERATURE: Water years 1967–78.

SEDIMENT DATA: Water years 1956–62, 1967–78.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 565 ft above NGVD of 1929, from topographic map. See WSP 1315-B for history of changes prior to Jan. 17, 1946. Oct. 1, 1990, to Jan. 15, 1993, at site 0.5 mi upstream at same elevation. Gage on diversion canal discontinued Jan. 15, 1993.

REMARKS.—Records fair. No regulation upstream from station. Fillmore Irrigation Co. has diverted water 1 mi upstream since September 1911. See schematic diagram of [Santa Clara River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 73,000 ft<sup>3</sup>/s, Feb. 10, 1978, gage height, 22.40 ft, from rating curve extended above 17,000 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 22.40 ft, maximum gage height, 24.95 ft, Feb. 25, 1969, from debris wave; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,300 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1615	4,980	9.39	Feb. 25	2345	17,700	12.96

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	34	6.1	19	15	134	29	16	7.9	3.4	2.8	2.5
2	5.5	11	6.3	26	25	229	30	15	6.9	3.3	2.8	3.0
3	5.6	7.9	6.2	23	40	138	31	14	6.9	3.5	2.9	2.4
4	5.6	6.9	6.2	22	22	113	30	13	6.7	4.4	2.9	2.4
5	5.0	6.4	6.3	22	19	101	29	12	6.2	4.3	2.9	2.3
6	5.0	6.1	6.4	20	16	93	28	11	6.0	3.0	3.0	2.2
7	4.9	5.9	6.5	19	15	87	28	11	6.1	3.6	3.1	2.1
8	4.6	6.0	7.2	18	14	82	27	10	6.8	3.8	3.0	2.0
9	4.2	6.8	8.0	18	14	80	27	9.6	6.2	3.5	2.9	2.2
10	4.2	6.7	8.4	17	14	78	27	9.2	5.8	2.8	2.8	2.4
11	4.3	6.4	8.6	17	14	74	26	8.9	5.8	2.5	2.9	2.2
12	3.7	6.2	8.6	17	14	71	25	8.8	5.8	2.5	2.9	2.2
13	3.5	6.0	8.6	17	15	65	24	8.6	5.2	2.3	2.9	2.1
14	3.3	6.0	9.2	17	16	62	23	8.5	5.0	2.6	2.8	2.3
15	3.4	6.2	9.3	17	16	59	22	8.4	4.6	3.0	2.9	2.1
16	3.4	6.3	9.2	17	17	55	21	8.1	4.8	2.9	3.2	2.0
17	3.1	6.2	9.1	17	17	54	23	8.4	4.9	2.5	3.1	2.2
18	2.9	6.1	9.1	17	24	52	23	8.1	4.9	2.3	3.1	2.2
19	2.9	5.9	9.1	16	26	50	22	7.9	5.0	2.2	3.0	2.3
20	2.8	5.9	9.4	17	33	48	21	7.8	4.5	2.2	3.1	2.1
21	2.8	6.0	10	16	36	45	20	8.3	4.3	2.2	3.2	2.4
22	2.7	6.0	9.8	16	471	41	19	8.0	4.6	2.2	3.3	2.7
23	2.6	5.8	11	16	256	41	17	7.5	4.7	2.3	3.2	2.7
24	2.6	5.8	13	16	119	40	17	7.7	3.9	2.4	3.2	2.5
25	2.5	6.1	494	16	2300	40	16	7.7	3.7	2.2	3.3	2.5
26	2.4	6.2	156	16	4670	38	16	7.4	3.3	2.2	3.3	2.5
27	2.4	6.0	63	16	524	35	16	7.6	3.3	2.4	3.3	2.2
28	2.5	5.9	36	16	240	33	16	7.7	3.4	2.4	3.2	2.3
29	2.9	6.0	26	16	163	32	16	7.7	3.2	2.5	2.9	2.3
30	3.3	6.0	22	15	---	29	16	7.4	3.4	2.6	2.7	2.9
31	16	---	20	15	---	28	---	7.8	---	2.7	2.6	---
TOTAL	126.0	218.7	1018.6	547	9165	2127	685	289.1	153.8	86.7	93.2	70.2
MEAN	4.06	7.29	32.9	17.6	316	68.6	22.8	9.33	5.13	2.80	3.01	2.34
MAX	16	34	494	26	4670	229	31	16	7.9	4.4	3.3	3.0
MIN	2.4	5.8	6.1	15	14	28	16	7.4	3.2	2.2	2.6	2.0
AC-FT	250	434	2020	1080	18180	4220	1360	573	305	172	185	139

## 11113000 SESPE CREEK NEAR FILLMORE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.26	38.6	94.5	231	484	364	162	56.1	19.7	7.94	4.15	3.90
MAX	55.4	1285	698	3378	4333	2301	1632	426	203	90.9	49.3	45.6
(WY)	1984	1966	1966	1969	1998	1978	1958	1998	1998	1998	1998	1939
MIN	0.00	0.00	0.00	1.35	4.74	2.82	0.67	0.25	0.00	0.00	0.00	0.00
(WY)	1913	1930	1930	1948	1951	1961	1961	1961	1928	1928	1912	1912

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1911 - 2004	
ANNUAL TOTAL	25978.1		14580.3			
ANNUAL MEAN	71.2		39.8		121	
HIGHEST ANNUAL MEAN					641	
LOWEST ANNUAL MEAN					1.78	
HIGHEST DAILY MEAN	2700	May 3	4670	Feb 26	29100	Jan 25 1969
LOWEST DAILY MEAN	2.4	Oct 26	2.0	Sep 8	0.00	Jul 11 1912
ANNUAL SEVEN-DAY MINIMUM	2.5	Oct 22	2.2	Sep 11	0.00	Jul 11 1912
MAXIMUM PEAK FLOW			17700	Feb 25	73000	Feb 10 1978
MAXIMUM PEAK STAGE			12.96	Feb 25	24.95	Feb 25 1969
ANNUAL RUNOFF (AC-FT)	51530		28920		87370	
10 PERCENT EXCEEDS	97		40		172	
50 PERCENT EXCEEDS	14		6.9		10	
90 PERCENT EXCEEDS	4.4		2.5		0.20	

## 1114000 SANTA CLARA RIVER AT MONTALVO, CA

LOCATION.—Lat 34°16'44", long 119°08'28" in Santa Clara Del Norte Grant, [Ventura County](#), Hydrologic Unit 18070102, on right bank, downstream side of State Highway 118 bridge, and 0.8 mi southeast of Saticoy.

DRAINAGE AREA.—1,577 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1927 to September 1932, October 1949 to September 1988, October 1989 to September 1993, October 1995 to September 2004 (discontinued). Discharge measurements only October 1993 to September 1994 at site 3.9 mi downstream, October 1994 to November 1998 at present site. November 1998 to June 1999 at site upstream of Freeman Diversion. At present site since June 1999. Monthly discharge only for 1950–65, published in WSP 2128 (daily discharge available in the files of the U.S. Geological Survey).

WATER TEMPERATURE: Water years 1969–85, 1989–93.

SEDIMENT DATA: Water years 1969–85, 1989–93.

REVISED RECORDS.—WSP 2128: Drainage area. WDR CA-00-1: 1999.

GAGE.—Water-stage recorder. Elevation of gage is 120 ft above NGVD of 1929, from topographic map. Oct. 1, 1927, to Sept. 30, 1932, Oct. 1, 1949, to Sept. 30, 1967, and Feb. 3, 1970, to Sept. 30, 1993, at site 3.9 mi downstream at different datums. Oct. 1, 1967, to Feb. 2, 1970, at present site at different datum. Feb. 9, 1984, to Jan. 27, 1993, supplementary gage 3.2 mi downstream at different datum. Oct. 1, 1995, to Nov. 23, 1998, at present site. Nov. 23, 1998, to June 25, 1999, at site 1.8 mi upstream at different datum. At present site June 25, 1999, to Sept. 30, 2004.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Flow partly regulated by Lake Piru (station 11109700), capacity, 88,340 acre-ft, 33 mi upstream since May 1955; by Pyramid Lake (station 11109520), capacity, 171,200 acre-ft, 42 mi upstream since 1971; by Castaic Lake (station 11108133), capacity, 323,700 acre-ft, 43 mi upstream since 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. Discharge represents flow to the ocean regardless of upstream development. See schematic diagram of [Santa Clara River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 165,000 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 17.41 ft, at datum 5.0 ft higher; no flow for long periods in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 2, 1938, reached a discharge of 120,000 ft<sup>3</sup>/s, estimated by Ventura County Flood Control District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	83	e0.00	e0.00	0.00	64	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	e0.00	e0.00	29	62	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	e0.00	e0.00	189	24	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	e0.00	e0.00	1.5	8.7	e0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	e0.00	e0.00	e0.00	1.6	1.4	e0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	e0.00	e0.00	e0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	e0.00	0.00	e0.00	e0.00	0.00	e0.00	e0.01	0.00	e0.00	0.00	0.00
8	0.00	0.00	0.00	e0.00	e0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00
9	0.00	0.00	0.00	e0.00	e0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00
10	0.00	0.00	0.00	e0.00	e0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00
11	0.00	0.00	0.00	e0.00	0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00
12	0.00	0.85	0.00	e0.00	0.00	0.00	e0.00	e0.00	0.00	e0.00	0.00	0.00
13	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	e0.00	0.00	e0.00	0.00	0.00
14	0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	e0.00	0.00	e0.00	0.00	0.00
15	0.41	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
18	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
19	e0.00	e0.00	0.00	0.00	e0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
20	e0.00	e0.00	0.00	0.00	e0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
21	e0.00	e0.00	0.00	0.00	e0.83	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
22	e0.00	e0.00	0.00	0.00	689	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
23	e0.00	e0.00	0.00	0.00	324	0.83	0.00	e0.00	0.00	0.00	0.00	0.00
24	e0.00	e0.00	0.00	0.00	59	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
25	e0.00	e0.00	311	0.00	883	0.00	0.00	0.00	0.40	0.00	0.00	0.00
26	0.00	e0.00	383	0.00	9160	0.00	0.00	0.00	0.67	0.00	0.00	0.00
27	0.00	e0.00	e55	0.00	740	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	e0.00	e0.00	0.00	232	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	e0.00	e0.00	0.00	107	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	e0.00	e0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	23	---	e0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	23.41	83.85	749.00	0.00	12415.93	160.93	0.00	0.01	1.07	0.00	0.00	0.00
MEAN	0.76	2.79	24.2	0.00	428	5.19	0.00	0.00	0.04	0.00	0.00	0.00
MAX	23	83	383	0.00	9160	64	0.00	0.01	0.67	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	46	166	1490	0.00	24630	319	0.00	0.02	2.1	0.00	0.00	0.00

e Estimated.

## 11114000 SANTA CLARA RIVER AT MONTALVO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.31	49.0	96.8	294	845	531	194	44.2	10.1	3.90	0.61	1.32
MAX	72.0	1603	917	5477	7314	5985	2668	1102	268	97.4	23.9	31.7
(WY)	1997	1966	1966	1969	1969	1983	1958	1998	1998	1998	1998	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1928	1928	1930	1951	1951	1931	1950	1932	1928	1928	1928	1928

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	21936.61		13434.20			
ANNUAL MEAN	60.1		36.7		169	
HIGHEST ANNUAL MEAN					1229	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	3550	Feb 12	9160	Feb 26	92300	Feb 25 1969
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1927
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1927
MAXIMUM PEAK FLOW			19600	Feb 26	165000	Jan 25 1969
MAXIMUM PEAK STAGE			9.60	Feb 26	17.41	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	43510		26650		122300	
10 PERCENT EXCEEDS	75		0.00		89	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11114495 MATILIJA CREEK NEAR RESERVOIR, NEAR MATILIJA HOT SPRINGS, CA

LOCATION.—Lat 34°30'10", long 119°21'23", SE 1/4 NE 1/4, sec.23, T.5 N., R.24 W, Ventura County, Hydrologic Unit 18070101, on left bank, 1.9 mi upstream from Matilija Reservoir, 1.4 mi upstream of discontinued station (11114500), and 7.2 mi northwest of Ojai.

DRAINAGE AREA.—47.8 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—February 2002 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 1,380 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from gage.

COOPERATION.—Station constructed, maintained, and operated in cooperation with the Ventura County Watershed Protection District.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,400 ft<sup>3</sup>/s, Feb. 25, 2004, gage height, 9.25 ft; minimum daily discharge, 0.60 ft<sup>3</sup>/s, Sept. 27, 2004.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 1,400 ft<sup>3</sup>/s, Feb. 25, gage height, 9.25 ft; minimum daily discharge, 0.60 ft<sup>3</sup>/s, Sept. 27.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	2.1	4.0	3.8	34	7.2	4.3	2.3	1.3	0.83	0.62
2	1.3	1.3	2.2	4.2	4.1	32	7.0	4.2	2.2	1.2	0.81	0.65
3	1.3	1.3	2.2	4.2	4.0	27	6.8	4.0	2.2	1.2	0.79	0.72
4	1.2	1.4	2.2	4.3	3.9	25	6.7	3.9	2.2	1.1	0.77	0.73
5	1.2	1.4	2.1	4.4	3.9	23	6.7	3.6	2.1	1.1	0.77	0.69
6	1.2	1.5	2.2	4.5	3.9	21	6.7	3.6	2.1	e1.1	0.71	0.65
7	1.2	1.5	2.2	4.6	4.0	19	6.6	3.5	2.1	e1.1	0.71	0.62
8	1.2	1.5	2.2	4.7	4.0	18	6.4	3.4	1.9	e1.1	0.71	0.64
9	1.1	1.5	2.2	4.9	4.0	17	6.3	3.3	1.9	e1.1	0.70	0.67
10	1.2	1.4	2.2	5.0	4.0	16	6.2	3.3	1.8	e1.1	0.69	0.69
11	1.2	1.4	2.3	5.0	4.0	15	6.2	3.3	1.8	e1.1	0.69	0.68
12	1.1	1.5	2.3	5.0	4.0	15	6.1	3.2	1.8	e1.1	0.72	0.67
13	1.2	1.6	2.4	5.0	4.0	14	6.0	3.1	1.7	e1.1	0.71	0.72
14	1.2	1.6	2.5	5.0	3.9	13	6.0	3.1	1.7	1.1	0.73	0.76
15	1.2	1.7	2.5	5.0	3.9	13	5.9	3.0	1.7	1.0	0.73	0.81
16	1.2	1.7	2.5	4.9	3.9	12	5.9	2.8	1.6	1.0	0.74	0.79
17	1.1	1.8	2.6	4.7	3.9	12	6.2	2.8	1.6	1.0	0.72	0.78
18	1.1	1.8	2.5	4.8	4.3	11	6.1	2.8	1.6	1.0	0.71	0.78
19	1.1	1.9	2.5	4.7	4.1	e11	5.9	2.8	1.6	0.99	0.73	0.76
20	1.2	2.0	2.6	4.6	4.0	e11	5.8	2.8	1.5	0.96	0.71	0.68
21	1.2	2.0	2.8	4.6	4.4	e10	5.6	2.7	1.5	0.93	0.75	0.71
22	1.2	1.9	2.8	4.4	13	e9.7	5.4	2.7	1.5	0.93	0.79	0.73
23	1.3	2.0	2.9	4.3	11	9.7	5.3	2.7	1.5	0.91	0.77	0.69
24	1.2	2.1	2.9	4.2	8.3	9.4	5.1	2.7	1.4	0.89	0.80	0.69
25	1.2	2.1	3.5	4.2	181	9.0	5.0	2.7	1.4	0.85	0.75	0.70
26	1.2	2.1	3.1	4.2	316	8.8	4.7	2.7	1.3	0.84	0.78	0.67
27	1.2	2.1	3.2	4.1	81	8.7	4.6	2.6	1.4	0.84	0.77	0.60
28	1.2	2.1	3.3	3.9	50	8.2	4.6	2.6	1.4	0.86	0.73	0.66
29	1.2	2.1	3.5	3.9	38	7.8	4.5	2.6	1.4	0.87	0.72	0.69
30	1.3	2.1	3.7	3.9	---	7.6	4.4	2.5	1.4	0.85	0.73	0.71
31	1.7	---	3.9	3.9	---	7.4	---	2.3	---	0.85	0.67	---
TOTAL	37.7	51.9	82.1	139.1	782.3	455.3	175.9	95.6	51.6	31.37	22.94	20.96
MEAN	1.22	1.73	2.65	4.49	27.0	14.7	5.86	3.08	1.72	1.01	0.74	0.70
MAX	1.7	2.1	3.9	5.0	316	34	7.2	4.3	2.3	1.3	0.83	0.81
MIN	1.1	1.3	2.1	3.9	3.8	7.4	4.4	2.3	1.3	0.84	0.67	0.60
AC-FT	75	103	163	276	1550	903	349	190	102	62	46	42

e Estimated.

11114495 MATILIJIA CREEK NEAR RESERVOIR, NEAR MATILIJIA HOT SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.22	1.86	3.26	5.10	25.0	18.2	13.3	15.5	5.85	2.81	1.68	1.16
MAX	1.22	2.00	3.86	5.72	27.0	34.7	20.8	27.9	9.98	4.61	2.62	1.62
(WY)	2004	2003	2003	2003	2004	2003	2003	2003	2003	2003	2003	2003
MIN	1.22	1.73	2.65	4.49	22.9	5.15	5.86	3.08	1.72	1.01	0.74	0.70
(WY)	2004	2004	2004	2004	2003	2002	2004	2004	2004	2004	2004	2004

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL TOTAL	4131.3		1946.77			
ANNUAL MEAN	11.3		5.32		5.32	
HIGHEST ANNUAL MEAN					5.32 2004	
LOWEST ANNUAL MEAN					5.32 2004	
HIGHEST DAILY MEAN	336	Mar 15	316	Feb 26	336	Mar 15 2003
LOWEST DAILY MEAN	1.1	Oct 9	0.60	Sep 27	0.60	Sep 27 2004
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 12	0.66	Sep 6	0.66	Sep 6 2004
MAXIMUM PEAK FLOW			1400	Feb 25	1400	Feb 25 2004
MAXIMUM PEAK STAGE			9.25	Feb 25	9.25	Feb 25 2004
ANNUAL RUNOFF (AC-FT)	8190		3860		3850	
10 PERCENT EXCEEDS	22		7.9		7.9	
50 PERCENT EXCEEDS	4.8		2.2		2.2	
90 PERCENT EXCEEDS	1.4		0.73		0.73	

11114495 MATILIJIA CREEK NEAR RESERVOIR, NEAR MATILIJIA HOT SPRINGS, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—December 2001 to current year.

WATER TEMPERATURE: December 2001 to current year.

SEDIMENT DATA: December 2001 to current year.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	Temper- ature, water, deg C (00010)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
NOV						
08...	1228	1.3	16.0	--	5	.02
DEC						
16...	1545	2.6	16.0	--	10	.07
JAN						
13...	1525	4.8	14.5	--	4	.05
FEB						
05...	0910	4.0	12.5	--	3	.03
26...	0820	313	10.5	88	417	352
26...	0935	282	10.5	97	276	210
MAR						
04...	1425	24	16.0	--	2	.13
22...	1315	9.6	21.0	--	4	.10
APR						
02...	1415	6.6	18.0	--	2	.04
13...	1255	6.0	19.0	--	2	.03



1118500 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 mi<sup>2</sup>.

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.

REVISED RECORDS.—WSP 1565: 1957. WSP 1928: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage on river; water-stage recorder and Parshall flume on diversion. Datum of gage is 205.23 ft above NGVD of 1929, 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 80 ft downstream, at datum 9.00 ft lower. June 13, 1969, to Dec. 22, 1986, at site 370 ft upstream, at datum 5.00 ft lower.

REMARKS.—Records poor. Flow partly regulated since March 1948 by Matilija Reservoir (station 11115000), usable capacity, 1,480 acre-ft, and since October 1959 by Lake Casitas (station 11108133), capacity, 323,700 acre-ft. Water diverted to Lake Casitas on Coyote Creek since January 1959. Diversion by city of Ventura for municipal supply began prior to 1911. For records of combined discharge of river and Ventura City Diversion (station 11118400), see station 11118501.

EXTREMES FOR PERIOD OF RECORD.—River only: Maximum discharge, 63,600 ft<sup>3</sup>/s, Feb. 10, 1978, gage height, 24.14 ft, from rating curve extended above 34,000 ft<sup>3</sup>/s, maximum gage height, 29.3 ft, Jan. 25, 1969, present datum, from floodmarks; no flow at times in many years. Combined river and diversion: Maximum discharge, 63,600 ft<sup>3</sup>/s, Feb. 10, 1978; no flow Nov. 28, 29, 1977, Oct. 23–26, 1989, July 9–11, 1990, and many days during 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	1.5	e0.40	0.71	0.07	26	5.6	3.7	3.4	2.6	1.4	0.28
2	4.2	1.4	e0.38	1.5	0.64	36	5.6	3.6	4.3	2.4	1.4	0.30
3	4.3	1.2	e0.36	0.88	0.46	21	5.5	3.5	3.8	2.5	1.3	0.24
4	4.1	e1.2	e0.35	0.70	0.23	18	5.4	3.8	3.9	2.3	1.2	0.21
5	3.6	e1.1	e0.34	e0.50	0.21	15	5.3	4.1	3.9	2.5	1.1	0.14
6	3.2	e1.1	e0.33	e0.42	0.19	13	5.4	4.3	3.9	e2.8	1.00	0.16
7	3.0	e1.0	e0.32	e0.37	0.18	12	5.5	4.4	4.0	e2.5	0.98	0.19
8	2.8	e0.98	e0.31	e0.33	0.19	10	5.4	4.9	3.7	2.5	0.87	0.16
9	2.7	1.7	e0.30	e0.30	0.16	10	5.3	5.2	3.4	2.6	0.78	0.13
10	2.4	1.5	e0.29	e0.27	0.18	9.4	5.6	5.3	3.3	2.5	0.75	0.08
11	2.3	1.5	e0.28	e0.25	0.14	8.6	5.6	5.4	2.9	2.3	0.72	0.06
12	2.1	1.7	e0.28	e0.24	0.20	8.3	5.3	5.2	2.7	2.3	0.64	0.05
13	2.0	1.6	e0.29	e0.23	0.22	8.1	5.4	5.2	2.6	2.2	0.61	0.06
14	1.9	1.6	e0.29	e0.22	0.20	7.6	5.2	4.9	2.6	2.3	0.81	0.05
15	1.9	1.5	e0.29	e0.22	0.21	7.4	5.0	5.0	2.5	2.2	0.76	0.05
16	1.8	1.4	e0.30	e0.21	0.19	7.2	4.9	4.9	2.7	2.1	0.61	0.05
17	1.8	1.3	e0.30	e0.21	0.13	6.9	4.7	5.0	2.6	2.1	0.55	0.04
18	1.6	1.1	e0.30	e0.21	0.27	6.6	4.6	5.1	2.7	2.1	0.52	0.04
19	1.7	1.1	e0.31	e0.21	0.14	6.5	4.4	4.9	2.9	2.1	0.54	0.03
20	1.5	1.0	e0.31	e0.21	0.09	6.5	4.2	4.7	2.8	2.1	0.60	0.03
21	1.3	0.98	e0.31	e0.21	0.11	6.2	4.2	4.9	2.8	2.0	0.57	0.03
22	1.3	0.91	e0.32	e0.21	6.4	6.2	4.3	4.9	2.8	1.9	0.51	0.02
23	1.3	0.80	e0.32	0.19	8.9	6.3	4.0	4.9	2.8	1.8	0.47	0.01
24	1.9	0.75	e0.32	0.13	2.9	6.6	4.0	4.8	2.7	1.9	0.49	0.01
25	1.5	0.69	e4.9	0.08	514	6.1	4.0	4.5	2.6	1.8	0.48	0.01
26	1.3	0.63	8.4	0.08	1200	6.1	3.9	4.6	2.6	1.8	0.48	0.01
27	1.0	0.57	4.3	0.09	52	6.0	3.8	5.0	2.5	1.8	0.44	0.01
28	0.94	e0.47	2.8	0.08	31	5.7	3.9	4.2	2.5	1.8	0.45	0.01
29	0.83	e0.44	2.0	0.08	25	5.6	4.0	4.0	2.5	1.7	0.41	0.01
30	0.66	e0.42	1.5	0.07	---	5.8	4.0	3.6	2.7	1.5	0.37	0.01
31	1.6	---	1.1	0.07	---	5.8	---	3.4	---	1.5	0.35	---
TOTAL	66.53	33.14	32.60	9.48	1844.61	310.5	144.0	141.9	91.1	66.5	22.16	2.48
MEAN	2.15	1.10	1.05	0.31	63.6	10.0	4.80	4.58	3.04	2.15	0.71	0.08
MAX	4.3	1.7	8.4	1.5	1200	36	5.6	5.4	4.3	2.8	1.4	0.30
MIN	0.66	0.42	0.28	0.07	0.07	5.6	3.8	3.4	2.5	1.5	0.35	0.01
AC-FT	132	66	65	19	3660	616	286	281	181	132	44	4.9

e Estimated.

## VENTURA RIVER BASIN

## 11118500 VENTURA RIVER NEAR VENTURA, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1957, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.29	5.15	36.5	121	192	237	78.0	26.1	12.1	6.15	3.59	2.51
MAX	21.4	38.8	174	1103	1058	1951	874	226	103	56.1	35.8	21.2
(WY)	1942	1947	1932	1952	1941	1938	1941	1941	1941	1941	1941	1941
MIN	.000	.000	.000	.000	.000	.003	.000	.000	.000	.000	.000	.000
(WY)	1930	1930	1930	1931	1930	1951	1949	1934	1934	1931	1930	1930

## SUMMARY STATISTICS

## WATER YEARS 1930 - 1957

ANNUAL MEAN	59.7
HIGHEST ANNUAL MEAN	354 1941
LOWEST ANNUAL MEAN	.000 1951
HIGHEST DAILY MEAN	17900 Mar 2 1938
LOWEST DAILY MEAN	.00 Oct 1 1929
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1 1929
MAXIMUM PEAK FLOW	39200 Mar 2 1938
MAXIMUM PEAK STAGE	19.20 Mar 2 1938
ANNUAL RUNOFF (AC-FT)	43230
10 PERCENT EXCEEDS	71
50 PERCENT EXCEEDS	1.9
90 PERCENT EXCEEDS	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

MEAN	2.89	13.2	23.1	130	301	208	70.7	35.0	15.6	8.11	4.28	3.43
MAX	40.9	278	234	1880	2919	1797	758	408	158	63.7	32.2	29.0
(WY)	1984	1966	1966	1969	1998	1983	1983	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1962	1965	1969	1976	1961	1990	1961	1961	1961	1961	1961	1961

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1960 - 2004

ANNUAL TOTAL	5350.17	2765.00	
ANNUAL MEAN	14.7	7.55	66.6
HIGHEST ANNUAL MEAN			383 1995
LOWEST ANNUAL MEAN			0.29 1961
HIGHEST DAILY MEAN	1260 Mar 15	1200 Feb 26	22000 Feb 9 1978
LOWEST DAILY MEAN	0.28 Dec 11	0.01 Sep 23	0.00 Sep 12 1960
ANNUAL SEVEN-DAY MINIMUM	0.29 Dec 9	0.01 Sep 23	0.00 Dec 15 1960
MAXIMUM PEAK FLOW		6340 Feb 26	63600 Feb 10 1978
MAXIMUM PEAK STAGE		7.45 Feb 26	29.30 Jan 25 1969
ANNUAL RUNOFF (AC-FT)	10610	5480	48230
10 PERCENT EXCEEDS	29	5.8	51
50 PERCENT EXCEEDS	4.9	1.7	3.6
90 PERCENT EXCEEDS	0.84	0.14	0.00

11118501 VENTURA RIVER NEAR VENTURA, CA—Continued

VENTURA RIVER AND VENTURA CITY DIVERSION NEAR VENTURA, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.2	e6.2	6.3	5.1	30	12	10	9.9	9.2	7.5	6.4
2	11	8.1	e6.2	7.1	5.6	43	12	10	10	9.0	7.4	5.7
3	11	7.8	e5.9	6.5	5.8	29	12	10	11	9.1	7.7	5.5
4	11	e7.8	e5.3	6.3	5.5	25	12	11	11	8.8	7.6	5.5
5	11	e7.6	e6.0	e6.0	5.5	22	12	11	11	9.0	7.3	5.2
6	10	e7.6	e5.9	e5.9	5.5	20	12	11	11	e9.3	7.5	5.2
7	9.9	e7.5	e5.9	e5.8	5.5	19	12	11	11	e9.0	7.4	5.4
8	9.6	e7.5	e5.9	e5.7	5.5	17	12	12	10	9.0	7.3	5.4
9	9.6	8.2	e5.1	e5.6	5.4	17	12	12	10	9.1	7.0	5.2
10	9.3	7.9	e5.8	e5.6	5.5	16	12	12	10	9.0	7.0	4.9
11	9.2	7.9	e5.7	e5.6	5.5	16	12	12	9.6	8.7	6.9	4.7
12	9.0	8.0	e5.7	e5.5	5.6	15	12	12	9.4	8.7	7.0	4.7
13	8.9	7.9	e5.6	e5.5	5.5	15	12	12	9.3	8.6	5.1	4.6
14	8.8	7.8	e5.6	e5.4	5.5	15	12	12	9.3	8.6	6.2	4.5
15	8.8	7.7	e5.4	e5.4	5.5	14	12	12	9.2	8.5	6.9	4.5
16	8.6	7.6	e5.5	e5.4	5.5	14	12	12	9.4	8.4	7.5	4.5
17	8.6	7.5	e5.4	e4.9	5.4	14	12	12	9.3	8.4	6.7	4.4
18	8.4	7.2	e5.4	e5.0	5.6	14	12	12	9.3	8.4	6.7	4.4
19	8.3	7.2	e5.4	e5.5	5.4	13	11	12	9.6	8.3	5.6	4.3
20	8.2	7.1	e5.2	e5.4	5.4	13	11	12	9.5	8.3	5.9	4.3
21	8.0	7.0	e5.3	e5.4	5.4	13	11	12	9.5	8.2	6.8	4.2
22	8.0	6.9	e5.3	e5.4	12	13	11	12	9.5	8.1	6.9	4.2
23	7.6	6.8	e5.2	5.3	15	13	11	12	9.5	8.0	6.7	4.2
24	7.8	6.8	e5.2	5.2	8.7	13	11	12	9.3	8.1	6.5	4.1
25	8.2	6.7	e10	5.0	521	13	11	11	9.2	8.0	6.6	4.1
26	7.9	6.5	14	5.2	1210	13	11	11	9.2	8.0	6.5	4.1
27	7.6	6.5	10	5.2	56	13	11	11	9.1	7.9	6.4	4.0
28	7.4	e6.4	8.6	5.2	36	12	11	11	9.1	7.9	6.5	4.0
29	7.2	e6.2	7.8	5.2	30	12	11	11	9.1	7.8	6.4	3.9
30	7.2	e6.2	7.2	5.1	---	13	11	10	9.3	7.6	5.8	3.9
31	8.1	---	6.8	5.1	---	13	---	10	---	7.6	6.3	---
TOTAL	275.2	220.1	198.5	171.7	2003.9	522	348	353	291.6	262.6	209.6	140.0
MEAN	8.88	7.34	6.40	5.54	69.1	16.8	11.6	11.4	9.72	8.47	6.76	4.67
MAX	11	8.2	14	7.1	1210	43	12	12	11	9.3	7.7	6.4
MIN	7.2	6.2	5.1	4.9	5.1	12	11	10	9.1	7.6	5.1	3.9
AC-FT	546	437	394	341	3970	1040	690	700	578	521	416	278

e Estimated.

## 11118501 VENTURA RIVER NEAR VENTURA, CA—Continued

## VENTURA RIVER AND VENTURA CITY DIVERSION NEAR VENTURA, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1957, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.12	9.68	33.2	138	191	266	91.0	35.4	20.8	13.2	9.67	8.33
MAX	27.8	45.3	115	1106	1061	1953	877	232	110	65.0	43.2	28.7
(WY)	1942	1947	1937	1952	1941	1938	1941	1941	1941	1941	1941	1941
MIN	.39	.29	.14	2.16	1.72	2.71	2.54	1.34	1.64	.92	.37	.23
(WY)	1936	1937	1933	1949	1949	1951	1951	1933	1936	1936	1935	1935

## SUMMARY STATISTICS

WATER YEARS 1933 - 1957

ANNUAL TOTAL	
ANNUAL MEAN	72.9
HIGHEST ANNUAL MEAN	359 1941
LOWEST ANNUAL MEAN	2.31 1951
HIGHEST DAILY MEAN	17900 Mar 2 1938
LOWEST DAILY MEAN	.00 Apr 27 1934
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1 1934
MAXIMUM PEAK FLOW	63600 Feb 10 1978
MAXIMUM PEAK STAGE	29.30 Feb 25 1969
ANNUAL RUNOFF (AC-FT)	52800
10 PERCENT EXCEEDS	84
50 PERCENT EXCEEDS	11
90 PERCENT EXCEEDS	2.2

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	8.42	18.4	28.0	135	306	214	78.1	43.2	23.7	15.9	11.4	9.72																																	
MAX	50.3	282	240	1883	2919	1804	766	409	160	65.8	33.0	29.0																																	
(WY)	1984	1966	1966	1969	1998	1983	1983	1998	1998	1998	1998	1998																																	
MIN	0.00	0.00	0.11	0.51	2.04	3.17	3.19	2.89	2.07	1.48	0.63	0.00																																	
(WY)	1995	1995	1995	2000	1961	1961	1961	1961	1961	1961	1994	1994																																	

## SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1960 - 2004

ANNUAL TOTAL	7863.5	4996.2	73.1
ANNUAL MEAN	21.5	13.7	384 1995
HIGHEST ANNUAL MEAN			2.22 1961
LOWEST ANNUAL MEAN			22000 Feb 9 1978
HIGHEST DAILY MEAN	1270 Mar 15	1210 Feb 26	0.00 Nov 28 1977
LOWEST DAILY MEAN	5.1 Dec 9	3.9 Sep 29	0.00 Sep 7 1994
ANNUAL SEVEN-DAY MINIMUM	5.3 Dec 18	4.0 Sep 24	63600 Feb 10 1978
MAXIMUM PEAK FLOW		6340 Feb 26	29.30 Feb 25 1969
MAXIMUM PEAK STAGE		7.45 Feb 26	
ANNUAL RUNOFF (AC-FT)	15600	9910	52920
10 PERCENT EXCEEDS	36	12	57
50 PERCENT EXCEEDS	12	8.0	12
90 PERCENT EXCEEDS	7.2	5.2	3.0

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, 1975–81, 1986.

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, and October 1985 to September 1986.

SUSPENDED-SEDIMENT DISCHARGE: October 1968 to September 1973, October 1974 to September 1981, and October 1985 to September 1986.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment dis-charge, tons/d (80155)
NOV						
08...	0957	.95	15.5	--	10	.03
DEC						
11...	1340	.27	16.0	--	10	.01
JAN						
14...	1500	.22	13.0	--	12	.01
FEB						
04...	1340	.22	13.5	--	6	<.01
22...	1500	.44	14.0	--	12	.01
26...	1235	245	14.0	96	279	185
26...	1255	231	14.0	96	258	161
MAR						
05...	1115	15	20.0	--	4	.16
23...	0750	6.1	16.0	--	7	.12
APR						
13...	1610	5.6	19.5	--	4	.06
16...	1325	5.8	17.5	--	4	.06

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1941 to September 1977, October 1978 to current year.

REVISED RECORDS.—WSP 1061: 1943. WSP 1928: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 130 ft above NGVD 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.—Records fair. No regulation upstream from station. Gobernador Land and Water Co. diverts from Gobernador Creek 1.8 mi upstream from station. Small lake 0.8 mi southeast of station and outside the drainage area stores storm runoff and surplus water diverted from Gobernador Creek by Gobernador Land and Water Co. At times this lake is drained by pumping water back into Gobernador Creek 1,000 ft upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,880 ft<sup>3</sup>/s, Dec. 27, 1971, gage height, 14.10 ft, from floodmark, from rating curve extended above 130 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; no flow at times each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 125 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height <sup>t</sup> (ft)
Feb. 25	2215	1.7	3.32

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
3	e0.00	0.00	0.00	0.00	0.07	0.30	0.00	0.00	0.00	0.00	0.00	0.00
4	e0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
5	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
25	0.00	0.00	0.13	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
26	0.00	0.00	0.04	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.62	0.00	2.11	1.14	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.02	0.00	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.24	0.00	0.46	0.40	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	1.2	0.00	4.2	2.3	0.00	0.00	0.00	0.00	0.00	0.00

e Estimated.

11119500 CARPINTERIA CREEK NEAR CARPINTERIA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.12	0.76	2.38	12.3	17.1	10.3	4.09	1.08	0.43	0.22	0.11	0.11
MAX	3.59	16.7	38.9	242	274	83.8	67.8	13.7	6.24	4.35	3.07	3.32
(WY)	1984	1966	1967	1995	1998	1995	1958	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1946	1944	1948	1945	1948	1947	1947	1945	1942	1942	1942	1942

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	413.58		3.87			
ANNUAL MEAN	1.13		0.01		3.85	
HIGHEST ANNUAL MEAN					33.5 1969	
LOWEST ANNUAL MEAN					0.00 1951	
HIGHEST DAILY MEAN	267	Mar 15	0.46	Feb 28	4000	Jan 10 1995
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Jan 4 1941
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Nov 18 1941
MAXIMUM PEAK FLOW			1.7	Feb 25	8880	Dec 27 1971
MAXIMUM PEAK STAGE			3.32	Feb 25	14.10	Dec 27 1971
ANNUAL RUNOFF (AC-FT)	820		7.7		2790	
10 PERCENT EXCEEDS	0.15		0.00		3.1	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11119745 MISSION CREEK AT ROCKY NOOK PARK, AT SANTA BARBARA, CA

LOCATION.—Lat 34°26'26", long 119°42'39", in Santa Barbara County, Hydrologic Unit 18060013, on right bank, 50 ft southeast of entrance to Rocky Nook Park, 75 ft upstream from bridge on Los Olivos Street, in Santa Barbara.

DRAINAGE AREA.—6.60 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1983 to September 1986, October 1997 to current year.

WATER TEMPERATURE: Water years 1984–86.

SEDIMENT DATA: Water years 1984–86.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 335 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. At times water is released to creek for ground-water recharge from Gibraltar Reservoir through Mission Tunnel several miles upstream.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,010 ft<sup>3</sup>/s, Feb. 3, 1998, gage height, 9.52 ft, from rating curve extended above 838 ft<sup>3</sup>/s; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 75 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	2100	51	4.86

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.12	0.39	e0.07	e0.06	e0.12	0.17	0.06	0.08	e0.06	0.06	0.05	0.05
2	e0.12	0.16	e0.06	e0.06	e0.14	0.16	0.07	0.06	e0.07	e0.07	0.05	0.05
3	e0.12	0.15	e0.06	e0.06	e0.15	0.12	0.06	0.06	e0.07	e0.06	0.05	0.05
4	e0.12	0.16	e0.06	e0.06	0.16	0.11	0.07	0.06	e0.07	e0.06	e0.06	0.05
5	e0.12	0.14	e0.06	e0.06	0.12	0.11	0.07	0.06	e0.07	e0.06	e0.06	0.05
6	e0.12	0.14	e0.06	e0.06	0.12	0.11	0.07	0.06	e0.07	e0.06	e0.05	0.05
7	0.12	0.13	e0.06	e0.08	0.11	0.11	0.07	0.06	e0.07	e0.06	e0.05	0.05
8	e0.12	0.13	e0.06	e0.10	0.11	0.11	0.08	0.06	e0.07	e0.07	e0.05	0.05
9	e0.11	0.48	e0.06	e0.14	0.11	0.11	0.07	0.06	e0.06	e0.07	e0.05	0.05
10	e0.11	0.19	e0.06	e0.14	0.11	0.11	0.08	0.06	e0.06	e0.07	e0.05	0.05
11	e0.10	0.15	e0.06	e0.13	0.10	0.11	0.08	0.05	e0.07	e0.07	e0.05	0.05
12	e0.10	0.13	e0.06	e0.13	0.10	0.11	0.08	e0.08	e0.07	e0.07	e0.04	0.05
13	e0.09	0.18	e0.06	e0.13	0.10	0.12	0.07	e0.08	e0.07	0.05	e0.05	0.05
14	e0.09	0.19	e0.06	e0.13	0.10	0.12	0.07	e0.07	e0.07	0.05	e0.06	0.05
15	e0.08	0.14	e0.06	0.13	0.10	0.12	0.06	e0.08	e0.06	0.05	e0.05	0.05
16	0.08	0.14	e0.06	0.13	0.10	0.12	0.06	e0.08	e0.06	0.05	e0.06	0.06
17	0.11	0.12	e0.06	0.13	0.10	0.12	0.06	e0.06	e0.06	0.05	e0.06	0.06
18	0.13	0.11	e0.06	e0.13	0.18	0.12	0.06	e0.08	0.06	e0.05	0.05	0.06
19	0.13	0.11	e0.06	e0.13	0.15	0.12	0.06	e0.08	0.06	e0.05	0.05	0.05
20	0.13	0.10	e0.06	e0.13	0.13	0.13	0.06	e0.08	0.06	e0.05	0.05	0.05
21	0.13	e0.10	e0.06	e0.12	0.12	0.14	0.06	e0.05	0.06	e0.05	0.05	0.05
22	0.15	e0.10	e0.06	e0.12	0.17	0.14	0.06	e0.08	0.06	e0.05	0.05	0.05
23	0.16	e0.10	e0.06	e0.11	0.17	0.14	0.05	e0.08	0.06	e0.06	0.05	0.05
24	0.17	e0.09	e0.06	0.11	0.14	0.14	0.05	e0.06	0.06	e0.05	0.05	0.05
25	0.15	e0.09	e0.06	e0.11	10	0.13	0.05	e0.04	0.06	e0.05	0.05	0.05
26	0.12	e0.09	e0.06	e0.10	3.4	0.12	0.05	e0.08	0.06	e0.05	0.05	0.05
27	0.13	e0.08	e0.06	e0.09	0.27	0.08	0.04	e0.06	0.06	e0.06	0.05	0.05
28	0.17	e0.08	e0.06	e0.08	0.15	0.07	0.05	e0.08	0.06	e0.05	0.05	0.05
29	0.18	e0.08	e0.06	0.08	0.13	0.06	0.05	e0.08	0.06	e0.06	0.06	0.06
30	0.19	e0.07	e0.06	0.12	---	0.06	0.05	e0.07	0.06	0.05	0.05	0.06
31	0.85	---	e0.06	e0.12	---	0.06	---	e0.07	---	0.05	0.05	---
TOTAL	4.62	4.32	1.87	3.28	16.96	3.55	1.87	2.11	1.91	1.76	1.60	1.55
MEAN	0.15	0.14	0.06	0.11	0.58	0.11	0.06	0.07	0.06	0.06	0.05	0.05
MAX	0.85	0.48	0.07	0.14	10	0.17	0.08	0.08	0.07	0.07	0.06	0.06
MIN	0.08	0.07	0.06	0.06	0.10	0.06	0.04	0.04	0.06	0.05	0.04	0.05
AC-FT	9.2	8.6	3.7	6.5	34	7.0	3.7	4.2	3.8	3.5	3.2	3.1

e Estimated.



## 11119745 MISSION CREEK AT ROCKY NOOK PARK, AT SANTA BARBARA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.27	0.56	2.38	1.49	18.0	7.09	1.83	1.35	0.56	0.31	0.22	0.16
MAX	1.26	1.52	9.47	5.79	138	33.5	6.20	8.39	3.18	2.27	1.60	0.79
(WY)	2001	1984	1998	1998	1998	2001	1998	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.06	0.11	0.25	0.11	0.06	0.04	0.03	0.01	0.01	0.01
(WY)	1998	1998	2004	2004	2002	2004	2004	1985	1984	1984	1984	1984

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1984 - 2004	
ANNUAL TOTAL	485.80		45.40			
ANNUAL MEAN	1.33		0.12		2.96	
HIGHEST ANNUAL MEAN					14.4	1998
LOWEST ANNUAL MEAN					0.12	2004
HIGHEST DAILY MEAN	184	Mar 15	10	Feb 25	524	Feb 3 1998
LOWEST DAILY MEAN	0.06	Dec 2	0.04	Apr 27	0.00	Aug 15 1984
ANNUAL SEVEN-DAY MINIMUM	0.06	Dec 2	0.05	Apr 23	0.00	Aug 15 1984
MAXIMUM PEAK FLOW			51	Feb 25	1010	Feb 3 1998
MAXIMUM PEAK STAGE			4.86	Feb 25	9.52	Feb 3 1998
INSTANTANEOUS LOW FLOW					0.00	Aug 15 1984
ANNUAL RUNOFF (AC-FT)	964		90		2150	
10 PERCENT EXCEEDS	1.4		0.14		2.8	
50 PERCENT EXCEEDS	0.19		0.07		0.23	
90 PERCENT EXCEEDS	0.08		0.05		0.03	

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1970 to current year.

GAGE.—Water-stage recorder, low-flow concrete control, and crest-stage gage. Concrete-lined channel. Elevation of gage is 105 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good for low flow, poor for medium flow, and fair for high flow. At times water is released to creek for ground-water recharge from Gibraltar Reservoir through Mission Tunnel several miles upstream. Control installed Dec. 9, 1999.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,090 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 5.67 ft, from rating curve extended above 41 ft<sup>3</sup>/s, on basis of computation of flow in concrete-lined channel, maximum gage height, 6.60 ft, Jan. 10, 1995; no flow most of each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	1930	597	3.19

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.09	0.00	0.00	0.00	3.2	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	2.0	0.97	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.09	0.01	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	2.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	2.6	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.15	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	13	0.00	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.36	0.00	34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	3.6	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	3.60	2.09	14.43	0.00	142.73	4.18	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.12	0.07	0.47	0.00	4.92	0.13	0.00	0.00	0.00	0.00	0.00	0.00
MAX	3.6	2.0	13	0.00	100	3.2	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	7.1	4.1	29	0.00	283	8.3	0.00	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

MEAN	0.20	1.05	2.39	7.82	14.4	9.31	2.09	0.99	0.16	0.02	0.03	0.12
MAX	2.10	14.0	13.9	79.9	176	62.3	17.2	11.3	1.97	0.49	1.08	1.37
(WY)	2001	1973	1972	1995	1998	1978	1983	1998	1998	1983	1983	1983
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1971	1975	1973	2004	1972	1972	1972	1972	1971	1971	1971	1971

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1971 - 2004

ANNUAL TOTAL	356.03	167.03	
ANNUAL MEAN	0.98	0.46	3.16
HIGHEST ANNUAL MEAN			18.4
LOWEST ANNUAL MEAN			0.12
HIGHEST DAILY MEAN	179	Mar 15	1390
LOWEST DAILY MEAN	0.00	Jan 2	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 2	0.00
MAXIMUM PEAK FLOW			597
MAXIMUM PEAK STAGE			3.19
ANNUAL RUNOFF (AC-FT)	706	331	2290
10 PERCENT EXCEEDS	0.00	0.00	3.3
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1970 to current year.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 60 ft above NGVD of 1929, from topographic map. Sept. 7, 2000, to June 12, 2001, at site 400 ft downstream at datum 10.00 ft lower.

REMARKS.—Records fair. No regulation upstream from station. Some pumping for irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,600 ft<sup>3</sup>/s, Mar. 10, 1995, gage height, 10.16 ft, from rating curve extended above 3,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow, maximum gage height, 11.16 ft, Mar. 5, 2001, at site and datum then in use; no flow most of each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 75 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1400	75	2.06	Feb. 25	2000	331	3.05

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.37	0.00	0.00	0.00	2.4	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	1.00	2.6	1.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.07	0.00	0.14	1.0	0.68	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.08	0.60	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.01	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.02	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	1.4	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	2.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	1.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	1.2	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	1.4	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	11	0.33	66	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.96	0.01	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.28	0.00	1.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.13	0.00	1.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.08	0.00	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.15	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	3.0	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	3.00	1.86	15.20	1.96	107.30	6.10	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.10	0.06	0.49	0.06	3.70	0.20	0.00	0.00	0.00	0.00	0.00	0.00
MAX	3.0	1.4	11	1.0	66	2.4	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	6.0	3.7	30	3.9	213	12	0.00	0.00	0.00	0.00	0.00	0.00

## ATASCADERO CREEK BASIN

## 11119940 MARIA YGNACIO CREEK AT UNIVERSITY DRIVE, NEAR GOLETA, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.12	0.30	1.33	5.16	8.68	7.79	1.44	0.73	0.32	0.25	0.10	0.07
MAX	2.05	2.35	8.18	61.2	70.4	39.5	15.9	14.4	8.10	7.47	2.66	1.36
(WY)	1984	1983	1984	1995	1998	2001	1998	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1971	1975	1990	1989	1977	1972	1972	1972	1971	1971	1971	1971

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1971 - 2004	
ANNUAL TOTAL	301.34		135.42			
ANNUAL MEAN	0.83		0.37		2.16	
HIGHEST ANNUAL MEAN					11.4 1998	
LOWEST ANNUAL MEAN					0.04 1990	
HIGHEST DAILY MEAN	128	Mar 15	66	Feb 25	629	Jan 10 1995
LOWEST DAILY MEAN	0.00	Jan 22	0.00	Oct 1	0.00	Oct 1 1970
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 22	0.00	Oct 1	0.00	Oct 1 1970
MAXIMUM PEAK FLOW			331	Feb 25	4600	Mar 10 1995
MAXIMUM PEAK STAGE			3.05	Feb 25	11.16	Mar 5 2001
INSTANTANEOUS LOW FLOW					0.00	Oct 1 1970
ANNUAL RUNOFF (AC-FT)	598		269		1570	
10 PERCENT EXCEEDS	0.75		0.09		1.8	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

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 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1941 to current year. Prior to October 1947, published as "Alascadero Creek near Goleta."

SEDIMENT CONCENTRATION: Water year 1982.

SUSPENDED-SEDIMENT DISCHARGE: Water year 1982.

WATER TEMPERATURE: Water year 1982.

REVISED RECORDS.—WSP 1635: 1943–45(M), 1947(M). WSP 1928: Drainage area.

GAGE.—Water-stage recorder and broad-crested weir. Datum of gage is 8.59 ft above NGVD of 1929, 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; Oct. 1, 1976, to Sept. 30, 1978, at datum 2.00 ft higher, both at present site.

REMARKS.—Records fair. No regulation upstream from station. Small diversions for irrigation upstream from station. Some low-flow results from return irrigation wastewater.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,200 ft<sup>3</sup>/s, Mar. 10, 1995, gage height, 12.45 ft, present datum, from rating curve extended above 6,900 ft<sup>3</sup>/s, maximum gage height, 17.3 ft, from floodmark, Dec. 3, 1974, present datum; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 260 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 25	1415	961	3.77	Feb. 25	1930	5,110	6.34

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.14	2.0	0.10	0.39	0.28	14	0.29	0.13	0.00	0.01	0.00	0.03
2	0.07	0.34	0.68	5.2	17	2.9	0.26	0.04	0.00	0.00	0.01	0.03
3	0.03	1.6	0.24	0.97	2.8	2.1	0.22	0.06	0.05	0.00	0.02	0.02
4	0.06	1.6	0.07	0.42	1.4	1.4	0.22	0.19	0.03	0.05	0.40	0.04
5	0.00	0.93	0.07	0.39	1.3	0.84	0.22	0.99	0.00	0.04	0.32	0.01
6	0.00	1.2	0.10	0.43	0.54	0.71	0.22	0.40	0.00	0.04	0.10	0.01
7	0.32	1.7	0.11	1.1	0.33	0.63	0.20	0.09	0.00	1.0	0.05	0.01
8	0.30	2.4	0.10	1.1	0.31	1.9	0.88	0.01	0.00	0.82	0.03	0.52
9	0.07	13	0.10	0.60	0.37	1.1	0.45	0.00	0.40	0.13	0.02	0.66
10	0.03	0.52	0.10	0.39	0.42	0.44	0.24	0.00	0.35	0.07	0.01	0.20
11	0.00	0.26	0.09	0.39	0.51	0.33	0.17	0.00	0.04	0.03	0.03	0.09
12	0.00	0.29	0.09	0.37	0.47	0.34	0.19	0.00	0.00	0.03	0.04	0.04
13	0.03	0.22	0.11	0.33	0.46	0.36	0.16	0.00	0.00	0.07	0.05	0.02
14	0.12	0.20	1.8	0.33	0.35	0.37	0.16	0.00	0.00	0.04	0.02	0.02
15	0.12	0.21	0.25	0.33	0.31	0.31	0.18	0.00	0.00	0.03	0.01	0.03
16	0.07	0.23	0.14	0.35	0.32	0.27	0.15	0.00	0.01	0.02	0.05	0.07
17	0.03	0.23	0.13	0.37	0.36	0.30	0.15	0.00	0.92	0.06	0.06	0.11
18	0.01	0.27	0.14	0.36	20	0.51	0.14	0.00	0.55	0.02	0.07	0.12
19	0.00	0.26	0.12	0.34	1.6	0.32	0.13	0.00	0.14	0.00	0.08	0.07
20	0.01	0.21	0.10	0.31	1.1	0.26	0.12	0.00	0.05	0.00	0.09	0.02
21	0.01	0.21	0.12	0.35	0.95	0.21	0.10	0.00	0.01	0.00	0.06	0.00
22	0.03	0.16	0.13	0.32	11	0.24	0.08	0.00	0.03	0.00	0.04	0.00
23	0.03	0.13	9.1	0.32	1.8	0.68	0.06	0.00	0.04	0.00	0.06	0.01
24	0.00	0.18	8.2	0.33	0.96	0.66	0.08	0.00	0.02	0.00	0.07	0.01
25	0.00	0.18	76	0.32	721	0.71	0.06	0.00	0.02	0.00	0.05	0.01
26	0.00	0.14	2.9	0.37	78	0.54	0.07	0.00	0.00	0.00	0.06	0.00
27	0.00	0.13	1.5	0.60	3.4	0.33	0.06	0.00	0.00	0.00	0.08	0.00
28	0.02	0.13	1.2	0.70	1.6	0.35	0.10	0.00	0.00	0.00	0.08	0.03
29	0.18	0.13	0.94	0.69	1.2	0.65	0.08	0.00	0.01	0.00	0.07	0.04
30	0.25	0.12	0.80	0.65	---	0.73	0.25	0.00	0.04	0.00	0.08	0.04
31	13	---	0.56	0.39	---	0.54	---	0.00	---	0.00	0.08	---
TOTAL	14.93	29.18	106.09	19.51	870.14	35.03	5.69	1.91	2.71	2.46	2.19	2.26
MEAN	0.48	0.97	3.42	0.63	30.0	1.13	0.19	0.06	0.09	0.08	0.07	0.08
MAX	13	13	76	5.2	721	14	0.88	0.99	0.92	1.0	0.40	0.66
MIN	0.00	0.12	0.07	0.31	0.28	0.21	0.06	0.00	0.00	0.00	0.00	0.00
AC-FT	30	58	210	39	1730	69	11	3.8	5.4	4.9	4.3	4.5

## ATASCADERO CREEK BASIN

## 11120000 ATASCADERO CREEK NEAR GOLETA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.38	3.35	5.56	16.8	22.9	18.5	4.17	1.02	0.24	0.11	0.09	0.25
MAX	8.08	49.8	41.5	230	266	158	63.5	24.5	4.50	3.42	1.84	4.68
(WY)	1984	1966	1967	1969	1998	1998	1958	1998	1998	1998	1998	1976
MIN	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1942	1942	1943	1951	1948	1990	1950	1942	1942	1942	1942	1942

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	1527.84		1092.10			
ANNUAL MEAN	4.19		2.98		6.04	
HIGHEST ANNUAL MEAN					40.7	
LOWEST ANNUAL MEAN					0.02	
HIGHEST DAILY MEAN	899	Mar 15	721	Feb 25	2410	Jan 25 1969
LOWEST DAILY MEAN	0.00	Sep 7	0.00	Oct 5	0.00	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	0.01	Jul 12	0.00	May 9	0.00	Oct 1 1941
MAXIMUM PEAK FLOW			5110	Feb 25	10200	Mar 10 1995
MAXIMUM PEAK STAGE			6.34	Feb 25	17.30	Dec 3 1974
INSTANTANEOUS LOW FLOW					0.00	Oct 1 1941
ANNUAL RUNOFF (AC-FT)	3030		2170		4370	
10 PERCENT EXCEEDS	1.6		1.1		3.3	
50 PERCENT EXCEEDS	0.28		0.12		0.05	
90 PERCENT EXCEEDS	0.04		0.00		0.00	

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—January 1941 to January 1995, October 1995 to current year.

CHEMICAL DATA: Water years 1978–91.

REVISED RECORDS.—WSP 1928: Drainage area.

GAGE.—Water-stage recorder, crest-stage gage, and concrete low-water control. Elevation of gage is 95.61 ft above NGVD of 1929, 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.—Records poor. No regulation upstream from station. Many small diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,520 ft<sup>3</sup>/s, Mar. 4, 2001, gage height, 9.04 ft, from rating curve extended above 400 ft<sup>3</sup>/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 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	1945	654	5.70

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	0.54	0.23	0.43	0.42	1.6	0.32	0.14	0.11	0.06	0.05	0.07
2	0.20	0.32	0.20	e0.43	0.82	2.5	0.34	0.13	0.10	0.05	0.05	0.05
3	0.31	0.33	0.15	e0.44	2.0	1.5	0.35	0.18	0.10	0.06	0.06	0.04
4	0.23	0.35	0.19	e0.44	0.87	1.1	0.41	0.15	0.09	0.15	0.07	0.06
5	0.23	e0.36	0.15	e0.45	0.70	0.94	0.42	0.11	0.13	0.15	0.08	0.04
6	0.30	e0.36	0.19	e0.45	0.57	0.85	0.38	0.13	0.09	0.09	0.08	0.04
7	0.21	e0.37	0.22	e0.46	0.59	0.78	0.38	0.10	0.08	0.13	0.09	0.05
8	0.19	e0.37	0.21	e0.46	0.57	0.71	0.38	0.09	0.07	0.10	0.09	0.06
9	0.27	e0.38	0.17	e0.47	0.56	0.67	0.41	0.10	0.08	0.05	0.07	0.06
10	0.18	e0.38	0.16	e0.47	0.43	0.64	0.49	0.11	0.08	0.04	0.06	0.07
11	0.18	e0.39	0.17	e0.48	0.36	0.54	0.48	0.12	0.05	0.05	0.05	0.05
12	0.25	e0.39	0.22	e0.48	0.36	0.50	0.42	0.16	0.06	0.07	0.05	0.06
13	0.27	e0.40	0.20	e0.49	0.36	0.49	0.34	0.11	0.06	0.07	0.05	0.07
14	0.18	e0.40	0.20	e0.49	0.35	0.49	0.31	0.10	0.06	0.09	0.03	0.07
15	0.15	0.42	0.25	0.49	0.43	0.49	0.30	0.11	0.07	0.04	0.03	0.06
16	0.27	0.40	0.24	0.46	0.49	0.46	0.28	0.12	0.12	0.04	0.03	0.06
17	0.24	0.37	0.26	0.36	0.56	0.40	0.27	0.12	0.12	0.05	0.03	0.06
18	0.21	0.37	0.25	0.47	1.4	0.34	0.30	0.14	0.09	0.06	0.05	0.05
19	0.29	0.29	0.16	0.48	1.1	0.33	0.37	0.18	0.16	0.09	0.05	0.04
20	0.28	0.22	0.15	0.47	0.77	0.42	0.33	0.12	0.21	0.11	0.05	0.04
21	0.17	0.28	0.15	0.36	0.74	0.41	0.23	0.10	0.20	0.04	0.06	0.03
22	0.14	0.27	0.22	0.46	1.00	0.39	0.24	0.11	0.17	0.08	0.07	0.03
23	0.17	0.21	0.40	0.36	2.6	0.35	0.22	0.09	0.17	0.04	0.07	0.03
24	0.15	0.27	0.55	0.41	1.2	0.30	0.22	0.16	0.16	0.10	0.07	0.05
25	0.14	0.30	6.8	0.50	116	0.30	0.22	0.13	0.14	0.11	0.08	0.06
26	0.16	0.23	2.5	0.46	55	0.32	0.25	0.11	0.16	0.12	0.09	0.07
27	0.15	0.20	0.74	0.49	5.8	0.35	0.15	0.11	0.12	0.04	0.08	0.08
28	0.13	0.25	0.54	0.50	2.6	0.36	0.14	0.14	0.14	0.01	0.09	0.07
29	0.11	0.18	0.50	0.39	1.7	0.29	0.16	0.17	0.08	0.01	0.10	0.06
30	0.13	0.21	0.66	0.36	---	0.30	0.16	0.10	0.05	0.04	0.07	0.06
31	0.68	---	0.48	0.34	---	0.29	---	0.10	---	0.04	0.07	---
TOTAL	6.75	9.81	17.51	13.80	200.35	19.41	9.27	3.84	3.32	2.18	1.97	1.64
MEAN	0.22	0.33	0.56	0.45	6.91	0.63	0.31	0.12	0.11	0.07	0.06	0.05
MAX	0.68	0.54	6.8	0.50	116	2.5	0.49	0.18	0.21	0.15	0.10	0.08
MIN	0.11	0.18	0.15	0.34	0.35	0.29	0.14	0.09	0.05	0.01	0.03	0.03
AC-FT	13	19	35	27	397	38	18	7.6	6.6	4.3	3.9	3.3

e Estimated.

## SAN JOSE CREEK BASIN

## 11120500 SAN JOSE CREEK NEAR GOLETA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.26	1.08	2.39	5.41	12.0	7.51	2.81	0.95	0.37	0.22	0.16	0.15
MAX	6.40	21.2	23.5	35.6	308	98.8	29.0	13.9	4.26	3.58	1.45	1.40
(WY)	1984	1966	1967	1952	1998	1998	1958	1998	1998	1998	1998	1954
MIN	0.00	0.00	0.00	0.00	0.02	0.10	0.02	0.00	0.00	0.00	0.00	0.00
(WY)	1947	1948	1948	1948	1948	1990	1990	1948	1946	1946	1946	1946

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	510.77		289.85			
ANNUAL MEAN	1.40		0.79		2.61	
HIGHEST ANNUAL MEAN					37.4	
LOWEST ANNUAL MEAN					0.04	
HIGHEST DAILY MEAN	177	Mar 15	116	Feb 25	1000	Feb 3 1998
LOWEST DAILY MEAN	0.08	Sep 11	0.01	Jul 28	0.00	Jan 2 1941
ANNUAL SEVEN-DAY MINIMUM	0.11	Sep 6	0.03	Jul 27	0.00	Aug 18 1942
MAXIMUM PEAK FLOW			654	Feb 25	2520	Mar 4 2001
MAXIMUM PEAK STAGE			5.70	Feb 25	12.74	Jan 21 1943
ANNUAL RUNOFF (AC-FT)	1010		575		1890	
10 PERCENT EXCEEDS	1.2		0.55		2.2	
50 PERCENT EXCEEDS	0.47		0.20		0.27	
90 PERCENT EXCEEDS	0.15		0.05		0.00	



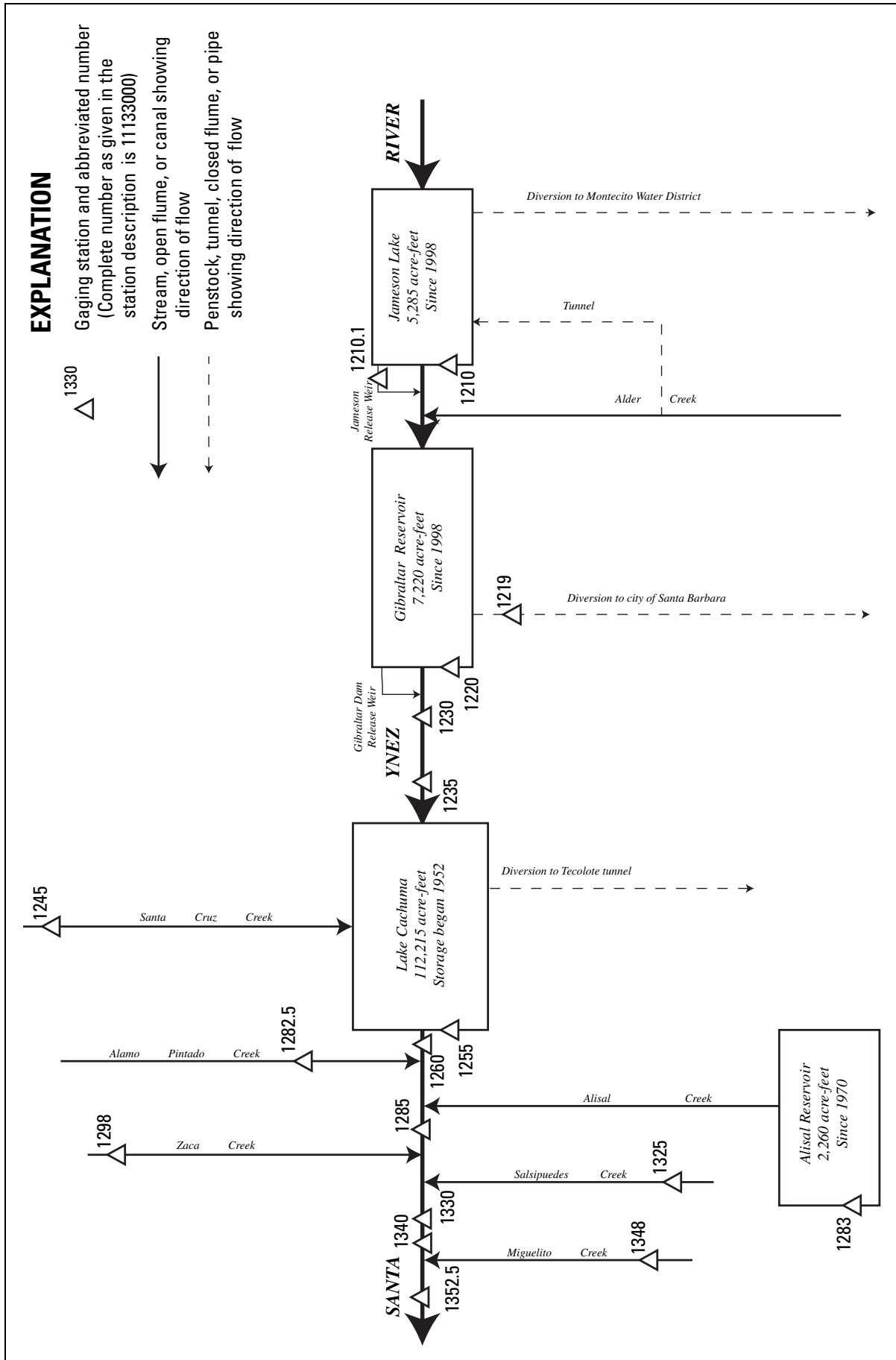


Figure 20. Diversions and storage in Santa Ynez River Basin.

## 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 mi<sup>2</sup>, excludes area of Alder Creek.

PERIOD OF RECORD.—December 1930 to current year. Prior to October 1938, published as "at Juncal Reservoir."

GAGE.—Two water-stage recorders. Elevation of lake gage is 2,021.6 ft, U.S. Bureau of Reclamation Datum, or 2,000 ft above NGVD of 1929. 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 (station 11121010) 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 bathymetric survey made in 1998. Lake capacity at spillway level, elevation 2,223.82 ft, 5,285 acre-ft. There is no regulation or diversion upstream from 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. See schematic diagram of [Santa Ynez River Basin](#).

COOPERATION.—Precipitation records provided by Montecito Water District.

AVERAGE DISCHARGE.—73 years (since water year 1932), spill and release, 9.55 ft<sup>3</sup>/s, 6,920 acre-ft/yr.

## MONTHLY NET INFLOW, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Elevation (ft) <sup>a</sup>	Contents (acre-ft)	Change in contents (acre-ft)	Draft (acre-ft)	Spill and release (acre-ft)	Evaporation and seepage (acre-ft)	Total inflow (acre-ft)	Rain on reservoir (acre-ft)	Net inflow (acre-ft)
Sept. 30	2,201.57	2,910	—	—	—	—	—	—	—
Oct. 31	2,200.04	2,770	-140	110	0	30	0	0	0
Nov. 30	2,199.34	2,710	-60	68	0	9	17	17	0
Dec. 31	2,198.87	2,680	-30	62	0	4	36	19	17
CAL YR 2003	—	—	+30	1,143	0	299	1,502	162	1,345
Jan. 31	2,198.31	2,630	-50	63	0	6	19	4	15
Feb. 28	2,203.40	3,070	+440	60	0	4	504	69	435
Mar. 31	2,203.34	3,070	0	94	0	26	120	4	116
Apr. 30	2,202.74	3,010	-60	87	0	27	54	0	54
May 31	2,201.30	2,880	-130	125	0	50	45	0	45
June 30	2,199.57	2,730	-150	140	0	44	34	0	34
July 31	2,197.53	2,560	-170	168	0	38	36	0	36
Aug. 31	2,195.44	2,390	-170	157	0	61	48	0	48
Sept. 30	2,193.22	2,220	-170	147	0	39	16	0	16
WTR YR 2004	—	—	-690	1,281	0	338	929	113	816

<sup>a</sup> Elevation at 0800.

## 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, and 7 mi north of Santa Barbara.

DRAINAGE AREA.—216 mi<sup>2</sup>.

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."

REVISED RECORDS.—WSP 706: 1921–22. WSP 1041: 1944. WSP 1395: DA. WSP 1635: 1914, 15 (M). WDR CA-86-1: 1934–43.

GAGE.—Water-stage recorder. Elevation of gage is NGVD 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 station 11123000 downstream from dam.

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—station 11121900) to city of Santa Barbara, spill and release (station 11123000) 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 bathymetric survey made in September 2001. Preceding area and capacity tables were based on bathymetric survey made in September 1998 and were used up through Sept. 30, 2001. Changing of area and capacity tables at the beginning of the 2002 water year results in negative total and net inflows for October 2001. Reservoir capacity at spillway level, elevation 1,399.82 ft, 7,060 acre-ft. Lowest outlet at elevation 1,333.86 ft. Flow regulated by Jameson Lake (station 11121000) since December 1930. See schematic diagram of [Santa Ynez River Basin](#).

COOPERATION.—Precipitation and evaporation data provided by the City of Santa Barbara.

## MONTHLY NET INFLOW, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (ft) <sup>a</sup>	Contents (acre-ft)	Change in contents (acre-ft)	Draft (acre-ft)	Spill and release (acre-ft)	Evaporation and seepage (acre-ft)	Total inflow (acre-ft)	Rain on reservoir (acre-ft)	Net inflow (acre-ft)
Sept. 30.....	1,385.87	4,130	—	—	—	—	—	—	—
Oct. 31.....	1,382.95	3,600	-530	442	0	93	5	0	5
Nov. 30.....	1,382.41	3,500	-100	91	0	31	22	34	-12
Dec. 31.....	1,382.65	3,550	+50	0	0	27	77	46	31
CAL YR 2003	—	—	+2,530	3,450	1,940	1,120	10,944	—	10,615
Jan. 31.....	1,382.71	3,560	+10	0	0	31	41	6	35
Feb. 28.....	1,395.21	6,010	+2,450	0	0	34	2,484	120	2,364
Mar. 31.....	1,397.57	6,540	+530	0	0	93	623	8	615
Apr. 30.....	1,397.57	6,540	0	51	0	119	170	0	170
May 31.....	1,394.91	5,950	-590	543	0	151	104	0	104
June 30.....	1,391.91	5,310	-640	538	0	152	50	0	50
July 31.....	1,388.50	4,630	-680	563	0	167	50	0	50
Aug. 31.....	1,384.08	3,800	-830	560	149	144	23	0	23
Sept. 30.....	1,379.73	3,040	-760	540	101	113	-6	0	-6
WTR YR 2004	—	—	-1,090	3,328	250	1,155	3,643	214	3,429

<sup>a</sup> 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.

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—April 1920 to current year. Monthly discharge only prior to October 1933. Daily records for water years 1934–43 in files of U.S. Geological Survey.

REVISED RECORDS.—WDR CA-86-1: 1934–43.

GAGE.—Two water-stage recorders. Elevation of gage on main channel is 1,227 ft above NGVD of 1929. Supplementary gage and sharp-crested weir on release channel from Gibraltar Dam to river at different datum (station 11122010). See WSP 1735 for history of changes on both gages prior to May 20, 1958.

REMARKS.—Records good. Flow regulated by Jameson Lake (station 11121000) and Gibraltar Reservoir (station 11122000). City of Santa Barbara diverted 3,130 acre-ft during current year from Gibraltar Reservoir; Montecito Water District diverted 1,730 acre-ft during current year from Jameson Lake. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 54,200 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 25.8 ft, from rating curve extended above 2,100 ft<sup>3</sup>/s, on basis of computations of flow from gate openings and flow over dam at gage heights 17.5 and 25.8 ft; no flow at times in most years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.69	0.09	0.03	0.00	0.00	0.00	15
2	0.00	0.00	0.00	0.00	0.00	0.72	0.08	0.01	0.00	0.00	0.00	15
3	0.00	0.00	0.00	0.00	0.00	0.71	0.08	0.00	0.00	0.00	0.00	15
4	0.00	0.00	0.00	0.00	0.00	0.70	0.08	0.00	0.00	0.00	0.00	6.7
5	0.00	0.00	0.00	0.00	0.00	0.85	0.08	0.00	0.00	0.00	0.00	0.06
6	0.00	0.00	0.00	0.00	0.00	0.90	0.08	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.93	0.08	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	1.0	0.08	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	1.1	0.08	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.85	0.08	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.22	0.08	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.15	0.08	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.13	0.08	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.12	0.08	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.11	0.09	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.12	0.09	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.11	0.09	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.10	0.08	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.11	0.09	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.10	0.09	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	2.0	0.10	0.09	0.00	0.00	1.8	0.00
26	0.00	0.00	0.00	0.00	0.00	1.8	0.10	0.10	0.00	0.00	14	0.00
27	0.00	0.00	0.00	0.00	0.00	0.53	0.10	0.09	0.00	0.00	15	0.00
28	0.00	0.00	0.00	0.00	0.00	0.57	0.09	0.07	0.00	0.00	15	0.00
29	0.00	0.00	0.00	0.00	0.00	0.68	0.09	0.06	0.00	0.00	15	0.00
30	0.00	0.00	0.00	0.00	0.00	---	0.10	0.04	0.00	0.00	15	0.00
31	0.00	---	0.00	0.00	---	0.09	---	0.00	---	0.00	15	---
TOTAL	0.00	0.00	0.00	0.00	5.58	10.83	2.43	0.04	0.00	0.00	90.80	51.76
MEAN	0.00	0.00	0.00	0.00	0.19	0.35	0.08	0.00	0.00	0.00	2.93	1.73
MAX	0.00	0.00	0.00	0.00	2.0	1.1	0.10	0.03	0.00	0.00	15	15
MIN	0.00	0.00	0.00	0.00	0.00	0.09	0.04	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	11	21	4.8	0.08	0.00	0.00	180	103

## 11123000 SANTA YNEZ RIVER BELOW GIBRALTAR DAM, NEAR SANTA BARBARA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.81	5.86	24.6	120	245	242	99.9	30.1	7.96	3.55	1.72	0.63
MAX	32.6	336	607	2077	3090	1712	1168	441	126	43.6	24.1	13.5
(WY)	1984	1966	1967	1969	1998	1983	1958	1998	1998	1983	1995	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1960	1959	1944	1938	1949	1948	1948	1940	1960	1960	1960	1960

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1934 - 2004	
ANNUAL TOTAL	1940.16		161.44			
ANNUAL MEAN	5.32		0.44		64.1	
HIGHEST ANNUAL MEAN					437	1969
LOWEST ANNUAL MEAN					0.00	1961
HIGHEST DAILY MEAN	280	May 3	15	Aug 27	26600	Jan 25 1969
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Dec 16 1933
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Dec 16 1933
MAXIMUM PEAK FLOW			18	Feb 25	54200	Jan 25 1969
MAXIMUM PEAK STAGE			8.16	Feb 25	25.80	Jan 25 1969
INSTANTANEOUS LOW FLOW					0.00	Dec 16 1933
ANNUAL RUNOFF (AC-FT)	3850		320		46470	
10 PERCENT EXCEEDS	12		0.11		75	
50 PERCENT EXCEEDS	0.00		0.00		0.08	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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 NGVD of 1929.

REMARKS.—Records fair except for estimated daily discharges, which are poor. 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. Satellite telemeter at station. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 67,500 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 18.88 ft, from rating curve extended above 11,600 ft<sup>3</sup>/s, on basis of peak flow for station below Gibraltar Dam plus tributary inflow; no flow for many days in most years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.44	0.63	11	1.7	0.95	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.49	0.68	11	1.5	0.63	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.49	0.63	10	1.4	0.05	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.50	0.60	8.4	1.6	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.48	0.63	7.1	1.7	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.47	0.62	6.4	1.6	0.27	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.46	0.62	6.0	1.3	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.44	0.89	5.6	1.3	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.44	0.94	e5.4	1.1	0.07	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.22	0.72	e5.2	1.0	0.41	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	e4.9	0.98	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	5.0	e0.95	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	4.9	e1.1	0.01	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.19	0.46	4.4	e1.3	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.43	0.64	3.7	e1.4	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.14	0.66	3.1	1.3	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.71	3.1	1.4	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.18	0.81	3.2	1.3	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.44	0.73	3.0	1.3	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.53	0.74	2.9	1.1	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.41	0.74	2.6	0.74	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.02	0.87	2.6	0.67	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.35	0.88	2.7	0.58	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.49	0.89	2.4	0.50	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.25	0.53	105	2.6	0.40	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.39	0.57	200	2.6	0.28	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.34	0.58	35	2.3	0.14	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.40	0.58	18	1.8	0.50	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.42	0.58	13	1.7	0.93	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.43	0.58	---	1.9	0.97	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.42	0.59	---	2.0	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	2.65	11.62	386.09	139.5	32.04	2.39	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.09	0.37	13.3	4.50	1.07	0.08	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.43	0.59	200	11	1.7	0.95	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	1.7	0.14	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	5.3	23	766	277	64	4.7	0.00	0.00	0.00	0.00

e Estimated.

## 11123500 SANTA YNEZ RIVER BELOW LOS LAURELES CANYON, NEAR SANTA YNEZ, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.66	7.40	35.0	175	345	305	123	41.6	11.7	3.83	1.16	0.50
MAX	18.8	315	608	2755	4250	2525	1480	542	201	79.3	15.8	7.57
(WY)	1984	1966	1967	1969	1998	1995	1958	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1948	1948	1948	1948	1948	1990	1951	1951	1948	1948	1947	1947

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	3947.31		574.29			
ANNUAL MEAN	10.8		1.57		86.2	
HIGHEST ANNUAL MEAN					595 1998	
LOWEST ANNUAL MEAN					0.01 1961	
HIGHEST DAILY MEAN	495	May 4	200	Feb 26	33700	Jan 25 1969
LOWEST DAILY MEAN	0.00	Jul 10	0.00	Oct 1	0.00	Jun 24 1947
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 10	0.00	Oct 1	0.00	Jul 5 1947
MAXIMUM PEAK FLOW			659	Feb 25	67500	Jan 25 1969
MAXIMUM PEAK STAGE			3.37	Feb 25	18.88	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	7830		1140		62420	
10 PERCENT EXCEEDS	20		1.7		91	
50 PERCENT EXCEEDS	1.8		0.00		0.20	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11123500 SANTA YNEZ RIVER BELOW LOS LAURELES CANYON, NEAR SANTA YNEZ, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1973–89, 1991 to current year.

CHEMICAL DATA: Water years 1973–89, 1991 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)
JAN									
07...	1320	.48	--	--	--	7.5	1260	15.5	--
FEB									
03...	1105	.63	--	--	--	7.4	1210	14.5	--
MAR									
02...	1430	12	--	--	--	7.9	1140	16.5	--
APR									
06...	1515	1.6	726	8.6	96	7.9	1220	21.0	590

Date	Noncarbohardness, wat flt field, mg/L as CaCO <sub>3</sub> (00904)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO <sub>3</sub> (39086)
JAN								
07...	--	--	--	--	--	--	--	--
FEB								
03...	--	--	--	--	--	--	--	--
MAR								
02...	--	--	--	--	--	--	--	--
APR								
06...	340	138	58.5	2.08	1	55.1	17	246

Date	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)
JAN								
07...	--	--	--	--	--	--	--	--
FEB								
03...	--	--	--	--	--	--	--	--
MAR								
02...	--	--	--	--	--	--	--	--
APR								
06...	297	2	28.9	.4	22.3	377	830	1.19



## 11123500 SANTA YNEZ RIVER BELOW LOS LAURELES CANYON, NEAR SANTA YNEZ, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Residue	Nitrite		Ortho-	Boron,	Iron,	Mangan-	
	on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)				phos- phate, water, fltrd, mg/L as P (00671)
JAN 07...	922	--	--	--	--	--	--	--
FEB 03...	898	--	--	--	--	--	--	--
MAR 02...	847	--	--	--	--	--	--	--
APR 06...	878	<.04	<.06	<.008	e.01	335	9	6.0

## CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth	Baro-	Dis-	Dis-	pH,	Specif.	Loca-	
		at sample loca- tion, feet (81903)	metric pres- sure, mm Hg (00025)	solved oxygen, mg/L (00300)	oxy- gen, percent of sat- uration (00301)	water, unfltrd field, std units (00400)	conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	tion in X-sect. looking dwnstrm ft from 1 bank (00009)
MAR									
02...*	1418	.36	--	--	--	7.8	1130	16.5	1.10
02...*	1420	.48	--	--	--	7.8	1140	16.5	2.10
02...*	1422	.50	--	--	--	7.8	1140	16.5	3.10
02...*	1424	.52	--	--	--	7.8	1140	16.5	4.10
02...*	1426	.54	--	--	--	7.8	1140	16.5	5.10
02...*	1428	.62	--	--	--	7.9	1140	16.5	6.10
02...*	1430	.62	--	--	--	7.9	1140	16.5	7.10
02...*	1432	.66	--	--	--	7.9	1140	16.5	8.10
02...*	1434	.60	--	--	--	7.9	1140	16.5	9.10
02...*	1436	.60	--	--	--	7.9	1140	16.5	10.1
02...*	1438	.48	--	--	--	7.9	1150	16.5	11.1
02...*	1440	.42	--	--	--	7.9	1140	16.5	12.1
02...*	1442	.30	--	--	--	7.9	1140	16.5	13.1
APR									
06...*	1520	.33	726	8.7	97	7.6	1230	21.0	.10
06...*	1521	.36	726	8.7	96	7.6	1220	21.0	.40
06...*	1522	.41	726	8.5	95	7.6	1220	21.0	.70
06...*	1523	.42	726	8.5	94	7.6	1220	21.0	1.00
06...*	1524	.47	726	8.6	96	7.6	1220	21.0	1.30
06...*	1525	.53	726	8.6	96	7.6	1220	21.0	1.60
06...*	1526	.50	726	8.6	96	7.6	1220	21.0	1.90
06...*	1527	.49	726	8.6	97	7.6	1220	21.0	2.20
06...*	1528	.44	726	8.7	97	7.6	1220	21.0	2.50
06...*	1529	.50	726	8.7	98	7.6	1220	21.0	2.80
06...*	1530	.51	726	8.7	98	7.7	1220	21.0	3.10

&lt; Actual value is known to be less than the value shown.

e Estimated.

\* Instantaneous discharge at the time of cross-sectional measurement: Mar. 02, 12.0 ft<sup>3</sup>/s; Apr. 06, 1.6 ft<sup>3</sup>/s.

## 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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 NGVD 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.—Records fair. No regulation or diversion upstream from station. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,050 ft<sup>3</sup>/s, Feb. 24, 1969, gage height, 14.45 ft, from floodmark, present datum, from rating curve extended above 2,500 ft<sup>3</sup>/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 ft<sup>3</sup>/s, from rating curve extended above 5,000 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 12.10 ft, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	2345	599	9.29

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.66	2.2	11	3.0	0.64	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	1.4	2.8	14	2.9	0.56	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	3.2	4.4	11	2.8	0.49	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	2.6	3.9	8.1	2.8	0.38	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	2.3	2.9	6.3	2.8	0.35	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	1.9	2.6	5.8	2.8	0.32	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	1.8	2.5	5.1	2.8	0.30	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	1.6	2.4	4.5	2.7	0.26	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	1.5	2.4	4.0	2.6	0.25	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	1.5	2.4	3.8	2.4	0.23	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	1.6	2.3	3.7	2.1	0.17	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	1.5	2.3	3.6	1.9	0.16	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	1.5	2.2	3.6	1.7	0.13	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	1.6	2.2	3.4	1.7	0.10	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	1.7	2.2	3.5	1.7	0.07	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	1.7	2.1	3.6	1.7	0.07	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	1.7	2.1	3.5	1.9	0.03	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	1.7	4.0	3.3	2.0	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	1.7	5.7	3.3	1.9	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	1.8	5.0	3.2	1.8	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	1.8	4.7	3.2	1.7	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	1.8	6.5	3.1	1.5	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	1.8	12	3.1	1.4	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	2.0	7.9	3.1	1.2	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.28	2.1	21	3.0	1.1	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	11	2.1	164	3.1	0.97	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	2.8	2.2	29	2.9	0.87	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	1.6	2.4	18	2.8	0.83	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	1.1	2.4	12	3.0	0.76	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.95	2.4	---	3.0	0.71	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.83	2.3	---	3.0	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	18.56	58.26	333.7	141.6	57.04	4.51	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.60	1.88	11.5	4.57	1.90	0.15	0.00	0.00	0.00	0.00
MAX	0.00	0.00	11	3.2	164	14	3.0	0.64	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.66	2.1	2.8	0.71	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	37	116	662	281	113	8.9	0.00	0.00	0.00	0.00

## 11124500 SANTA CRUZ CREEK NEAR SANTA YNEZ, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.61	3.00	11.4	35.4	69.5	61.4	35.4	14.8	6.05	2.18	0.90	0.52
MAX	12.4	50.4	205	510	743	355	378	141	63.0	27.9	13.7	8.68
(WY)	1984	1966	1967	1969	1969	1995	1958	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.10	0.23	0.11	0.00	0.00	0.00	0.00	0.00
(WY)	1954	1954	1954	1963	1951	1948	1961	1961	1961	1959	1953	1953

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	2353.18		613.67			
ANNUAL MEAN	6.45		1.68		19.8	
HIGHEST ANNUAL MEAN					134 1969	
LOWEST ANNUAL MEAN					0.07 1990	
HIGHEST DAILY MEAN	199	Mar 15	164	Feb 26	5000	Feb 24 1969
LOWEST DAILY MEAN	0.00	Jul 28	0.00	Oct 1	0.00	Jul 6 1953
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 28	0.00	Oct 1	0.00	Jul 6 1953
MAXIMUM PEAK FLOW			599	Feb 25	7050	Feb 24 1969
MAXIMUM PEAK STAGE			9.29	Feb 25	14.45	Feb 24 1969
ANNUAL RUNOFF (AC-FT)	4670		1220		14360	
10 PERCENT EXCEEDS	14		3.2		33	
50 PERCENT EXCEEDS	1.5		0.00		1.3	
90 PERCENT EXCEEDS	0.00		0.00		0.00	



## 11124500 SANTA CRUZ CREEK NEAR SANTA YNEZ, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Residue	Nitrite		Ortho-	Boron,	Iron,	Mangan-	
	on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)				phos- phate, water, fltrd, mg/L as P (00671)
JAN								
07...	837	--	--	--	--	--	--	--
FEB								
10...	882	--	--	--	--	--	--	--
MAR								
02...	684	--	--	--	--	--	--	--
APR								
06...	785	<.04	<.06	<.008	<.02	322	<6	1.4
MAY								
03...	800	--	--	--	--	--	--	--

## CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth	Baro-	Dis-	Dis-	pH,	Specif.	Temper-	Loca-
		at sample loca- tion, feet (81903)	metric pres- sure, mm Hg (00025)	solved oxy- gen, mg/L (00300)	solved of sat- uration (00301)	water, unfltrd std units (00400)	conduc- tance, wat unf uS/cm 25 degC (00095)		ature, deg C (00010)
MAR									
02...*	1554	.42	--	--	--	8.4	975	16.0	1.00
02...*	1556	.62	--	--	--	8.4	973	16.0	3.50
02...*	1558	.90	--	--	--	8.4	973	16.0	6.00
02...*	1600	.88	--	--	--	8.4	973	16.0	8.50
02...*	1602	.74	--	--	--	8.4	973	16.0	11.0
02...*	1604	.52	--	--	--	8.4	973	16.0	13.5
02...*	1606	.30	--	--	--	8.3	976	16.0	16.0
02...*	1608	.30	--	--	--	8.3	978	16.0	18.5
APR									
06...*	1054	.39	728	9.7	102	8.2	1100	18.0	1.00
06...*	1055	.44	728	9.5	100	8.1	1100	17.5	2.00
06...*	1056	.48	728	9.5	100	8.1	1100	18.0	3.00
06...*	1057	.48	728	9.4	100	8.1	1100	18.0	4.00
06...*	1058	.56	728	9.4	99	8.1	1100	18.0	5.00
06...*	1059	.60	728	9.4	99	8.1	1060	18.0	6.00
06...*	1100	.60	728	9.4	99	8.1	1100	18.0	7.00
06...*	1101	.53	728	9.3	98	8.1	1110	18.0	8.00
06...*	1102	.39	728	9.3	98	8.0	1110	18.0	9.00
06...*	1103	.33	728	9.2	97	8.0	1110	18.0	10.0
06...*	1104	.27	728	9.1	96	8.0	1110	18.0	11.0
06...*	1105	.34	728	9.0	95	7.9	1120	18.0	12.0

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

\* Instantaneous discharge at the time of cross-sectional measurement: Mar. 02, 15.0 ft<sup>3</sup>/s; Apr. 06, 3.0 ft<sup>3</sup>/s.

## 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 mi<sup>2</sup>.

PERIOD OF RECORD.—November 1952 to current year. Prior to October 1985, only monthend elevations, contents, and total diversions published. November 1952 to October 1960, published as "Cachuma Reservoir near Santa Ynez."

CHEMICAL DATA: Water Year 1998.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (U.S. Bureau of Reclamation benchmark). Prior to Oct. 1, 1965, nonrecording gage.

REMARKS.—Reservoir is formed by earthfill dam. Storage began November 1952. Dead storage below outlet gage to river, elevation, 600 ft, 97 acre-ft, included in contents. Capacity below sill of inlet to Tecolote Tunnel, elevation, 660 ft, 26,109 acre-ft; below spillway level, elevation, 720 ft, 112,215 acre-ft; and below top of four radial gates, elevation, 750 ft, 188,030 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, Goleta Water District, Carpinteria Valley Water District, and Montecito Water District. Records, including extremes, represent total contents at 0800 hours. See schematic diagram of [Santa Ynez River Basin](#).

COOPERATION.—Reservoir elevation, contents, and diversion figures provided by U.S. Bureau of Reclamation. Contents not rounded to U.S. Geological Survey standards.

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, 27,681 acre-ft, Feb. 27, 1991, elevation, 661.06 ft.

EXTREMES (AT 0800) FOR CURRENT YEAR.—Maximum contents, 115,342 acre-ft, Oct. 1, elevation, 721.47 ft; minimum, 71,378 acre-ft, Sept. 30, elevation, 697.72 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on surveys by U.S. Bureau of Reclamation)

680	46,647	710	92,452	730	134,559	750	188,030
690	59,806	720	112,215	740	159,637	760	220,052
700	75,020						

## RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115342	111650	109255	106996	104849	105252	103347	100169	96449	93458	84624	77228
2	115235	111545	109172	106935	104768	105272	103208	100051	96334	93365	84344	76995
3	115128	111462	109090	106874	104748	105272	103108	99935	96200	93272	84045	76761
4	114999	111357	108986	106813	104647	105252	102989	99799	96087	93197	83765	76530
5	114870	111273	108883	106772	104567	105252	102910	99683	95974	93123	83467	76316
6	114763	111210	108780	106690	104486	105211	102790	99566	95861	93030	83190	76103
7	114656	111148	108697	106649	104345	105211	102671	99450	95748	92955	82895	75890
8	114549	111106	108573	106629	104265	105211	102572	99334	95635	92880	82601	75693
9	114420	111106	108511	106568	104265	105151	102432	99198	95521	92806	82358	75496
10	114313	111064	108367	106405	104204	105091	102333	99082	95427	92713	82150	75299
11	114186	111001	108284	106323	104204	105050	102234	98926	95295	92620	81907	75102
12	114059	110917	108181	106282	104164	104990	102154	98810	95163	92527	81683	74907
13	113931	110917	108098	106262	104104	104929	102035	98655	95069	92139	81460	74697
14	113783	110855	107996	106221	103963	104849	101936	98519	94937	91734	81203	74504
15	113635	110771	107894	106201	103864	104829	101858	98383	94862	91347	80963	74326
16	113508	110708	107771	106139	103745	104788	101760	98228	94786	90942	80706	74132
17	113380	110603	107731	106017	103685	104748	101681	98131	94673	90520	80466	73922
18	113296	110499	107629	105936	103546	104668	101563	97997	94598	90101	80227	73697
19	113169	110436	107486	105856	103526	104587	101504	97863	94485	89701	79970	73471
20	113063	110331	107425	105715	103446	104527	101406	97749	94390	89301	79716	73231
21	112957	110248	107384	105594	103407	104446	101328	97596	94334	88918	79496	73009
22	112830	110122	107302	105473	103426	104366	101229	97443	94259	88846	79293	72818
23	112702	110019	107445	105352	103486	104305	101131	97347	94185	88055	79090	72596
24	112596	109916	107261	105292	103446	104184	101033	97232	94110	87642	78887	72405
25	112469	109812	107221	105171	103426	104084	100935	97137	94017	87246	78684	72214
26	112363	109730	107323	105131	104809	104003	100837	97041	93924	86835	78464	72039
27	112215	109606	107282	105111	105232	103864	100719	96946	93812	86445	78262	71849
28	112068	109482	107221	105111	105232	103784	100601	96869	93719	86019	78062	71691
29	111943	109420	107139	105091	105252	103705	100424	96754	93644	85646	77879	71535
30	111796	109337	107078	105050	---	103566	100287	96659	93551	85238	77645	71378
31	111671	---	107037	104950	---	103446	---	96563	---	84904	77445	---
MAX	115342	111650	109255	106996	105252	105272	103347	100169	96449	93458	84624	77228
MIN	111671	109337	107037	104950	103407	103446	100287	96563	93551	84904	77445	71378
a	719.74	718.62	717.50	716.47	716.62	715.72	714.12	712.19	710.59	705.82	701.47	697.72
b	-3778	-2334	-2300	-2087	302	-1806	-3159	-3724	-3012	-8647	-7459	-6067
c	2812	1856	2264	1861	2087	1989	3217	3422	3047	3238	3273	3213

CAL YR 2003 b -17884

WTR YR 2004 b -44071

- a Elevation, in feet, at end of month.
- b Change in contents, in acre-feet.
- c Diversion, in acre-feet, to Tecolote Tunnel.

## 11125600 HILTON CANYON CREEK NEAR SANTA YNEZ, CA

LOCATION.—Lat 34°34'56", long 119°58'54", unsurveyed, in Lomas de La Purificacion Land Grant, Santa Barbara County, Hydrologic Unit 18060010, on right bank, 0.2 mi downstream from Highway 154, 0.4 mi from Cachuma (Bradbury) Dam, 0.6 mi south from Cachuma Village, 6.0 mi south from Santa Ynez, and 19.4 mi northeast of Santa Barbara.

DRAINAGE AREA.—2.42 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—March 2002 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 740 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor.

EXTREMES FOR PERIOD OF RECORD.— Maximum discharge, 36 ft<sup>3</sup>/s, Mar. 15, 2003, gage height, 2.94 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.— Maximum discharge, 33 ft<sup>3</sup>/s, Feb. 25, gage height, 2.81 ft; no flow for many days.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.8	1.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2.0	1.8	1.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2.0	1.8	1.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1.9	1.8	1.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	2.0	1.8	1.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	2.0	1.8	1.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	1.8	1.8	2.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	1.8	1.8	2.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	1.7	1.8	2.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	1.7	1.8	2.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	1.7	1.8	2.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	1.7	1.8	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	1.7	1.8	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	1.7	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	1.7	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	1.7	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	1.7	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	1.7	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	1.7	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	1.7	1.9	2.2	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	1.8	1.9	2.2	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	1.8	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	1.9	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	1.8	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	1.9	1.8	2.2	0.00	6.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	2.0	1.8	2.2	0.25	3.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	1.9	1.8	2.2	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	1.8	1.8	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	1.8	1.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	1.8	1.9	2.2	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	1.8	---	0.62	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	56.2	55.3	64.22	1.65	9.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	1.81	1.84	2.07	0.05	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX	2.0	1.9	2.2	0.59	6.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MIN	1.7	1.8	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	111	110	127	3.3	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	1.32	2.25	2.58	1.41	1.43	1.07	0.67	2.07	1.07	1.20	1.11	0.91
MAX	1.81	2.65	3.08	2.77	2.56	2.15	2.00	3.34	2.67	3.14	2.88	2.15
(WY)	2004	2003	2003	2003	2003	2003	2003	2002	2003	2003	2003	2003
MIN	0.83	1.84	2.07	0.05	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	2003	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 2002 - 2004

ANNUAL TOTAL	880.22	187.24	
ANNUAL MEAN	2.41	0.51	1.49
HIGHEST ANNUAL MEAN			2.48
LOWEST ANNUAL MEAN			0.51
HIGHEST DAILY MEAN	10	Mar 15	6.4
LOWEST DAILY MEAN	0.62	Dec 31	0.00
ANNUAL SEVEN-DAY MINIMUM	1.7	Apr 25	0.00
MAXIMUM PEAK FLOW			33
MAXIMUM PEAK STAGE			2.81
ANNUAL RUNOFF (AC-FT)	1750	371	1080
10 PERCENT EXCEEDS	3.1	1.9	3.0
50 PERCENT EXCEEDS	2.3	0.00	1.8
90 PERCENT EXCEEDS	1.7	0.00	0.00

## 11125600 HILTON CANYON CREEK NEAR SANTA YNEZ, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.—July 2002 to current year.

SPECIFIC CONDUCTANCE: July 2002 to current year.

WATER TEMPERATURE: July 2002 to current year.

INSTRUMENTATION.—Water quality monitor since July 2002.

REMARKS.—Water-temperature and specific conductance records are rated excellent. Interruption in record from Jan. 1-19, 22-25, Jan. 28 to Feb. 24, Feb. 28 to Sep. 30, due to no-flow conditions. Data for no-flow periods from Jan. 1 to Mar. 31, 2004, which were collected in a stagnant pool, are available in the files of U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum recorded, 952 microsiemens, Jan. 26, 2004; minimum recorded, 128 microsiemens, Mar. 15, 2002.

WATER TEMPERATURE: Maximum recorded, 23.0° C, Aug. 9, 2002; minimum recorded, 9.0° C, Dec. 20, 2002.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum recorded, 952 microsiemens, Jan. 26; minimum recorded, 213 microsiemens, Feb. 25.

WATER TEMPERATURE: Maximum recorded, 17.0° C, Nov. 8, 9, 13; minimum recorded, 9.5° C, Feb. 26.

## SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS

## WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	840	831	830	827	855	853	---	---	---	---	---	---
2	838	824	830	825	855	853	---	---	---	---	---	---
3	839	835	828	825	856	854	---	---	---	---	---	---
4	839	836	834	825	861	854	---	---	---	---	---	---
5	839	836	833	830	860	857	---	---	---	---	---	---
6	839	836	833	831	860	858	---	---	---	---	---	---
7	839	835	834	831	860	857	---	---	---	---	---	---
8	837	835	851	831	861	858	---	---	---	---	---	---
9	838	832	852	832	859	857	---	---	---	---	---	---
10	835	832	842	832	860	857	---	---	---	---	---	---
11	834	831	842	833	860	857	---	---	---	---	---	---
12	834	832	849	836	860	858	---	---	---	---	---	---
13	834	830	854	845	860	858	---	---	---	---	---	---
14	834	831	852	835	860	857	---	---	---	---	---	---
15	834	831	853	836	860	858	---	---	---	---	---	---
16	834	830	853	841	861	857	---	---	---	---	---	---
17	833	830	853	846	860	858	---	---	---	---	---	---
18	833	830	853	850	860	858	---	---	---	---	---	---
19	832	829	853	851	860	858	---	---	---	---	---	---
20	832	829	852	850	860	849	946	867	---	---	---	---
21	832	829	852	850	861	858	918	867	---	---	---	---
22	831	828	851	848	860	857	---	---	---	---	---	---
23	831	828	853	850	860	855	---	---	---	---	---	---
24	831	827	851	850	860	857	---	---	---	---	---	---
25	830	828	852	850	861	852	---	---	441	213	---	---
26	830	827	853	850	861	858	952	873	655	287	---	---
27	830	827	854	850	862	859	908	874	895	655	---	---
28	830	826	854	851	861	858	---	---	---	---	---	---
29	829	827	855	852	860	858	---	---	---	---	---	---
30	829	826	855	852	860	855	---	---	---	---	---	---
31	829	825	---	---	891	832	---	---	---	---	---	---
MONTH	840	824	855	825	891	832	---	---	---	---	---	---



## 11125600 HILTON CANYON CREEK NEAR SANTA YNEZ, CA—Continued

## TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	16.0	16.0	15.5	15.0	14.5	---	---	---	---	---	---
2	16.0	16.0	16.0	15.5	14.5	14.5	---	---	---	---	---	---
3	16.0	16.0	16.0	15.5	14.5	14.5	---	---	---	---	---	---
4	16.0	16.0	16.0	15.5	14.5	14.0	---	---	---	---	---	---
5	16.0	16.0	16.0	16.0	14.5	14.0	---	---	---	---	---	---
6	16.0	16.0	16.5	16.0	14.5	14.5	---	---	---	---	---	---
7	16.0	16.0	16.5	16.0	14.5	14.0	---	---	---	---	---	---
8	16.0	16.0	17.0	16.0	14.0	14.0	---	---	---	---	---	---
9	16.0	16.0	17.0	16.0	14.0	14.0	---	---	---	---	---	---
10	16.0	15.5	16.5	16.0	14.0	14.0	---	---	---	---	---	---
11	16.0	15.5	16.5	16.0	14.0	14.0	---	---	---	---	---	---
12	16.0	16.0	16.5	16.0	14.0	13.5	---	---	---	---	---	---
13	16.0	16.0	17.0	16.5	14.0	13.5	---	---	---	---	---	---
14	16.0	16.0	16.5	16.0	14.0	13.5	---	---	---	---	---	---
15	16.0	16.0	16.5	16.0	13.5	13.5	---	---	---	---	---	---
16	16.0	16.0	16.5	16.0	13.5	13.0	---	---	---	---	---	---
17	16.0	15.5	16.5	16.0	13.5	13.0	---	---	---	---	---	---
18	16.0	16.0	16.5	16.0	13.5	13.0	---	---	---	---	---	---
19	16.5	16.0	16.5	16.0	13.5	13.0	---	---	---	---	---	---
20	16.0	16.0	16.0	16.0	13.5	13.0	12.5	11.0	---	---	---	---
21	16.5	16.0	16.0	16.0	13.0	13.0	12.0	11.0	---	---	---	---
22	16.0	16.0	16.0	15.5	13.0	13.0	---	---	---	---	---	---
23	16.0	16.0	15.5	15.5	13.0	13.0	---	---	---	---	---	---
24	16.0	16.0	15.5	15.5	13.0	13.0	---	---	---	---	---	---
25	16.0	16.0	15.5	15.0	13.0	13.0	---	---	10.5	10.5	---	---
26	16.0	16.0	15.0	15.0	13.0	12.5	12.5	11.0	11.0	9.5	---	---
27	16.0	16.0	15.0	15.0	12.5	12.5	11.5	11.0	12.0	10.0	---	---
28	16.0	16.0	15.0	15.0	12.5	12.0	---	---	---	---	---	---
29	16.0	16.0	15.0	14.5	12.5	12.0	---	---	---	---	---	---
30	16.0	16.0	15.0	14.5	12.5	12.0	---	---	---	---	---	---
31	16.0	16.0	---	---	13.0	12.0	---	---	---	---	---	---
MONTH	16.5	15.5	17.0	14.5	15.0	12.0	---	---	---	---	---	---

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, unfltrd field, std units (00400)	Specific conductance, uS/cm 25 degC (00095)	Temperature, deg C (00010)	Location in X-sect. looking dwnstrm 1 bank (00009)
OCT									
03...*	1553	1.32	740	9.2	96	7.9	829	16.0	.00
03...*	1555	1.39	740	9.2	97	7.9	828	16.5	.10
03...*	1557	1.34	740	9.2	96	7.9	828	16.0	.55
03...*	1600	1.50	740	9.2	96	7.9	828	16.0	1.00
03...*	1603	1.50	740	9.2	96	7.9	828	16.0	1.60
03...*	1606	1.60	740	9.2	96	7.9	829	16.0	2.20
03...*	1609	1.40	740	9.1	95	7.9	828	16.0	2.70
03...*	1611	1.20	740	9.2	96	7.9	828	16.0	3.20
03...*	1613	1.00	740	9.2	96	7.9	829	16.0	3.80
03...*	1615	.70	740	9.1	95	7.9	828	16.0	4.35
03...*	1617	.30	740	9.1	95	7.9	828	16.0	4.90
03...*	1618	.40	740	9.1	95	7.9	828	16.0	5.40

\* Instantaneous discharge at time of cross-sectional measurement: Oct. 3, 2.0 ft<sup>3</sup>/s.

## 11126000 SANTA YNEZ RIVER NEAR SANTA YNEZ, CA

LOCATION.—Lat 34°35'21", long 119°59'16", in Canada de los Pinos Grant, [Santa Barbara County](#), Hydrologic Unit 18060010, on right bank, 0.7 mi downstream from Bradbury Dam, and 5.5 mi southeast of Santa Ynez.

DRAINAGE AREA.—422 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—December 1928 to September 1931, October 1932 to September 1976, April 1994 to September 2001, October 2002 to current year (seasonal records only); October 2001 to September 2002 (daily).

GAGE.—Water-stage recorder. Elevation of gage is 545.66 ft above NGVD of 1929 (Bureau of Reclamation benchmark). Prior to Oct. 1, 1955, at site 2.5 mi downstream at different datum. Oct. 1, 1955, to Sept. 16, 1969, at site 0.4 mi downstream at datum 7.2 ft higher. Oct. 2, 2003, to present at site 265 ft downstream at datum 5 ft lower.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No records computed above 250 ft<sup>3</sup>/s. Flow regulated by Jameson Lake (station 11121000) since December 1930, Gibraltar Reservoir, and Lake Cachuma (stations 11122000 and 11125500) since November 1952. Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito and Santa Barbara, and to the Santa Ynez Valley for municipal supply. Some water pumped from wells along river banks for irrigation. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 79,000 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 22.00 ft, from floodmark, present datum, on basis of computation of maximum flow over dam; no flow at times in some years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.2	2.5	---	---	---	---	3.8	0.66	0.72	2.4	83	69
2	e1.8	2.4	---	---	---	---	1.9	0.66	0.79	0.78	84	69
3	3.4	4.1	---	---	---	---	1.3	0.65	0.80	0.87	84	69
4	3.6	2.7	---	---	---	---	1.0	0.61	0.81	0.91	84	70
5	3.7	3.2	---	---	---	---	0.71	0.60	0.84	0.89	84	64
6	3.5	2.7	---	---	---	---	0.74	0.59	0.83	0.91	84	59
7	3.4	2.8	---	---	---	---	3.2	0.59	0.87	0.94	84	53
8	3.3	2.8	---	---	---	---	2.0	0.54	0.88	0.90	75	48
9	4.4	2.8	---	---	---	---	1.1	0.55	0.92	3.3	67	47
10	2.8	2.6	---	---	---	---	1.3	0.53	0.93	0.70	64	46
11	6.1	4.2	---	---	---	---	1.2	0.57	1.4	0.84	65	50
12	6.3	3.5	---	---	---	---	1.2	0.59	0.94	72	65	55
13	5.8	3.3	---	---	---	---	1.2	0.59	1.0	136	67	55
14	3.6	3.2	---	---	---	---	0.95	0.58	0.97	134	72	55
15	3.3	3.0	---	---	---	---	0.97	0.60	0.97	135	70	56
16	3.0	2.6	---	---	---	---	0.91	0.59	0.96	137	69	62
17	2.6	4.2	---	---	---	---	0.86	0.56	0.96	137	68	67
18	1.9	3.4	---	---	---	---	0.78	0.51	0.95	136	68	67
19	e1.9	3.2	---	---	---	---	0.72	0.48	0.94	135	67	66
20	e1.9	2.8	---	---	---	---	0.68	0.45	0.93	135	60	66
21	e2.0	2.7	---	---	---	---	0.62	3.4	0.97	135	57	66
22	e2.2	2.5	---	---	---	---	0.62	1.3	0.96	136	58	60
23	e2.4	2.6	---	---	---	---	0.63	1.2	0.99	137	59	51
24	e2.4	2.4	---	---	---	---	0.63	1.1	0.98	137	60	47
25	2.4	2.0	---	---	---	---	0.63	1.0	0.97	137	62	46
26	2.2	1.9	---	---	---	---	0.64	0.89	1.0	137	63	46
27	5.1	1.8	---	---	---	---	0.69	0.78	0.98	137	64	45
28	3.8	1.7	---	---	---	---	0.72	0.72	0.95	137	64	43
29	3.0	1.5	---	---	---	---	0.72	0.69	0.92	137	64	42
30	2.0	1.5	---	---	---	---	0.72	0.70	0.91	125	67	41
31	2.6	---	---	---	---	---	---	0.71	---	97	69	---
TOTAL	98.6	82.6	---	---	---	---	33.14	23.99	28.04	2622.44	2151	1680
MEAN	3.18	2.75	---	---	---	---	1.10	0.77	0.93	84.6	69.4	56.0
MAX	6.3	4.2	---	---	---	---	3.8	3.4	1.4	137	84	70
MIN	1.8	1.5	---	---	---	---	0.62	0.45	0.72	0.70	57	41
AC-FT	196	164	---	---	---	---	66	48	56	5200	4270	3330

e Estimated.

## 11126000 SANTA YNEZ RIVER NEAR SANTA YNEZ, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.— October 1991 to current year.

CHEMICAL DATA: October 1991 to current year.

SPECIFIC CONDUCTANCE: July 1994 to November 1994, October 1995 to current year.

WATER TEMPERATURE: July 1994 to current year.

PERIOD OF DAILY RECORD.—July 1994 to current year.

SPECIFIC CONDUCTANCE: July 1994 to November 1994, October 1995 to current year.

WATER TEMPERATURE: July 1994 to current year.

INSTRUMENTATION.—Water-quality monitor since July 1994.

REMARKS.—The water temperature record is rated excellent Oct. 3 to Nov. 30, and Apr. 1 to June 25; rated good Oct. 2, June 26 to July 5, and July 25 to Aug. 11; and rated fair July 6–24, and Aug. 12 to Sept. 30. The specific conductance record is rated excellent except for June 25 to July 8, which is rated good. Interruptions in record due to installation of new probe and power failure.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum recorded, 1,020 microsiemens, Aug. 31, 1999, several days in September 1999, June 8, 9, 2000; minimum recorded, 194 microsiemens, Dec. 6, 1997.

WATER TEMPERATURE: Maximum recorded, 23.0°C, May 28, June 2, 3, 28, July 12, 2003; minimum recorded, 9.0°C, Nov. 15, 1994, Jan. 6, 1998, Jan. 31, Feb. 1, 2002.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum recorded, 899 microsiemens, July 12; minimum recorded, 713 microsiemens, Sept. 11.

WATER TEMPERATURE: Maximum recorded, 21.5°C, June 29; minimum recorded, 11.5°C, Nov. 23, 24.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf 25 degC (00095)	Temperature, water, deg C (00010)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)
OCT									
02...	1817	3.5	--	--	--	8.2	842	18.0	--
NOV									
04...	1719	2.7	--	--	--	8.6	842	14.5	--
DEC									
04...	1355	2.2	--	--	--	8.4	856	15.5	--
JAN									
09...	1320	2.0	--	--	--	8.1	838	13.0	--
FEB									
03...	1320	1.1	--	--	--	8.2	852	12.5	--
MAR									
05...	1318	1.2	--	--	--	8.1	887	15.0	--
APR									
05...	1455	.82	744	9.1	95	8.2	873	17.0	210
MAY									
21...	1145	.43	--	--	--	8.4	887	18.5	--
JUN									
11...	1155	.95	--	--	--	7.7	883	19.5	--
JUL									
08...	1345	.91	--	--	--	7.8	889	21.0	--
AUG									
04...	1237	84	--	--	--	8.2	798	17.0	--
SEP									
09...	1122	48	739	11.0	121	8.1	755	18.5	--



## 11126000 SANTA YNEZ RIVER NEAR SANTA YNEZ, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Residue	Nitrite		Ortho-	Boron,	Iron,	Mangan-	
	on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)				phos- phate, water, fltrd, mg/L as P (00671)
OCT								
02...	601	--	--	--	--	--	--	--
NOV								
04...	607	--	--	--	--	--	--	--
DEC								
04...	586	--	--	--	--	--	--	--
JAN								
09...	612	--	--	--	--	--	--	--
FEB								
03...	612	--	--	--	--	--	--	--
MAR								
05...	619	--	--	--	--	--	--	--
APR								
05...	615	<.04	<.06	<.008	.03	293	e6	22.1
MAY								
21...	624	--	--	--	--	--	--	--
JUN								
11...	625	--	--	--	--	--	--	--
JUL								
08...	633	--	--	--	--	--	--	--
AUG								
04...	539	--	--	--	--	--	--	--
SEP								
09...	493	--	--	--	--	--	--	--

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

## 11126000 SANTA YNEZ RIVER NEAR SANTA YNEZ, CA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	851	848	---	---	---	---	---	---	---	---
2	---	---	853	850	---	---	---	---	---	---	---	---
3	855	846	854	851	---	---	---	---	---	---	---	---
4	850	842	853	836	---	---	---	---	---	---	---	---
5	845	838	841	837	---	---	---	---	---	---	---	---
6	842	838	841	839	---	---	---	---	---	---	---	---
7	841	838	842	840	---	---	---	---	---	---	---	---
8	840	835	843	841	---	---	---	---	---	---	---	---
9	839	837	844	841	---	---	---	---	---	---	---	---
10	842	838	844	841	---	---	---	---	---	---	---	---
11	856	838	845	842	---	---	---	---	---	---	---	---
12	852	843	846	844	---	---	---	---	---	---	---	---
13	849	838	846	842	---	---	---	---	---	---	---	---
14	845	837	847	845	---	---	---	---	---	---	---	---
15	843	835	847	845	---	---	---	---	---	---	---	---
16	840	829	848	845	---	---	---	---	---	---	---	---
17	837	829	847	845	---	---	---	---	---	---	---	---
18	836	831	848	845	---	---	---	---	---	---	---	---
19	839	832	849	847	---	---	---	---	---	---	---	---
20	842	836	850	848	---	---	---	---	---	---	---	---
21	846	839	852	847	---	---	---	---	---	---	---	---
22	845	835	852	849	---	---	---	---	---	---	---	---
23	843	835	854	851	---	---	---	---	---	---	---	---
24	840	832	856	853	---	---	---	---	---	---	---	---
25	840	829	859	855	---	---	---	---	---	---	---	---
26	838	831	860	857	---	---	---	---	---	---	---	---
27	839	836	860	858	---	---	---	---	---	---	---	---
28	843	838	862	859	---	---	---	---	---	---	---	---
29	844	841	866	861	---	---	---	---	---	---	---	---
30	846	842	867	865	---	---	---	---	---	---	---	---
31	848	845	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	867	836	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	887	876	883	873	883	871	882	867	790	774	748	740
2	894	887	---	---	886	875	881	868	783	771	748	740
3	893	886	---	---	884	870	880	870	791	774	747	735
4	889	880	---	---	885	871	879	861	804	791	749	741
5	885	877	---	---	884	869	880	861	805	795	750	739
6	881	875	---	---	884	876	878	865	806	790	743	730
7	883	874	---	---	885	877	880	867	794	781	740	728
8	887	883	---	---	886	874	880	859	794	776	747	735
9	889	881	---	---	886	878	878	863	782	761	752	738
10	885	876	---	---	887	877	882	861	768	748	740	716
11	883	873	---	---	887	875	883	856	758	744	726	713
12	880	871	---	---	887	875	899	847	753	737	737	726
13	880	874	---	---	887	873	847	832	751	739	741	733
14	879	874	---	---	886	875	838	834	761	749	744	734
15	880	873	---	---	886	869	836	831	764	755	746	737
16	880	874	---	---	886	871	844	831	766	755	755	743
17	880	874	---	---	887	867	849	839	767	759	766	755
18	881	876	---	---	887	868	840	828	767	759	771	764
19	881	875	882	873	887	874	831	825	766	758	775	770
20	882	875	882	873	889	873	830	824	767	755	777	770
21	882	874	883	874	889	874	831	824	764	750	778	771
22	882	873	887	880	892	875	831	822	756	746	780	768
23	881	875	885	876	891	875	830	816	754	740	772	754
24	883	874	885	872	890	876	821	805	748	739	758	739
25	882	872	884	879	892	866	815	802	747	739	747	732
26	884	868	884	876	880	869	813	802	748	739	741	728
27	882	868	882	872	880	869	812	802	748	741	739	727
28	884	871	885	874	881	867	810	801	748	740	745	728
29	884	873	884	875	881	864	812	800	748	740	741	730
30	884	873	884	871	882	870	812	796	750	741	742	734
31	---	---	883	871	---	---	802	784	747	740	---	---
MONTH	894	868	---	---	892	864	899	784	806	737	780	713

## 11126000 SANTA YNEZ RIVER NEAR SANTA YNEZ, CA—Continued

## TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	15.5	13.5	---	---	---	---	---	---	---	---
2	---	---	15.5	13.5	---	---	---	---	---	---	---	---
3	17.5	16.5	14.5	13.5	---	---	---	---	---	---	---	---
4	17.5	16.5	15.5	12.5	---	---	---	---	---	---	---	---
5	17.5	16.5	15.0	13.0	---	---	---	---	---	---	---	---
6	17.5	16.5	16.0	14.0	---	---	---	---	---	---	---	---
7	17.5	16.5	15.5	14.0	---	---	---	---	---	---	---	---
8	18.0	16.5	15.5	15.0	---	---	---	---	---	---	---	---
9	17.5	16.0	16.5	15.0	---	---	---	---	---	---	---	---
10	17.0	15.5	16.0	15.0	---	---	---	---	---	---	---	---
11	17.5	15.0	16.0	14.0	---	---	---	---	---	---	---	---
12	17.0	15.0	15.5	14.5	---	---	---	---	---	---	---	---
13	17.5	15.5	16.5	14.0	---	---	---	---	---	---	---	---
14	17.0	15.0	16.5	14.5	---	---	---	---	---	---	---	---
15	17.0	16.0	15.5	14.5	---	---	---	---	---	---	---	---
16	17.5	16.0	16.0	14.0	---	---	---	---	---	---	---	---
17	17.5	15.5	16.0	14.0	---	---	---	---	---	---	---	---
18	17.0	15.5	16.0	13.5	---	---	---	---	---	---	---	---
19	17.5	16.0	15.5	13.5	---	---	---	---	---	---	---	---
20	18.0	16.5	15.5	13.5	---	---	---	---	---	---	---	---
21	18.0	16.0	16.0	14.5	---	---	---	---	---	---	---	---
22	17.5	16.0	15.0	12.5	---	---	---	---	---	---	---	---
23	18.0	16.0	13.5	11.5	---	---	---	---	---	---	---	---
24	17.5	16.0	13.0	11.5	---	---	---	---	---	---	---	---
25	17.0	16.0	14.0	12.0	---	---	---	---	---	---	---	---
26	17.0	15.5	14.0	12.0	---	---	---	---	---	---	---	---
27	17.0	15.5	14.0	12.0	---	---	---	---	---	---	---	---
28	16.5	15.5	14.5	12.5	---	---	---	---	---	---	---	---
29	16.5	15.0	15.0	13.0	---	---	---	---	---	---	---	---
30	17.0	15.5	14.0	12.5	---	---	---	---	---	---	---	---
31	15.5	14.5	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	16.5	11.5	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	14.5	18.0	16.0	19.5	18.0	19.0	17.5	17.5	16.0	19.0	17.0
2	17.0	13.5	---	---	19.5	18.0	19.5	18.0	17.5	16.0	19.0	17.0
3	16.5	14.0	---	---	19.5	17.5	20.0	18.5	17.5	16.0	18.5	17.0
4	16.5	14.5	---	---	19.0	18.0	20.0	18.5	17.5	15.5	18.5	16.5
5	16.0	14.5	---	---	19.5	17.5	20.0	18.5	17.5	15.5	19.0	17.0
6	16.5	14.5	---	---	19.5	18.5	20.0	18.5	17.5	15.5	19.5	17.0
7	17.0	14.5	---	---	19.5	18.0	20.0	18.5	17.5	15.5	19.5	17.0
8	17.5	14.5	---	---	19.0	17.5	20.0	18.5	18.0	16.0	19.5	17.5
9	18.0	15.0	---	---	18.5	17.0	19.5	18.0	18.5	16.5	19.5	17.5
10	18.0	15.5	---	---	19.0	17.5	19.5	17.5	19.0	17.0	20.0	18.0
11	18.0	16.0	---	---	19.0	17.5	20.0	18.0	19.0	17.0	20.0	18.0
12	18.0	15.5	---	---	19.0	17.5	21.0	17.0	19.0	17.0	19.5	18.0
13	17.5	16.0	---	---	19.0	17.5	17.0	15.0	19.0	17.0	19.5	17.5
14	17.5	15.5	---	---	19.5	18.0	16.0	14.5	18.5	17.0	19.5	17.5
15	17.5	15.0	---	---	19.5	18.0	16.0	14.5	18.5	17.0	19.5	17.5
16	16.0	14.5	---	---	19.5	18.0	16.0	14.5	18.5	16.5	19.0	17.5
17	15.5	14.5	---	---	20.0	18.0	16.0	14.0	18.5	17.0	19.0	17.5
18	15.5	13.0	---	---	20.0	18.0	16.5	14.5	18.5	17.0	18.5	17.5
19	16.0	13.5	18.5	16.5	19.5	18.0	16.5	15.0	18.5	17.0	18.0	16.5
20	16.5	14.0	18.5	17.0	19.5	18.0	16.5	14.5	18.5	17.0	18.0	16.0
21	17.5	15.0	18.5	16.5	19.5	18.0	16.5	15.0	18.5	17.0	18.0	16.0
22	17.5	15.0	18.5	16.5	19.5	18.0	16.5	15.0	18.5	17.0	18.0	16.0
23	17.5	15.0	18.5	16.5	19.5	18.0	16.5	15.0	18.5	17.0	18.5	16.0
24	17.5	15.5	17.5	17.0	19.5	18.0	17.0	15.0	19.0	17.5	18.5	16.5
25	18.0	16.0	17.5	16.0	19.5	18.0	17.0	15.5	19.0	17.5	18.5	16.5
26	20.0	16.0	18.0	16.0	20.0	18.5	17.0	15.5	19.0	17.5	18.5	17.0
27	18.5	16.5	18.5	17.0	20.0	18.5	17.0	15.5	19.0	17.0	18.5	17.0
28	19.0	16.5	19.0	17.0	19.5	18.5	17.0	15.5	19.0	17.0	18.5	17.0
29	18.0	16.5	19.0	17.5	21.5	18.0	17.0	15.5	19.0	17.5	18.5	16.5
30	18.5	16.5	19.0	17.0	20.0	18.0	17.0	15.0	19.0	17.5	18.0	17.0
31	---	---	19.0	17.5	---	---	17.5	15.5	19.0	17.0	---	---
MONTH	20.0	13.0	---	---	21.5	17.0	21.0	14.0	19.0	15.5	20.0	16.0

## 11126000 SANTA YNEZ RIVER NEAR SANTA YNEZ, CA—Continued

## CROSS-SECTIONAL DATA AT CHANNEL, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd std units (00400)	Specific conductance, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking downstrm ft from l bank (00009)
DEC									
04...*	1354	.70	--	--	--	8.4	856	15.5	.40
04...*	1355	.73	--	--	--	8.4	855	15.5	1.90
04...*	1356	.84	--	--	--	8.4	857	15.5	3.40
04...*	1357	.90	--	--	--	8.4	857	15.5	4.90
04...*	1358	.82	--	--	--	8.4	857	15.5	6.40
04...*	1359	.75	--	--	--	8.4	857	15.5	7.90
04...*	1400	.78	--	--	--	8.4	857	15.5	9.40
04...*	1401	.79	--	--	--	8.4	857	15.5	10.9
04...*	1402	.56	--	--	--	8.4	856	15.5	12.4
04...*	1403	.40	--	--	--	8.3	859	15.5	14.4
MAR									
05...*	1315	.47	--	--	--	8.1	887	15.0	7.50
05...*	1316	.49	--	--	--	8.1	888	15.0	8.00
05...*	1317	.61	--	--	--	8.1	886	15.0	8.50
05...*	1318	.68	--	--	--	8.1	887	15.0	9.00
05...*	1319	.80	--	--	--	8.1	888	15.0	9.50
05...*	1320	.71	--	--	--	8.1	887	15.5	10.0
05...*	1321	.67	--	--	--	8.1	887	15.5	10.5
05...*	1322	.64	--	--	--	8.1	887	15.5	11.0
05...*	1323	.62	--	--	--	8.1	887	15.5	11.5
APR									
05...*	1507	.56	744	9.0	94	8.1	873	17.0	4.70
05...*	1508	.68	744	9.2	95	8.1	872	17.0	4.20
05...*	1509	.73	744	9.4	98	8.1	871	17.0	3.70
05...*	1510	.61	744	9.4	98	8.1	871	17.0	3.20
05...*	1511	.79	744	9.4	98	8.1	871	17.0	2.70
05...*	1512	.69	744	9.3	97	8.1	872	17.0	2.20
05...*	1513	.58	744	9.1	95	8.1	873	17.0	1.70
05...*	1514	.55	744	9.0	94	8.1	872	17.0	1.20
05...*	1515	.46	744	8.9	92	8.1	872	17.0	.70
05...*	1516	.52	744	8.7	90	8.1	872	17.0	.20
MAY									
21...*	1140	.42	--	--	--	8.4	888	18.5	.50
21...*	1141	.48	--	--	--	8.4	888	18.5	1.00
21...*	1142	.60	--	--	--	8.4	888	18.5	1.50
21...*	1143	.58	--	--	--	8.4	888	18.5	2.00
21...*	1144	.70	--	--	--	8.4	885	18.5	2.50
21...*	1145	.66	--	--	--	8.4	886	18.5	3.00
21...*	1146	.62	--	--	--	8.4	886	18.5	3.50
21...*	1147	.50	--	--	--	8.4	886	18.5	4.00
21...*	1148	.46	--	--	--	8.4	886	18.5	4.50
21...*	1149	.58	--	--	--	8.4	886	18.5	5.00
21...*	1150	.46	--	--	--	8.4	890	18.5	5.50
AUG									
04...*	1211	.45	--	--	--	8.2	797	17.0	1.00
04...*	1212	1.04	--	--	--	8.2	797	17.0	4.00
04...*	1213	1.75	--	--	--	8.2	798	17.0	7.00
04...*	1214	2.60	--	--	--	8.2	799	17.0	10.0
04...*	1215	3.20	--	--	--	8.2	797	17.0	13.0
04...*	1216	2.80	--	--	--	8.2	798	17.0	16.0
04...*	1217	2.50	--	--	--	8.2	799	16.5	19.0
04...*	1218	1.75	--	--	--	8.2	798	16.5	22.0
04...*	1219	1.16	--	--	--	8.2	798	16.5	25.0
04...*	1220	.87	--	--	--	8.2	799	16.5	28.0
04...*	1221	.75	--	--	--	8.2	798	16.5	30.0
SEP									
09...*	1111	.18	739	10.5	116	8.1	758	18.5	1.50
09...*	1112	.74	739	10.4	115	8.1	756	18.5	3.50
09...*	1113	1.18	739	10.9	120	8.1	756	18.5	5.50
09...*	1114	1.26	739	11.0	122	8.1	754	18.5	7.50
09...*	1115	1.46	739	11.1	122	8.1	755	18.5	9.50
09...*	1116	1.18	739	11.2	124	8.1	754	18.5	11.5
09...*	1117	1.06	739	11.5	127	8.1	756	18.5	13.5
09...*	1118	1.04	739	11.4	126	8.2	756	18.5	15.5
09...*	1119	1.06	739	11.4	125	8.2	755	18.5	17.5
09...*	1120	.94	739	11.3	125	8.1	756	18.5	19.5
09...*	1121	.52	739	10.8	119	8.1	756	18.5	21.5

\* Instantaneous discharge at time of cross-sectional measurement: Dec. 4, 2.2 ft<sup>3</sup>/s; Mar. 5, 1.2 ft<sup>3</sup>/s; Apr. 5, 0.82 ft<sup>3</sup>/s; May 21, .43 ft<sup>3</sup>/s; Aug. 4, 84 ft<sup>3</sup>/s; Sep. 9, 48 ft<sup>3</sup>/s.



## 11126000 SANTA YNEZ RIVER NEAR SANTA YNEZ, CA—Continued

## CROSS-SECTIONAL DATA AT LONG POOL, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample locati- on, feet (81903)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, deg C (00010)	Loca- tion in X-sect. looking dwnstrm ft from l bank (00009)
JAN									
29...*	1330	.95	752	10.7	102	8.1	870	12.5	12.0
29...*	1332	.80	752	10.8	104	8.1	869	12.5	24.0
29...*	1334	1.00	752	10.7	102	8.1	869	12.5	36.0
29...*	1336	1.40	752	10.4	99	8.1	869	12.5	48.0
29...*	1338	1.45	752	10.3	98	8.1	871	12.5	60.0
29...*	1340	1.70	752	10.4	99	8.1	869	12.5	72.0
29...*	1342	1.35	752	10.5	101	8.1	871	13.0	84.0
29...*	1344	1.70	752	10.5	101	8.1	871	13.0	96.0
29...*	1346	2.35	752	10.4	100	8.1	871	13.0	108
29...*	1348	2.90	752	10.4	100	8.1	869	13.0	120
29...*	1350	2.30	752	10.3	99	8.1	871	13.0	130
29...*	1352	.30	752	9.8	96	8.1	872	13.5	140
SEP									
09...*	1205	1.54	739	11.2	125	8.2	754	19.0	10.0
09...*	1206	1.60	739	11.4	127	8.2	753	19.0	20.0
09...*	1207	1.58	739	11.7	129	8.2	754	18.5	30.0
09...*	1208	1.68	739	11.3	125	8.2	755	18.5	40.0
09...*	1209	2.08	739	11.2	124	8.2	755	18.5	50.0
09...*	1210	2.38	739	11.3	125	8.2	755	18.5	60.0
09...*	1211	2.34	739	11.3	125	8.2	756	18.5	70.0
09...*	1212	2.52	739	11.3	125	8.2	756	18.5	80.0
09...*	1213	2.14	739	11.6	128	8.2	755	18.5	90.0
09...*	1214	2.64	739	12.1	133	8.2	754	18.5	100
09...*	1215	3.24	739	12.1	135	8.3	754	19.0	110
09...*	1216	3.50	739	12.9	143	8.3	752	18.5	120
09...*	1217	3.40	739	11.7	129	8.2	754	18.5	130
09...*	1218	2.66	739	10.8	119	8.1	755	18.5	135

\* Instantaneous discharge at time of cross-sectional measurement: Jan. 29, 1.8 ft<sup>3</sup>/s; Sep. 9, 47 ft<sup>3</sup>/s.

## 11126400 SANTA YNEZ RIVER AT HIGHWAY 154, NEAR SANTA YNEZ, CA

LOCATION.—Lat 34°35'21", long 120°01'45", in Canada de Los Pino Grant, T.6 N., R.30 W., Santa Barbara County, Hydrologic Unit 18060010, on upstream side of Highway 154 bridge, 2.1 mi southeast of intersection of Highways 246 and 154, and 3 mi southeast of Santa Ynez.

DRAINAGE AREA.—430 mi<sup>2</sup>.

PERIOD OF RECORD.—June 2002 to current year.

WATER-DISCHARGE RECORDS: Water year 2002 (partial-record station)

DISSOLVED OXYGEN: Water year 2002 to current year.

SPECIFIC CONDUCTANCE: Water year 2002 to current year.

WATER TEMPERATURE: Water year 2002 to current year.

PERIOD OF DAILY RECORD.—June 2002 to current year.

DISSOLVED OXYGEN: June 2002 to current year.

SPECIFIC CONDUCTANCE: June 2002 to current year.

WATER TEMPERATURE: June 2002 to current year.

INSTRUMENTATION: Water-quality monitor since June 2002.

REMARKS.—Dissolved-oxygen records are rated excellent except for Oct. 2, 23–25, Nov. 29 to Dec. 2, Dec. 10–13, Feb. 2–6, Mar. 11–14, May 4 to May 19, July 20–25, which are rated good; Oct. 3, Dec. 14–18, Mar. 15–18, July 26–29, which are rated fair, and July 30 to Sept. 11, which are rated poor. Record was removed from Sept. 12–30 due to exceeding maximum allowable limits. Specific-conductance records are rated excellent except Apr. 23 to May 3, May 5–16, which are rated good; and May 4, May 17–19, which are rated fair. Water-temperature records are rated excellent except May 4–19, which are rated good. Interruptions in record due to gage repair, instrument malfunction, and periods of no flow. Data collected in stagnant pool during no-flow period May 20 to June 3 are available in the files of U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 13.9 mg/L, July 29, Aug 6, 2004; minimum recorded, 0.1 mg/L, many days in 2003.

SPECIFIC CONDUCTANCE: Maximum recorded, 1,010 microsiemens, Oct. 12, 2003; minimum recorded, 736 microsiemens, Aug. 26, 2004.

WATER TEMPERATURE: Maximum recorded, 22.5° C, May 28, 2003; minimum recorded, 10.0° C, Feb. 12, 2004.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 13.9 mg/L, July 29, Aug. 6; minimum recorded, 1.1 mg/L, Oct. 2.

SPECIFIC CONDUCTANCE: Maximum recorded, 1,010 microsiemens, Oct. 12; minimum recorded, 736 microsiemens, Aug. 26.

WATER TEMPERATURE: Maximum recorded, 22.0° C, several days in October, August, and September; minimum recorded, 10.0° C, Feb. 12.

## DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2.1	1.2	7.2	4.1	6.9	4.8	9.5	6.4	8.9	6.8	9.4	6.5
2	2.2	1.1	7.3	4.9	---	5.0	9.0	6.2	8.1	6.6	9.8	6.4
3	2.7	1.2	7.1	4.7	8.0	5.2	9.5	6.5	8.3	6.5	10.0	6.3
4	2.6	1.9	7.7	5.1	7.7	5.5	10.0	7.2	8.3	6.7	9.7	6.4
5	2.7	1.8	7.5	5.0	8.0	5.1	10.1	7.1	8.4	6.5	10.4	6.7
6	2.9	1.9	7.6	4.9	7.2	4.8	10.0	6.6	8.4	7.0	10.0	6.8
7	2.9	1.6	7.4	4.7	7.1	4.5	10.3	6.7	8.4	6.7	10.0	6.8
8	3.9	1.8	6.0	3.9	7.7	5.4	10.2	7.2	8.4	6.6	9.8	6.3
9	4.6	2.5	6.4	4.0	7.5	5.7	10.2	7.0	8.5	6.5	9.4	6.0
10	6.1	3.3	6.4	4.5	7.8	5.4	9.7	6.9	8.5	6.2	9.1	6.0
11	6.3	5.2	7.4	4.4	8.4	5.5	9.4	6.2	8.5	6.2	9.1	6.0
12	6.3	4.1	6.6	4.2	9.0	6.3	10.1	6.4	8.4	6.6	9.2	5.9
13	6.7	4.1	6.5	4.0	8.5	6.2	9.4	6.3	8.5	6.7	9.0	5.8
14	6.8	4.3	7.2	4.2	8.2	6.2	9.2	6.2	8.6	6.9	9.0	5.7
15	7.1	4.7	7.5	4.3	9.0	6.7	9.2	5.9	9.8	7.4	8.7	5.5
16	7.1	4.6	6.9	4.4	9.0	6.9	10.1	6.0	9.7	7.5	8.8	5.3
17	7.3	3.8	7.1	4.7	9.3	7.0	9.2	6.0	9.7	7.4	8.3	5.1
18	7.8	3.9	7.2	4.6	8.8	6.5	9.1	5.8	9.6	7.5	7.7	4.4
19	7.8	4.2	7.3	4.8	8.8	6.0	8.7	6.0	9.7	7.1	7.6	4.6
20	7.5	4.7	6.9	4.6	8.6	5.8	9.2	6.5	9.4	7.1	7.6	4.4
21	7.8	5.2	7.3	4.5	8.5	5.6	9.4	7.0	9.2	7.2	7.4	4.2
22	7.9	4.6	7.0	5.0	9.0	5.6	9.5	7.1	9.1	6.7	7.0	3.4
23	8.1	4.4	7.8	5.6	7.9	5.6	9.6	6.6	8.8	6.6	5.9	3.7
24	7.8	4.1	8.0	5.2	8.0	5.7	8.4	6.2	9.4	6.5	6.0	3.8
25	7.8	3.2	7.6	5.5	7.5	5.6	8.3	6.2	10.3	6.5	6.3	3.7
26	7.8	3.8	7.5	5.7	8.9	6.3	8.5	6.5	10.1	7.5	5.7	3.4
27	7.3	3.5	7.9	5.5	9.5	6.5	8.1	5.7	9.5	7.4	6.4	3.9
28	7.0	3.6	7.7	5.2	9.2	7.0	7.6	5.8	9.9	7.3	5.6	3.6
29	7.7	4.5	7.6	5.1	9.8	6.8	8.0	6.3	10.4	6.9	5.8	3.4
30	7.3	4.2	7.7	4.9	9.2	6.8	8.5	6.6	---	---	5.9	3.6
31	6.3	3.7	---	---	9.7	6.7	8.2	6.8	---	---	6.2	3.6
MONTH	8.1	1.1	8.0	3.9	---	4.5	10.3	5.7	10.4	6.2	10.4	3.4



## 11126400 SANTA YNEZ RIVER AT HIGHWAY 154, NEAR SANTA YNEZ, CA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS

WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	946	942	968	960	942	934	931	924	943	936	909	889
2	947	943	967	962	941	933	929	917	941	885	917	905
3	949	944	968	959	941	935	930	923	937	928	921	910
4	948	945	965	959	941	934	930	923	937	931	924	911
5	949	945	964	955	939	932	931	922	938	931	919	909
6	949	946	961	956	937	931	929	924	939	930	921	911
7	950	948	961	954	936	931	929	922	939	931	921	911
8	957	949	958	917	937	930	939	925	939	932	923	911
9	967	957	958	950	938	932	938	929	939	932	924	912
10	998	967	956	951	935	921	940	931	938	931	925	913
11	999	980	958	952	934	927	938	931	938	931	925	915
12	1010	973	957	913	933	926	941	931	937	931	925	915
13	987	974	955	949	933	925	939	933	936	931	926	915
14	982	972	955	950	930	903	942	933	935	928	927	914
15	979	970	954	950	931	923	941	933	935	925	926	913
16	976	967	955	950	930	921	942	934	933	925	926	912
17	976	964	964	948	930	922	942	934	932	924	927	914
18	975	966	964	957	930	919	943	935	931	896	927	912
19	974	965	961	954	929	922	941	934	929	918	922	910
20	972	965	959	952	928	922	944	937	930	923	921	905
21	967	961	957	952	929	919	944	936	933	927	919	906
22	965	959	957	952	928	921	946	939	933	855	917	899
23	964	958	957	949	928	894	947	939	930	921	916	904
24	964	957	954	946	926	915	947	940	932	924	917	909
25	973	960	951	946	926	882	947	941	933	831	914	903
26	973	966	952	944	929	922	947	940	864	814	912	905
27	972	962	949	941	930	924	947	939	864	820	914	900
28	971	965	946	940	933	924	943	937	888	862	910	892
29	968	960	946	938	932	925	944	938	904	888	899	883
30	967	961	943	937	932	923	943	937	---	---	896	887
31	968	921	---	---	932	923	943	937	---	---	897	880
MONTH	1010	921	968	913	942	882	947	917	943	814	927	880
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	919	873	961	945	---	---	---	---	821	785	783	764
2	919	874	963	936	---	---	---	---	812	778	782	763
3	909	902	966	935	---	---	---	---	808	777	782	764
4	913	898	977	927	---	---	---	---	819	791	783	764
5	917	907	974	966	---	---	---	---	833	799	783	765
6	919	908	972	954	---	---	---	---	838	805	782	757
7	919	912	971	963	---	---	---	---	829	793	776	758
8	920	912	971	957	---	---	---	---	824	793	783	763
9	921	910	968	952	---	---	---	---	819	785	787	766
10	927	912	962	933	---	---	---	---	809	772	786	753
11	929	909	960	925	---	---	---	---	796	769	772	740
12	932	910	961	934	---	---	---	---	791	768	768	751
13	921	912	958	925	---	---	---	---	786	758	772	757
14	923	914	944	925	---	---	869	858	783	766	776	758
15	931	915	943	927	---	---	870	854	787	768	778	758
16	927	917	944	924	---	---	867	849	789	769	779	759
17	927	916	941	927	---	---	872	860	787	767	786	768
18	934	914	944	925	---	---	868	843	785	764	791	776
19	929	917	938	912	---	---	859	836	784	760	796	782
20	945	920	---	---	---	---	857	832	781	763	798	783
21	943	921	---	---	---	---	856	832	781	760	800	782
22	942	929	---	---	---	---	855	829	776	754	800	782
23	946	932	---	---	---	---	854	827	771	746	799	776
24	948	930	---	---	---	---	845	814	765	739	792	758
25	950	940	---	---	---	---	839	811	760	739	781	751
26	951	936	---	---	---	---	837	808	758	736	778	752
27	955	943	---	---	---	---	835	808	780	742	774	750
28	956	943	---	---	---	---	835	806	784	767	773	751
29	959	946	---	---	---	---	833	806	784	765	772	758
30	962	953	---	---	---	---	831	804	784	765	772	759
31	---	---	---	---	---	---	827	797	784	764	---	---
MONTH	962	873	---	---	---	---	---	---	838	736	800	740

11126400 SANTA YNEZ RIVER AT HIGHWAY 154, NEAR SANTA YNEZ, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.5	21.0	19.0	17.0	18.0	15.5	15.0	12.5	14.0	11.0	14.5	13.0
2	21.0	21.0	18.5	16.5	---	14.5	15.0	13.0	13.5	12.0	15.5	12.5
3	21.0	20.5	18.5	16.5	17.0	15.5	14.5	12.5	13.5	12.0	16.0	12.0
4	21.0	20.5	18.0	16.0	17.0	14.5	14.0	11.5	14.5	11.5	16.0	12.5
5	21.0	20.5	18.0	16.0	17.0	15.0	14.0	11.5	14.0	11.0	16.5	13.0
6	21.0	20.5	18.5	17.0	17.5	16.0	13.5	12.0	14.0	11.0	17.0	12.5
7	21.0	20.5	18.5	16.5	17.5	16.0	14.5	12.5	14.0	11.0	17.5	12.5
8	21.0	20.0	18.5	17.5	17.0	14.5	15.0	12.0	13.5	10.5	17.5	12.5
9	20.5	19.5	19.0	17.5	16.5	14.0	15.0	12.5	13.5	10.5	18.0	13.0
10	21.5	18.0	18.5	17.0	17.0	15.0	14.5	12.0	13.5	10.5	18.0	13.0
11	21.5	17.5	19.0	16.5	16.0	14.5	15.0	12.0	13.5	10.5	18.0	13.0
12	21.0	18.0	18.5	17.0	16.0	13.5	14.5	12.0	13.5	10.0	17.5	13.5
13	21.0	18.0	19.0	16.5	16.0	13.5	15.0	12.5	12.5	10.5	18.5	14.0
14	21.5	18.0	18.5	17.0	16.0	14.5	14.5	12.0	14.0	11.0	18.5	13.5
15	21.5	18.5	18.0	17.0	15.5	13.5	15.0	12.5	14.5	10.5	18.5	14.0
16	21.5	19.0	18.0	17.0	15.5	13.0	14.5	11.5	14.5	12.0	18.5	13.5
17	21.5	18.0	18.5	16.5	15.5	13.0	15.0	12.5	14.5	11.5	18.5	13.5
18	21.5	18.5	18.5	16.5	16.0	13.0	14.5	12.0	14.0	12.0	18.5	13.5
19	22.0	18.5	18.5	16.0	16.5	13.0	15.0	13.0	14.0	11.5	17.5	14.5
20	22.0	18.5	18.0	16.0	16.5	14.5	14.5	12.5	13.5	12.5	18.0	14.5
21	21.5	18.5	18.5	16.5	16.0	14.5	14.5	11.5	13.0	12.0	17.5	14.5
22	21.0	18.5	17.5	15.0	16.0	13.5	14.5	11.5	13.5	12.5	17.5	14.5
23	21.5	18.5	17.0	14.5	15.5	14.5	14.5	11.0	15.0	12.0	16.0	14.5
24	21.5	18.0	17.0	15.0	16.0	14.5	13.5	12.5	15.0	12.5	16.0	14.0
25	21.0	18.0	17.0	15.0	15.5	14.0	14.5	12.0	14.0	13.0	16.0	14.0
26	21.0	18.0	17.0	14.5	15.0	13.5	14.0	11.0	14.0	12.5	16.0	14.5
27	21.0	18.0	17.5	14.5	15.0	12.5	14.0	12.0	14.5	12.0	16.0	14.0
28	20.5	17.5	17.5	15.0	14.5	12.0	14.5	12.5	15.0	12.0	16.5	14.0
29	20.0	18.0	17.5	15.0	14.0	12.5	14.5	11.5	15.0	12.0	16.5	14.5
30	19.5	18.0	17.0	14.5	14.5	13.0	14.5	12.0	---	---	16.0	15.0
31	19.5	17.5	---	---	15.0	12.0	14.0	12.0	---	---	16.0	15.0
MONTH	22.0	17.5	19.0	14.5	---	12.0	15.0	11.0	15.0	10.0	18.5	12.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	14.5	18.5	15.5	---	---	---	---	20.0	16.5	21.5	17.5
2	16.0	14.0	18.5	15.5	---	---	---	---	20.5	16.5	21.5	17.5
3	16.0	14.5	19.0	15.5	---	---	---	---	20.5	16.5	21.0	17.0
4	16.0	14.5	19.0	15.5	---	---	---	---	20.5	16.5	21.0	16.5
5	16.0	15.0	17.5	16.5	---	---	---	---	20.5	16.0	21.5	16.5
6	16.0	15.0	17.0	16.5	---	---	---	---	20.5	16.0	21.5	17.0
7	16.0	15.0	17.5	16.5	---	---	---	---	21.0	16.0	21.5	17.0
8	16.0	15.0	17.5	16.5	---	---	---	---	21.0	16.5	22.0	17.5
9	16.0	15.0	17.5	16.0	---	---	---	---	21.0	17.0	22.0	18.5
10	16.0	15.0	17.5	16.0	---	---	---	---	21.5	17.0	22.0	18.5
11	16.5	15.0	17.5	16.0	---	---	---	---	22.0	17.5	22.0	18.5
12	16.5	15.0	18.0	16.0	---	---	---	---	21.5	17.5	22.0	18.5
13	16.0	15.0	18.0	16.0	---	---	---	---	22.0	17.5	21.5	18.0
14	16.0	15.0	18.0	16.0	---	---	19.5	15.5	21.5	17.5	21.5	18.0
15	16.0	15.0	17.5	16.0	---	---	19.5	15.5	21.5	17.0	21.5	17.5
16	16.0	15.0	18.0	16.0	---	---	19.5	15.5	21.5	17.0	21.5	18.0
17	16.0	15.0	18.0	16.5	---	---	19.0	15.0	22.0	17.5	21.0	18.0
18	16.0	15.0	18.5	16.0	---	---	19.5	15.0	21.5	17.5	20.5	18.0
19	16.0	15.0	18.5	16.0	---	---	19.5	15.5	21.5	17.5	19.5	16.5
20	16.5	15.0	---	---	---	---	19.5	15.5	21.5	17.0	19.5	16.0
21	16.5	15.5	---	---	---	---	19.5	15.5	21.0	17.5	20.0	16.0
22	16.5	15.5	---	---	---	---	19.5	15.5	21.0	17.5	20.0	15.5
23	16.5	15.5	---	---	---	---	19.0	15.5	21.0	17.0	20.0	16.0
24	16.5	15.5	---	---	---	---	19.5	15.5	21.5	17.5	20.0	16.0
25	17.0	15.5	---	---	---	---	20.0	16.0	22.0	18.0	20.0	16.5
26	17.5	15.5	---	---	---	---	20.0	16.0	22.0	18.0	20.5	17.0
27	17.5	15.5	---	---	---	---	19.5	16.0	21.5	17.0	20.0	17.0
28	18.0	15.5	---	---	---	---	19.5	16.0	22.0	17.5	20.0	17.0
29	18.0	15.5	---	---	---	---	19.5	15.5	21.5	17.5	19.5	16.5
30	17.5	15.5	---	---	---	---	20.0	15.5	21.5	17.5	19.5	17.0
31	---	---	---	---	---	---	20.0	16.0	21.5	17.5	---	---
MONTH	18.0	14.0	---	---	---	---	---	---	22.0	16.0	22.0	15.5

## 11126400 SANTA YNEZ RIVER AT HIGHWAY 154, NEAR SANTA YNEZ, CA—Continued

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample loca- tion, feet (81903)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat un- f uS/cm 25 degC (00095)	Temper- ature, deg C (00010)	Loca- tion in X-sect. looking dwnstrm ft from l bank (00009)
DEC									
02...*	1243	.50	748	5.4	57	7.6	940	17.0	1.00
02...*	1244	1.00	748	6.1	65	7.6	940	17.0	3.00
02...*	1245	1.20	748	6.4	67	7.6	938	16.5	5.00
02...*	1246	1.00	748	6.6	69	7.6	938	16.5	7.00
02...*	1247	1.30	748	7.0	73	7.7	937	16.5	9.00
02...*	1248	1.50	748	6.3	66	7.6	936	16.5	9.60
02...*	1249	1.20	748	6.4	67	7.6	933	16.5	11.0
02...*	1250	1.00	748	4.3	45	7.6	934	17.0	13.0
02...*	1251	1.00	748	3.6	38	7.5	935	17.0	15.0
02...*	1252	1.00	748	3.5	37	7.5	929	17.0	17.0
02...*	1253	.70	748	3.6	38	7.5	938	17.0	19.0
02...*	1254	.40	748	3.3	35	7.5	938	17.0	20.5

\* No instantaneous discharge data at time of cross-sectional measurement.

## 11128250 ALAMO PINTADO CREEK NEAR SOLVANG, CA

LOCATION.—Lat 34°37'06", long 120°07'11", in NW 1/4 NW 1/4 sec.11, T.6 N., R.31 W., [Santa Barbara County](#), Hydrologic Unit 18060010, on right bank, at downstream side of bridge on Alamo Pintado Road, and 1.7 mi northeast of Solvang.

DRAINAGE AREA.—29.4 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1970 to September 1985, October 1989 to September 1992, October 1994 to current year. Records prior to October 1970 in files of Santa Barbara County Flood Control District.

CHEMICAL DATA: Water year 1997.

REVISED RECORDS.—WDR CA-98-1: 1997.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 540.49 ft above NGVD of 1929, Santa Barbara County datum.

REMARKS.—Records poor. No regulation upstream from station. Pumping from wells along stream for irrigation. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,680 ft<sup>3</sup>/s, Feb. 3, 1998, gage height, 11.69 ft, from rating curve extended above 1,050 ft<sup>3</sup>/s; no flow part of most years.

EXTREMES FOR OUTSIDE PERIOD OF RECORD.—Flood of Jan. 25, 1969, reached a stage of 10.32 ft, from information provided by Santa Barbara County Flood Control District.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 26	0345	62	3.98

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.08	0.09	e0.02	0.09	0.14	0.35	0.30	0.13	0.09	0.05	0.12	0.04
2	0.08	0.11	e0.02	0.10	0.23	0.30	0.35	0.11	0.08	0.05	0.10	0.04
3	0.08	0.14	e0.03	0.08	0.18	0.36	0.38	0.08	0.07	0.05	0.08	0.05
4	0.07	0.10	e0.02	0.10	0.14	0.34	0.45	0.09	0.07	0.06	0.12	0.05
5	0.08	0.09	e0.04	0.10	0.14	0.34	0.54	0.10	0.11	0.05	0.14	0.04
6	0.07	e0.08	e0.02	0.10	0.14	0.32	0.59	0.10	0.09	0.06	0.09	0.04
7	0.07	e0.09	e0.02	0.07	0.15	0.29	0.56	0.10	0.09	0.06	0.09	0.04
8	0.07	e0.11	e0.01	0.07	0.15	0.27	0.54	0.10	0.10	0.06	0.08	0.03
9	0.08	e0.08	e0.04	0.05	0.16	0.29	0.51	0.10	0.10	0.07	0.10	0.05
10	0.05	e0.06	e0.07	0.08	0.13	0.29	0.49	0.10	0.08	0.07	0.10	0.10
11	e0.05	e0.07	e0.09	0.09	0.11	0.26	0.47	0.11	0.10	0.08	0.09	0.05
12	0.08	e0.08	e0.07	0.05	0.11	0.28	0.43	0.10	0.09	0.07	0.11	0.05
13	0.08	e0.07	e0.07	0.04	0.11	0.28	0.43	0.10	0.07	0.06	0.11	0.10
14	0.08	e0.05	e0.05	0.05	0.06	0.27	0.42	0.09	0.09	0.07	0.11	0.09
15	0.09	e0.05	e0.07	0.06	0.05	0.26	0.41	0.10	0.08	0.07	0.11	0.07
16	0.07	e0.05	e0.05	0.09	0.04	0.26	0.41	0.10	0.07	0.06	0.10	0.07
17	0.06	e0.04	e0.06	0.08	0.05	0.25	0.39	0.09	0.05	0.08	0.09	0.06
18	e0.03	e0.02	e0.04	0.09	0.27	0.24	0.41	0.09	0.06	0.09	0.14	0.06
19	0.04	e0.04	e0.05	0.08	0.11	0.23	0.40	0.10	0.07	0.08	0.17	0.06
20	0.03	e0.05	0.06	0.09	0.13	0.25	0.37	0.11	0.06	0.08	0.10	0.07
21	0.03	e0.06	0.08	0.11	0.11	0.26	0.36	0.10	0.09	0.08	0.10	0.06
22	0.04	e0.05	0.10	0.11	0.39	0.26	0.44	0.11	0.08	0.09	0.10	0.05
23	0.04	e0.03	0.12	0.10	0.13	0.27	0.32	0.12	0.07	0.11	0.10	0.04
24	0.03	e0.04	0.13	0.12	0.10	0.27	0.27	0.11	0.06	0.13	0.09	0.04
25	0.03	e0.03	0.35	0.11	4.2	0.27	0.21	0.14	0.06	0.11	0.10	0.06
26	0.03	e0.04	0.14	0.12	7.4	0.31	0.19	0.11	0.06	0.11	0.06	0.06
27	0.03	e0.03	0.14	0.12	0.06	0.27	0.14	0.09	0.08	0.10	0.05	0.07
28	0.04	e0.01	0.14	0.10	0.07	0.28	0.13	0.08	0.09	0.11	0.05	0.07
29	0.04	e0.03	0.13	0.10	0.11	0.25	0.15	0.07	0.07	0.11	0.04	0.09
30	0.03	e0.03	0.10	0.10	---	0.26	0.15	0.08	0.06	0.11	e0.04	0.08
31	0.12	---	0.10	0.11	---	0.27	---	0.08	---	0.11	e0.04	---
TOTAL	1.80	1.82	2.43	2.76	15.17	8.70	11.21	3.09	2.34	2.49	2.92	1.78
MEAN	0.06	0.06	0.08	0.09	0.52	0.28	0.37	0.10	0.08	0.08	0.09	0.06
MAX	0.12	0.14	0.35	0.12	7.4	0.36	0.59	0.14	0.11	0.13	0.17	0.10
MIN	0.03	0.01	0.01	0.04	0.04	0.23	0.13	0.07	0.05	0.05	0.04	0.03
AC-FT	3.6	3.6	4.8	5.5	30	17	22	6.1	4.6	4.9	5.8	3.5

e Estimated.

## SANTA YNEZ RIVER BASIN

## 11128250 ALAMO PINTADO CREEK NEAR SOLVANG, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.45	0.64	0.77	3.67	11.9	7.77	2.18	1.05	0.78	0.46	0.54	0.41
MAX	3.06	5.73	3.31	56.8	219	44.8	22.9	7.62	4.83	3.29	3.38	3.53
(WY)	1999	1996	1999	1995	1998	1995	1998	1998	1995	1999	1998	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1971	1971	1973	1971	1971	1971	1971	1971	1971	1971	1971	1971

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1971 - 2004
ANNUAL TOTAL	127.61	56.51	
ANNUAL MEAN	0.35	0.15	2.50
HIGHEST ANNUAL MEAN			25.3 1998
LOWEST ANNUAL MEAN			0.00 1990
HIGHEST DAILY MEAN	6.3 Mar 15	7.4 Feb 26	1150 Feb 3 1998
LOWEST DAILY MEAN	0.01 Nov 28	0.01 Nov 28	0.00 Oct 1 1970
ANNUAL SEVEN-DAY MINIMUM	0.02 Nov 28	0.02 Nov 28	0.00 Oct 1 1970
MAXIMUM PEAK FLOW		62 Feb 26	3680 Feb 3 1998
MAXIMUM PEAK STAGE		3.98 Feb 26	11.69 Feb 3 1998
ANNUAL RUNOFF (AC-FT)	253	112	1810
10 PERCENT EXCEEDS	0.79	0.29	3.2
50 PERCENT EXCEEDS	0.14	0.09	0.00
90 PERCENT EXCEEDS	0.04	0.04	0.00



## 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 mi<sup>2</sup>.

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 NGVD 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 one month between November and June in order to store flows for that water year. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 2,800 acre-ft, Mar. 5, 2001, elevation, 604.57 ft; minimum, 748 acre-ft, Nov. 8–10, 1972, elevation, 577.15 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 2,390 acre-ft, Feb. 26–28, Mar. 3–14, maximum elevation, 600.15 ft, Feb. 26; minimum contents, 1,920 acre-ft, Sept. 30, minimum elevation, 594.78 ft, Sept. 30.

Capacity table (elevation in feet, and contents, in acre-feet)  
(Based on data provided by Santa Barbara County Flood Control District in 1971)

590      1,540      595      1,940      600      2,380      605      2,840

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2100	2030	2010	2010	2010	2380	2360	2330	2260	2180	2080	2000
2	2100	2030	2010	2010	2020	2380	2360	2330	2250	2170	2080	2000
3	2090	2030	2010	2010	2020	2390	2360	2320	2250	2170	2080	1990
4	2090	2030	2010	2010	2020	2390	2360	2320	2250	2170	2080	1990
5	2090	2030	2010	2010	2020	2390	2360	2320	2250	2170	2080	1990
6	2090	2030	2010	2010	2020	2390	2360	2320	2250	2170	2070	1990
7	2090	2020	2010	2010	2020	2390	2360	2310	2240	2160	2070	1990
8	2080	2030	2000	2010	2020	2390	2360	2310	2240	2160	2070	1980
9	2080	2030	2000	2010	2020	2390	2360	2310	2230	2160	2070	1980
10	2080	2030	2000	2010	2020	2390	2360	2310	2230	2150	2060	1980
11	2080	2030	2000	2010	2020	2390	2360	2300	2230	2150	2060	1970
12	2080	2030	2000	2010	2020	2390	2360	2300	2220	2150	2060	1970
13	2070	2030	2000	2010	2020	2390	2360	2300	2220	2140	2050	1970
14	2070	2030	2000	2010	2020	2390	2360	2300	2220	2140	2050	1970
15	2070	2030	2000	2010	2020	2380	2350	2300	2220	2140	2050	1960
16	2070	2030	2000	2010	2020	2380	2350	2290	2210	2130	2050	1960
17	2060	2030	2000	2010	2020	2380	2350	2290	2210	2130	2040	1960
18	2060	2030	2000	2010	2020	2380	2350	2290	2210	2130	2040	1950
19	2060	2030	2000	2010	2020	2380	2350	2290	2210	2120	2030	1950
20	2060	2030	2000	2010	2020	2370	2340	2280	2210	2120	2030	1950
21	2050	2030	2000	2010	2030	2380	2340	2280	2210	2120	2030	1950
22	2050	2020	2000	2010	2040	2380	2340	2280	2200	2110	2030	1940
23	2050	2020	2000	2010	2050	2370	2340	2280	2200	2110	2020	1940
24	2050	2020	2000	2010	2050	2370	2340	2280	2200	2110	2020	1940
25	2040	2020	2010	2010	2360	2370	2340	2280	2190	2100	2020	1940
26	2040	2020	2010	2010	2390	2370	2340	2270	2190	2100	2010	1930
27	2040	2020	2010	2010	2390	2370	2340	2270	2180	2100	2010	1930
28	2040	2020	2010	2010	2390	2370	2330	2270	2180	2100	2010	1930
29	2040	2020	2010	2010	2380	2370	2330	2260	2180	2090	2010	1930
30	2030	2020	2010	2010	---	2370	2330	2260	2180	2090	2000	1920
31	2030	---	2010	2010	---	2360	---	2260	---	2090	2000	---
MAX	2100	2030	2010	2010	2390	2390	2360	2330	2260	2180	2080	2000
MIN	2030	2020	2000	2010	2010	2360	2330	2260	2180	2090	2000	1920
a	596.15	595.97	595.88	595.82	600.04	599.82	599.42	598.67	597.75	596.73	595.77	594.78
b	-70	-10	0	0	370	-20	-30	-70	-80	-90	-80	-80

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## 11128500 SANTA YNEZ RIVER AT SOLVANG, CA

LOCATION.—Lat 34°35'06", 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1928 to November 1936, June 1937 to November 1940 (irrigation seasons only), October 1946 to September 1999, July 2002 to current year.

REVISED RECORDS.—WSP 2128: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 357.43 ft above NGVD 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 7.00 ft higher. Oct. 1, 1968, to Sept. 30, 1988, water-stage recorder at datum 10.00 ft higher. Oct. 1, 1988, to Aug. 6, 1998, water-stage recorder at datum 5.00 ft. higher. July 12, 2002 to Sept. 30, 2003, supplemental gage 0.2 mi downstream at different datum.

REMARKS.—Records poor. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952, by Lake Cachuma (stations 11121000, 11122000, and 11125500, respectively). Additional water may be added by releases from Alisal Reservoir (station 11128300). 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. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD (water years 1928–36, 1946–99, 2002 to current year).—Maximum discharge, 82,000 ft<sup>3</sup>/s, Jan. 25, 1969, estimated, on basis of discharge measurements up to 81,000 ft<sup>3</sup>/s for Santa Ynez River near Buellton, gage height, 17.1 ft, from floodmark; no flow for several months in many years.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	2.8	9.0	1.6	0.00	0.00	0.00	72	46
2	0.00	0.00	0.00	0.00	2.9	8.7	0.95	0.00	0.00	0.00	76	47
3	0.00	0.00	0.00	0.00	3.6	7.7	0.92	0.00	0.00	0.00	76	48
4	0.00	0.00	0.00	0.00	3.9	7.3	0.78	0.00	0.00	0.00	78	49
5	0.00	0.00	0.00	0.08	4.0	7.4	0.94	0.00	0.00	0.00	81	48
6	0.00	0.00	0.00	0.86	3.9	6.9	0.53	0.00	0.00	0.00	81	44
7	0.00	0.00	0.00	1.2	3.6	6.5	0.77	0.00	0.00	0.00	84	44
8	0.00	0.00	0.00	1.5	3.6	6.0	0.23	0.00	0.00	0.00	85	35
9	0.00	0.00	0.00	1.6	3.2	5.1	0.82	0.00	0.00	0.00	66	31
10	0.00	0.00	0.00	1.8	3.1	3.9	0.36	0.00	0.00	0.00	52	30
11	0.00	0.00	0.00	1.8	3.2	4.1	0.27	0.00	0.00	0.00	49	28
12	0.00	0.00	0.00	1.9	3.2	3.9	0.28	0.00	0.00	0.00	48	33
13	0.00	0.00	0.00	2.0	2.5	4.0	0.33	0.00	0.00	0.00	49	38
14	0.00	0.00	0.00	2.0	2.4	3.8	0.02	0.00	0.00	0.00	60	37
15	0.00	0.00	0.00	1.9	2.3	4.1	0.00	0.00	0.00	0.00	70	38
16	0.00	0.00	0.00	1.8	2.4	3.9	0.02	0.00	0.00	0.00	69	38
17	0.00	0.00	0.00	1.8	2.3	3.2	0.02	0.00	0.00	69	61	45
18	0.00	0.00	0.00	1.9	2.9	2.9	0.02	0.00	0.00	99	55	45
19	0.00	0.00	0.00	2.1	2.8	2.9	0.00	0.00	0.00	105	53	44
20	0.00	0.00	0.00	2.0	3.0	2.8	0.00	0.00	0.00	110	54	46
21	0.00	0.00	0.00	2.0	3.4	3.0	0.00	0.00	0.00	113	49	47
22	0.00	0.00	0.00	2.0	6.9	2.3	0.00	0.00	0.00	117	50	46
23	0.00	0.00	0.00	1.9	7.7	2.8	0.00	0.00	0.00	121	51	41
24	0.00	0.00	0.00	1.9	7.1	2.8	0.00	0.00	0.00	118	48	34
25	0.00	0.00	0.00	2.0	55	2.9	0.00	0.00	0.00	119	46	31
26	0.00	0.00	0.00	2.0	e78	2.7	0.00	0.00	0.00	121	46	31
27	0.00	0.00	0.00	2.0	e17	3.4	0.00	0.00	0.00	118	47	34
28	0.00	0.00	0.00	2.1	13	2.7	0.00	0.00	0.00	121	45	33
29	0.00	0.00	0.00	2.2	10	2.1	0.00	0.00	0.00	121	45	34
30	0.00	0.00	0.00	2.4	---	1.5	0.00	0.00	0.00	110	47	35
31	0.00	---	0.00	2.9	---	1.3	---	0.00	---	86	47	---
TOTAL	0.00	0.00	0.00	49.64	259.7	131.6	8.86	0.00	0.00	1648.00	1840	1180
MEAN	0.00	0.00	0.00	1.60	8.96	4.25	0.30	0.00	0.00	53.2	59.4	39.3
MAX	0.00	0.00	0.00	2.9	78	9.0	1.6	0.00	0.00	121	85	49
MIN	0.00	0.00	0.00	0.00	2.3	1.3	0.00	0.00	0.00	0.00	45	28
AC-FT	0.00	0.00	0.00	98	515	261	18	0.00	0.00	3270	3650	2340

e Estimated.

## 11128500 SANTA YNEZ RIVER AT SOLVANG, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1950, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.92	7.04	32.8	62.0	176	52.4	48.1	11.7	8.56	4.00	2.41	2.51
MAX	6.69	34.9	257	211	1240	164	375	59.3	36.8	17.0	6.36	5.69
(WY)	1939	1947	1932	1935	1932	1935	1935	1935	1938	1938	1938	1938
MIN	.25	2.40	4.20	4.87	5.90	4.95	3.51	2.36	1.27	.21	.000	.000
(WY)	1950	1930	1930	1948	1948	1950	1931	1948	1948	1949	1948	1948

## SUMMARY STATISTICS

## WATER YEARS 1929 - 1950

ANNUAL TOTAL	
ANNUAL MEAN	32.9
HIGHEST ANNUAL MEAN	152 1932
LOWEST ANNUAL MEAN	3.31 1948
HIGHEST DAILY MEAN	12300 Feb 9 1932
LOWEST DAILY MEAN	.00 Jul 15 1931
ANNUAL SEVEN-DAY MINIMUM	.00 Jul 15 1931
MAXIMUM PEAK FLOW	18700 Feb 9 1932
ANNUAL RUNOFF (AC-FT)	23800
10 PERCENT EXCEEDS	35
50 PERCENT EXCEEDS	5.3
90 PERCENT EXCEEDS	1.5

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2004, BY WATER YEAR (WY)

MEAN	6.48	4.57	20.1	230	473	396	155	56.0	14.6	7.66	8.95	7.63
MAX	88.7	96.2	263	3572	7445	4029	1258	956	243	57.4	64.8	39.3
(WY)	1992	1966	1984	1995	1998	1983	1983	1998	1998	1998	2002	2004
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1952	1952	1963	1976	1991	1989	1961	1961	1961	1957	1954	1954

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1952 - 2004

ANNUAL TOTAL	2231.30	5117.80	
ANNUAL MEAN	6.11	14.0	113
HIGHEST ANNUAL MEAN			905 1998
LOWEST ANNUAL MEAN			0.86 1961
HIGHEST DAILY MEAN	237 Mar 15	121 Jul 23	40000 Jan 25 1969
LOWEST DAILY MEAN	0.00 Jul 3	0.00 Oct 1	0.00 Oct 1 1951
ANNUAL SEVEN-DAY MINIMUM	0.00 Jul 3	0.00 Oct 1	0.00 Oct 1 1951
MAXIMUM PEAK FLOW		257 Feb 25	82000 Jan 25 1969
MAXIMUM PEAK STAGE		2.79 Feb 25	17.10 Jan 25 1969
ANNUAL RUNOFF (AC-FT)	4430	10150	82120
10 PERCENT EXCEEDS	13	49	74
50 PERCENT EXCEEDS	0.09	0.00	2.3
90 PERCENT EXCEEDS	0.00	0.00	0.00



## 11128500 SANTA YNEZ RIVER AT SOLVANG, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrate water fltrd, mg/L as N (00631)
JAN 08...	--	--	--	--	--	774	--	--
FEB 01...	--	--	--	--	--	836	--	--
MAR 11...	--	--	--	--	--	733	--	--
AUG 03...	.4	20.3	229	553	.80	587	<.04	<.06
SEP 10...	--	--	--	--	--	632	--	--

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)
JAN 08...	--	--	--	--	--
FEB 01...	--	--	--	--	--
MAR 11...	--	--	--	--	--
AUG 03...	<.008	e.01	258	9	1.7
SEP 10...	--	--	--	--	--

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

## 11128500 SANTA YNEZ RIVER AT SOLVANG, CA—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	16.2	7.8	---	---
3	---	---	---	---	---	---	---	---	16.8	8.1	---	---
4	---	---	---	---	---	---	---	---	16.9	9.1	---	---
5	---	---	---	---	---	---	---	---	17.2	9.2	16.8	10.5
6	---	---	---	---	---	---	---	---	17.6	9.4	16.9	10.1
7	---	---	---	---	---	---	---	---	17.6	9.2	16.8	9.8
8	---	---	---	---	---	---	---	---	17.5	9.1	16.9	9.3
9	---	---	---	---	---	---	---	---	18.3	9.2	16.7	9.2
10	---	---	---	---	---	---	---	---	18.4	9.2	16.4	8.8
11	---	---	---	---	---	---	---	---	18.7	9.3	16.8	8.7
12	---	---	---	---	---	---	---	---	19.0	9.1	17.2	8.5
13	---	---	---	---	---	---	---	---	19.0	8.8	17.7	8.3
14	---	---	---	---	---	---	---	---	19.5	8.2	18.0	8.4
15	---	---	---	---	---	---	---	---	20.2	7.8	17.8	8.0
16	---	---	---	---	---	---	---	---	17.8	7.5	17.8	8.0
17	---	---	---	---	---	---	---	---	18.8	7.9	17.3	7.8
18	---	---	---	---	---	---	---	---	---	---	17.7	7.5
19	---	---	---	---	---	---	---	---	18.4	7.7	16.8	7.0
20	---	---	---	---	---	---	---	---	15.0	7.3	17.4	7.0
21	---	---	---	---	---	---	---	---	15.4	7.6	16.4	6.7
22	---	---	---	---	---	---	---	---	13.9	8.2	16.8	6.9
23	---	---	---	---	---	---	---	---	16.3	9.6	16.1	6.5
24	---	---	---	---	---	---	---	---	16.8	9.5	17.2	7.1
25	---	---	---	---	---	---	---	---	---	---	17.0	6.7
26	---	---	---	---	---	---	---	---	---	---	17.3	6.3
27	---	---	---	---	---	---	---	---	---	---	16.8	7.1
28	---	---	---	---	---	---	---	---	---	---	16.9	6.3
29	---	---	---	---	---	---	---	---	---	---	17.5	5.7
30	---	---	---	---	---	---	---	---	---	---	18.1	5.2
31	---	---	---	---	---	---	---	---	---	---	18.4	4.8
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.8	4.7	---	---	---	---	---	---	12.0	7.7	11.7	6.6
2	18.2	4.7	---	---	---	---	---	---	12.2	7.8	11.4	6.6
3	17.7	---	---	---	---	---	---	---	12.3	7.7	11.5	6.5
4	18.4	---	---	---	---	---	---	---	12.5	7.5	11.3	6.6
5	18.6	3.8	---	---	---	---	---	---	12.5	7.0	11.1	6.3
6	19.4	---	---	---	---	---	---	---	12.6	7.0	11.2	6.3
7	19.1	3.8	---	---	---	---	---	---	12.4	6.8	11.2	6.2
8	20.1	3.4	---	---	---	---	---	---	12.3	6.6	11.2	5.9
9	17.1	3.3	---	---	---	---	---	---	11.6	6.4	11.2	5.9
10	---	---	---	---	---	---	---	---	11.1	6.3	11.5	5.9
11	---	---	---	---	---	---	---	---	10.6	6.3	11.6	6.3
12	---	---	---	---	---	---	---	---	10.4	6.3	11.6	6.3
13	---	---	---	---	---	---	---	---	10.3	6.3	11.5	6.6
14	---	---	---	---	---	---	---	---	10.4	6.5	11.3	6.3
15	---	---	---	---	---	---	---	---	10.4	6.6	11.2	6.4
16	---	---	---	---	---	---	---	---	10.6	6.6	11.2	6.4
17	---	---	---	---	---	---	---	---	10.7	6.4	11.1	6.5
18	---	---	---	---	---	---	8.2	7.0	11.1	6.4	11.0	6.6
19	---	---	---	---	---	---	8.7	7.0	11.4	6.4	11.2	6.9
20	---	---	---	---	---	---	9.7	7.1	11.6	6.4	11.3	7.3
21	---	---	---	---	---	---	10.0	7.2	12.5	6.4	11.2	7.2
22	---	---	---	---	---	---	10.0	7.3	12.4	6.5	11.2	7.2
23	---	---	---	---	---	---	10.5	7.5	12.3	6.5	11.3	7.2
24	---	---	---	---	---	---	10.4	7.3	12.3	6.4	11.4	6.9
25	---	---	---	---	---	---	10.3	7.3	12.0	6.1	11.6	7.2
26	---	---	---	---	---	---	10.7	7.4	12.4	6.5	11.4	6.9
27	---	---	---	---	---	---	10.8	7.5	11.8	6.4	11.4	7.0
28	---	---	---	---	---	---	11.2	7.5	11.8	6.8	11.3	7.1
29	---	---	---	---	---	---	11.4	7.7	12.0	6.7	11.3	7.0
30	---	---	---	---	---	---	11.5	7.5	11.8	6.7	11.2	7.1
31	---	---	---	---	---	---	11.7	7.7	11.7	6.6	---	---
MONTH	---	---	---	---	---	---	---	---	12.6	6.1	11.7	5.9

## 11128500 SANTA YNEZ RIVER AT SOLVANG, CA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	1080	196
2	---	---	---	---	---	---	---	---	1180	99	1090	1070
3	---	---	---	---	---	---	---	---	1180	934	1090	1070
4	---	---	---	---	---	---	---	---	1180	1160	1110	1080
5	---	---	---	---	---	---	---	---	1180	1160	1110	1090
6	---	---	---	---	---	---	---	---	1180	1160	1110	1090
7	---	---	---	---	---	---	---	---	1180	1160	1120	1100
8	---	---	---	---	---	---	---	---	1180	1160	1120	1090
9	---	---	---	---	---	---	---	---	1200	1150	1120	1100
10	---	---	---	---	---	---	---	---	1180	1150	1120	1100
11	---	---	---	---	---	---	---	---	1180	1160	1130	1100
12	---	---	---	---	---	---	---	---	1180	1150	1130	1100
13	---	---	---	---	---	---	---	---	1180	1160	1130	1100
14	---	---	---	---	---	---	---	---	1180	1160	1130	1100
15	---	---	---	---	---	---	---	---	1180	1140	1130	1100
16	---	---	---	---	---	---	---	---	1180	1160	1130	1100
17	---	---	---	---	---	---	---	---	1180	1160	1130	1100
18	---	---	---	---	---	---	---	---	1200	60	1140	1100
19	---	---	---	---	---	---	---	---	1180	1160	1140	1110
20	---	---	---	---	---	---	---	---	1190	792	1140	1110
21	---	---	---	---	---	---	---	---	1180	1170	1140	1120
22	---	---	---	---	---	---	---	---	1170	63	1140	1110
23	---	---	---	---	---	---	---	---	1150	1120	1140	1120
24	---	---	---	---	---	---	---	---	1150	1130	1140	1110
25	---	---	---	---	---	---	---	---	1150	73	1140	1110
26	---	---	---	---	---	---	---	---	---	---	1140	1110
27	---	---	---	---	---	---	---	---	---	---	1140	1120
28	---	---	---	---	---	---	---	---	1060	1030	1150	1120
29	---	---	---	---	---	---	---	---	1080	1060	1150	1120
30	---	---	---	---	---	---	---	---	---	---	1150	1110
31	---	---	---	---	---	---	---	---	---	---	1150	1130
MONTH	---	---	---	---	---	---	---	---	---	---	1150	196
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1160	1130	---	---	---	---	---	---	886	865	879	857
2	1160	1130	---	---	---	---	---	---	880	858	879	858
3	1160	1130	---	---	---	---	---	---	878	855	878	858
4	1160	1140	---	---	---	---	---	---	876	854	878	860
5	1160	1140	---	---	---	---	---	---	880	856	880	860
6	1160	1140	---	---	---	---	---	---	883	860	885	865
7	1170	1130	---	---	---	---	---	---	884	859	886	864
8	1170	1110	---	---	---	---	---	---	880	857	897	868
9	1170	1150	---	---	---	---	---	---	889	869	904	875
10	1170	1140	---	---	---	---	---	---	894	874	910	880
11	1170	1140	---	---	---	---	---	---	895	876	911	884
12	1170	1130	---	---	---	---	---	---	894	877	911	877
13	---	---	---	---	---	---	---	---	893	876	897	873
14	---	---	---	---	---	---	---	---	888	869	890	863
15	---	---	---	---	---	---	---	---	884	870	889	868
16	---	---	---	---	---	---	---	---	884	869	887	868
17	---	---	---	---	---	---	---	---	884	868	884	860
18	---	---	---	---	---	---	927	911	885	867	876	861
19	---	---	---	---	---	---	914	898	884	867	877	862
20	---	---	---	---	---	---	905	889	884	865	879	863
21	---	---	---	---	---	---	901	882	891	867	877	863
22	---	---	---	---	---	---	898	883	890	868	877	862
23	---	---	---	---	---	---	895	882	891	869	886	867
24	---	---	---	---	---	---	892	875	888	867	899	874
25	---	---	---	---	---	---	883	870	887	865	901	879
26	---	---	---	---	---	---	880	864	885	857	899	878
27	---	---	---	---	---	---	879	862	886	857	899	876
28	---	---	---	---	---	---	877	860	879	860	896	874
29	---	---	---	---	---	---	878	857	878	859	894	872
30	---	---	---	---	---	---	873	854	876	858	891	871
31	---	---	---	---	---	---	878	859	878	858	---	---
MONTH	---	---	---	---	---	---	---	---	895	854	911	857

## 11128500 SANTA YNEZ RIVER AT SOLVANG, CA—Continued

## TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	16.0	13.5
2	---	---	---	---	---	---	---	---	16.5	11.0	19.0	13.0
3	---	---	---	---	---	---	---	---	17.0	13.5	19.0	12.5
4	---	---	---	---	---	---	---	---	17.5	13.5	19.0	13.0
5	---	---	---	---	---	---	---	---	18.0	13.0	19.5	14.0
6	---	---	---	---	---	---	---	---	17.5	13.0	20.0	14.0
7	---	---	---	---	---	---	---	---	17.5	13.0	20.5	13.5
8	---	---	---	---	---	---	---	---	18.0	13.0	20.5	14.0
9	---	---	---	---	---	---	---	---	18.0	13.0	21.0	14.5
10	---	---	---	---	---	---	---	---	18.0	13.0	21.0	14.5
11	---	---	---	---	---	---	---	---	18.0	13.0	21.0	15.0
12	---	---	---	---	---	---	---	---	18.0	13.0	21.0	16.0
13	---	---	---	---	---	---	---	---	16.0	13.0	21.5	16.0
14	---	---	---	---	---	---	---	---	18.5	14.0	21.0	16.0
15	---	---	---	---	---	---	---	---	19.5	14.5	22.0	16.0
16	---	---	---	---	---	---	---	---	18.0	14.5	22.0	15.5
17	---	---	---	---	---	---	---	---	18.5	14.5	22.5	15.5
18	---	---	---	---	---	---	---	---	17.0	11.0	22.5	16.0
19	---	---	---	---	---	---	---	---	17.0	13.5	21.5	17.0
20	---	---	---	---	---	---	---	---	16.0	14.0	22.0	17.0
21	---	---	---	---	---	---	---	---	15.5	14.5	21.0	17.0
22	---	---	---	---	---	---	---	---	15.0	11.5	22.0	17.0
23	---	---	---	---	---	---	---	---	18.0	13.0	19.5	16.0
24	---	---	---	---	---	---	---	---	16.5	13.5	21.5	16.0
25	---	---	---	---	---	---	---	---	14.5	11.5	21.0	16.0
26	---	---	---	---	---	---	---	---	---	---	21.0	16.0
27	---	---	---	---	---	---	---	---	---	---	21.0	15.5
28	---	---	---	---	---	---	---	---	18.0	12.0	22.0	15.5
29	---	---	---	---	---	---	---	---	18.5	12.5	22.0	16.0
30	---	---	---	---	---	---	---	---	---	---	21.5	16.5
31	---	---	---	---	---	---	---	---	---	---	22.0	16.0
MONTH	---	---	---	---	---	---	---	---	---	---	22.5	12.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	21.5	15.5	---	---	---	---	---	---	24.0	19.0	25.5	20.5
2	22.0	15.5	---	---	---	---	---	---	23.5	19.0	25.0	20.5
3	22.0	---	---	---	---	---	---	---	24.0	19.0	25.0	19.5
4	21.5	---	---	---	---	---	---	---	24.5	19.0	24.5	18.5
5	22.0	---	---	---	---	---	---	---	24.5	19.0	24.5	19.0
6	21.5	---	---	---	---	---	---	---	24.5	19.0	25.0	18.5
7	22.0	15.5	---	---	---	---	---	---	24.5	18.5	25.0	19.0
8	22.5	15.5	---	---	---	---	---	---	24.5	19.0	26.0	19.5
9	22.0	---	---	---	---	---	---	---	24.5	19.5	26.5	20.5
10	22.5	---	---	---	---	---	---	---	25.0	19.5	26.0	20.5
11	23.0	16.5	---	---	---	---	---	---	26.0	19.5	26.0	20.5
12	23.0	15.5	---	---	---	---	---	---	25.5	20.0	25.5	20.5
13	22.0	---	---	---	---	---	---	---	25.5	19.5	24.5	20.0
14	---	---	---	---	---	---	---	---	25.0	19.5	25.5	20.0
15	---	---	---	---	---	---	---	---	25.0	19.5	25.0	19.5
16	---	---	---	---	---	---	---	---	25.0	19.5	25.0	20.0
17	---	---	---	---	---	---	---	---	26.0	20.0	25.0	20.5
18	---	---	---	---	---	---	24.5	19.0	26.0	20.0	24.0	20.0
19	---	---	---	---	---	---	24.5	19.0	25.5	20.0	22.5	18.5
20	---	---	---	---	---	---	24.5	18.5	25.5	19.5	22.0	17.5
21	---	---	---	---	---	---	24.5	18.5	25.0	20.0	22.5	17.0
22	---	---	---	---	---	---	24.0	18.5	25.0	19.5	23.0	17.0
23	---	---	---	---	---	---	23.5	18.5	25.0	19.5	23.0	17.0
24	---	---	---	---	---	---	24.0	18.0	25.0	20.5	23.5	17.0
25	---	---	---	---	---	---	24.5	18.5	26.0	20.5	23.0	18.5
26	---	---	---	---	---	---	24.5	18.5	25.5	20.5	24.0	18.5
27	---	---	---	---	---	---	24.5	18.5	26.0	19.5	23.5	18.5
28	---	---	---	---	---	---	24.0	18.5	26.0	20.5	23.0	18.5
29	---	---	---	---	---	---	24.0	18.5	26.0	20.5	22.0	17.0
30	---	---	---	---	---	---	24.0	18.0	25.5	20.5	22.0	18.5
31	---	---	---	---	---	---	23.5	18.5	25.5	20.0	---	---
MONTH	---	---	---	---	---	---	---	---	26.0	18.5	26.5	17.0



## 11128500 SANTA YNEZ RIVER AT SOLVANG, CA—Continued

## CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample locat- ion, feet (81903)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat un- f uS/cm 25 degC (00095)	Temper- ature, deg C (00010)	Loca- tion in X-sect. looking dwnstrm ft from l bank (00009)
JAN									
16...	0935	.40	747	12.0	127	7.9	1140	17.0	.40
16...	0936	.40	747	11.7	121	7.9	1150	16.0	3.40
16...	0937	.40	747	11.7	123	7.9	1150	16.5	5.90
16...	0938	.60	747	11.6	122	7.9	1150	16.5	8.40
16...	0939	.70	747	11.5	121	7.9	1150	16.5	10.9
16...	0940	.60	747	11.5	121	7.9	1150	16.5	13.4
16...	0941	.60	747	11.5	121	7.9	1150	16.5	15.9
16...	0942	.40	747	11.5	121	7.9	1150	16.5	18.4
16...	0943	.30	747	11.5	121	7.9	1150	16.5	20.9
16...	0944	.20	747	11.5	121	7.9	1150	16.5	23.4
16...	0945	.20	747	11.5	121	8.0	1150	16.5	24.9
AUG									
03...	1520	.67	--	--	--	8.2	854	24.0	48.5
03...	1521	.90	--	--	--	8.2	856	24.0	45.5
03...	1522	1.09	--	--	--	8.2	856	24.0	42.5
03...	1523	1.22	--	--	--	8.3	855	24.0	39.5
03...	1524	1.28	--	--	--	8.3	855	24.0	36.5
03...	1525	1.36	--	--	--	8.3	855	24.0	33.5
03...	1526	1.52	--	--	--	8.4	855	22.0	30.5
03...	1527	1.53	--	--	--	8.4	854	24.0	27.5
03...	1528	1.36	--	--	--	8.4	855	24.0	24.5
03...	1529	1.36	--	--	--	8.4	856	24.0	21.5
03...	1530	1.33	--	--	--	8.4	857	24.0	18.5
03...	1531	1.15	--	--	--	8.4	858	24.0	15.5
03...	1532	1.03	--	--	--	8.4	858	24.0	12.5
03...	1533	.89	--	--	--	8.4	859	24.0	9.50
03...	1534	.57	--	--	--	8.4	860	24.0	6.50

\* Instantaneous discharge at time of cross-sectional measurement: Jan. 16, 1.7 ft<sup>3</sup>/s; Aug. 3, 73 ft<sup>3</sup>/s.

## 11129800 ZACA CREEK NEAR BUELLTON, CA

LOCATION.—Lat 34°38'55", long 120°11'00", in San Carlos de Jonata Grant, Santa Barbara County, Hydrologic Unit 18060010, on left bank, 2 ft upstream from bridge on Frontage Road, 0.9 mi upstream from Dry Creek, 2.4 mi north of Buellton, and 4.0 mi upstream from mouth.

DRAINAGE AREA.—32.8 mi<sup>2</sup>.

PERIOD OF RECORD.—September 1963 to September 1981, October 1989 to September 1992, October 1994 to current year.

CHEMICAL DATA: April 1997 to September 1997.

GAGE.—Water-stage recorder. Elevation of gage is 471.54 ft above NGVD of 1929.

REMARKS.—Records poor. Some pumping from wells along stream for irrigation upstream from station. Small regulation by Zaca Lake, about 15 mi upstream. See schematic diagram of Santa Ynez River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,390 ft<sup>3</sup>/s, Feb. 24, 1969, gage height, 9.20 ft, maximum gage height, 12.59 ft, Feb. 3, 1998; no flow most of each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	2215	12	2.72

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	2.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	1.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	3.71	0.26	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	0.13	0.01	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	2.4	0.14	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	7.4	0.5	0.00	0.00	0.00	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	0.01	0.06	0.44	2.79	8.91	4.80	1.27	0.47	0.16	0.03	0.01	0.00
MAX	0.13	1.22	7.64	32.1	120	40.1	9.75	5.69	2.52	0.42	0.13	0.09
(WY)	1999	1997	1997	1969	1998	1995	1995	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1964	1967	1964	1968	1964	1964	1964	1964	1964	1964	1964	1964

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1964 - 2004

ANNUAL TOTAL	12.11	3.97	
ANNUAL MEAN	0.03	0.01	1.54
HIGHEST ANNUAL MEAN			11.6
LOWEST ANNUAL MEAN			0.00
HIGHEST DAILY MEAN	3.4	Mar 15	598
LOWEST DAILY MEAN	0.00	Feb 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 1	0.00
MAXIMUM PEAK FLOW			1390
MAXIMUM PEAK STAGE			12.59
ANNUAL RUNOFF (AC-FT)	24	7.9	1110
10 PERCENT EXCEEDS	0.08	0.00	0.76
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

## 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—January 1941 to current year.

REVISED RECORDS.—WSP 2128: Drainage area.

GAGE.—Water-stage recorder and concrete low-water control. Elevation of gage is 220 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation upstream from station. Small diversions for irrigation upstream from station. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,400 ft<sup>3</sup>/s, Mar. 15, 1952, gage height, 20.80 ft; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	1830	2,160	6.62

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.51	1.0	e0.87	2.3	1.6	6.1	1.8	0.96	0.51	0.24	0.16	0.12
2	0.56	0.90	e0.89	3.4	3.2	7.4	1.8	0.90	0.50	0.26	0.15	0.12
3	0.56	0.72	e0.92	2.7	6.8	4.8	1.7	0.82	0.47	0.26	0.15	0.12
4	0.56	0.74	e0.95	2.3	2.9	4.0	1.7	0.78	0.48	0.26	0.15	e0.12
5	0.56	0.65	e0.97	2.2	2.2	3.5	1.7	0.77	0.46	0.26	0.16	e0.11
6	0.56	0.65	1.0	2.1	1.9	3.3	1.7	0.75	0.44	0.25	0.15	e0.11
7	0.52	0.65	1.1	2.1	1.8	3.2	1.7	0.74	0.42	0.24	0.14	0.10
8	0.47	0.66	1.1	2.1	1.8	3.1	1.7	0.74	0.41	0.24	0.15	0.10
9	0.47	3.4	0.97	2.1	1.7	3.0	1.7	0.72	0.44	0.22	0.16	0.11
10	0.47	2.0	1.0	2.1	1.7	2.9	1.8	0.74	0.45	0.22	0.17	0.11
11	0.47	1.1	1.2	2.1	1.7	2.8	1.7	0.75	0.45	0.20	0.16	0.12
12	0.47	0.93	1.2	2.1	1.7	2.7	1.6	0.76	0.43	0.19	0.16	0.12
13	0.47	0.86	1.2	2.1	1.6	2.7	1.6	0.76	0.42	0.18	0.17	0.12
14	0.43	0.79	1.5	2.0	1.6	2.5	1.5	0.74	0.39	0.18	0.16	0.11
15	0.36	0.82	1.5	1.9	1.6	2.5	1.5	0.73	0.36	0.16	0.15	0.12
16	0.31	0.88	1.3	2.0	1.6	2.5	1.4	0.77	0.38	0.14	0.15	0.13
17	0.31	0.76	1.2	1.9	1.6	2.4	1.4	0.76	0.44	0.14	0.15	0.14
18	0.30	0.68	1.2	1.8	3.9	2.3	1.4	0.74	0.50	0.14	e0.15	0.13
19	0.31	0.68	1.2	1.7	3.1	2.3	1.4	0.75	0.50	0.14	e0.15	0.12
20	0.29	0.73	1.2	1.6	2.2	2.3	1.4	0.76	0.47	0.14	e0.15	0.12
21	0.24	0.73	1.4	1.6	2.2	2.3	1.4	0.74	0.47	0.15	e0.14	0.12
22	0.24	0.65	1.3	1.6	7.2	2.3	1.3	0.73	0.47	0.16	e0.14	0.12
23	0.24	0.65	2.1	1.6	6.6	2.3	1.2	0.73	0.47	0.16	e0.14	0.14
24	0.24	e0.68	2.6	1.7	3.1	2.2	1.2	0.71	0.45	0.16	e0.14	0.13
25	0.23	e0.70	5.7	1.7	352	2.1	1.2	0.69	0.39	0.15	e0.14	0.11
26	0.17	e0.73	5.6	1.6	64	2.2	1.1	0.71	0.29	0.16	e0.13	0.13
27	0.16	e0.76	2.6	1.7	10	2.0	1.00	0.69	0.26	0.17	0.13	0.13
28	0.12	e0.78	2.1	1.9	7.3	1.9	0.91	0.69	0.27	0.16	0.13	0.13
29	0.12	e0.81	2.0	1.7	5.9	1.8	0.98	0.67	0.26	0.15	0.13	0.13
30	0.12	e0.84	2.7	1.7	---	1.8	0.96	0.62	0.24	0.15	0.13	0.14
31	0.29	---	2.4	1.6	---	1.8	---	0.56	---	0.16	0.12	---
TOTAL	11.13	26.93	52.97	61.0	504.5	89.0	43.45	22.98	12.49	5.79	4.56	3.63
MEAN	0.36	0.90	1.71	1.97	17.4	2.87	1.45	0.74	0.42	0.19	0.15	0.12
MAX	0.56	3.4	5.7	3.4	352	7.4	1.8	0.96	0.51	0.26	0.17	0.14
MIN	0.12	0.65	0.87	1.6	1.6	1.8	0.91	0.56	0.24	0.14	0.12	0.10
AC-FT	22	53	105	121	1000	177	86	46	25	11	9.0	7.2

e Estimated.

## SANTA YNEZ RIVER BASIN

## 11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.86	2.28	7.42	22.9	43.1	40.0	15.4	4.72	2.41	1.41	0.98	0.81
MAX	4.26	48.6	102	281	474	545	158	33.1	12.7	8.69	5.77	4.51
(WY)	1942	1966	1956	1995	1998	1995	1941	1998	1998	1998	1941	1941
MIN	0.00	0.04	0.05	0.08	0.33	0.36	0.21	0.00	0.00	0.00	0.01	0.01
(WY)	1962	1991	1990	1991	1991	1990	1989	1961	1961	1961	1972	1972

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	1296.65		838.43			
ANNUAL MEAN	3.55		2.29		11.4	
HIGHEST ANNUAL MEAN					80.6 1995	
LOWEST ANNUAL MEAN					0.17 1990	
HIGHEST DAILY MEAN	503	Mar 15	352	Feb 25	5390	Mar 11 1995
LOWEST DAILY MEAN	0.12	Oct 28	0.10	Sep 7	0.00	Jul 23 1948
ANNUAL SEVEN-DAY MINIMUM	0.17	Oct 24	0.11	Sep 4	0.00	Jul 23 1948
MAXIMUM PEAK FLOW			2160	Feb 25	11400	Mar 15 1952
MAXIMUM PEAK STAGE			6.62	Feb 25	20.80	Mar 15 1952
INSTANTANEOUS LOW FLOW			0.07	Sep 6		
ANNUAL RUNOFF (AC-FT)	2570		1660		8290	
10 PERCENT EXCEEDS	3.4		2.5		12	
50 PERCENT EXCEEDS	1.3		0.74		1.5	
90 PERCENT EXCEEDS	0.21		0.14		0.10	



## 11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
OCT								
03...	--	--	--	--	--	--	--	--
NOV								
12...	--	--	--	--	--	--	--	--
DEC								
18...	--	--	--	--	--	--	--	--
JAN								
02...	--	--	--	--	--	--	--	--
FEB								
03...	--	--	--	--	--	--	--	--
MAR								
10...	--	--	--	--	--	--	--	--
APR								
08...	403	4	113	.6	25.6	276	921	1.30
MAY								
04...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
JUL								
01...	--	--	--	--	--	--	--	--
AUG								
02...	--	--	--	--	--	--	--	--
SEP								
07...	--	--	--	--	--	--	--	--

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)
OCT								
03...	1020	--	--	--	--	--	--	--
NOV								
12...	979	--	--	--	--	--	--	--
DEC								
18...	--	--	--	--	--	--	--	--
JAN								
02...	900	--	--	--	--	--	--	--
FEB								
03...	801	--	--	--	--	--	--	--
MAR								
10...	952	--	--	--	--	--	--	--
APR								
08...	954	<.04	<.06	<.008	.10	612	12	44.2
MAY								
04...	1000	--	--	--	--	--	--	--
28...	1020	--	--	--	--	--	--	--
JUL								
01...	1110	--	--	--	--	--	--	--
AUG								
02...	1170	--	--	--	--	--	--	--
SEP								
07...	1180	--	--	--	--	--	--	--

&lt; Actual value is known to be less than the value shown.

## 11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA—Continued

## CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat un- f uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Loca- tion in X-sect. looking dwnstrm ft from l bank (00009)
JAN									
02...*	1630	.45	756	9.5	87	8.1	1330	11.5	5.00
02...*	1631	.57	756	9.5	87	8.1	1330	11.5	4.50
02...*	1632	.65	756	9.5	87	8.1	1330	11.5	4.00
02...*	1633	.69	756	9.5	87	8.1	1330	11.5	3.50
02...*	1634	.73	756	9.5	87	8.1	1330	11.5	3.00
02...*	1635	.79	756	9.5	87	8.1	1330	11.5	2.50
02...*	1636	.70	756	9.5	87	8.1	1330	11.5	2.00
02...*	1637	.59	756	9.5	87	8.1	1330	11.5	1.50
02...*	1638	.50	756	9.5	87	8.2	1330	11.5	1.00
02...*	1639	.30	756	9.5	86	8.2	1330	11.5	.50
APR									
08...*	1415	.71	754	9.8	105	8.1	1410	19.0	.50
08...*	1416	.57	754	9.8	105	8.1	1410	19.0	1.00
08...*	1417	.46	754	9.8	105	8.1	1410	19.0	1.50
08...*	1418	.47	754	9.8	105	8.1	1410	19.0	2.00
08...*	1419	.46	754	9.8	105	8.1	1420	19.0	2.50
08...*	1420	.50	754	9.8	105	8.1	1420	19.0	3.00
08...*	1421	.55	754	9.8	105	8.1	1420	19.0	3.50
08...*	1422	.47	754	9.8	105	8.1	1420	19.0	4.00
08...*	1423	.46	754	9.8	104	8.1	1420	19.0	4.50
08...*	1424	.46	754	9.8	105	8.1	1420	19.0	5.00
08...*	1425	.32	754	9.7	104	8.1	1420	19.0	5.50

\* Instantaneous discharge at time of cross-sectional measurement: Jan. 02, 3.9 ft<sup>3</sup>/s; Apr. 08, 1.8 ft<sup>3</sup>/s.

## 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—May 1947 to November 1951 (irrigation seasons only), May 1952 to September 1963, October 1964 to September 1979, 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, and October 1978 to September 1980.

REVISIONS.—WSP 1928: Drainage area.

GAGE.—Two water-stage recorders. Elevation of main gage is 85 ft above NGVD of 1929, from topographic map. Prior to Apr. 10, 1991, at datum 5 ft higher. 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 NGVD of 1929.

REMARKS.—Records fair. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952, by Lake Cachuma (stations 11121000, 11122000, and 11125500, respectively). 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. Satellite telemeter at station. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 80,000 ft<sup>3</sup>/s, Jan. 25, 1969, gage height, 24.20 ft, from supplementary gage; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Jan. 9, 1907, reached a stage of 22.0 ft, site and datum then in use, discharge, 120,000 ft<sup>3</sup>/s, from mean-depth study.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.92	e2.6	34	2.9	0.29	0.00	0.00	57	23
2	0.00	0.00	0.00	2.0	e3.4	34	3.1	0.27	0.00	0.00	47	26
3	0.00	0.00	0.00	2.2	6.1	28	2.7	0.25	0.00	0.00	34	24
4	0.00	0.00	0.00	1.6	4.9	25	2.7	0.29	0.00	0.00	33	22
5	0.00	0.00	0.00	1.4	4.0	23	2.3	0.26	0.00	0.00	31	23
6	0.00	0.00	0.00	1.5	3.4	23	1.6	0.22	0.00	0.00	31	24
7	0.00	0.00	0.00	1.5	3.4	20	1.7	0.23	0.00	0.00	32	23
8	0.00	0.00	0.00	1.4	3.5	17	1.7	0.18	0.00	0.00	34	22
9	0.00	0.00	0.00	1.4	3.0	16	1.8	e0.22	0.00	0.00	41	19
10	0.00	0.00	0.00	1.4	3.0	14	2.0	e0.26	0.00	0.00	46	e16
11	0.00	0.00	0.00	1.5	2.8	12	2.0	0.29	0.00	0.00	38	13
12	0.00	0.00	0.00	1.4	2.6	11	2.5	0.13	0.00	0.00	30	13
13	0.00	0.00	0.00	1.4	2.4	11	2.4	0.04	0.00	0.00	24	13
14	0.00	0.00	0.00	1.4	2.2	8.0	1.9	0.00	0.00	0.00	22	12
15	0.00	0.00	0.00	1.4	1.5	6.9	1.7	0.00	0.00	0.00	23	14
16	0.00	0.00	0.00	1.3	1.5	10	1.5	0.00	0.00	0.00	29	18
17	0.00	0.00	0.00	1.4	1.8	9.5	1.4	0.10	0.00	0.00	34	19
18	0.00	0.00	0.00	1.4	3.8	9.0	1.2	0.00	0.00	0.00	36	21
19	0.00	0.00	0.00	1.5	5.3	8.5	1.1	0.00	0.00	0.00	33	24
20	0.00	0.00	0.00	1.3	4.3	7.6	0.93	0.00	0.00	0.00	29	30
21	0.00	0.00	0.00	1.5	3.8	7.1	0.74	0.00	0.00	0.00	30	36
22	0.00	0.00	0.00	1.5	6.0	8.0	0.63	0.00	0.00	0.00	30	41
23	0.00	0.00	0.00	1.6	11	7.0	0.52	0.00	0.00	0.00	25	41
24	0.00	0.00	0.00	1.6	7.0	5.8	0.41	0.00	0.00	0.00	23	42
25	0.00	0.00	0.00	1.7	534	5.3	0.39	0.00	0.00	0.00	24	39
26	0.00	0.00	0.00	1.1	228	5.2	0.44	0.00	0.00	0.00	27	33
27	0.00	0.00	0.00	1.4	147	4.2	0.39	0.00	0.00	0.00	25	28
28	0.00	0.00	0.00	1.6	68	3.6	0.36	0.00	0.00	0.26	22	22
29	0.00	0.00	0.00	1.6	43	3.4	0.36	0.00	0.00	20	22	20
30	0.00	0.00	0.18	2.4	---	3.2	0.29	0.00	0.00	39	24	20
31	0.00	---	0.53	2.4	---	2.7	---	0.00	---	55	22	---
TOTAL	0.00	0.00	0.71	47.72	1113.3	383.0	43.66	3.03	0.00	114.26	958	721
MEAN	0.00	0.00	0.02	1.54	38.4	12.4	1.46	0.10	0.00	3.69	30.9	24.0
MAX	0.00	0.00	0.53	2.4	534	34	3.1	0.29	0.00	55	57	42
MIN	0.00	0.00	0.00	0.92	1.5	2.7	0.29	0.00	0.00	0.00	22	12
AC-FT	0.00	0.00	1.4	95	2210	760	87	6.0	0.00	227	1900	1430

e Estimated.



## 11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.47	7.11	30.6	222	491	469	181	67.5	18.0	5.05	4.09	4.33
MAX	29.9	112	291	3303	7452	3590	1253	993	310	78.3	30.9	29.4
(WY)	1992	1966	1984	1969	1998	1983	1998	1998	1998	1998	2004	1992
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1955	1955	1955	1989	1961	1990	1961	1961	1961	1960	1954	1954

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1952 - 2004	
ANNUAL TOTAL	5176.27		3384.68			
ANNUAL MEAN	14.2		9.25		123	
HIGHEST ANNUAL MEAN					941	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	729	Mar 15	534	Feb 25	38000	Jan 25 1969
LOWEST DAILY MEAN	0.00	Aug 7	0.00	Oct 1	0.00	Sep 18 1953
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 7	0.00	Oct 1	0.00	Oct 23 1953
MAXIMUM PEAK FLOW			4540	Feb 25	80000	Jan 25 1969
MAXIMUM PEAK STAGE			9.23	Feb 25	24.20	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	10270		6710		89300	
10 PERCENT EXCEEDS	30		28		109	
50 PERCENT EXCEEDS	1.5		0.38		2.1	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

## 11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1978–88, 1997 to current year.

CHEMICAL DATA: Water years 1978–88, 1997 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: October 1998 to September 2003 (seasonal). October 2003 to September 2004.

WATER TEMPERATURE: October 1998 to current year (seasonal).

INSTRUMENTATION.—Water-quality monitor since October 1998.

REMARKS.—Specific conductance and water temperature records rated poor. Continuous water temperature is not collected December 1 to March 31. Interruptions in record due to malfunction of recorder. Data collected June 11 to July 27 in stagnant pool during period of no flow are available in the files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum recorded, 2,150 microsiemens, Aug. 17, 2002; minimum recorded, 922 microsiemens, Apr. 8, 2001.

WATER TEMPERATURE: Maximum recorded, 32.0°C, July 12, 13, 1999; minimum recorded, 7.0°C, Nov. 19, 2000.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum recorded, 1,870 microsiemens, July 28; minimum recorded, 1,200 microsiemens, Aug. 1.

WATER TEMPERATURE: Maximum recorded, 24.5°C, July 29, 30, Aug. 6, 7; minimum recorded, 15.0°C, Apr. 7, 16, 18.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, uS/cm water, 25 degC (00095)	Temperature, water, deg C (00010)	Noncarbon hardness, wat flt inc tit field, mg/L as CaCO <sub>3</sub> (00904)
JAN									
08...	1420	1.3	--	--	--	7.9	1770	13.5	--
FEB									
07...	1442	3.4	--	--	--	7.7	1720	15.5	--
MAR									
11...	1635	14	--	--	--	8.0	1640	20.0	--
APR									
08...	1020	1.6	760	8.3	85	8.0	1700	16.5	430
MAY									
21...	1655	.71*	--	--	--	7.4	1720	23.5	--
JUN									
10...	1350	.46*	--	--	--	7.1	1710	24.5	--
AUG									
04...	1705	33	--	--	--	8.0	1250	24.0	--
SEP									
09...	1553	18	--	--	--	8.0	1330	24.5	--

Date	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO <sub>3</sub> (39086)
JAN								
08...	--	--	--	--	--	--	--	--
FEB								
07...	--	--	--	--	--	--	--	--
MAR								
11...	--	--	--	--	--	--	--	--
APR								
08...	780	166	88.5	3.70	2	106	23	345
MAY								
21...	--	--	--	--	--	--	--	--
JUN								
10...	--	--	--	--	--	--	--	--
AUG								
04...	--	--	--	--	--	--	--	--
SEP								
09...	--	--	--	--	--	--	--	--

\* Computed discharge 0.0. Samples collected in flowing section 1/4 mile downstream of gage.

## 11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
JAN								
08...	--	--	--	--	--	--	--	--
FEB								
07...	--	--	--	--	--	--	--	--
MAR								
11...	--	--	--	--	--	--	--	--
APR								
08...	416	2	119	.5	24.1	437	1150	1.72
MAY								
21...	--	--	--	--	--	--	--	--
JUN								
10...	--	--	--	--	--	--	--	--
AUG								
04...	--	--	--	--	--	--	--	--
SEP								
09...	--	--	--	--	--	--	--	--

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)
JAN								
08...	1240	--	--	--	--	--	--	--
FEB								
07...	1240	--	--	--	--	--	--	--
MAR								
11...	1160	--	--	--	--	--	--	--
APR								
08...	1270	<.04	<.06	<.008	.06	491	7	97.1
MAY								
21...	969	--	--	--	--	--	--	--
JUN								
10...	1130	--	--	--	--	--	--	--
AUG								
04...	892	--	--	--	--	--	--	--
SEP								
09...	940	--	--	--	--	--	--	--

&lt; Actual value is known to be less than value shown.





## 11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA—Continued

## CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, uS/cm 25 degC (00095)	Temperature, deg C (00010)	Location in X-sect. looking downstrm ft from l bank (00009)
FEB									
07...*	1510	1.14	766	9.5	96	7.5	1710	15.5	.00
07...*	1512	1.52	766	10.2	102	7.7	1720	15.5	4.10
07...*	1514	1.18	766	10.3	103	7.7	1710	15.5	8.20
07...*	1516	.93	766	10.3	103	7.7	1720	15.5	12.3
07...*	1518	.90	766	10.2	102	7.7	1710	15.5	16.4
07...*	1520	1.09	766	10.3	103	7.8	1710	15.5	20.5
07...*	1522	1.12	766	10.2	103	7.7	1710	15.5	24.6
07...*	1524	.49	766	9.3	96	7.5	1710	17.0	28.7
07...*	1526	.57	766	7.5	77	7.5	1740	17.0	32.8
07...*	1528	.32	766	6.9	71	7.5	1750	16.5	36.9
07...*	1530	.35	766	7.0	72	7.5	1740	17.0	41.0
07...*	1532	.26	766	6.8	71	7.5	1750	17.0	45.1
APR									
08...*	1029	.40	760	7.9	81	7.8	1720	16.5	.50
08...*	1030	.60	760	7.9	81	7.8	1720	16.5	1.00
08...*	1031	.75	760	8.0	82	7.8	1720	16.5	1.50
08...*	1032	.80	760	8.1	82	7.8	1730	16.5	2.00
08...*	1033	.79	760	8.2	84	7.9	1720	16.5	2.50
08...*	1034	.80	760	8.3	85	7.8	1720	16.5	3.00
08...*	1035	.80	760	8.3	85	7.8	1720	16.5	3.50
08...*	1036	.84	760	8.5	87	7.8	1720	16.5	4.00
08...*	1037	.80	760	8.5	88	7.8	1720	16.5	4.50
08...*	1038	.59	760	8.7	89	7.8	1710	17.0	5.00
08...*	1039	.44	760	8.7	90	7.8	1710	17.0	5.50
08...*	1040	.31	760	8.7	90	7.8	1710	17.0	6.00
AUG									
04...*	1641	1.01	--	--	--	8.0	1250	23.5	5.20
04...*	1642	1.26	--	--	--	8.0	1250	23.5	11.2
04...*	1643	1.42	--	--	--	8.0	1250	23.5	17.2
04...*	1644	1.30	--	--	--	8.0	1250	23.5	23.2
04...*	1645	1.52	--	--	--	8.0	1250	23.5	29.2
04...*	1646	1.93	--	--	--	8.0	1250	24.0	35.2
04...*	1647	1.71	--	--	--	8.0	1250	24.0	41.2
04...*	1648	1.66	--	--	--	7.9	1250	24.0	47.2
04...*	1649	1.23	--	--	--	7.9	1250	24.0	53.2
SEP									
09...*	1605	.44	--	--	--	7.9	1330	24.5	3.00
09...*	1606	.38	--	--	--	7.9	1330	24.5	6.00
09...*	1607	.54	--	--	--	8.0	1330	24.5	9.00
09...*	1608	.58	--	--	--	8.0	1330	24.5	12.0
09...*	1609	.58	--	--	--	8.0	1330	24.5	15.0
09...*	1610	.54	--	--	--	8.0	1330	24.5	18.0
09...*	1611	.58	--	--	--	8.0	1330	24.5	21.0
09...*	1612	.62	--	--	--	8.0	1330	24.5	24.0
09...*	1613	.68	--	--	--	8.0	1330	24.5	27.0
09...*	1614	.56	--	--	--	8.0	1330	25.0	30.0
09...*	1615	.70	--	--	--	8.0	1330	25.0	33.0
09...*	1616	.90	--	--	--	8.0	1330	25.0	36.0

\* Instantaneous discharge at time of cross-sectional measurement: Feb. 7, 3.4 ft<sup>3</sup>/s; Apr. 8, 1.6 ft<sup>3</sup>/s; Aug. 4, 33 ft<sup>3</sup>/s; Sept. 9, 18 ft<sup>3</sup>/s.

## 11134000 SANTA YNEZ RIVER AT H STREET, NEAR LOMPOC, CA

LOCATION.—Lat 34°40'06", long 120°27'25", in Lompoc Grant, [Santa Barbara County](#), Hydrologic Unit 18060010, near left bank, 1,000 ft downstream of H Street Bridge, on State Highway 1, and 2 mi north of Lompoc.

DRAINAGE AREA.—816 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1946 to September 1962, October 1998 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 57 ft above NGVD of 1929. Various datums used during period of record. Since July 25, 2002, supplementary water-stage recorder 200 ft downstream on the right bank at different datum.

REMARKS.—Records poor. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952, by Lake Cachuma (stations 11121000, 11122000, and 11125500, respectively). 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. Satellite telemeter at station. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge prior to regulation by Lake Cachuma, 37,900 ft<sup>3</sup>/s, Jan. 16, 1952, gage height, 17.4 ft (datum then in use), from rating curve extended above 2,900 ft<sup>3</sup>/s. Maximum discharge after regulation by Lake Cachuma, 41,600 ft<sup>3</sup>/s, Mar. 6, 2001, gage height, 14.09 ft; no flow for several months in each year.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	1.4	0.00	0.00	0.00	0.00	0.00	e2.0
2	0.00	0.00	0.00	0.00	0.00	4.0	0.00	0.00	0.00	0.00	0.00	e2.5
3	0.00	0.00	0.00	0.00	0.00	1.4	0.00	0.00	0.00	0.00	0.00	e2.7
4	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	e2.3
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e1.7
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e1.2
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.70
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.40
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.20
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.10
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e4.0
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e8.0
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e10
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e10
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e7.5
25	0.00	0.00	0.00	0.00	179	0.00	0.00	0.00	0.00	0.00	0.00	e3.5
26	0.00	0.00	0.00	0.00	277	0.00	0.00	0.00	0.00	0.00	0.00	e2.0
27	0.00	0.00	0.00	0.00	80	0.00	0.00	0.00	0.00	0.00	0.00	e1.2
28	0.00	0.00	0.00	0.00	26	0.00	0.00	0.00	0.00	0.00	0.00	e0.60
29	0.00	0.00	0.00	0.00	9.6	0.00	0.00	0.00	0.00	0.00	0.00	e0.40
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	e0.30
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	571.60	6.83	0.00	0.00	0.00	0.00	0.00	61.30
MEAN	0.00	0.00	0.00	0.00	19.7	0.22	0.00	0.00	0.00	0.00	0.00	2.04
MAX	0.00	0.00	0.00	0.00	277	4.0	0.00	0.00	0.00	0.00	0.00	10
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	1130	14	0.00	0.00	0.00	0.00	0.00	122

e Estimated.

## SANTA YNEZ RIVER BASIN

## 11134000 SANTA YNEZ RIVER AT H STREET, NEAR LOMPOC, CA—Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1952, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.000	2.33	9.46	301	43.9	293	69.8	15.5	2.45	.29	.000	.000
MAX	.000	14.0	54.8	1741	215	1722	416	92.9	14.7	1.73	.000	.000
(WY)	1947	1947	1947	1952	1952	1952	1952	1952	1952	1952	1947	1947
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1947	1948	1948	1948	1948	1948	1948	1948	1947	1947	1947	1947

## SUMMARY STATISTICS

## WATER YEARS 1947 - 1952

ANNUAL MEAN	62.1
HIGHEST ANNUAL MEAN	354 1952
LOWEST ANNUAL MEAN	.000 1948
HIGHEST DAILY MEAN	19600 Jan 16 1952
LOWEST DAILY MEAN	.00 Oct 1 1946
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1 1946
MAXIMUM PEAK FLOW	37900 Jan 16 1952
MAXIMUM PEAK STAGE	17.40 Jan 16 1952
ANNUAL RUNOFF (AC-FT)	44980
10 PERCENT EXCEEDS	25
50 PERCENT EXCEEDS	.00
90 PERCENT EXCEEDS	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2004, BY WATER YEAR (WY)

	1953	1954	1955	1956	1957	1960	1957	1953	1953	1953	1953	1953
MEAN	1.43	2.29	25.0	26.9	137	271	109	25.9	3.71	0.03	0.00	0.46
MAX	11.3	19.8	166	181	934	2983	1046	282	50.6	0.51	0.00	4.13
(WY)	1999	1999	1956	1956	1962	2001	1958	1958	1958	1958	1953	2002
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1953	1955	1954	1957	1955	1960	1957	1953	1953	1953	1953	1953

## SUMMARY STATISTICS

## FOR 2003 CALENDAR YEAR

## FOR 2004 WATER YEAR

## WATER YEARS 1953 - 2004

ANNUAL TOTAL	4061.51	639.73	
ANNUAL MEAN	11.1	1.75	49.7
HIGHEST ANNUAL MEAN			293 2001
LOWEST ANNUAL MEAN			0.05 1957
HIGHEST DAILY MEAN	745 Mar 15	277 Feb 26	31900 Mar 6 2001
LOWEST DAILY MEAN	0.00 May 25	0.00 Oct 1	0.00 Oct 1 1952
ANNUAL SEVEN-DAY MINIMUM	0.00 May 25	0.00 Oct 1	0.00 Oct 1 1952
MAXIMUM PEAK FLOW		2030 Feb 25	41600 Mar 6 2001
MAXIMUM PEAK STAGE		4.83 Feb 25	14.09 Mar 6 2001
ANNUAL RUNOFF (AC-FT)	8060	1270	36020
10 PERCENT EXCEEDS	21	0.00	44
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00



## 11134800 MIGUELITO CREEK AT LOMPOC, CA

LOCATION.—Lat 34°37'54", long 120°27'50", in Lompoc Grant, Santa Barbara County, Hydrologic Unit 18060010, on left bank, 120 ft upstream from drop structure to debris basin, and 1,900 ft south of Lompoc Union High School.

DRAINAGE AREA.—11.6 mi<sup>2</sup>.

PERIOD OF RECORD.—October 1970 to May 1986, October 1987 to current year.

CHEMICAL DATA: Water years 1980–86, 1988–97.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 97.94 ft above NGVD of 1929, Santa Barbara County Flood Control District datum. Prior to May 6, 1986, on right bank at site 350 ft downstream at different datum.

REMARKS.—Records poor. No regulation or diversion upstream from station; some pumping from wells along stream for irrigation. See schematic diagram of Santa Ynez River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,660 ft<sup>3</sup>/s, Feb. 3, 1998, gage height, 4.61 ft, from theoretical rating curve above 50 ft<sup>3</sup>/s; no flow for many days in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Jan. 25, 1969, reached a stage of 5.83 ft, site in use prior to 1986, from floodmark, discharge, 680 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 140 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	1500	e210	unknown

e Estimated.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.23	0.13	0.23	0.14	0.13	0.55	0.23	0.23	0.23	0.28	0.23	0.08
2	0.23	0.13	0.23	0.31	e0.26	0.44	0.23	0.22	0.22	0.23	0.18	0.10
3	0.23	0.39	0.23	0.13	e0.54	0.48	0.23	0.23	0.23	0.29	0.16	0.09
4	0.23	0.13	0.23	0.13	0.52	0.41	0.23	0.28	0.23	0.23	0.13	0.11
5	0.23	0.13	0.23	0.13	0.42	0.33	0.23	0.34	0.19	0.23	0.13	0.10
6	0.23	e0.13	0.23	0.13	0.13	0.33	0.23	0.31	0.12	0.33	0.13	0.10
7	0.23	e0.13	0.23	0.13	0.13	0.33	0.28	0.32	0.11	0.29	0.13	0.09
8	0.23	e0.13	0.23	0.13	0.17	0.33	0.33	0.32	0.13	0.23	0.13	0.11
9	0.23	e0.68	0.18	0.13	0.21	0.33	0.23	0.28	0.15	0.23	0.13	0.11
10	0.23	e0.40	0.13	0.13	0.20	0.33	0.27	0.27	0.16	0.33	0.13	0.11
11	0.15	e0.23	0.21	0.13	0.20	0.29	0.23	0.30	0.13	0.29	0.13	0.13
12	0.13	e0.23	0.23	0.21	0.23	0.23	0.23	0.16	0.13	0.23	0.13	0.12
13	0.13	0.23	0.23	0.23	0.23	0.23	0.21	0.16	0.12	0.23	0.12	0.11
14	0.13	0.23	0.24	0.23	0.31	0.23	0.23	0.30	0.11	0.25	0.11	0.12
15	0.13	0.23	0.18	0.23	0.29	0.23	0.23	0.13	0.11	0.27	0.10	0.10
16	0.13	0.23	0.13	0.23	0.33	0.18	0.22	0.13	0.13	0.23	0.10	0.12
17	0.13	0.23	0.17	0.19	0.33	0.09	0.28	0.13	0.13	0.19	0.08	0.13
18	0.13	0.23	0.12	0.13	e0.82	0.12	0.31	0.27	0.11	0.14	0.08	0.13
19	0.13	0.23	0.08	0.17	e0.65	0.13	0.28	0.27	0.08	e0.23	0.08	0.09
20	0.13	0.23	0.08	0.23	0.59	0.13	0.23	0.31	0.13	0.15	0.10	0.07
21	0.13	0.23	0.12	0.19	0.67	0.13	0.18	0.27	0.13	0.16	0.13	0.07
22	0.13	0.23	0.10	0.13	e2.2	0.13	0.23	0.21	0.13	0.23	0.13	0.07
23	0.13	0.23	0.18	0.13	e2.0	0.13	0.20	0.19	0.13	0.15	0.13	0.06
24	0.23	0.23	0.14	0.13	e0.93	0.13	0.18	0.11	0.13	e0.19	0.13	0.06
25	0.23	0.23	e0.46	0.13	e35	0.13	0.23	0.13	0.13	0.15	0.13	0.08
26	0.18	0.23	0.13	0.13	1.3	0.13	0.18	0.18	0.13	0.13	0.13	0.07
27	0.13	0.23	0.13	0.18	0.67	0.13	0.14	0.23	0.13	0.21	0.12	0.08
28	0.13	0.23	0.13	0.13	0.60	0.13	0.17	0.23	0.18	0.19	0.12	0.08
29	0.13	0.23	0.13	0.13	0.60	0.13	0.16	0.23	0.23	0.14	0.12	0.08
30	0.13	0.23	0.13	0.13	---	0.18	0.17	0.23	0.23	0.13	0.11	0.07
31	0.13	---	0.13	0.12	---	0.23	---	0.23	---	0.22	0.11	---
TOTAL	5.30	6.98	5.60	5.00	50.66	7.30	6.78	7.20	4.50	6.78	3.87	2.84
MEAN	0.17	0.23	0.18	0.16	1.75	0.24	0.23	0.23	0.15	0.22	0.12	0.09
MAX	0.23	0.68	0.46	0.31	35	0.55	0.33	0.34	0.23	0.33	0.23	0.13
MIN	0.13	0.13	0.08	0.12	0.13	0.09	0.14	0.11	0.08	0.13	0.08	0.06
AC-FT	11	14	11	9.9	100	14	13	14	8.9	13	7.7	5.6

e Estimated.

## SANTA YNEZ RIVER BASIN

## 11134800 MIGUELITO CREEK AT LOMPOC, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.32	0.66	1.55	3.31	6.80	8.14	2.05	1.25	0.87	0.59	0.45	0.35
MAX	1.39	2.77	8.69	37.9	75.6	106	14.2	6.04	5.60	2.64	2.55	2.05
(WY)	1984	1996	1993	1995	1998	1995	1983	1983	2000	1983	2000	1983
MIN	0.00	0.00	0.01	0.02	0.05	0.09	0.08	0.05	0.01	0.02	0.01	0.00
(WY)	1973	1978	1990	1991	1972	1972	1972	1972	1992	1992	1972	1972

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1971 - 2004	
ANNUAL TOTAL	205.75		112.81			
ANNUAL MEAN	0.56		0.31		2.18	
HIGHEST ANNUAL MEAN					13.8	
LOWEST ANNUAL MEAN					0.15	
HIGHEST DAILY MEAN	57	Mar 15	35	Feb 25	1170	Mar 11 1995
LOWEST DAILY MEAN	0.08	Dec 19	0.06	Sep 23	0.00	Jul 21 1971
ANNUAL SEVEN-DAY MINIMUM	0.11	Dec 16	0.07	Sep 20	0.00	Sep 8 1971
MAXIMUM PEAK FLOW			e210	Feb 25	2660	Feb 3 1998
MAXIMUM PEAK STAGE			a2.75	Feb 25	4.61	Feb 3 1998
INSTANTANEOUS LOW FLOW			0.02		May 21	
ANNUAL RUNOFF (AC-FT)	408		224		1580	
10 PERCENT EXCEEDS	0.70		0.32		2.7	
50 PERCENT EXCEEDS	0.24		0.18		0.41	
90 PERCENT EXCEEDS	0.13		0.11		0.03	

e Estimated.

a Backwater.

## 11135250 SANTA YNEZ RIVER AT 13TH STREET BRIDGE, AT VANDENBERG AIR FORCE BASE, NEAR LOMPOC, CA

LOCATION.—Lat 34°40'36", long 120°33'11", [Santa Barbara County](#), Hydrologic Unit 18060010, on right bank, 30 ft upstream of 13th Street Bridge, 3.1 miles upstream from mouth, and 6.1 mi west-northwest of Lompoc.

DRAINAGE AREA.—881 mi<sup>2</sup>.

PERIOD OF RECORD.—June 2004 to September 2004.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 20 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952, by Lake Cachuma (stations 11121000, 11122000, and 11125500, respectively). Water diverted out of Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water pumped for wells along banks of river for irrigation in valley upstream. Sewage effluent is released above gage at times. Satellite telemeter at station. See schematic diagram of [Santa Ynez River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2.9 ft<sup>3</sup>/s, June 10, 14, 2004, maximum gage height, 4.28 ft, June 14, 2004.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	1.5	0.95	1.5
2	---	---	---	---	---	---	---	---	---	1.4	0.88	1.6
3	---	---	---	---	---	---	---	---	---	1.4	0.86	1.5
4	---	---	---	---	---	---	---	---	---	1.3	0.97	1.4
5	---	---	---	---	---	---	---	---	---	1.4	1.1	1.3
6	---	---	---	---	---	---	---	---	---	1.5	1.0	1.2
7	---	---	---	---	---	---	---	---	---	1.4	1.0	1.2
8	---	---	---	---	---	---	---	---	---	1.3	0.96	1.2
9	---	---	---	---	---	---	---	---	---	1.4	0.83	1.2
10	---	---	---	---	---	---	---	---	2.6	1.3	0.87	1.2
11	---	---	---	---	---	---	---	---	2.7	1.0	0.95	e1.1
12	---	---	---	---	---	---	---	---	2.4	1.1	0.94	e1.0
13	---	---	---	---	---	---	---	---	2.3	1.2	1.0	e1.1
14	---	---	---	---	---	---	---	---	2.5	1.2	1.0	e1.0
15	---	---	---	---	---	---	---	---	2.5	1.3	0.88	e0.96
16	---	---	---	---	---	---	---	---	2.4	1.0	0.82	e0.89
17	---	---	---	---	---	---	---	---	2.5	0.99	0.88	e0.85
18	---	---	---	---	---	---	---	---	2.3	0.94	0.98	e0.82
19	---	---	---	---	---	---	---	---	2.2	0.87	0.97	e0.77
20	---	---	---	---	---	---	---	---	2.2	0.90	0.94	e0.82
21	---	---	---	---	---	---	---	---	2.3	0.80	0.81	e0.88
22	---	---	---	---	---	---	---	---	2.4	0.66	0.69	e0.94
23	---	---	---	---	---	---	---	---	2.0	0.68	0.72	e0.98
24	---	---	---	---	---	---	---	---	2.1	0.76	0.90	e1.0
25	---	---	---	---	---	---	---	---	2.0	0.85	0.91	e1.0
26	---	---	---	---	---	---	---	---	1.9	1.2	1.3	e0.98
27	---	---	---	---	---	---	---	---	1.8	1.1	1.4	e1.1
28	---	---	---	---	---	---	---	---	1.9	1.3	1.2	e1.2
29	---	---	---	---	---	---	---	---	1.7	0.83	1.1	e1.1
30	---	---	---	---	---	---	---	---	1.5	0.79	1.1	e1.1
31	---	---	---	---	---	---	---	---	---	0.95	1.3	---
TOTAL	---	---	---	---	---	---	---	---	---	34.32	30.21	32.89
MEAN	---	---	---	---	---	---	---	---	---	1.11	0.97	1.10
MAX	---	---	---	---	---	---	---	---	---	1.5	1.4	1.6
MIN	---	---	---	---	---	---	---	---	---	0.66	0.69	0.77
AC-FT	---	---	---	---	---	---	---	---	---	68	60	65

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	---	---	---	---	---	---	---	---	---	1.11	0.97	1.10
MAX	---	---	---	---	---	---	---	---	---	1.11	0.97	1.10
(WY)	---	---	---	---	---	---	---	---	---	2004	2004	2004
MIN	---	---	---	---	---	---	---	---	---	1.11	0.97	1.10
(WY)	---	---	---	---	---	---	---	---	---	2004	2004	2004

e Estimated.

## 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, 15 ft upstream from concrete box culvert on service road parallel to U.S. Highway 101, at Los Alamos.

DRAINAGE AREA.—34.9 mi<sup>2</sup>.

PERIOD OF RECORD.—Water years 1971–92, October 1997 to September 1999, October 2003 to September 2004.

GAGE.—Water-stage recorder. Elevation of gage is 580 ft above NGVD of 1929, from topographic map.

REMARKS.—Records excellent. No regulation upstream from station. Pumping for irrigation of about 1,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,230 ft<sup>3</sup>/s, Mar. 1, 1983, gage height, 11.6 ft, from floodmarks, from rating curve extended above 150 ft<sup>3</sup>/s on basis of computation of peak flow through culverts; maximum gage height, 14.53 ft, Feb. 3, 1998 (backwater from debris dam); no flow for most of each year.

EXTREMES FOR CURRENT YEAR.—No flow for 2004 water year.

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.00	0.04	0.16	1.53	14.4	10.1	0.76	0.08	0.04	0.01	0.00	0.01
MAX	0.00	0.55	0.92	33.2	194	144	9.97	0.97	0.48	0.22	0.03	0.18
(WY)	1971	1974	1998	1983	1998	1983	1998	1998	1998	1998	1998	1990
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1971	1971	1973	1976	1977	1972	1971	1971	1971	1971	1971	1971

## SUMMARY STATISTICS

## FOR 2004 WATER YEAR

## WATER YEARS 1971 - 2004

ANNUAL TOTAL	0.00		
ANNUAL MEAN	0.00		2.20
HIGHEST ANNUAL MEAN			18.9 1983
LOWEST ANNUAL MEAN			0.00 2004
HIGHEST DAILY MEAN	0.00	Oct 1	1430 Mar 1 1983
LOWEST DAILY MEAN	0.00	Oct 1	0.00 Oct 1 1970
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 1	0.00 Oct 1 1970
MAXIMUM PEAK FLOW	0.00	Oct 1	3230 Mar 1 1983
MAXIMUM PEAK STAGE			14.53 Feb 3 1998
INSTANTANEOUS LOW FLOW	0.00	Oct 1	
ANNUAL RUNOFF (AC-FT)	0.00		1590
10 PERCENT EXCEEDS	0.00		0.24
50 PERCENT EXCEEDS	0.00		0.00
90 PERCENT EXCEEDS	0.00		0.00

## 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 left bank, 270 ft downstream of bridge on State Highway 166, 1.5 mi downstream from Buckhorn Canyon, and 13 mi northeast of Santa Maria.

DRAINAGE AREA.—886 mi<sup>2</sup>.

## 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. Yearly estimate for water year 1941 (incomplete), published in WSP 1315-B.

REVISED RECORDS.—WDR CA-71-1: Drainage area. WDR CA-77-1: 1976.

GAGE.—Water-stage recorder. Elevation of gage is 760 ft above NGVD of 1929, from topographic map. Prior to October 1959, nonrecording gage at different site and datum.

REMARKS.—Records fair. No regulation upstream from station. Pumping from wells along stream for irrigation of several thousand acres in Upper Cuyama Valley.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 26,200 ft<sup>3</sup>/s, Feb. 23, 1998, gage height, 14.76 ft, from rating curve extended above 4,900 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 14.76 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 27	0115	604	6.85

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	0.01	0.00	0.00	0.00	4.9	0.13	0.00	0.00	0.00	0.00	0.00
2	0.02	0.00	0.00	0.05	0.07	3.3	0.13	0.00	0.00	0.00	0.00	0.00
3	0.02	0.01	0.00	0.00	0.00	1.9	0.12	0.00	0.00	0.00	0.00	0.00
4	0.02	0.00	0.00	0.00	0.00	1.2	0.12	0.00	0.00	0.00	0.00	0.00
5	0.02	0.00	0.00	0.00	0.00	0.76	0.12	0.00	0.00	0.00	0.00	0.00
6	0.02	0.00	0.00	0.00	0.00	0.48	0.12	0.00	0.00	0.00	0.00	0.00
7	0.02	0.00	0.00	0.00	0.00	0.32	0.12	0.00	0.00	0.00	0.00	0.00
8	0.01	0.06	0.00	0.00	0.00	0.29	0.12	0.00	0.00	0.00	0.00	0.00
9	0.01	0.09	0.00	0.00	0.00	0.27	0.11	0.00	0.00	0.00	0.00	0.00
10	0.01	0.00	0.00	0.00	0.00	0.27	0.11	0.00	0.00	0.00	0.00	0.00
11	0.01	0.00	0.00	0.00	0.00	0.26	0.10	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.26	0.09	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.25	0.09	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.05	0.00	0.00	0.24	0.08	0.00	0.00	0.00	0.00	0.00
15	0.01	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	0.00
16	0.01	0.00	0.00	0.00	0.00	0.19	0.07	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.18	0.08	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.04	0.18	0.07	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.18	0.06	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.17	0.05	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.17	0.03	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.14	0.17	0.03	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.16	0.02	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.16	0.01	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.19	0.00	1.4	0.15	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	8.6	0.17	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	183	0.14	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	20	0.14	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	7.9	0.15	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.15	0.00	0.00	0.00	0.00	0.00	0.00
31	0.18	---	0.00	0.00	---	0.15	---	0.00	---	0.00	0.00	---
TOTAL	0.38	0.17	0.24	0.05	221.15	17.52	2.05	0.00	0.00	0.00	0.00	0.00
MEAN	0.01	0.01	0.01	0.00	7.63	0.57	0.07	0.00	0.00	0.00	0.00	0.00
MAX	0.18	0.09	0.19	0.05	183	4.9	0.13	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.8	0.3	0.5	0.1	439	35	4.1	0.00	0.00	0.00	0.00	0.00

## 11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.75	2.39	14.1	36.8	110	100	25.1	7.83	4.11	1.83	1.13	1.58
MAX	11.3	23.6	275	467	1210	974	243	96.9	66.0	26.2	20.8	22.7
(WY)	1999	1966	1967	1969	1998	1995	1998	1998	1998	1998	1998	1990
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1960	1960	1960	1960	1964	1961	1961	1961	1961	1960	1960	1960

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	707.28		241.56			
ANNUAL MEAN	1.94		0.66		25.0	
HIGHEST ANNUAL MEAN					168	
LOWEST ANNUAL MEAN					0.00	
HIGHEST DAILY MEAN	212	Feb 13	183	Feb 27	10000	Feb 24 1998
LOWEST DAILY MEAN	0.00	Oct 12	0.00	Oct 12	0.00	Oct 1 1959
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 17	0.00	Oct 17	0.00	Oct 1 1959
MAXIMUM PEAK FLOW			604	Feb 27	26200	Feb 23 1998
MAXIMUM PEAK STAGE			6.85	Feb 27	14.76	Feb 23 1998
INSTANTANEOUS LOW FLOW			0.00	Oct 1		
ANNUAL RUNOFF (AC-FT)	1400		479		18100	
10 PERCENT EXCEEDS	3.2		0.14		19	
50 PERCENT EXCEEDS	0.19		0.00		0.45	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1978 to current year.

CHEMICAL DATA: Water years 1978 to current year.

SEDIMENT DATA: January 1999 to September 2002.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	
OCT	06...	1108	.05	--	--	8.4	1390	18.5	--	
NOV	13...	1427	e.003	--	--	8.5	1420	18.0	--	
FEB	27...	1230	104	--	--	6.9	2130	12.5	--	
MAR	10...	1345	.23	--	--	8.2	1490	27.0	--	
APR	06...	1152	.14	742	11.9	127	8.4	1360	18.5	530

Date	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	
OCT	06...	--	--	--	--	--	--	--	
NOV	13...	--	--	--	--	--	--	--	
FEB	27...	--	--	--	--	--	--	--	
MAR	10...	--	--	--	--	--	--	--	
APR	06...	360	91.9	71.8	3.94	2	114	32	168

Date	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	
OCT	06...	--	--	--	--	--	--	--	
NOV	13...	--	--	--	--	--	--	--	
FEB	27...	--	--	--	--	--	--	--	
MAR	10...	--	--	--	--	--	--	--	
APR	06...	200	2	61.9	.5	4.2	467	917	1.35

e Estimated.

## 11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Residue	Nitrite		Ortho-	Boron,	Iron,	Mangan-	
	on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)				phos- phate, water, fltrd, mg/L as P (00671)
OCT								
06...	1050	--	--	--	--	--	--	--
NOV								
13...	1060	--	--	--	--	--	--	--
FEB								
27...	2050	--	--	--	--	--	--	--
MAR								
10...	1070	--	--	--	--	--	--	--
APR								
06...	996	<.04	<.06	<.008	<.02	359	14	1.0

## CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth	Baro- metric pres- sure, mm Hg (81903)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, deg C water, (00010)	Loca- tion in
		at sample loca- tion, feet (81903)							looking dwnstrm ft from l bank (00009)
APR									
06...*	1159	.20	742	11.9	127	8.5	1360	18.5	2.40
06...*	1200	.20	742	12.0	127	8.5	1360	18.0	2.10
06...*	1201	.17	742	12.0	127	8.5	1370	18.0	1.80
06...*	1202	.20	742	12.0	127	8.5	1370	18.0	1.50
06...*	1203	.20	742	12.0	127	8.5	1370	18.5	1.20
06...*	1204	.20	742	11.9	127	8.5	1370	18.5	.80
06...*	1205	.17	742	11.9	127	8.5	1370	18.5	.50
06...*	1206	.12	742	11.8	126	8.5	1370	18.5	.20

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

\* Instantaneous discharge at the time of cross-sectional measurement: Apr. 06, 0.14 ft<sup>3</sup>/s.





## 11138500 SISQUOC RIVER NEAR SISQUOC, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
OCT								
01...	--	--	--	--	--	--	--	--
NOV								
13...	--	--	--	--	--	--	--	--
DEC								
18...	--	--	--	--	--	--	--	--
JAN								
20...	--	--	--	--	--	--	--	--
FEB								
05...	--	--	--	--	--	--	--	--
MAR								
10...	--	--	--	--	--	--	--	--
APR								
07...	242	5	24.0	.4	13.2	386	782	1.14
MAY								
03...	--	--	--	--	--	--	--	--
JUN								
03...	--	--	--	--	--	--	--	--
JUL								
02...	--	--	--	--	--	--	--	--
AUG								
09...	--	--	--	--	--	--	--	--
SEP								
08...	--	--	--	--	--	--	--	--

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)
OCT								
01...	874	--	--	--	--	--	--	--
NOV								
13...	915	--	--	--	--	--	--	--
DEC								
18...	892	--	--	--	--	--	--	--
JAN								
20...	908	--	--	--	--	--	--	--
FEB								
05...	910	--	--	--	--	--	--	--
MAR								
10...	844	--	--	--	--	--	--	--
APR								
07...	838	<.04	<.06	<.008	e.02	155	e5	2.7
MAY								
03...	875	--	--	--	--	--	--	--
JUN								
03...	904	--	--	--	--	--	--	--
JUL								
02...	901	--	--	--	--	--	--	--
AUG								
09...	935	--	--	--	--	--	--	--
SEP								
08...	957	--	--	--	--	--	--	--

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

## 11138500 SISQUOC RIVER NEAR SISQUOC, CA—Continued

## CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample locati- on, feet (81903)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Loca- tion in X-sect. looking dwnstrm ft from l bank (00009)
JAN									
20...	1330	.53	744	10.5	102	8.2	1210	13.5	.20
20...	1331	.50	744	10.7	103	8.2	1210	13.5	.70
20...	1332	.50	744	10.8	104	8.3	1210	13.5	1.20
20...	1333	.58	744	10.8	104	8.3	1210	13.5	1.70
20...	1334	.54	744	10.8	105	8.3	1210	13.5	2.20
20...	1335	.48	744	10.9	105	8.3	1210	13.5	2.70
20...	1336	.39	744	10.8	105	8.3	1210	13.5	3.20
20...	1337	.40	744	10.8	105	8.3	1210	13.5	3.70
20...	1338	.31	744	10.8	105	8.3	1210	13.5	4.20
20...	1339	.36	744	10.8	105	8.3	1210	13.5	4.70
20...	1340	.31	744	10.8	104	8.3	1210	13.5	5.20
20...	1341	.33	744	10.7	104	8.3	1210	13.5	5.70
20...	1342	.35	744	10.2	98	8.3	1210	13.5	6.20
APR									
07...	1433	.27	743	12.8	146	8.7	1150	21.5	.40
07...	1434	.37	743	12.9	147	8.6	1150	22.0	1.40
07...	1435	.30	743	12.9	147	8.6	1150	22.0	2.40
07...	1436	.50	743	12.9	147	8.6	1150	22.0	3.40
07...	1437	.48	743	13.0	148	8.6	1150	22.0	4.40
07...	1438	.44	743	13.0	148	8.6	1150	22.0	5.40
07...	1439	.38	743	13.0	148	8.6	1150	22.0	6.40
07...	1440	.41	743	12.7	145	8.6	1150	22.0	7.40
07...	1441	.47	743	12.6	144	8.6	1150	22.0	8.40
07...	1442	.46	743	12.6	144	8.6	1150	22.0	9.40
07...	1443	.39	743	12.7	145	8.6	1150	21.5	10.40

\* Instantaneous discharge at time of cross-sectional measurement: Jan. 20, 1.36 ft<sup>3</sup>/s; Apr. 07, 4.12 ft<sup>3</sup>/s.

## 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 mi<sup>2</sup>.

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.

REVISED RECORDS.—WSP 1011: 1941, 1943. WSP 1928: Drainage area.

GAGE.—Water-stage recorder. Datum of main gage is 354.8 ft above NGVD of 1929, 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. Supplementary gage discontinued June 8, 1992.

REMARKS.—Records poor. No regulation upstream from station. Pumping from wells along stream for irrigation of about 7,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 33,600 ft<sup>3</sup>/s, Mar. 1, 1983, gage height, 11.16 ft, from rating curve extended above 22,000 ft<sup>3</sup>/s, maximum gage height, 13.50 ft, Dec. 6, 1966; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.—Peak discharge greater than base discharge of 200 ft<sup>3</sup>/s, or maximum:

	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
e	Feb. 26	1315	e1,180	unknown

e Estimated.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	e131	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	e30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	e0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	e0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	161.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	5.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	131	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	319	0.00	0.00	0.00	0.00	0.00	0.00	0.00

e Estimated.

## 11140000 SISQUOC RIVER NEAR GAREY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.12	2.49	17.1	93.3	217	187	85.3	20.4	3.95	0.73	0.14	0.15
MAX	3.88	39.0	506	1531	3310	1833	1072	407	135	35.8	5.99	4.20
(WY)	1968	1966	1967	1969	1998	1983	1958	1998	1998	1998	1998	1998
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1942	1942	1944	1944	1947	1947	1947	1946	1945	1942	1942	1942

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	2096.48		161.04			
ANNUAL MEAN	5.74		0.44		51.4	
HIGHEST ANNUAL MEAN					446 1998	
LOWEST ANNUAL MEAN					0.00 1948	
HIGHEST DAILY MEAN	423	Mar 16	e131	Feb 26	13900	Feb 3 1998
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1941
MAXIMUM PEAK FLOW			e1180	Feb 26	33600	Mar 1 1983
MAXIMUM PEAK STAGE			unknown	Feb 26	13.50	Dec 6 1966
INSTANTANEOUS LOW FLOW			0.00	Oct 1		
ANNUAL RUNOFF (AC-FT)	4160		319		37240	
10 PERCENT EXCEEDS	0.00		0.00		48	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated.

## 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 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1982 to September 1992, October 1994 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 160 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. No regulation or diversion upstream from station. Natural flow affected by pumping and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,350 ft<sup>3</sup>/s, Mar. 5, 2001, gage height, 10.33 ft, from rating curve extended above 10 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 4.83 and 7.53 ft, maximum gage height, 11.07 ft, Mar. 10, 1995; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharge greater than base discharge of 25 ft<sup>3</sup>/s, or maximum:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 18	1330	26	2.59	Feb. 25	2015	251	4.11
Feb. 22	1445	63	3.08				

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.05	0.10	0.01	0.04	0.04	3.5	0.28	0.08	0.16	0.11	0.05	0.08
2	0.05	0.01	0.01	2.8	0.75	3.8	0.20	0.05	0.13	0.19	0.03	0.24
3	0.06	0.06	0.05	0.47	7.4	0.81	0.07	0.07	0.08	0.50	0.07	0.10
4	0.01	0.03	0.05	0.12	0.59	0.36	0.07	0.12	0.19	0.26	0.17	0.07
5	0.00	0.00	0.08	0.07	0.19	0.22	0.24	0.09	0.21	0.02	0.07	0.02
6	0.01	0.02	0.08	0.05	0.11	0.19	0.09	0.15	0.18	0.20	0.09	0.00
7	0.00	0.06	0.10	0.05	0.09	0.16	0.07	0.24	0.29	0.05	0.10	0.03
8	0.00	0.44	0.03	0.04	0.06	0.15	0.14	0.36	0.24	0.06	0.12	0.22
9	0.00	6.2	0.01	0.04	0.08	0.15	0.12	0.32	0.27	0.10	0.05	0.09
10	0.01	1.1	0.03	0.05	0.08	0.17	0.05	0.06	0.18	0.19	0.28	0.06
11	0.04	0.11	0.03	0.04	0.18	0.12	0.03	0.11	0.17	0.14	0.06	0.62
12	0.00	0.03	0.05	0.04	0.05	0.12	0.03	0.19	0.46	0.05	0.04	0.05
13	0.01	0.01	0.02	0.04	0.04	0.12	0.11	0.14	0.19	0.11	0.10	0.03
14	0.02	0.01	0.17	0.04	0.08	0.09	0.07	0.36	0.14	0.30	0.15	0.22
15	0.07	0.05	0.11	0.03	0.03	0.09	0.14	0.28	0.13	0.07	0.34	0.03
16	0.02	0.01	0.05	0.06	0.02	0.22	0.18	0.03	0.09	0.13	0.04	0.13
17	0.00	0.01	0.03	0.03	0.02	0.17	0.10	0.10	0.10	0.34	0.11	0.10
18	0.00	0.00	0.02	0.03	9.9	0.09	0.10	0.19	0.35	0.04	0.07	0.08
19	0.00	0.01	0.03	0.03	3.8	0.10	0.06	0.13	0.18	0.08	0.07	0.04
20	0.00	0.02	0.02	0.07	0.76	0.09	0.14	0.06	0.15	0.19	0.04	0.01
21	0.00	0.01	0.02	0.04	1.2	0.08	0.07	0.26	0.09	0.04	0.05	0.06
22	0.00	0.04	0.06	0.03	16	0.08	0.17	0.21	0.21	0.18	0.01	0.00
23	0.00	0.04	0.04	0.18	9.0	0.12	0.05	0.44	0.13	0.11	0.00	0.01
24	0.00	0.01	0.06	0.12	0.99	0.21	0.10	0.15	0.11	0.17	0.12	0.04
25	0.00	0.05	3.5	0.06	39	0.09	0.10	0.05	0.10	0.09	0.17	0.03
26	0.00	0.07	2.7	0.08	19	0.25	0.02	0.22	0.10	0.12	0.21	0.01
27	0.00	0.06	0.18	0.06	3.0	0.15	0.09	0.18	0.20	0.10	0.02	0.00
28	0.00	0.05	0.06	0.38	1.2	0.11	0.08	0.16	0.14	0.15	0.06	0.00
29	0.00	0.05	0.05	0.15	1.1	0.09	0.18	0.21	0.07	0.20	0.03	0.05
30	0.01	0.02	0.04	0.14	---	0.23	0.18	0.34	0.14	0.08	0.11	0.08
31	0.05	---	0.04	0.05	---	0.24	---	0.14	---	0.11	0.16	---
TOTAL	0.41	8.68	7.73	5.43	114.76	12.37	3.33	5.49	5.18	4.48	2.99	2.50
MEAN	0.01	0.29	0.25	0.18	3.96	0.40	0.11	0.18	0.17	0.14	0.10	0.08
MAX	0.07	6.2	3.5	2.8	39	3.8	0.28	0.44	0.46	0.50	0.34	0.62
MIN	0.00	0.00	0.01	0.03	0.02	0.08	0.02	0.03	0.07	0.02	0.00	0.00
AC-FT	0.8	17	15	11	228	25	6.6	11	10	8.9	5.9	5.0

## 11141050 ORCUTT CREEK NEAR ORCUTT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.07	0.50	0.78	2.89	8.85	12.3	1.32	0.36	0.15	0.11	0.09	0.09
MAX	0.29	3.76	2.68	27.5	76.7	120	8.88	3.04	0.43	0.34	0.23	0.29
(WY)	1984	2002	1992	1995	1998	1995	1998	1998	1998	1998	1983	2002
MIN	0.00	0.00	0.02	0.04	0.07	0.06	0.02	0.03	0.01	0.00	0.00	0.01
(WY)	1995	1995	1996	1985	1984	1989	1990	1986	1996	1996	1992	1996

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL TOTAL	93.69		173.35			
ANNUAL MEAN	0.26		0.47		2.27	
HIGHEST ANNUAL MEAN					13.8	1995
LOWEST ANNUAL MEAN					0.09	1990
HIGHEST DAILY MEAN	23	Mar 15	39	Feb 25	1460	Mar 10 1995
LOWEST DAILY MEAN	0.00	May 26	0.00	Oct 5	0.00	Oct 1 1982
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 17	0.00	Oct 17	0.00	Oct 1 1982
MAXIMUM PEAK FLOW			251	Feb 25	4350	Mar 5 2001
MAXIMUM PEAK STAGE			4.11	Feb 25	11.07	Mar 10 1995
INSTANTANEOUS LOW FLOW			0.00	Oct 1		
ANNUAL RUNOFF (AC-FT)	186		344		1640	
10 PERCENT EXCEEDS	0.27		0.34		1.2	
50 PERCENT EXCEEDS	0.06		0.08		0.08	
90 PERCENT EXCEEDS	0.00		0.01		0.00	





## 11141050 ORCUTT CREEK NEAR ORCUTT, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
OCT								
01...	--	--	--	--	--	--	--	--
NOV								
13...	--	--	--	--	--	--	--	--
DEC								
19...	--	--	--	--	--	--	--	--
JAN								
07...	--	--	--	--	--	--	--	--
FEB								
05...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
MAR								
10...	--	--	--	--	--	--	--	--
APR								
07...	414	2	398	.4	22.7	392	1600	2.33
MAY								
04...	--	--	--	--	--	--	--	--
JUN								
01...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
AUG								
02...	--	--	--	--	--	--	--	--
SEP								
08...	--	--	--	--	--	--	--	--

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)
OCT								
01...	1860	--	--	--	--	--	--	--
NOV								
13...	1530	--	--	--	--	--	--	--
DEC								
19...	1760	--	--	--	--	--	--	--
JAN								
07...	1450	--	--	--	--	--	--	--
FEB								
05...	914	--	--	--	--	--	--	--
18...	474	--	--	--	--	--	--	--
MAR								
10...	2130	--	--	--	--	--	--	--
APR								
07...	1710	.06	6.53	.100	1.43	459	e17	28.7
MAY								
04...	2210	--	--	--	--	--	--	--
JUN								
01...	1390	--	--	--	--	--	--	--
28...	935	--	--	--	--	--	--	--
AUG								
02...	994	--	--	--	--	--	--	--
SEP								
08...	1290	--	--	--	--	--	--	--

e Estimated.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the U.S. Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low- or flood-flow analyses, depending on the type of data collected.

In addition, discharge measurements are made at other sites not included in the partial-record program. 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. Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at miscellaneous sites are given in separate tables.

#### Crest-Stage Partial-Record Stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage station is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for the current year is given. Information on some lower floods may have been obtained but is not published here. The years given in the period of record represent water years for which the annual maximum has been obtained.

#### Annual maximum discharge at crest-stage partial-record stations during water year 2004

Station no.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record (water year)	Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft <sup>3</sup> /s)
BRISTOL LAKE BASIN							
10253000	Gourd Creek near Ludlow, CA	Lat 34°40'35", long 116°01'20", in SW 1/4 sec.23, T.7 N., R.9 E., <a href="#">San Bernardino County</a> , Hydrologic Unit 18090208, at culvert on National Trails Highway (formerly U.S. Highway 66), and 8.5 mi southeast of Ludlow.	0.30	1959–74, 1976–2004	2-23-04	unknown	e0.50
MOJAVE RIVER BASIN							
10262600	Boom Creek near Barstow, CA	Lat 34°54'20", long 116°56'55", NW 1/4 NE 1/4 sec.2, T.9 N., R.1 W., <a href="#">San Bernardino County</a> , Hydrologic Unit 18090208, at culvert on Interstate Highway 15, and 4.3 mi east of Barstow.	.24	1956–66, a1967–73, 1976–97, 1999–2004	7-14-04	9.70	24
ANTELOPE VALLEY							
10263900	Buckhorn Creek near Valyermo, CA	Lat 34°53'35", long 117°55'13", in SW 1/4 sec.15, T.3 N., R.10 W., <a href="#">Los Angeles County</a> , Hydrologic Unit 18090206, Angeles National Forest, at culvert on State Highway 2, and 8.1 mi southwest of Valyermo.	.48	a1961–66, 1967–69, 1971–73, 1977–2004	2-26-04	1.90	9.0
10264530	Pine Creek near Palmdale, CA	Lat 34°36'09", long 118°14'48", in SE 1/4 SW 1/4 sec.15, T.6 N., R.13 W., <a href="#">Los Angeles County</a> , Hydrologic Unit 18090206, on left bank, at culvert on old (abandoned) section of Elizabeth Lake Road, and 7.5 mi northwest of Palmdale.	1.78	1959–73, 1977–88, a1989–94, 1996–2004	—	—	0
10264560	Spencer Canyon Creek near Fairmont, CA	Lat 34°46'33", long 118°34'08", in SW 1/4 SW 1/4 sec.15, T.8 N., R.16 W., <a href="#">Los Angeles County</a> , Hydrologic Unit 18090206, at culvert on State Highway 138, and 8.5 mi northwest of Fairmont.	3.60	1959–64, a1965–73, 1974, 1978–2004	—	—	0
10264605	Joshua Creek near Mojave, CA	Lat 35°00'45", long 118°20'40" in SE 1/4 SE 1/4 sec.27, T.11 N., R.14 W., <a href="#">Kern County</a> , Hydrologic Unit 18090206, at culvert on Tehachapi–Willow Springs Road, and 10.0 mi southwest of Mojave.	3.83	1959–73, a1989–94, 2000–04 b	—	—	0

e Estimated.

a Operated as a continuous-record station.

b Station discontinued.

Station no.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record (water year)	Date	Annual maximum	
						Gage height (ft)	Discharge (ft <sup>3</sup> /s)
SANTA ANA RIVER BASIN							
11070185	Lamb Canyon Creek at Victory Ranch, near San Jacinto, CA	Lat 33°51'31", long 117°00'53", in NW 1/4 NW 1/4 sec.5, T.4 S., R.1 W., <a href="#">Riverside County</a> , Hydrologic Unit 18070202, on left bank, at private road culvert crossing, 1.25 mi upstream of confluence with San Jacinto River, and 6.0 mi northwest of San Jacinto.	3.97	1997–2004	02-26-04	3.44	7.6
SANTA YNEZ RIVER BASIN							
11131700	Santa Rita Creek near Lompoc, CA	Lat 34°38'41", long 120°22'09", in Santa Rita Grant, <a href="#">Santa Barbara County</a> , Hydrologic Unit 18060010, on left bank, 2.4 mi upstream from mouth, and 6.5 mi east of Lompoc.	14.1	1976–79 1981–2004	unknown	unknown	e<1
11133700	Purisima Creek near Lompoc, CA	Lat 34°41'34", long 120°25'51", in Purisima Grant, <a href="#">Santa Barbara County</a> , 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	a1972–75 1976–2004	2-25-04	1.43	8.2
11135200	Rodeo–San Pasqual Creek near Lompoc, CA	Lat 34°38'42", long 120°30'57", in Lompoc Grant, <a href="#">Santa Barbara County</a> , Hydrologic Unit 18060010, on left bank, 0.1 mi east of Dewolf Avenue at Highway 246, and 3.3 mi west of Lompoc.	7.80	1971–72 1973–78 1980–2004	unknown	unknown	e<2

## Special study and miscellaneous sites

Discharge measurements in the following table were made at special study and miscellaneous sites throughout the area covered by this volume.

Discharge measurements made at special study and miscellaneous sites during water year 2004

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water year)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
SANTA ANA RIVER BASIN						
341234117170501	East Twin Creek	Lat 34°12'34", long 117°17'05", in SW 1/4 SE 1/4 sec.34, T.2 N., R.4 W., <a href="#">San Bernardino County</a> , Hydrologic Unit 18070203, 600 ft downstream along tributary from Saint Sophia Camp, 300 ft downstream along tributary from Old Waterman Canyon Road crossing, about 3.4 mi upstream of confluence with East Twin Creek, and 2.0 mi northwest of Arrowhead Springs Resort.	3.00	None	b12-25-2003	e6,000
SANTA YNEZ RIVER BASIN						
11134500	Santa Ynez River	Lat 34°40'06", long 120°28'29", in Lompoc Grant, T.8 N., R.34 W., <a href="#">Santa Barbara County</a> , Hydrologic Unit 18060010, 1.0 mi downstream from Highway 1, and 2.2 mi northeast of Lompoc.	820	a1955–75 2001 2003–04	02-27-2004	85.2

e Estimated.

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

a Operated as a continuous-record station.

b This event was a debris flow. Peak flow at a critical-depth section was determined using hydraulic equations appropriate for water flow but applied to a debris flow.

## REVISION OF RECORDS FOR DISCONTINUED STATIONS

## Crest-Stage Partial-Record Stations

The following table contains revisions to annual maximum discharges for discontinued crest-stage stations previously published in U.S. Geological Survey Open-File Report: Floods from Small Drainage Areas in California: A Compilation of Peak Data, October 1958 to September 1973; by Arvi O. Waananen; published December 12, 1973. A crest-stage station is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. The years given in the period of record represent water years for which the annual maximum was obtained.

Station no.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record (water year)	Date	Annual maximum	
						Gage height (ft)	Discharge (ft <sup>3</sup> /s)
SALTON SEA BASIN							
10255730	Pinyon Wash near Borrego, CA	Lat 33°06'55", long 116°19'00", in SW 1/4 sec.24, T.12 S., R.6 E., <a href="#">San Diego</a> County, Hydrologic Unit 18100200, at slope-area site, 1.2 mi upstream from State Highway 78, 6.7 mi south of Borrego.	19.6	1960-73	9-12-61	not determined	e10,000
SAN JUAN CREEK BASIN							
11046390	San Juan Creek tributary near Elsinore, CA	Lat 33°36'10", long 117°27'08", in NE 1/4 SE 1/4, sec.36, T.6 S., R.6 W., <a href="#">Riverside</a> County, Hydrologic Unit 18070301, at culvert on State Highway 74, Cleveland National Forest, 9.5 mi southwest of Elsinore.	0.39	1962-73	2-25-69	not determined	unknown

e Estimated.

# ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD SITES

531

Water-quality partial-record stations are particular sites where chemical-quality, biological, and (or) sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

## UPPER AMARGOSA BASIN

354932116131201 AMARGOSA RIVER IN UPPER CANYON NEAR TECOPA, CA

LOCATION.—Lat 35°49'32", long 116°13'12", in NW 1/4 NW 1/4 sec.22, T.20 N., R.7 E., [San Bernardino County](#), Hydrologic Unit 18090202, 1.3 mi southwest of Tecopa, and 39.6 mi north of Baker.

PERIOD OF RECORD.—March to September 2004.

CHEMICAL DATA.—March to September 2004.

SEDIMENT DATA.—March to September 2004.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltrd lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)
MAR 17...	1545	e2.0	12	730	10.4	121	8.6	3820	20.0	210	35.1
Date	Calcium water unfltrd recover, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, unfltrd recover, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., mg/L (00453)	Carbonate, wat flt incrm. titr., mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
MAR 17...	43.4	30.6	39.0	43.2	876	616	694	28	422	4.4	60.8
Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, unfltrd as N mg/L (00625)	Nitrite + nitrate, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Fecal coliform, M-FC col/100 mL (31625)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, unfltrd recover, ug/L (01105)	Antimony, water, fltrd, ug/L (01095)
MAR 17...	690	2640	.63	.009	.002	.255	.312	K11	e3	528	.60
Date	Antimony, water, unfltrd, ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd, ug/L (01002)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, unfltrd recover, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Cadmium, water, unfltrd, ug/L (01027)	Chromium, water, fltrd, ug/L (01030)	Chromium, unfltrd recover, ug/L (01034)	Cobalt, water, fltrd, ug/L (01035)
MAR 17...	.5	226	231	<.12	<.12	9470	.10	.11	<4.0	.9	.150
Date	Cobalt water, unfltrd recover, ug/L (01037)	Copper, water, fltrd, ug/L (01040)	Copper, unfltrd recover, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, unfltrd recover, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, unfltrd recover, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Manganese, unfltrd recover, ug/L (01055)	Mercury, water, fltrd, ug/L (71890)	Mercury, unfltrd recover, ug/L (71900)
MAR 17...	.460	3.0	6.0	e18	620	.21	.60	12.6	34	<.02	<.02

e Estimated.

K Results based on colony count outside the acceptance range (non-ideal colony count).

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

## UPPER AMARGOSA BASIN

354932116131201 AMARGOSA RIVER IN UPPER CANYON NEAR TECOPA, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Molybdenum, water, unfltrd, recoverable, ug/L (01060)	Molybdenum, water, unfltrd, recoverable, ug/L (01062)	Nickel, water, unfltrd, recoverable, ug/L (01065)	Nickel, water, unfltrd, recoverable, ug/L (01067)	Selenium, water, fltrd, ug/L (01145)	Selenium, water, unfltrd, ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd, recoverable, ug/L (01077)	Thallium, water, fltrd, ug/L (01057)	Thallium, water, unfltrd, ug/L (01059)	Vanadium, water, fltrd, ug/L (01085)
MAR 17...	39.1	38.2	.98	2.05	e.6	<.8	<.4	<.32	<.08	<.4	13.2
Date	Vanadium, water, unfltrd, ug/L (01087)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd, recoverable, ug/L (01092)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd, 0.7u GF, ug/L (38746)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbofuran, wat flt, 0.7u GF, ug/L (49308)	3-Keto-carbofuran, water, fltrd, ug/L (50295)
MAR 17...	10	1.8	e2	<.009	<.02	<.02	<.03	<.04	<.008	<.006	<2
Date	Acifluorfen, water, fltrd, 0.7u GF, ug/L (49315)	Aldicarb sulfone, water, fltrd, 0.7u GF, ug/L (49313)	Aldicarb sulf-oxide, wat flt, 0.7u GF, ug/L (49314)	Aldicarb, water, fltrd, 0.7u GF, ug/L (49312)	Atrazine, water, fltrd, ug/L (39632)	Bendiocarb, water, fltrd, ug/L (50299)	Benomyl, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd, 0.7u GF, ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd, 0.7u GF, ug/L (49311)
MAR 17...	<.007	<.02	<.008	<.04	<.009	<.03	<.004	<.02	<.01	<.03	<.02
Date	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF, ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF, ug/L (49309)	Chloramben methyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiazinon, wat flt, ug/L (04039)	Chlorothalonil, water, fltrd, ug/L (49306)	Clopyralid, water, fltrd, ug/L (49305)	Cycloate, water, fltrd, ug/L (04031)	Dacthal mono-acid, water, fltrd, 0.7u GF, ug/L (49304)	Dicamba, water, fltrd, 0.7u GF, ug/L (38442)
MAR 17...	.0143	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01	<.01
Date	Di-chloroprop, water, fltrd, 0.7u GF, ug/L (49302)	Dinoseb, water, fltrd, 0.7u GF, ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Diuron, water, fltrd, 0.7u GF, ug/L (49300)	Fenuron, water, fltrd, ug/L (49297)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron, water, fltrd, 0.7u GF, ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	Linuron, water, fltrd, 0.7u GF, ug/L (38478)
MAR 17...	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02	<.007	<.01

e Estimated.

&lt; Actual value is known to be less than the value shown.

## UPPER AMARGOSA BASIN

354932116131201 AMARGOSA RIVER IN UPPER CANYON NEAR TECOPA, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta- laxyl, water, fltrd ug/L (50359)	Methio- carb, water, fltrd 0.7u GF ug/L (38501)	Meth- omyl, water, fltrd 0.7u GF ug/L (49296)	Metsul- furon, water, fltrd ug/L (61697)	N-(4- Chloro- phenyl) -N'- urea, methyl- fltrd ug/L (61692)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico- sul- furon, water, fltrd ug/L (50364)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)
MAR 17...	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01	<.01	<.02	<.02
Date	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Pic- loram, water, fltrd 0.7u GF ug/L (49291)	Propham water, fltrd 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd ug/L (50471)	Pro- poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd ug/L (38548)	Sulfo- met- ruron, water, fltrd ug/L (50337)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd ug/L (04032)	Tri- benuron water, fltrd ug/L (61159)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAR 17...	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--	.07
Date	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	CFC-113 water, unfltrd ug/L (77652)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,2-Di- chloro- benzene water, unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water, unfltrd ug/L (34541)	1,3-Di- chloro- benzene water, unfltrd ug/L (34566)	1,4-Di- chloro- benzene water, unfltrd ug/L (34571)	Benzene water, unfltrd ug/L (34030)	Bromo- di- chloro- methane water, unfltrd ug/L (32101)
MAR 17...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
Date	Chloro- benzene water, unfltrd ug/L (34301)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	Di- bromo- chloro- methane water, unfltrd ug/L (32105)	Di- chloro- di- fluoro- methane water, unf ug/L (34668)	Di- chloro- methane water, unfltrd ug/L (34423)	Di- ethyl ether, water, unfltrd ug/L (81576)	Diiso- propyl ether, water, unfltrd ug/L (81577)	Ethyl- benzene water, unfltrd ug/L (34371)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- + para- Xylene, water, unfltrd ug/L (85795)	o- Xylene, water, unfltrd ug/L (77135)
MAR 17...	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1
Date	Styrene water, unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water, unfltrd ug/L (32102)	Toluene water, unfltrd ug/L (34010)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	Tri- bromo- methane water, unfltrd ug/L (32104)	Tri- chloro- ethene, water, unfltrd ug/L (39180)	Tri- chloro- fluoro- methane water, unfltrd ug/L (34488)	Tri- chloro- methane water, unfltrd ug/L (32106)
MAR 17...	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1
Date	Vinyl chlor- ide, water, unfltrd ug/L (39175)	Deu- terium/ Protium ratio, water, unfltrd per mil (82082)	Gross alpha radioac water, unfltrd pCi/L (63018)	Gross beta radioac water, unfltrd pCi/L (03519)	0-18 / 0-16 ratio, water, unfltrd per mil (82085)	Ra-226, water, unfltrd pCi/L (09501)	Tritium 2-sigma water, unfltrd pCi/L (75985)	Tritium water unfltrd pCi/L (07000)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)	
MAR 17...	<.2	-91.70	11	41	-11.82	.06	.58	.8	22	e.12	

&lt; Actual value is known to be less than the value shown.

e Estimated.

## UPPER AMARGOSA BASIN

354702116120601 AMARGOSA RIVER BELOW WILLOW CREEK, NEAR TECOPA, CA

LOCATION.—Lat 35°47'02", long 116°12'06", in SW 1/4 SW 1/4 sec.35, T.20 N., R.7 E., San Bernardino County, Hydrologic Unit 18090202, 4.16 mi south of Tecopa, and 36.5 mi north of Baker.

PERIOD OF RECORD.—March to September 2004.

CHEMICAL DATA.—March to September 2004.

SEDIMENT DATA.—March to September 2004.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unfltrd lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
MAR	18...	e1.2	14	739	9.8	106	8.7	4000	17.0	240	37.5	
Date	Time	Calcium water unfltrd recover-able, mg/L (00916)	Magnesium water, fltrd, mg/L (00925)	Magnesium water, unfltrd recover-able, mg/L (00927)	Potassium water, fltrd, mg/L (00935)	Sodium water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
MAR	18...	47.7	35.4	44.1	42.5	851	630	722	23	427	4.5	52.7
Date	Time	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, unfltrd, mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd, mg/L (00665)	Fecal coliform, M-FC 0.7u MF 100 mL (31625)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, unfltrd recover-able, ug/L (01105)	Antimony, water, fltrd, ug/L (01095)
MAR	18...	796	2840	.57	.009	.002	.187	.258	K65	e3	530	.55
Date	Time	Antimony, water, unfltrd, ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd, ug/L (01002)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd, ug/L (01027)	Chromium, water, fltrd, ug/L (01030)	Chromium, unfltrd recover-able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)
MAR	18...	.4	207	215	<.12	<.12	9540	.13	.12	<4.0	e.7	.240
Date	Time	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover-able, ug/L (71900)
MAR	18...	.560	3.3	6.3	e15	620	.21	.61	49.8	70	<.02	<.02

e Estimated.

K Results based on colony count outside the acceptance range (non-ideal colony count).

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



## UPPER AMARGOSA BASIN

354702116120601 AMARGOSA RIVER BELOW WILLOW CREEK, NEAR TECOPA, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Molybdenum, water, unfltrd, ug/L (01060)	Molybdenum, water, recoverable, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, recoverable, ug/L (01067)	Selenium, water, fltrd, ug/L (01145)	Selenium, water, unfltrd, ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd, ug/L (01077)	Thallium, water, fltrd, ug/L (01057)	Thallium, water, unfltrd, ug/L (01059)	Vanadium, water, fltrd, ug/L (01085)
MAR 18...	49.6	48.1	1.32	2.40	.8	<.8	<.4	<.32	<.08	<.4	12.4
Date	Vanadium, water, unfltrd, ug/L (01087)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd, recoverable, ug/L (01092)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd, 0.7u GF, ug/L (38746)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy-carbofuran, wat flt, 0.7u GF, ug/L (49308)	3-Keto-carbofuran, water, fltrd, ug/L (50295)
MAR 18...	10	2.0	e3	<.009	<.02	<.02	<.03	<.04	<.008	<.006	<2
Date	Acifluorfen, water, fltrd, 0.7u GF, ug/L (49315)	Aldicarb sulfone, water, fltrd, 0.7u GF, ug/L (49313)	Aldicarb sulfide, wat flt, 0.7u GF, ug/L (49314)	Aldicarb, water, fltrd, 0.7u GF, ug/L (49312)	Atrazine, water, fltrd, ug/L (39632)	Bendiocarb, water, fltrd, ug/L (50299)	Benomyl, water, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Benazoxon, water, fltrd, 0.7u GF, ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd, 0.7u GF, ug/L (49311)
MAR 18...	<.007	<.02	<.008	<.04	<.009	<.03	<.004	<.02	<.01	<.03	<.02
Date	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF, ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF, ug/L (49309)	Chloramben methyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiazinon, water, wat flt, ug/L (04039)	Chlorothalonil, water, fltrd, 0.7u GF, ug/L (49306)	Clopyralid, water, fltrd, 0.7u GF, ug/L (49305)	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd, 0.7u GF, ug/L (49304)	Dicamba, water, fltrd, 0.7u GF, ug/L (38442)
MAR 18...	<.0096	<.03	<.006	<.02	<.010	<.01	<.04	<.01	<.01	<.01	<.01
Date	Dichloroprop, water, fltrd, 0.7u GF, ug/L (49302)	Dinoseb, water, fltrd, 0.7u GF, ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Diuron, water, fltrd, 0.7u GF, ug/L (49300)	Fenuron, water, fltrd, ug/L (49297)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron, water, fltrd, 0.7u GF, ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	Linuron, water, fltrd, 0.7u GF, ug/L (38478)
MAR 18...	<.01	<.01	<.03	<.01	<.03	<.01	<.03	<.02	<.02	<.007	<.01

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

## UPPER AMARGOSA BASIN

354702116120601 AMARGOSA RIVER BELOW WILLOW CREEK, NEAR TECOPA, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Meta- laxyl, water, fltrd ug/L (50359)	Methio- carb, water, fltrd 0.7u GF ug/L (38501)	Meth- omyl, water, fltrd 0.7u GF ug/L (49296)	Metsul- furon, water, fltrd ug/L (61697)	N-(4- Chloro- phenyl) -N'- methyl- urea, ug/L (61692)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nico- sul- furon, water, fltrd ug/L (50364)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)
MAR 18...	<.02	<.01	<.02	<.008	<.004	<.03	<.02	<.01	<.01	<.02	<.02
Date	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Pic- loram, water, fltrd 0.7u GF ug/L (49291)	Propham water, fltrd 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd ug/L (50471)	Pro- poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd ug/L (38548)	Sulfo- met- ruron, water, fltrd ug/L (50337)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd ug/L (04032)	Tri- benuron water, fltrd ug/L (61159)	Tri- clopypyr, water, fltrd 0.7u GF ug/L (49235)
MAR 18...	<.01	<.02	<.010	<.02	<.008	<.02	<.009	<.006	<.010	--	.06
Date	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	CFC-113 water, unfltrd ug/L (77652)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,2-Di- chloro- benzene water, unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water, unfltrd ug/L (34541)	1,3-Di- chloro- benzene water, unfltrd ug/L (34566)	1,4-Di- chloro- benzene water, unfltrd ug/L (34571)	Benzene water, unfltrd ug/L (34030)	Bromo- di- chloro- methane water, unfltrd ug/L (32101)
MAR 18...	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
Date	Chloro- benzene water, unfltrd ug/L (34301)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	Di- bromo- chloro- methane water, unfltrd ug/L (32105)	Di- chloro- di- fluoro- methane water, unfltrd ug/L (34668)	Di- chloro- methane water, unfltrd ug/L (34423)	Di- ethyl ether, water, unfltrd ug/L (81576)	Diiso- propyl ether, water, unfltrd ug/L (81577)	Ethyl- benzene water, unfltrd ug/L (34371)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- + para- Xylene, water, unfltrd ug/L (85795)	o- Xylene, water, unfltrd ug/L (77135)
MAR 18...	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1
Date	Styrene water, unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water, unfltrd ug/L (32102)	Toluene water, unfltrd ug/L (34010)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	Tri- bromo- methane water, unfltrd ug/L (32104)	Tri- chloro- ethene, water, unfltrd ug/L (39180)	Tri- chloro- fluoro- methane water, unfltrd ug/L (34488)	Tri- chloro- methane water, unfltrd ug/L (32106)
MAR 18...	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1
Date	Vinyl chlor- ide, water, unfltrd ug/L (39175)	Deu- terium/ Protium ratio, water, unfltrd per mil (82082)	Gross alpha radioac Th-230, unfltrd pCi/L (63018)	Gross beta radioac Cs-137, unfltrd pCi/L (03519)	O-18 / O-16 ratio, water, unfltrd per mil (82085)	Ra-226, water, unfltrd pCi/L (09501)	Tritium 2-sigma water, unfltrd pCi/L (75985)	Tritium water unfltrd pCi/L (07000)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)	
MAR 18...	<.2	-90.70	13	45	-11.62	.09	.58	1.6	25	e.08	

&lt; Actual value is known to be less than the value shown.

e Estimated.

## OWENS LAKE BASIN

373723119002301 TWIN LAKES SITE A NEAR MAMMOTH LAKES, CA

LOCATION.—Lat 37°37'23", long 119°00'23", in SW 1/4 SW 1/4 sec.4, T.4 S., R.27 E., Mono County, Hydrologic Unit 18090102, 2.8 mi southeast of Mammoth Lakes (intersection of Hwy 203 and Old Mammoth Road).

PERIOD OF RECORD.—October 2003 to September 2004.

CHEMICAL DATA.—October 2003 to September 2004.

## PROFILE DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth to bot. from surface at samp locatn, meters (82903)	Sam-pling depth, meters (00098)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd 25 degC (00095)	Temper-ature, water, deg C (00010)
OCT									
28...	0920	2.00	.10	560	10.3	120	7.6	155	8.5
28...	0921	2.00	1.0	560	10.3	119	7.5	155	8.0
28...	0922	2.00	2.0	560	10.3	119	7.4	158	8.0
JAN									
29...	0938	1.50	1.0	554	5.2	50	6.6	137	1.0
29...	0940	1.50	1.5	554	2.4	24	6.0	155	1.5
APR									
29...	0915	2.10	.10	554	10.1	113	7.7	133	6.5
29...	0917	2.10	1.0	554	10.2	115	7.5	134	6.5
29...	0919	2.10	2.0	554	6.4	72	6.0	224	6.5
JUL									
29...	0945	2.00	1.0	561	8.9	123	8.5	82	16.0
29...	0946	2.00	1.5	561	9.5	132	8.4	82	16.0

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth to bot. from surface at samp locatn, meters (82903)	Sam-pling depth, meters (00098)	Turbid-ity, wat unfltrd lab, Hach 2100AN NTU (99872)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd 25 degC (00095)
OCT									
28...	0930	2.00	1.0	--	560	10.3	119	7.6	155
28...	0935	2.00	2.0	--	560	10.3	119	7.4	158
JAN									
29...	0945	1.50	1.0	5.5	554	5.2	50	6.6	137
APR									
29...	0925	2.10	1.0	2.0	554	10.2	115	7.5	134
29...	1010	2.10	2.0	10	554	6.4	72	6.0	224
JUL									
29...	0950	2.00	1.0	<2.0	561	8.9	123	8.5	82

Date	Temper-ature, water, deg C (00010)	Chlor-ide, water, fltrd, mg/L (00940)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT								
28...	8.0	.64	93	.20	.002	.001	.003	.019
28...	8.0	.61	97	.25	.002	.001	.003	.022
JAN								
29...	1.0	.68	94	.27	.029	.002	.008	.037
APR								
29...	6.5	.56	90	.30	.001	<.001	.002	.032
29...	6.5	.54	103	1.1	.001	<.001	.002	.186
JUL								
29...	16.0	<.20	45	.17	.001	.001	.003	.016

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

## OWENS LAKE BASIN

373718119002601 TWIN LAKES SITE B NEAR MAMMOTH LAKES, CA

LOCATION.—Lat 37°37'18", long 119°00'26", in NW 1/4 NW 1/4 sec.9, T.4 S., R.27 E., Mono County, Hydrologic Unit 18090102, 2.8 mi southeast of Mammoth Lakes (intersection of Hwy 203 and Old Mammoth Road).

PERIOD OF RECORD.—October 2003 to September 2004.

CHEMICAL DATA.—October 2003 to September 2004.

## PROFILE DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth to bot. from surface at samp locatn, meters (82903)	Sam-pling depth, meters (00098)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd std, units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, deg C (00010)
OCT									
28...	1007	3.00	.10	560	11.2	132	7.7	155	9.0
28...	1008	3.00	1.0	560	11.2	132	7.6	154	9.0
28...	1009	3.00	2.0	560	10.8	127	7.5	154	8.5
JAN									
29...	1018	3.20	1.0	554	3.6	35	6.4	137	1.0
29...	1019	3.20	2.0	554	2.5	25	6.1	163	1.5
29...	1020	3.20	3.0	554	1.0	10	5.9	213	3.5
APR									
29...	1051	3.40	.10	554	10.4	120	7.7	132	7.5
29...	1052	3.40	1.0	554	10.5	119	7.5	132	7.0
29...	1053	3.40	2.0	554	10.5	118	7.4	132	6.5
29...	1054	3.40	3.0	554	10.6	119	7.2	132	6.5
JUL									
29...	1007	3.50	1.0	561	10.5	150	8.9	82	17.5
29...	1008	3.50	2.0	561	11.3	160	9.0	83	17.0
29...	1009	3.50	3.0	561	11.3	158	8.5	86	16.5

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth to bot. from surface at samp locatn, meters (82903)	Sam-pling depth, meters (00098)	Turbid-ity, wat unfltrd, Hach 2100AN NTU (99872)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd std, units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)
OCT									
28...	1015	3.00	1.0	--	560	11.2	132	7.6	154
28...	1020	3.00	2.0	--	560	10.8	127	7.5	154
28...	1025	3.00	3.0	--	560	10.4	121	6.9	159
JAN									
29...	1030	3.20	1.0	6.1	554	3.6	35	6.4	137
29...	1035	3.20	3.0	7.5	554	1.0	10	5.9	213
APR									
29...	1055	3.40	1.0	<2.0	554	10.4	118	7.5	132
29...	1105	3.40	3.0	<2.0	554	10.6	119	7.2	133
JUL									
29...	1015	3.50	1.0	<2.0	561	10.5	150	8.9	82
29...	1025	3.50	3.0	<2.0	561	11.3	158	8.5	86

Date	Temper-ature, water, deg C (00010)	Chlor-ide, water, fltrd, mg/L (00940)	Residue on evap. at 180degC, wat flt mg/L (70300)	Ammonia + org-N, unfltrd as N (00625)	Nitrite + nitrate, water, fltrd, as N (00631)	Nitrite, water, fltrd, as N (00613)	Ortho-phosphate, water, fltrd, as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)
OCT								
28...	9.0	.63	90	.22	.001	.001	.003	.024
28...	8.5	.74	95	.21	.001	.001	.003	.020
28...	8.3	.78	97	.21	.001	.001	.004	.024
JAN								
29...	1.0	.73	102	.26	.032	.002	.003	.034
29...	3.5	.69	125	.43	.014	.002	.077	.144
APR								
29...	7.0	.62	82	.27	.001	<.001	.002	.028
29...	6.5	.49	83	.21	.001	<.001	.002	.034
JUL								
29...	17.5	<.20	54	.19	.001	.001	.003	.016
29...	16.5	<.20	54	.28	.001	.001	.004	.027

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

## OWENS LAKE BASIN

373716119002301 TWIN LAKES SITE C NEAR MAMMOTH LAKES, CA

LOCATION.—Lat 37°37'16", long 119°00'23", in NW 1/4 NW 1/4 sec.9, T.4 S., R.27 E., Mono County, Hydrologic Unit 18090102, 2.8 mi southeast of Mammoth Lakes (intersection of Hwy 203 and Old Mammoth Road).

PERIOD OF RECORD.—October 2003 to September 2004.

CHEMICAL DATA.—October 2003 to September 2004.

## PROFILE DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth to bot. from surface at samp locatn, meters (82903)	Sam-pling depth, meters (00098)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)
OCT									
28...	1050	2.70	.10	560	10.5	124	7.6	154	9.0
28...	1051	2.70	1.0	560	10.4	124	7.5	154	9.0
28...	1052	2.70	2.0	560	10.3	120	7.5	154	8.5
28...	1053	2.70	2.5	560	10.1	118	7.6	154	8.5
JAN									
29...	1110	3.00	1.0	554	1.9	18	6.4	136	1.0
29...	1111	3.00	2.0	554	1.3	13	6.1	163	2.0
29...	1112	3.00	2.5	554	.5	5	6.0	198	3.0
APR									
29...	1115	3.00	.10	554	10.4	120	7.5	132	7.5
29...	1116	3.00	1.0	554	10.4	118	7.1	132	7.0
29...	1117	3.00	2.0	554	10.4	118	7.4	132	7.0
29...	1118	3.00	3.0	554	10.4	117	7.4	131	6.5
JUL									
29...	1039	3.20	1.0	561	9.9	140	9.1	83	17.0
29...	1040	3.20	2.0	561	10.3	144	9.1	83	16.5
29...	1041	3.20	3.0	561	10.5	147	9.2	82	16.5

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth to bot. from surface at samp locatn, meters (82903)	Sam-pling depth, meters (00098)	Turbid-ity, wat unfltrd lab, Hach 2100AN NTU (99872)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)
OCT									
28...	1055	2.70	1.0	<2.0	560	10.4	124	7.5	154
28...	1100	2.70	2.0	<2.0	560	10.3	120	7.5	154
28...	1105	2.70	2.5	<2.0	560	10.1	118	7.6	154
JAN									
29...	1120	3.00	1.0	4.7	554	1.9	18	6.4	136
29...	1125	3.00	2.5	4.4	554	.5	5	6.0	198
APR									
29...	1120	3.00	1.0	<2.0	554	10.4	118	7.1	132
29...	1130	3.00	2.5	<2.0	554	10.4	118	7.4	131
JUL									
29...	1045	3.20	1.0	<2.0	561	9.9	140	9.1	83
29...	1055	3.20	3.0	<2.0	561	10.5	147	9.2	82

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

## OWENS LAKE BASIN

373716119002301 TWIN LAKES SITE C NEAR MAMMOTH LAKES, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Temperature, water, deg C (00010)	Chlor- ide, water, fltrd, mg/L (00940)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)
OCT								
28...	9.0	.72	93	.20	.003	.001	.003	.020
28...	8.5	.66	91	.24	.002	.001	.003	.019
28...	8.5	.71	93	.23	.002	.001	.003	.021
JAN								
29...	1.0	.67	93	.32	.028	.002	.003	.031
29...	3.0	.67	99	.26	.024	.002	.010	.043
APR								
29...	7.0	.50	92	.19	.001	<.001	.002	.031
29...	7.0	.46	89	.16	.001	<.001	.002	.028
JUL								
29...	17.0	<.20	51	.20	.002	.001	.003	.015
29...	16.5	<.20	52	.20	.001	.001	.003	.018

&lt; Actual value is known to be less than the value shown.

## SANTA MARIA RIVER BASIN

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, and 3.6 mi southwest of Guadalupe.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—Water years 1986 to current year.

CHEMICAL DATA: Water years 1986 to current year.

REMARKS.—Records good.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, deg C (00010)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)
APR 07...	1240	16	766	7.7	83	7.8	2280	18.5	790
AUG 20...	1340	12	759	8.9	104	7.8	2980	23.5	1000
Date	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)
APR 07...	1100	238	111	5.39	2	145	23	264	320
AUG 20...	1300	309	137	9.36	2	173	22	301	362
Date	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue evap. at 180degC, wat flt mg/L (70300)	Residue ammonia water, fltrd, mg/L as N (00608)	
APR 07...	1	161	.4	31.8	678	1650	2.38	1750	1.48
AUG 20...	2	226	.4	29.1	932	2240	3.26	2400	6.53
Date	Nitrite + nitrate, water, fltrd, as N (00631)	Nitrite, water, fltrd, as N (00613)	Orthophosphate, water, fltrd, as P (00671)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	CIAT, water, unfltrd, ug/L (75981)	CEAT, water, unfltrd, ug/L (75980)	
APR 07...	26.9	.243	.17	271	<32	198	<.2	<.2	
AUG 20...	52.9	.396	.41	391	e19	94.9	<.2	<.2	

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

e Estimated.

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD SITES

## SANTA MARIA RIVER BASIN

345727120375401 GREEN CANYON CREEK AT MAIN STREET, NEAR GUADALUPE, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Ala-chlor, water, unfltrd ug/L (77825)	Ametryn water, unfltrd ug/L (82184)	Atra-zine, water, unfltrd ug/L (39630)	Broma-cil, water, unfltrd ug/L (30234)	Buta-chlor, water, unfltrd ug/L (30235)	Butyl-ate, water, unfltrd ug/L (30236)	Carbo-pheno-thion, water, unfltrd ug/L (39786)	Car-boxin, water, unfltrd ug/L (30245)
APR 07...	<.1	<.1	<.1	<.2	<.1	<.1	<.02	<.2
AUG 20...	<.1	<.1	<.1	<.2	<.1	<.1	<.02	<.2
Date	Chlor-pyrifos water, unfltrd ug/L (38932)	Cyana-zine, water, unfltrd ug/L (81757)	Cyclo-ate, water, unfltrd ug/L (30254)	Diazi-non, water, unfltrd ug/L (39570)	Diphen-amid, water, unfltrd ug/L (30255)	Disul-foton, water, unfltrd ug/L (39011)	Ethion, water, unfltrd ug/L (39398)	Fonofos water, unfltrd ug/L (82614)
APR 07...	.02	<.2	<.1	<.02	<.1	<.10	<.01	<.01
AUG 20...	.17	<.2	<.1	.27	<.1	<.10	<.01	<.01
Date	Hexa-zinone, water, unfltrd ug/L (30264)	Mala-thion, water, unfltrd ug/L (39530)	Methyl para-thion, water, unfltrd ug/L (39600)	Metola-chlor, water, unfltrd ug/L (82612)	Metri-buzin, water, unfltrd ug/L (82611)	Para-thion, water, unfltrd ug/L (39540)	Phorate water, unfltrd ug/L (39023)	Prome-ton, water, unfltrd ug/L (39056)
APR 07...	<.2	<.10	<.01	<.2	<.1	<.01	<.02	<.2
AUG 20...	<.2	e.01	<.01	<.2	<.1	<.01	<.02	<.2
Date	Prome-tryn, water, unfltrd ug/L (39057)	Propa-chlor, water, unfltrd ug/L (30295)	Propa-zine, water, unfltrd ug/L (39024)	Sima-zine, water, unfltrd ug/L (39055)	Sime-tryn, water, unfltrd ug/L (39054)	Terba-cil, water, unfltrd ug/L (30311)	Tribu-phos, water, unfltrd ug/L (39040)	Tri-flur-alin, water, unfltrd ug/L (39030)
APR 07...	<.1	<.1	<.1	<.1	<.1	<.2	<.02	<.1
AUG 20...	.1	<.1	<.1	<.1	<.1	<.2	<.02	<.1
Date	Vernol-ate, water, unfltrd ug/L (30324)	Aldrin, bed sedimnt ug/kg (39333)	alpha-Endo-sulfan, bed sedimnt ug/kg (39389)	Chlor-dane, tech-nical, bed sedimnt ug/kg (39351)	Diel-drin, bed sedimnt ug/kg (39383)	Endrin, bed sedimnt ug/kg (39393)	Hepta-chlor epoxide, bed sedimnt ug/kg (39423)	Hepta-chlor, bed sedimnt ug/kg (39413)
APR 07...	<.1	<.2	<.2	<11	7.4	15	<.2	<.2
AUG 20...	<.1	<.2	<.4	<11	3.8	e12	<.5	<.2

&lt; Actual value is known to be less than value shown.

e Estimated.



## SANTA MARIA RIVER BASIN

345727120375401 GREEN CANYON CREEK AT MAIN STREET, NEAR GUADALUPE, CA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Lindane bed sedimnt ug/kg (39343)	Mirex, bed sedimnt ug/kg (39758)	p,p'- DDD, bed sedimnt ug/kg (39363)	p,p'- DDE, bed sedimnt ug/kg (39368)	p,p'- DDT, bed sedimnt ug/kg (39373)	p,p'- Meth- oxy- chlor, bed sedimnt ug/kg (39481)	PCBs, bed sedimnt ug/kg (39519)	Toxa- phene, bed sedimnt ug/kg (39403)
APR 07...	<.2	<.2	27	120	72	<2.5	<5	e590
AUG 20...	<.2	<.6	53	230	160	<2.5	<5	e620

## CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample loca- tion, feet (81903)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Loca- tion in X-sect. looking downstrm ft from l bank (00009)
APR									
07...*	1254	.95	766	7.6	81	7.6	2330	18.5	1.40
07...*	1255	1.08	766	7.6	82	7.6	2330	18.5	2.40
07...*	1256	1.15	766	7.7	83	7.6	2330	18.5	3.40
07...*	1257	1.18	766	7.7	83	7.6	2330	18.5	4.40
07...*	1258	1.24	766	7.8	83	7.6	2330	18.5	5.40
07...*	1259	1.16	766	7.8	83	7.6	2330	18.5	6.40
07...*	1300	1.29	766	7.8	83	7.6	2330	18.5	7.40
07...*	1301	1.03	766	7.8	84	7.6	2330	18.5	8.40
07...*	1302	.83	766	7.8	83	7.6	2330	18.5	9.40
AUG									
20...*	1310	.30	759	8.8	103	7.8	2970	24.0	1.00
20...*	1311	1.21	759	8.8	103	7.8	2980	23.5	2.00
20...*	1312	1.45	759	8.9	104	7.8	2980	23.5	3.00
20...*	1313	1.43	759	8.9	104	7.8	2980	23.5	4.00
20...*	1314	1.26	759	8.9	104	7.8	2980	23.5	5.00
20...*	1315	1.03	759	8.9	104	7.8	2980	23.5	6.00
20...*	1316	1.00	759	8.9	104	7.8	2980	23.5	7.00
20...*	1317	.92	759	8.9	104	7.8	2980	23.5	8.00
20...*	1318	.48	759	8.8	104	7.8	2980	23.5	9.00

&lt; Actual value is known to be less than value shown.

e Estimated.

\* Instantaneous discharge at time of cross-sectional measurement: Apr. 7, 16.1 ft<sup>3</sup>/s; Aug. 20, 12.0 ft<sup>3</sup>/s.

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	Page		Page
A			
ABELOUR DITCH NEAR BISHOP .....	141	CARUTHERS CREEK NEAR IVANPAH .....	35
ACCESS TO USGS WATER DATA .....	15	CASTAIC CREEK BELOW METROPOLITAN WATER DISTRICT DIVERSION, BELOW CASTAIC LAKE, NEAR CASTAIC .....	419
Accuracy of Field Data and Computed Results .....	9	CASTAIC LAKE NEAR CASTAIC .....	418
Accuracy of the Records .....	11	CHINO CANYON CREEK BELOW TRAMWAY, NEAR PALM SPRINGS .....	59
AGNEW LAKE NEAR JUNE LAKE .....	150	CHINO CREEK AT SCHAEFER AVENUE, NEAR CHINO .....	363
AGUA CHINON WASH NEAR IRVINE .....	278	CITY CREEK AND CITY CREEK WATER CO.'S CANAL NEAR HIGHLAND (combined) .....	308
ALAMO PINTADO CREEK NEAR SOLVANG .....	485	CITY CREEK NEAR HIGHLAND .....	306
Alamo River (at the United States–Mexico International Boundary) .....	39	CITY CREEK WATER CO.'S CANAL AND CITY CREEK NEAR HIGHLAND (combined) .....	308
ALAMO RIVER NEAR NILAND .....	41	Classification of Records .....	10
ALISAL RESERVOIR NEAR SOLVANG .....	487	COACHELLA CANAL AT ALL AMERICAN CANAL DIVERSION, NEAR HOLTVILLE .....	28
ALISO CREEK LAGOON AT MOUTH, NEAR OCEANSIDE .....	237	COCKLEBURR CREEK LAGOON AT MOUTH, NEAR OCEANSIDE .....	232
AMARGOSA RIVER AT TECOPA .....	29	Collection and Examination of Data .....	10
AMARGOSA RIVER BELOW WILLOW CREEK, NEAR TECOPA .....	534	COOPERATION .....	2
AMARGOSA RIVER IN UPPER CANYON NEAR TECOPA .....	531	COTTONWOOD CREEK ABOVE TECATE CREEK, NEAR DULZURA .....	160
ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD SITES .....	531	CRAB CREEK AT CRAB FLATS ROAD, NEAR LAKE ARROWHEAD .....	76
ANDREAS CREEK NEAR PALM SPRINGS .....	66	Crest-Stage Partial-Record Stations .....	528, 530
Annual maximum discharge at crest-stage partial-record stations .....	528	CRISTIANITOS CREEK ABOVE SAN MATEO CREEK, NEAR SAN CLEMENTE .....	264
Arrangement of Records .....	11	CUCAMONGA CREEK NEAR MIRA LOMA .....	369
ARROYO SECO NEAR PASADENA .....	403	CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA .....	515
ARROYO TRABUCO AT SAN JUAN CAPISTRANO .....	275	D	
ATASCADERO CREEK NEAR GOLETA .....	451	Data Collection and Computation Precipitation Records .....	9
B			
BAUTISTA CREEK AT HEAD OF FLOOD CONTROL CHANNEL, NEAR HEMET .....	349	Stage- and Water-Discharge Records .....	5
BIG BEAR LAKE NEAR BIG BEAR LAKE .....	290	Data Precision .....	27
BIG ROCK CREEK ABOVE PALLETT CREEK, NEAR VALYERMO .....	105	Data Presentation Precipitation Records .....	9
BIG ROCK CREEK NEAR VALYERMO .....	103	Stage- and Water-Discharge Records .....	6
BIG TUJUNGA CREEK BELOW HANSEN DAM .....	401	Surface-Water-Quality Records .....	12
BIRCH CREEK BELOW DIVERSION DAM, NEAR BISHOP .....	128	Data Table of Daily Mean Values .....	7
BIRCH–MCGEE DIVERSION TO BISHOP CREEK POWERPLANT NO. 2, NEAR BISHOP .....	138	DE LUZ CREEK NEAR DE LUZ .....	209
BISHOP CREEK ABOVE POWERPLANT NO. 6, NEAR BISHOP .....	142	DE LUZ CREEK NEAR FALLBROOK .....	211
Bishop Creek Basin, diversions and storage in .....	125	DEEP CREEK NEAR ARROWBEAR LAKE .....	75
BISHOP CREEK BELOW INTAKE NO. 3 DIVERSION DAM, NEAR BISHOP .....	137	DEEP CREEK NEAR HESPERIA .....	80
BISHOP CREEK BELOW INTAKE NO. 4 DIVERSION DAM, NEAR BISHOP .....	139	DEEP CREEK NEAR PALM DESERT .....	70
BISHOP CREEK BELOW INTAKE NO. 5 DIVERSION DAM, NEAR BISHOP .....	140	DEVIL CANYON CREEK NEAR SAN BERNARDINO .....	334
Bishop Creek Powerplant No. 6 .....	142	Discharge at partial-record stations and miscellaneous sites .....	528
Blank Samples .....	14	Discharge measurements made at special study and miscellaneous sites .....	529
BONITA CREEK AT IRVINE .....	286	DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS .....	xxii
Boom Creek near Barstow .....	528	DISCONTINUED GAGING STATIONS .....	xv
BORREGO PALM CREEK NEAR BORREGO SPRINGS .....	44	DISCONTINUED LAKES AND RESERVOIRS .....	xxii
BOUQUET CREEK BELOW HASKELL CANYON CREEK, NEAR SAUGUS .....	415	Dissolved Trace-Element Concentrations .....	27
BREA CREEK BELOW BREA DAM, NEAR FULLERTON .....	396	DIVERSIONS AND PLUNGE CREEK NEAR EAST HIGHLANDS (combined) .....	305
Buckhorn Creek near Valyermo .....	528	Diversions and storage in Bishop Creek Basin .....	125
C			
CAJON CREEK BELOW LONE PINE CREEK, NEAR KEENBROOK .....	331	Los Angeles and San Gabriel River Basins .....	392
CALIFORNIA AQUEDUCT AT NORTH PORTAL TEHACHAPI TUNNEL, NEAR GORMAN .....	421	Mojave River Basin .....	79
CALLEGUAS CREEK NEAR CAMARILLO .....	408	Salton Sea Basin .....	37
CAMPO CREEK NEAR CAMPO .....	161	San Gabriel and Los Angeles River Basins .....	392
CARBON CREEK BELOW CARBON CANYON DAM .....	385	Santa Ana River Basin .....	289
CARPINTERIA CREEK NEAR CARPINTERIA .....	444	Santa Clara River Basin .....	411
		Santa Margarita River Basin .....	182
		Santa Ynez River Basin .....	455

	Page		Page
DOWNSTREAM ORDER AND STATION NUMBER .....	3	J	
E			
E STREET PRECIPITATION GAGE, AT SAN BERNARDINO .....	314	JAMUL CREEK NEAR JAMUL .....	162
EAST BRANCH CALIFORNIA AQUEDUCT		Joshua Creek near Mojave .....	528
AT ALAMO POWERPLANT, NEAR GORMAN .....	86	K	
EAST BRANCH CALIFORNIA AQUEDUCT AT DEVIL CANYON		Kern County, location of discharge and water-quality stations .....	18
POWERPLANT, NEAR SAN BERNARDINO .....	336	L	
EAST BRANCH CALIFORNIA AQUEDUCT		Laboratory Measurements .....	12
AT MOJAVE SIPHON POWERPLANT, NEAR HESPERIA .....	87	LAKE CACHUMA NEAR SANTA YNEZ .....	468
EAST FORK OF WEST FORK MOJAVE RIVER		LAKE PIRU NEAR PIRU .....	427
ABOVE SILVERWOOD LAKE, NEAR HESPERIA .....	85	LAKE SABRINA NEAR BISHOP .....	133
EAST TWIN CREEK NEAR ARROWHEAD SPRINGS .....	312	Lakes and reservoirs	
EL CAPITAN LAKE NEAR LAKESIDE .....	167	AGNEW LAKE NEAR JUNE LAKE .....	150
ELDERBERRY FOREBAY NEAR CASTAIC .....	417	ALISAL RESERVOIR NEAR SOLVANG .....	487
ELLERY LAKE NEAR LEE VINING .....	157	BIG BEAR LAKE NEAR BIG BEAR LAKE .....	290
ELY PERCOLATION BASIN NO. 3 AT ONTARIO .....	367	CASTAIC LAKE NEAR CASTAIC .....	418
EXPLANATION OF PRECIPITATION RECORDS .....	9	ELDERBERRY FOREBAY NEAR CASTAIC .....	417
EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS ..	5	ELLERY LAKE NEAR LEE VINING .....	157
EXPLANATION OF WATER-QUALITY RECORDS .....	10	ELY PERCOLATION BASIN NO. 3 AT ONTARIO .....	367
F			
FALLBROOK CREEK NEAR FALLBROOK .....	213	GEM LAKE NEAR JUNE LAKE .....	148
FALLS CREEK AND FALLS CREEK DIVERSION		INTAKE NO. 2 RESERVOIR NEAR BISHOP .....	135
NEAR WHITE WATER (combined) .....	54	LAKE CACHUMA NEAR SANTA YNEZ .....	468
FALLS CREEK DIVERSION AND FALLS CREEK		LAKE PIRU NEAR PIRU .....	427
NEAR WHITE WATER (combined) .....	54	LAKE SABRINA NEAR BISHOP .....	133
FALLS CREEK NEAR WHITE WATER .....	52	LUNDY LAKE NEAR LEE VINING .....	144
FLOW FROM MEXICO AT INTERNATIONAL BOUNDARY .....	39	PYRAMID LAKE NEAR GORMAN .....	423
FONTANA WATER CO.'S INFILTRATION LINE DIVERSION,		SADDLEBAG LAKE NEAR LEE VINING .....	153
LYTLE CREEK, AND SOUTHERN CALIFORNIA EDISON CO.'S		SALTON SEA NEAR WESTMORLAND .....	38
LYTLE CREEK CONDUIT (combined) .....	328	SILVERWOOD LAKE NEAR HESPERIA .....	88
FULLERTON CREEK BELOW FULLERTON DAM, NEAR BREA ...	397	SOUTH LAKE NEAR BISHOP .....	130
G			
GEM LAKE NEAR JUNE LAKE .....	148	TIOGA LAKE NEAR LEE VINING .....	155
GLACIER CREEK BELOW TIOGA LAKE, NEAR LEE VINING .....	156	VAIL LAKE NEAR TEMECULA .....	185
Gourd Creek near Ludlow .....	528	WAUGH LAKE NEAR JUNE LAKE .....	146
GREEN CANYON CREEK AT MAIN STREET,		Lamb Canyon Creek at Victory Ranch, near San Jacinto .....	529
NEAR GUADALUPE .....	541	LAS FLORES CREEK AT LAS PULGAS CANYON,	
GREEN CREEK CONDUIT OUTLET NEAR BISHOP .....	129	NEAR OCEANSIDE .....	247
H			
HIDDEN CREEK LAGOON AT MOUTH, NEAR OCEANSIDE .....	242	LAS FLORES CREEK LAGOON AT MOUTH, NEAR OCEANSIDE .....	250
HILTON CANYON CREEK NEAR SANTA YNEZ .....	469	LAS FLORES CREEK NEAR OCEANSIDE .....	249
HILTON CREEK AT LAKE CROWLEY .....	123	Las Flores Release .....	89
HOLCOMB CREEK AT CRAB FLATS ROAD,		LEE VINING CREEK BELOW RHINEDOLLAR DAM,	
NEAR LAKE ARROWHEAD .....	78	NEAR LEE VINING .....	158
HOLE LAKE OUTLET CHANNEL NEAR ARLINGTON .....	342	LEE VINING CREEK BELOW SADDLEBAG LAKE,	
HOT CREEK AT FLUME, NEAR MAMMOTH .....	121	NEAR LEE VINING .....	154
Hydrologic Benchmark Network .....	3	LITTLE DALTON CREEK NEAR GLENDORA .....	394
I			
Identifying Estimated Daily Discharge .....	8	LITTLE ROCK CREEK ABOVE LITTLE ROCK RESERVOIR,	
Imperial County, location of discharge and water-quality stations .....	16	NEAR LITTLEROCK .....	108
INTAKE NO. 2 RESERVOIR NEAR BISHOP .....	135	LITTLE SAN GORGONIO RIVER NEAR BEAUMONT .....	309
INTRODUCTION .....	1	LONE PINE CREEK NEAR KEENBROOK .....	329
Inyo County, location of discharge stations .....	17	Los Angeles and San Gabriel River Basins, diversions and storage in .....	392
		Los Angeles County, location of discharge and water-quality stations .....	19
		LOS ANGELES RIVER AT SEPULVEDA DAM .....	399
		LOS COCHES CREEK NEAR LAKESIDE .....	169
		LOS PENASQUITOS CREEK NEAR POWAY .....	175
		LOWER OTAY LAKE NEAR CHULA VISTA .....	164
		LUNDY LAKE NEAR LEE VINING .....	144
		Lundy Powerplant Tailrace .....	145
		LYTLE CREEK AT COLTON .....	337
		LYTLE CREEK LEAKAGE BELOW SOUTHERN CALIFORNIA	
		EDISON CO.'S DIVERSION DAM, NEAR FONTANA .....	324
		LYTLE CREEK NEAR FONTANA .....	326

	Page
LYTLE CREEK, SOUTHERN CALIFORNIA EDISON CO.'S LYTLE CREEK CONDUIT, AND FONTANA WATER CO.'S INFILTRATION LINE DIVERSION (combined) .....	328

M

MAMMOTH CREEK AT HIGHWAY 395, NEAR MAMMOTH LAKES .....	119
MAMMOTH CREEK AT OLD MAMMOTH ROAD, AT MAMMOTH LAKES .....	117
MAMMOTH CREEK AT TWIN LAKES, NEAR MAMMOTH LAKES .....	113
MAMMOTH CREEK TRIBUTARY BELOW MILL CITY, NEAR MAMMOTH LAKES .....	115
MARIA YGNACIO CREEK AT UNIVERSITY DRIVE, NEAR GOLETA .....	449
MARSHBURN CHANNEL NEAR IRVINE .....	280
MATILJA CREEK NEAR RESERVOIR, NEAR MATILJA HOT SPRINGS .....	436
McGEE CREEK BELOW DIVERSION DAM, NEAR BISHOP .....	127
McGEE CREEK DIVERSION NEAR BISHOP .....	126
MESCAL CREEK NEAR PINON HILLS .....	111
MEXICO AT INTERNATIONAL BOUNDARY, FLOW FROM .....	39
MIDDLE FORK BISHOP CREEK BELOW INTAKE NO. 2 RESERVOIR, NEAR BISHOP .....	136
MIDDLE FORK BISHOP CREEK BELOW LAKE SABRINA, NEAR BISHOP .....	134
MIDDLE FORK LYTLE CREEK PRECIPITATION GAGE, NEAR LYTLE CREEK .....	325
MIGUELITO CREEK AT LOMPOC .....	511
MILL CREEK BELOW SOUTHERN CALIFORNIA EDISON CO.'S NO. 3 POWER CANAL DIVERSION DAM, NEAR FOREST FALLS .....	300
MILL CREEK FLUME BELOW LUNDY LAKE, NEAR LEE VINING .....	145
MILL CREEK NEAR MENTONE .....	302
MILL CREEK NEAR YUCAIPA .....	301
MILL CREEK POWER CANAL NOS. 2 AND 3 NEAR YUCAIPA .....	298
MINT CANYON CREEK AT SIERRA HIGHWAY, NEAR SAUGUS ..	413
Miscellaneous and special study sites .....	529
Miscellaneous Sites .....	528
Miscellaneous sites and partial-record stations, discharge at .....	528
MISSION CREEK AT ROCKY NOOK PARK, AT SANTA BARBARA .....	446
MISSION CREEK NEAR DESERT HOT SPRINGS .....	57
MISSION CREEK NEAR MISSION STREET, AT SANTA BARBARA .....	448
MOJAVE RIVER AT AFTON .....	101
MOJAVE RIVER AT BARSTOW .....	99
MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE .....	97
MOJAVE RIVER AT UPPER NARROWS, AT VICTORVILLE .....	95
Mojave River Basin, diversions and storage in .....	79
MOJAVE RIVER BELOW FORKS RESERVOIR, NEAR HESPERIA ..	93
Mono County, location of discharge and water-quality stations .....	20
MURRIETA CREEK AT TEMECULA .....	193
MURRIETA CREEK NEAR MURRIETA .....	188

N

National Atmospheric Deposition Program/National Trends Network .....	4
National Streamflow Information Program .....	4
National Stream-Quality Accounting Network .....	4
National Water-Quality Assessment (NAWQA) Program .....	4
New River (at the United States–Mexico International Boundary) .....	39
NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO .....	42

	Page
NEW RIVER NEAR WESTMORLAND .....	43
NUMBERING SYSTEM FOR MISCELLANEOUS SITES AND WELLS 3 NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES 3	

O

O'NEILL LAKE OUTLET CHANNEL NEAR FALLBROOK .....	216
O'NEILL LAKE SPILL CHANNEL NEAR FALLBROOK .....	217
O'NEILL LAKE TRIBUTARY NEAR FALLBROOK .....	215
On-Site Measurements and Sample Collection .....	11
Orange County, location of discharge and water-quality stations .....	21
ORCUTT CREEK NEAR ORCUTT .....	524
Other Data Records Available .....	9

P

PALLETT CREEK AT BIG ROCK CREEK, NEAR VALYERMO .....	107
PALM CANYON CREEK NEAR PALM SPRINGS .....	64
PALM CANYON WASH NEAR CATHEDRAL CITY .....	68
Partial-record stations and miscellaneous sites, discharge at .....	528
Partial-Record Stations, Crest-Stage .....	528, 530
Peak Discharge Greater than Base Discharge .....	7
PECHANGA CREEK NEAR TEMECULA .....	187
PERRIS VALLEY STORM DRAIN AT NUEVO ROAD, NEAR PERRIS .....	352
Pine Creek near Palmdale .....	528
Pinyon Wash near Borrego .....	530
PIRU CREEK ABOVE LAKE PIRU .....	425
PIRU CREEK BELOW PYRAMID LAKE, NEAR GORMAN .....	424
PIRU CREEK BELOW SANTA FELICIA DAM .....	428
PLUNGE CREEK AND DIVERSIONS NEAR EAST HIGHLANDS (combined) .....	305
Plunge Creek Lower Diversion .....	303
Plunge Creek Middle Diversion .....	303
PLUNGE CREEK NEAR EAST HIGHLANDS .....	303
Plunge Creek Upper Diversion .....	303
Poole Powerplant Conduit .....	158
Purisima Creek near Lompoc .....	529
PYRAMID LAKE NEAR GORMAN .....	423

R

RAINBOW CREEK NEAR FALLBROOK .....	203
Reference Samples .....	14
Remarks Codes .....	13, 27
Replicate Samples .....	14
Revision of records for discontinued stations	
LITTLE DALTON CREEK NEAR GLENDORA .....	394
LITTLE SAN GORGONIO RIVER NEAR BEAUMONT .....	309
MILL CREEK NEAR YUCAIPA .....	301
Pinyon Wash near Borrego .....	530
SAN ANTONIO CREEK NEAR CLAREMONT .....	360
San Juan Creek tributary near Elsinore .....	530
RIDGE TOP PRECIPITATION GAGE NEAR DEVORE .....	333
RIO HONDO ABOVE WHITTIER NARROWS DAM .....	405
RIO HONDO BELOW WHITTIER NARROWS DAM .....	406
Riverside County, location of discharge and water-quality stations .....	22
ROCK CREEK ABOVE DIVERSION, NEAR TOM'S PLACE .....	124
Rodeo–San Pasqual Creek near Lompoc .....	529
RUSH CREEK BELOW GEM LAKE, NEAR JUNE LAKE .....	149
RUSH CREEK BELOW WAUGH LAKE, NEAR JUNE LAKE .....	147
RUSH CREEK FLUME BELOW AGNEW LAKE, NEAR JUNE LAKE .....	151
Rush Creek Powerplant Tailrace .....	151

	Page		Page
S			
SADDLEBAG LAKE NEAR LEE VINING .....	153	Santa Ana River near Mentone (supplementary gage) .....	294
SALSIPUEDES CREEK NEAR LOMPOC .....	497	Santa Barbara County, location of discharge and water-quality stations .....	25
SALT CREEK AT MURRIETA ROAD, NEAR SUN CITY .....	356	SANTA CLARA RIVER ABOVE RAILROAD STATION, NEAR LANG .....	412
SALT CREEK NEAR MECCA .....	40	SANTA CLARA RIVER AT MONTALVO .....	434
Salton Sea Basin, diversions and storage in .....	37	Santa Clara River Basin, diversions and storage in .....	411
SALTON SEA NEAR WESTMORLAND .....	38	SANTA CLARA RIVER NEAR PIRU .....	420
SAN ANTONIO CREEK AT LOS ALAMOS .....	514	SANTA CLARA RIVER NEAR SAUGUS .....	416
SAN ANTONIO CREEK AT RIVERSIDE DRIVE, NEAR CHINO .....	361	SANTA CRUZ CREEK NEAR SANTA YNEZ .....	464
SAN ANTONIO CREEK NEAR CLAREMONT .....	360	SANTA GERTRUDIS CREEK NEAR TEMECULA .....	192
San Bernardino County .....	531	SANTA MARGARITA RIVER AT FALLBROOK PUBLIC UTILITY DISTRICT SUMP, NEAR FALLBROOK .....	205
San Bernardino County, location of discharge and water-quality stations .....	23	SANTA MARGARITA RIVER AT MOUTH, NEAR OCEANSIDE .....	220
San Diego County, location of discharge and water-quality stations .....	24	SANTA MARGARITA RIVER AT YSIDORA .....	218
SAN DIEGO RIVER AT FASHION VALLEY, AT SAN DIEGO .....	173	Santa Margarita River Basin, diversions and storage in .....	182
SAN DIEGO RIVER AT MAST ROAD, NEAR SANTEE .....	171	SANTA MARGARITA RIVER ESTUARY NEAR OCEANSIDE .....	227
San Gabriel and Los Angeles River Basins, diversions and storage in .....	392	SANTA MARGARITA RIVER NEAR TEMECULA .....	195
SAN GABRIEL RIVER ABOVE WHITTIER NARROWS DAM .....	395	SANTA MARIA CREEK NEAR RAMONA .....	178
SAN GABRIEL RIVER BELOW SANTA FE DAM, NEAR BALDWIN PARK .....	393	Santa Rita Creek near Lompoc .....	529
SAN JACINTO RIVER ABOVE STATE STREET, NEAR SAN JACINTO .....	350	SANTA YNEZ RIVER ABOVE GIBRALTAR DAM, NEAR SANTA BARBARA .....	457
SAN JACINTO RIVER AT RAMONA EXPRESSWAY, NEAR LAKEVIEW .....	351	SANTA YNEZ RIVER AT 13TH STREET BRIDGE, AT VANDENBERG AIR FORCE BASE, NEAR LOMPOC .....	513
SAN JACINTO RIVER NEAR ELSINORE .....	357	SANTA YNEZ RIVER AT H STREET, NEAR LOMPOC .....	509
SAN JACINTO RIVER NEAR SAN JACINTO .....	347	SANTA YNEZ RIVER AT HIGHWAY 154, NEAR SANTA YNEZ .....	480
SAN JACINTO RIVER NEAR SUN CITY .....	354	SANTA YNEZ RIVER AT JAMESON LAKE, NEAR MONTECITO .....	456
SAN JOSE CREEK NEAR GOLETA .....	453	SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC .....	502
SAN JUAN CREEK AT CASPER REGIONAL PARK, NEAR SAN JUAN CAPISTRANO .....	271	SANTA YNEZ RIVER AT SOLVANG .....	488
SAN JUAN CREEK AT LA NOVIA STREET BRIDGE, AT SAN JUAN CAPISTRANO .....	273	Santa Ynez River at V Street near Lompoc .....	529
SAN JUAN CREEK AT STONEHILL DRIVE, NEAR DANA POINT .....	277	Santa Ynez River Basin, diversions and storage in .....	455
SAN JUAN CREEK NEAR SAN JUAN CAPISTRANO .....	272	SANTA YNEZ RIVER BELOW GIBRALTAR DAM, NEAR SANTA BARBARA .....	458
San Juan Creek tributary near Elsinore .....	530	SANTA YNEZ RIVER BELOW LOS LAURELES CANYON, NEAR SANTA YNEZ .....	460
SAN LUIS REY RIVER AT OCEANSIDE .....	180	SANTA YNEZ RIVER NEAR SANTA YNEZ .....	472
SAN MATEO CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE .....	266	SANTA YSABEL CREEK NEAR RAMONA .....	176
SAN MATEO CREEK NEAR SAN CLEMENTE .....	262	SANTIAGO CANYON CREEK ABOVE LITTLE ROCK CREEK, NEAR LITTLEROCK .....	110
SAN ONOFRE CREEK AT SAN ONOFRE .....	255	SANTIAGO CREEK AT MODJESKA .....	386
SAN ONOFRE CREEK LAGOON AT MOUTH, NEAR SAN CLEMENTE .....	257	SANTIAGO CREEK AT SANTA ANA .....	388
SAN TIMOTEO CREEK NEAR LOMA LINDA .....	310	Sediment .....	12
SAN VICENTE RESERVOIR NEAR LAKESIDE .....	168	SESPE CREEK NEAR FILLMORE .....	432
SAND CANYON CREEK AT IRVINE .....	283	SESPE CREEK NEAR WHEELER SPRINGS .....	430
SANDIA CREEK NEAR FALLBROOK .....	207	SHEEP CREEK BELOW LAKE ARROWHEAD SCOUT CAMP, NEAR LAKE ARROWHEAD .....	77
SANTA ANA RIVER ABOVE SEVEN OAKS DAM .....	292	SILVERWOOD LAKE NEAR HESPERIA .....	88
SANTA ANA RIVER AND SOUTHERN CALIFORNIA EDISON CO.'S CANAL NEAR MENTONE (combined) .....	296	SISQUOC RIVER NEAR GAREY .....	522
SANTA ANA RIVER AT E STREET, NEAR SAN BERNARDINO .....	315	SISQUOC RIVER NEAR SISQUOC .....	519
SANTA ANA RIVER AT ETIWANDA AVENUE, NEAR NORCO .....	344	SNOW CREEK AND SNOW CREEK DIVERSION NEAR WHITE WATER (combined) .....	50
SANTA ANA RIVER AT HAMNER AVENUE, AT NORCO .....	345	SNOW CREEK DIVERSION AND SNOW CREEK NEAR WHITE WATER (combined) .....	50
SANTA ANA RIVER AT METROPOLITAN WATER DISTRICT CROSSING, NEAR ARLINGTON .....	338	SNOW CREEK NEAR WHITE WATER .....	48
SANTA ANA RIVER AT RIVER ROAD, NEAR CORONA .....	346	SOUTH FORK BISHOP CREEK BELOW SOUTH FORK DIVERSION DAM, NEAR BISHOP .....	132
SANTA ANA RIVER AT RIVERSIDE NARROWS, NEAR ARLINGTON .....	341	SOUTH FORK BISHOP CREEK BELOW SOUTH LAKE, NEAR BISHOP .....	131
SANTA ANA RIVER AT SANTA ANA .....	390	SOUTH LAKE NEAR BISHOP .....	130
Santa Ana River Basin, diversions and storage in .....	289	SOUTHERN CALIFORNIA EDISON CO.'S CANAL AND SANTA ANA RIVER NEAR MENTONE (combined) .....	296
SANTA ANA RIVER BELOW PRADO DAM .....	371	SOUTHERN CALIFORNIA EDISON CO.'S LYTLE CREEK CONDUIT, FONTANA WATER CO.'S INFILTRATION LINE DIVERSION, AND LYTLE CREEK (combined) .....	328
SANTA ANA RIVER BELOW SOUTHERN CALIFORNIA EDISON CO.'S NO. 1 DIVERSION DAM, NEAR RUNNING SPRINGS .....	291	Southern California Edison's Canal below Powerplant No. 2, near Mentone .....	294
SANTA ANA RIVER NEAR MENTONE .....	294		
Santa Ana River near Mentone (main gage) .....	294		

	Page
SPECIAL NETWORKS AND PROGRAMS .....	3
Special study and miscellaneous sites .....	529
Spencer Canyon Creek near Fairmont .....	528
Spike Samples .....	15
Station Manuscript .....	6
Statistics of Monthly Mean Data .....	7
SUGAR PINE RANCH PRECIPITATION GAGE NEAR DEVORE .....	82
Summary Statistics .....	7
SURFACE-WATER-QUALITY RECORDS .....	10
SWEETWATER RIVER NEAR DESCANSO .....	165

T

TAHQUITZ CREEK NEAR PALM SPRINGS .....	62
TEMECULA CREEK NEAR AGUANGA .....	183
TEMESCAL CREEK ABOVE MAIN STREET, AT CORONA .....	358
TIOGA LAKE NEAR LEE VINING .....	155
TWIN LAKES SITE A NEAR MAMMOTH LAKES .....	537
TWIN LAKES SITE B NEAR MAMMOTH LAKES .....	538
TWIN LAKES SITE C NEAR MAMMOTH LAKES .....	539

U

Upper Conway Ditch .....	145
--------------------------	-----

V

VAIL LAKE NEAR TEMECULA .....	185
VENTURA CITY DIVERSION AND VENTURA RIVER	
NEAR VENTURA (combined) .....	441
Ventura County, location of discharge and water-quality stations .....	26
VENTURA RIVER AND VENTURA CITY DIVERSION	
NEAR VENTURA (combined) .....	441
VENTURA RIVER NEAR VENTURA .....	439

W

WARM CREEK NEAR SAN BERNARDINO .....	318
WARM SPRINGS CREEK NEAR MURRIETA .....	190
Water Analysis .....	10
Water Temperature .....	11
Waterman Canyon Creek below Saint Sophia Camp,	
near Arrowhead Springs .....	529
Water-Quality Control Data .....	13
WAUGH LAKE NEAR JUNE LAKE .....	146
WEST BRANCH CALIFORNIA AQUEDUCT	
AT WILLIAM WARNE POWERPLANT, NEAR GORMAN .....	422
WEST BRANCH CUCAMONGA CHANNEL	
ABOVE ELY PERCOLATION BASINS, AT ONTARIO .....	365
WEST FORK MOJAVE RIVER ABOVE MOJAVE RIVER FORKS	
RESERVOIR, NEAR HESPERIA .....	91
WEST FORK MOJAVE RIVER ABOVE SILVERWOOD LAKE,	
NEAR HESPERIA .....	83
WEST FORK MOJAVE RIVER BELOW SILVERWOOD LAKE,	
NEAR HESPERIA .....	89
WHITEWATER RIVER AT INDIO .....	72
WHITEWATER RIVER AT RANCHO MIRAGE .....	69
WHITEWATER RIVER AT WHITE WATER .....	46
WHITEWATER RIVER AT WHITE WATER CUTOFF,	
AT WHITE WATER .....	47
WHITEWATER RIVER AT WINDY POINT, NEAR WHITE WATER .....	55
WHITEWATER RIVER NEAR MECCA .....	74

Z

ZACA CREEK NEAR BUELLTON .....	496
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## Conversion Factors

Multiply	By	To obtain
<b>Length</b>		
inch (in.)	$2.54 \times 10^1$	millimeter (mm)
	$2.54 \times 10^{-2}$	meter
foot (ft)	$3.048 \times 10^{-1}$	meter (m)
mile (mi)	$1.609 \times 10^0$	kilometer (km)
<b>Area</b>		
acre	$4.047 \times 10^3$	square meter (m <sup>2</sup> )
	$4.047 \times 10^{-1}$	square hectometer (hm <sup>2</sup> )
	$4.047 \times 10^{-3}$	square kilometer (km <sup>2</sup> )
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer (km <sup>2</sup> )
<b>Volume</b>		
gallon (gal)	$3.785 \times 10^0$	liter (L)
	$3.785 \times 10^{-3}$	cubic meter (m <sup>3</sup> )
	$3.785 \times 10^0$	cubic decimeter (dm <sup>3</sup> )
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter (m <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic hectometer (hm <sup>3</sup> )
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^{-2}$	cubic meter (m <sup>3</sup> )
	$2.832 \times 10^1$	cubic decimeter (dm <sup>3</sup> )
cubic-foot-per-second-per-day [(ft <sup>3</sup> /s/d)]	$2.447 \times 10^3$	cubic meter (m <sup>3</sup> )
	$2.447 \times 10^{-3}$	cubic hectometer (hm <sup>3</sup> )
acre-foot (acre-ft)	$1.223 \times 10^3$	cubic meter (m <sup>3</sup> )
	$1.223 \times 10^{-3}$	cubic hectometer (hm <sup>3</sup> )
	$1.223 \times 10^{-6}$	cubic kilometer (km <sup>3</sup> )
<b>Flow rate</b>		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter (L/s)
	$2.832 \times 10^{-2}$	cubic meter per second (m <sup>3</sup> /s)
	$2.832 \times 10^1$	cubic decimeter per second (dm <sup>3</sup> /s)
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second (L/s)
	$6.309 \times 10^{-5}$	cubic meter per second (m <sup>3</sup> /s)
	$6.309 \times 10^{-2}$	cubic decimeter per second (dm <sup>3</sup> /s)
million gallons per day (Mgal/d)	$4.381 \times 10^{-2}$	cubic meter per second
	$4.381 \times 10^1$	cubic decimeter per second (dm <sup>3</sup> /s)
<b>Mass</b>		
ton, short (2,000 lb)	$9.072 \times 10^{-1}$	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$

