

1971

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U. S. Geological Survey  
Water Resources Division  
Sacramento, California*

# Water Resources Data for California

## Part 1. Surface Water Records

Volume 1: Colorado River Basin, Southern  
Great Basin, and Pacific Slope Basins  
excluding Central Valley.



**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

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

# CALENDAR FOR WATER YEAR 1971

## OCTOBER 1970

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

## NOVEMBER 1970

S	M	T	W	T	F	S
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29	30					

## DECEMBER 1970

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## JANUARY 1971

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31						

## FEBRUARY 1971

S	M	T	W	T	F	S
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28						

## MARCH 1971

S	M	T	W	T	F	S
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## APRIL 1971

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## MAY 1971

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## JUNE 1971

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## JULY 1971

S	M	T	W	T	F	S
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4	5	6	7	8	9	10
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18	19	20	21	22	23	24
25	26	27	28	29	30	31

## AUGUST 1971

S	M	T	W	T	F	S
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22	23	24	25	26	27	28
29	30	31				

## SEPTEMBER 1971

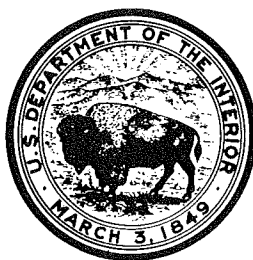
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

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Great Basin, and Pacific Slope Basins  
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**UNITED STATES  
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Water-resources records, 1971, for California are in the following reports of the U.S. Geological Survey:

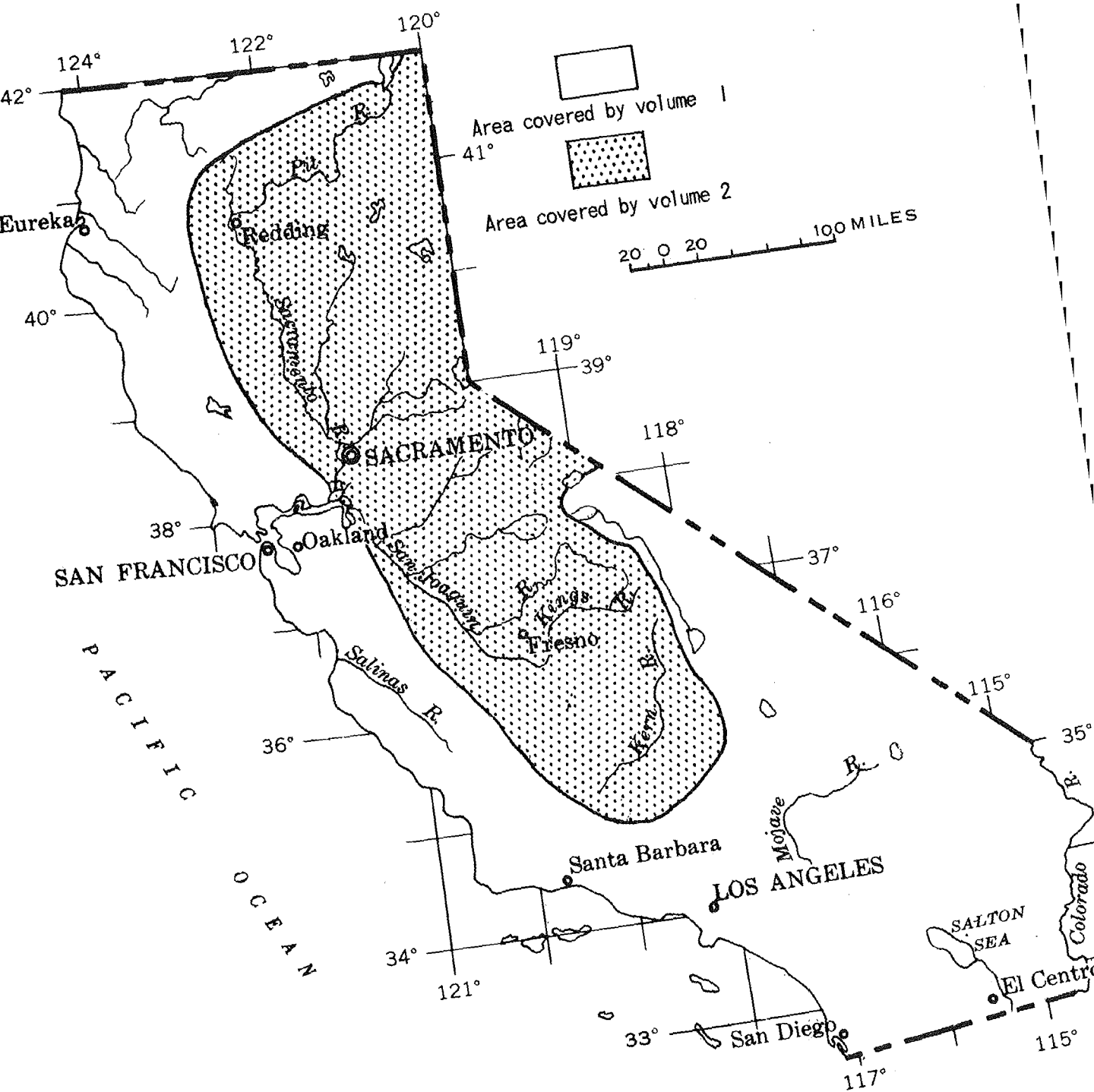
1. Water Resources Data for California  
Part 1: Surface Water Records  
Volume 1: Colorado River Basin, Southern Great Basin, and Pacific Slope Basins excluding Central Valley
2. Water Resources Data for California  
Part 1: Surface Water Records  
Volume 2: Northern Great Basin and Central Valley
3. Water Resources Data for California  
Part 2: Water Quality Records

Copies of these reports may be obtained from District Chief,  
Water Resources Division  
U.S. Geological Survey  
855 Oak Grove Avenue  
Menlo Park, California 94025



Prepared in cooperation with

California Department of Water Resources  
Berrenda Mesa Water District  
Alameda County Flood Control and Water Conservation District  
Alameda County Water District  
Antelope Valley-East Kern Water Agency  
Casitas Municipal Water District  
Coachella Valley County Water District  
Contra Costa County Flood Control and Water Conservation District  
East Bay Municipal Utility District  
Georgetown Divide Public Utility District  
Imperial Irrigation District  
Madera Irrigation District  
Montecito County Water District  
Monterey County Flood Control and Water Conservation District  
Napa County Flood Control and Water Conservation District  
Orange County Flood Control District  
Paradise Irrigation District  
Riverside County Flood Control and Water Conservation District  
Sacramento County Department of Public Works, Water Resources Division  
San Benito County Water Conservation and Flood Control District  
San Bernardino Valley Municipal Water District  
San Bernardino Valley Water Conservation District  
San Diego (county) Department of Sanitation and Flood Control  
San Diego (city) Water Utilities  
San Francisco, City and County Water Department  
San Luis Obispo County Flood Control and Water Conservation District  
San Mateo County  
Santa Barbara City Water Department  
Santa Barbara County Flood Control District  
Santa Barbara County Water Agency  
Santa Clara County Flood Control and Water District  
Santa Cruz, City Water Department  
Santa Cruz County Flood Control and Water Conservation District  
Santa Maria Valley Water Conservation District  
Santa Ynez River Water Conservation District  
Siskiyou County Flood Control and Water Conservation District  
Tehachapi-Cummings County Water District  
Terra Bella Irrigation District  
Tulare County Flood Control District  
Turlock Irrigation District  
United Water Conservation District  
University of California (Berkeley)  
Ventura River Municipal Water District  
Woodbridge Irrigation District  
Yolo County Flood Control and Water Conservation District  
Corps of Engineers, U.S. Army  
Bureau of Reclamation, U.S. Department of the Interior  
National Park Service, U.S. Department of the Interior  
Forest Service, U.S. Department of Agriculture  
Soil Conservation Service, U.S. Department of Agriculture



## CONTENTS

---

	Page
List of gaging stations, in downstream order, for which records are published.....	VI
Introduction.....	1
Cooperation.....	2
Definition of terms.....	3
Special networks and programs.....	4
Downstream order and station numbers.....	4
Explanation surface-water data.....	5
Collection and computation of data.....	5
Accuracy of data.....	8
Publications.....	9
Other data available.....	9
Hydrologic conditions.....	10
Selected references.....	11
Gaging-station records.....	13
Discharge at partial-record stations and miscellaneous sites.....	518
Low-flow partial-record stations.....	518
Crest-stage partial-record stations.....	519
Discharge measurements at miscellaneous sites.....	520
Index.....	523

## ILLUSTRATIONS

---

	Page
Figure 1. Map showing runoff for the 1971 water year.....	12
2. Schematic diagram showing gaging stations on streams, diversions, and return flows between Imperial Dam and the southerly international boundary.....	37
3-4. Schematic diagrams showing diversions and storage in:	
3. Santa Ana River basin.....	160
4. San Gabriel and Los Angeles river basins.....	210

	Page
<u>COLORADO RIVER BASIN</u>	
<u>COLORADO RIVER:</u>	
Colorado River below Davis Dam, Ariz.-Nev.....	13
Colorado River at Needles.....	14
Colorado River near Topock, Ariz.....	15
<u>LAKE HAVASU:</u>	
<u>DIVERSION FROM LAKE HAVASU</u>	
Colorado River aqueduct near Parker Dam, Ariz.-Calif.....	17
Lake Havasu near Parker Dam, Ariz.-Calif.....	18
Colorado River below Parker Dam, Ariz.-Calif.....	20
<u>TRIBUTARIES AND DIVERSIONS BETWEEN PARKER DAM AND PALO VERDE DAM</u>	
Arch Creek near Earp.....	21
Palo Verde Canal near Blythe.....	22
Colorado River at Palo Verde Dam, Ariz.-Calif.....	23
Colorado River at Imperial Dam, Ariz.-Calif.....	24
Colorado River below Yuma Main Canal wasteway, at Yuma, Ariz.....	25
Colorado River at northerly international boundary above Morelos Dam, near Andrade.....	26
<u>DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM</u>	
Gila Gravity Main Canal at Imperial Dam, Ariz.-Calif.....	27
All-American Canal near Imperial Dam, Ariz.-Calif.....	28
Pilot Knob powerplant and wasteway near Pilot Knob.....	29
All-American Canal below Pilot Knob wasteway.....	30
Return surface flows below Imperial Dam, Ariz.-Calif.....	31
<u>THE GREAT BASIN</u>	
<u>PANAMINT VALLEY</u>	
Wildrose Creek near Wildrose Station.....	38
Darwin Creek near Darwin.....	40
<u>DEATH VALLEY</u>	
Amargosa River at Tecopa.....	41
<u>IVANPAH VALLEY</u>	
China Spring Creek near Mountain Pass.....	42
<u>BRISTOL LAKE BASIN</u>	
Caruthers Creek near Ivanpah.....	43
<u>DALE LAKE BASIN</u>	
Quail Wash near Joshua Tree.....	44
Fortynine Palms Creek near Twentynine Palms.....	45
<u>CHUCKWALLA VALLEY</u>	
Corn Springs Wash near Desert Center.....	46
<u>SALTON SEA BASIN</u>	
Salton Sea near Westmorland.....	47
Inflow to Salton Sea.....	47
Salt Creek near Mecca.....	48
Alamo River near Niland.....	49
New River near Westmorland.....	50
San Felipe Creek near Julian.....	51
Coyote Creek near Borrego Springs.....	52
Borrego Palm Creek near Borrego Springs.....	53
Carrizo Creek:	
Vallecito Creek near Julian.....	54
San Felipe Creek near Westmorland.....	55
Whitewater River at White Water.....	56
San Gorgonio River near White Water.....	57
Snow Creek near White Water.....	58
Mission Creek near Desert Hot Springs.....	59
Morongo Wash:	
Long Creek near Desert Hot Springs.....	60
Tahquitz Creek near Palm Springs.....	61
Palm Canyon Creek:	
Palm Canyon Creek tributary near Anza.....	62
Palm Canyon Creek near Palm Springs.....	63
Andreas Creek near Palm Springs.....	64
Deep Creek near Palm Desert.....	65
Whitewater River at Indio.....	66
Whitewater River near Mecca.....	67

## THE GREAT BASIN--Continued

Page

## SALTON SEA BASIN--Continued

Cottonwood Wash near Cottonwood Spring.....	68
Wasteway No. 1 near Mecca.....	69

## EMERSON LAKE BASIN

Pipes Creek near Yucca Valley.....	70
------------------------------------	----

## LUCERNE DRY LAKE BASIN

Cushenbury Creek near Lucerne.....	71
------------------------------------	----

## MOJAVE RIVER BASIN

Deep Creek (head of Mojave River) near Hesperia.....	72
West Fork Mojave River near Hesperia.....	73
Mojave River at lower narrows, near Victorville.....	74
Mojave River near Hodge.....	75
Mojave River at Barstow.....	76
Boom Creek near Barstow.....	77
Mojave River at Afton.....	78

## ANTELOPE VALLEY

Big Rock Creek near Valyermo.....	79
Little Rock Creek near Little Rock.....	80
Spencer Canyon Creek near Fairmont.....	81
Cottonwood Creek near Rosamond.....	82
Oak Creek near Mojave.....	83

## KOEHN LAKE BASIN

Goler Gulch near Randsburg.....	84
Cache Creek near Mojave.....	85
Pine Tree Creek near Mojave.....	86
Cottonwood Creek near Cantil.....	87

## INDIAN WELLS VALLEY

Ninemile Creek near Brown.....	88
--------------------------------	----

## OWENS LAKE BASIN

## Owens River:

Convict Creek near Mammoth Lakes.....	89
Rock Creek at Little Round Valley, near Bishop.....	90
Pine Creek at diversion box, near Bishop.....	91
Silver Canyon Creek near Laws.....	92
Bishop Creek below powerplant No. 6, near Bishop.....	93
Big Pine Creek near Big Pine.....	98
Owens River near Big Pine.....	100
Independence Creek below Pinyon Creek, near Independence.....	101
Mazourka Creek near Independence.....	102
Inyo Creek near Lone Pine.....	103
Owens River at Keeler Bridge, near Lone Pine.....	104
Cottonwood Creek near Olancho.....	105

## MONO LAKE BASIN

Mono Lake near Mono Lake.....	107
Mill Creek below Lundy Lake, near Mono Lake.....	108
Rush Creek below Agnew Lake, near June Lake.....	113
Rush Creek above Grant Lake, near June Lake.....	118
Lee Vining Creek near Lee Vining.....	119

PACIFIC SLOPE BASINS IN CALIFORNIA

## TIJUANA RIVER BASIN

## Cottonwood Creek (head of Tijuana River):

## Wilson Creek:

Wilson Creek tributary near Dulzura.....	120
Cottonwood Creek above Tecate Creek, near Dulzura.....	121
Tecate Creek:	
Campo Creek near Campo.....	122
Tijuana River near Dulzura.....	123
Rodriguez Reservoir at Rodriguez Dam, Baja California, Mex.....	124
Tijuana River near Nestor.....	125

## OTAY RIVER BASIN

Jamul Creek (head of Otay River) near Jamul.....	126
--	-----

## SWEETWATER RIVER BASIN

Sweetwater River near Descanso.....	127
-------------------------------------	-----

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
SAN DIEGO RIVER BASIN	
San Diego River near Santee.....	129
LOS PENASQUITOS CREEK BASIN	
Poway Creek (head of Los Penasquitos Creek):	
Pomerado Creek at Poway Road, near Poway.....	130
Los Penasquitos Creek below Poway Creek, near Poway.....	131
Los Penasquitos Creek near Poway.....	132
SAN DIEGUITO RIVER BASIN	
Santa Ysabel Creek (head of San Dieguito River) near Ramona.....	133
Santa Ysabel Creek near San Pasqual.....	134
Guejito Creek near San Pasqual.....	135
Santa Maria Creek near Ramona.....	136
SAN LUIS REY RIVER BASIN	
San Luis Rey River:	
Agua Caliente Creek near Warner Springs.....	137
West Fork San Luis Rey River near Warner Springs.....	138
Pauma Creek near Pauma Valley.....	139
San Luis Rey tributary near Pala.....	141
San Luis Rey River at Monserate Narrows, near Pala.....	142
Keys Creek:	
Keys Creek tributary at Valley Center.....	143
San Luis Rey River near Bonsall.....	145
San Luis Rey River at Oceanside.....	146
SANTA MARGARITA RIVER BASIN	
Temecula Creek (head of Santa Margarita River) near Aguanga.....	147
Temecula Creek at Vail Dam.....	148
Murrieta Creek at Temecula.....	149
Santa Margarita River near Temecula.....	150
Santa Margarita River near Fallbrook.....	151
Santa Margarita River at Ysidora.....	152
LAS FLORES CREEK BASIN	
Las Flores Creek near Oceanside.....	153
SAN JUAN CREEK BASIN	
San Juan Creek near San Juan Capistrano.....	154
Arroyo Trabuco near San Juan Capistrano.....	156
Oso Creek at Crown Valley Parkway, near Mission Viejo.....	157
ALISO CREEK BASIN	
Aliso Creek at El Toro.....	158
PETERS CANYON WASH BASIN	
Peters Canyon Wash:	
San Diego Creek near Irvine.....	159
SANTA ANA RIVER BASIN	
Santa Ana River:	
Bear Creek:	
Big Bear Lake near Big Bear Lake.....	161
Santa Ana River near Mentone.....	162
Santa Ana River spreading diversion near Mentone.....	164
Mill Creek near Yucaipa.....	165
Plunge Creek near East Highlands.....	167
City Creek near Highland.....	169
San Timoteo Creek:	
Little San Gorgonio Creek near Beaumont.....	171
San Timoteo Creek near Loma Linda.....	172
Warm Creek:	
East Twin Creek near Arrowhead Springs.....	173
Waterman Canyon Creek near Arrowhead Springs.....	174
Warm Creek Floodway at San Bernardino.....	175
Santa Ana River at E Street, near San Bernardino.....	176
Warm Creek near San Bernardino.....	177
Meeks and Daley Canal near Colton.....	178
Lytle Creek near Fontana.....	179
Cajon Creek near Keenbrook.....	181
Lone Pine Creek near Keenbrook.....	182
Devil Canyon Creek near San Bernardino.....	183

## PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

## SANTA ANA RIVER BASIN--Continued

## Warm Creek--Continued

Lytle Creek at Colton.....	184
Santa Ana River at Mission Boulevard, at Riverside.....	185
Santa Ana River at MWD Crossing, near Arlington.....	186
Riverside Narrows Water Quality Control Plant at Riverside Narrows, near Arlington.....	187
Santa Ana River at Riverside Narrows, near Arlington.....	188
Day Creek near Etiwanda.....	189
Santa Ana River at Prado Park, near Corona.....	190
San Jacinto River:	
Lake Hemet near Idyllwild.....	191
San Jacinto River near San Jacinto.....	192
Bautista Creek near Valle Vista.....	194
Perris Valley Storm Drain at Nuevo Road, near Perris.....	195
San Jacinto River near Elsinore.....	196
Temescal Creek near Corona.....	197
Temescal Creek at Corona.....	198

## Chino Creek:

San Antonio Creek near Claremont.....	199
San Antonio Creek below San Antonio Dam.....	201
Chino Creek at Schaeffer Avenue, near Chino.....	202
Cucamonga Creek near Upland.....	203
Cucamonga Creek near Mira Loma.....	204
Santa Ana River below Prado Dam.....	205
Carbon Creek below Carbon Canyon Dam.....	206
Santiago Creek at Modjeska.....	207
Santiago Creek at Santa Ana.....	208
Santa Ana River at Santa Ana.....	209

## SAN GABRIEL RIVER BASIN

East Fork San Gabriel River (head of San Gabriel River) near Camp Bonita..	211
West Fork San Gabriel River at Camp Rincon.....	212
Fish Creek near Duarte.....	213
San Gabriel River below Santa Fe Dam, near Baldwin Park.....	214

## Walnut Creek:

## Dalton Creek:

San Dimas Creek below San Dimas Dam.....	215
Little Dalton Creek near Glendora.....	216
San Jose Creek near El Monte.....	217
San Gabriel River above Whittier Narrows Dam.....	218
San Gabriel River at Pico.....	219
San Gabriel River at Spring Street, near Los Alamitos.....	220

## Coyote Creek:

Brea Creek below Brea Dam, near Fullerton.....	221
Fullerton Creek below Fullerton Dam, near Brea.....	222
Fullerton Creek at Richman Avenue, near Fullerton.....	223
Coyote Creek at Los Alamitos.....	224

## LOS ANGELES RIVER BASIN

Los Angeles River at Sepulveda Dam.....	225
Pacoima Creek near San Fernando.....	226

## Tujunga Creek:

## Mill Creek:

North Fork Mill Creek near La Canada.....	227
Tujunga Creek below Mill Creek, near Colby Ranch.....	228
Tujunga Creek near Sunland.....	229
Little Tujunga Creek near San Fernando.....	230
Tujunga Creek below Hansen Dam.....	231
Los Angeles River at Los Angeles.....	232
Arroyo Seco near Pasadena.....	233
Los Angeles River near Downey.....	234
Rio Hondo above Whittier Narrows Dam.....	235
Rio Hondo near Montebello.....	236
Mission Creek near Montebello.....	237
Rio Hondo below Whittier Narrows Dam.....	238

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
LOS ANGELES RIVER BASIN--Continued	
Rio Hondo near Downey.....	239
Los Angeles River at Long Beach.....	240
BALLONA CREEK BASIN	
Ballona Creek near Culver City.....	241
TOPANGA CREEK BASIN	
Topanga Creek near Topanga Beach.....	242
MALIBU CREEK BASIN	
Malibu Creek at Crater Camp, near Calabasas.....	243
CALLEGUAS CREEK BASIN	
Calleguas Creek:	
Arroyo Simi near Simi.....	244
Calleguas Creek at Camarillo State Hospital.....	245
SANTA CLARA RIVER BASIN	
Santa Clara River above Railroad Station, near Lang.....	246
Bouquet Creek near Saugus.....	248
Castaic Creek near Saugus.....	249
Santa Clara River at Los Angeles-Ventura County line.....	251
Piru Creek above Lake Piru.....	252
Lake Piru near Piru.....	253
Piru Creek near Piru.....	254
Hopper Creek near Piru.....	255
Sespe Creek near Wheeler Springs.....	256
Sespe Creek near Fillmore.....	257
Santa Paula Creek near Santa Paula.....	259
Saticoy diversion near Saticoy.....	260
Santa Clara River at Montalvo.....	261
VENTURA RIVER BASIN	
Matilija Creek (head of Ventura River) at Matilija Hot Springs.....	262
North Fork Matilija Creek at Matilija Hot Springs.....	263
Ventura River near Meiners Oaks.....	264
San Antonio Creek at Casitas Springs.....	265
Coyote Creek near Oak View.....	266
Santa Ana Creek near Oak View.....	267
Coyote Creek near Ventura.....	268
Ventura River near Ventura.....	269
CARPINTERIA CREEK BASIN	
Carpinteria Creek near Carpinteria.....	271
FRANKLIN CREEK BASIN	
Franklin Creek at Carpinteria.....	272
SYCAMORE CREEK BASIN	
Sycamore Creek at Santa Barbara.....	273
MISSION CREEK BASIN	
Mission Creek near Mission Street, at Santa Barbara.....	274
Victoria Street drain at outlet, at Santa Barbara.....	275
ARROYO BURRO CREEK BASIN	
Arroyo Burro Creek at Santa Barbara.....	276
ATASCADERO CREEK BASIN	
Atascadero Creek at Puente Road, near Goleta.....	277
Maria Ygnacio Creek at University Drive, near Goleta.....	278
Atascadero Creek near Goleta.....	279
SAN JOSE CREEK BASIN	
San Jose Creek near Goleta.....	280
San Jose Creek at Goleta.....	281
SAN PEDRO CREEK BASIN	
San Pedro Creek at Goleta.....	282
CARNEROS CREEK BASIN	
Carneros Creek:	
Tecolotito Creek near Goleta.....	283
GAVIOTA CREEK BASIN	
Gaviota Creek near Gaviota.....	284
JALAMA CREEK BASIN	
Jalama Creek near Lompoc.....	285



## PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

Page

## SANTA YNEZ RIVER BASIN

Santa Ynez River at Jameson Lake, near Montecito.....	286
Santa Ynez River above Gibraltar Dam, near Santa Barbara.....	287
Santa Ynez River below Gibraltar Dam, near Santa Barbara.....	288
Santa Ynez River below Los Laureles Canyon, near Santa Ynez.....	289
Santa Cruz Creek near Santa Ynez.....	290
Lake Cachuma near Santa Ynez.....	291
Santa Ynez River near Santa Ynez.....	292
Santa Agueda Creek near Santa Ynez.....	293
Alamo Pintado Creek near Solvang.....	294
Alisal Creek near Solvang.....	295
Santa Ynez River at Solvang.....	296
Zaca Creek near Buellton.....	297
Santa Ynez River near Buellton.....	298
Santa Ynez River at Cooper's Reef, near Lompoc.....	299
Salsipuedes Creek near Lompoc.....	300
Santa Ynez River at narrows, near Lompoc.....	301
Purisima Creek near Lompoc.....	302
Santa Ynez River at 13th Street, near Lompoc.....	303
Miguelito Creek at Lompoc.....	304
Santa Ynez River at Pine Canyon, near Lompoc.....	305
Rodeo-San Pasqual Creek near Lompoc.....	306

## SAN ANTONIO CREEK BASIN

San Antonio Creek at Los Alamos.....	307
San Antonio Creek near Casmalia.....	308

## SANTA MARIA RIVER BASIN

Cuyama River (head of Santa Maria River):	
Aliso Canyon Creek near New Cuyama.....	309
Cuyama River below Buckhorn Canyon, near Santa Maria.....	310
Alamo Creek near Nipomo.....	311
Huasna River near Arroyo Grande.....	312
Cuyama River below Twitchell Dam.....	313
Sisquoc River near Sisquoc.....	314
La Brea Creek near Sisquoc.....	315
Foxen Creek near Sisquoc.....	316
Tepusquet Creek near Sisquoc.....	317
Sisquoc River near Garey.....	318
Bradley ditch near Donovan Road, at Santa Maria.....	319
Santa Maria River at Guadalupe.....	320

## ARROYO GRANDE BASIN

Arroyo Grande above Phoenix Creek near Arroyo Grande.....	321
Wittenburg Creek near Arroyo Grande.....	322
Lopez Creek near Arroyo Grande.....	323
Tar Spring Creek near Arroyo Grande.....	324
Arroyo Grande at Arroyo Grande.....	325
Los Berros Creek near Nipomo.....	326

## MORRO CREEK BASIN

Morro Creek at Morro Bay.....	327
-------------------------------	-----

## TORO CREEK BASIN

Toro Creek near Morro Bay.....	328
--------------------------------	-----

## SANTA ROSA CREEK BASIN

Santa Rosa Creek near Cambria.....	329
------------------------------------	-----

## ARROYO DE LA CRUZ BASIN

Arroyo de la Cruz near San Simeon.....	330
--	-----

## BIG SUR RIVER BASIN

Big Sur River near Big Sur.....	331
---------------------------------	-----

## CARMEL RIVER BASIN

Carmel River at Robles del Rio.....	332
Carmel River near Carmel.....	333
Arroyo del Rey at Del Rey Oaks.....	334

## SALINAS RIVER BASIN

Salinas River near Pozo.....	335
Salsipuedes Creek near Pozo.....	336

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
SALINAS RIVER BASIN--Continued	
Santa Margarita Lake near Pozo.....	337
Salinas River above Pilitas Creek, near Santa Margarita.....	338
Jack Creek near Templeton.....	339
Santa Rita Creek:	
Santa Rita Creek tributary near Templeton.....	340
Santa Rita Creek near Templeton.....	341
Salinas River at Paso Robles.....	342
Huerhuero Creek near Creston.....	343
Estrella River:	
Cholame Creek near Shandon.....	344
Estrella River near Estrella.....	345
Nacimiento River near Bryson.....	346
Reservoirs in Salinas River basin.....	347
Nacimiento River below Nacimiento Dam, near Bradley.....	348
San Antonio River near Lockwood.....	349
Salinas River near Bradley.....	350
San Lorenzo Creek below Bitterwater Creek, near King City.....	351
Salinas River at Soledad.....	352
Arroyo Seco near Greenfield.....	353
Arroyo Seco near Soledad.....	354
Salinas River near Spreckels.....	355
El Toro Creek near Spreckels.....	356
Tembladero Slough:	
Reclamation ditch:	
Alisal Creek near Salinas.....	357
Gabilan Creek near Salinas.....	358
Reclamation ditch near Salinas.....	359
PAJARO RIVER BASIN	
Pajaro River:	
Cedar Creek near Bell Station.....	360
Pacheco Creek near Dunneville.....	361
Reservoirs in Pajaro River basin.....	362
Llagas Creek near Morgan Hill.....	363
Pajaro River near Gilroy.....	364
Carnadero Creek:	
Uvas Creek above Uvas Reservoir, near Morgan Hill.....	365
Bodfish Creek near Gilroy.....	366
Uvas Creek near Gilroy.....	367
San Benito River near Willow Creek School.....	368
Tres Pinos Creek near Tres Pinos.....	369
San Benito River near Hollister.....	370
San Benito River at State Highway 156, near Hollister.....	371
Pescadero Creek near Chittenden.....	372
Pajaro River at Chittenden.....	373
Corralitos Creek near Corralitos.....	374
Corralitos Creek at Freedom.....	375
APTOS CREEK BASIN	
Aptos Creek at Aptos.....	376
SOQUEL CREEK BASIN	
Soquel Creek:	
West Branch Soquel Creek near Soquel.....	377
Soquel Creek near Soquel.....	378
Soquel Creek at Soquel.....	379
SAN LORENZO RIVER BASIN	
San Lorenzo River near Boulder Creek.....	380
Zayante Creek at Zayante.....	381
San Lorenzo River at Big Trees.....	382
MAJORS CREEK BASIN	
Majors Creek near Santa Cruz.....	383
LAGUNA CREEK BASIN	
Laguna Creek near Davenport.....	384
SAN VINCENTE CREEK BASIN	
San Vincente Creek near Davenport.....	385

## PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

Page

SCOTT CREEK BASIN	
Scott Creek above Little Creek, near Davenport.....	386
PESCADERO CREEK BASIN	
Pescadero Creek near Pescadero.....	387
Butano Creek near Pescadero.....	388
SAN GREGORIO CREEK BASIN	
San Gregorio Creek at San Gregorio.....	389
PILARCITOS CREEK BASIN	
Pilarcitos Creek at Half Moon Bay.....	390
COLMA CREEK BASIN	
Colma Creek at South San Francisco.....	391
REDWOOD CREEK BASIN	
Redwood Creek at Redwood City.....	392
SAN FRANCISQUITO CREEK BASIN	
San Francisquito Creek at Stanford University.....	393
MATADERO CREEK BASIN	
Matadero Creek at Palo Alto.....	394
STEVENS CREEK BASIN	
Stevens Creek Reservoir near Monte Vista.....	395
GUADALUPE RIVER BASIN	
Reservoirs in Guadalupe River basin.....	396
Alamitos Creek (head of Guadalupe River) near New Almaden.....	397
Guadalupe River:	
Los Gatos Creek at Los Gatos.....	398
Guadalupe River at San Jose.....	399
Saratoga Creek at Saratoga.....	400
COYOTE CREEK BASIN	
Coyote Creek near Gilroy.....	401
Reservoirs in Coyote Creek basin.....	402
Coyote Creek near Madrone.....	403
Upper Penitencia Creek at San Jose.....	404
ALAMEDA CREEK BASIN	
Alameda Creek:	
Calaveras Creek:	
Arroyo Hondo near San Jose.....	405
Arroyo de la Laguna:	
Arroyo Mocho near Livermore.....	406
Arroyo Mocho near Pleasanton.....	407
Arroyo Valle above Lang Canyon, near Livermore.....	408
Arroyo Valle near Livermore.....	409
Arroyo Valle at Pleasanton.....	410
Arroyo de la Laguna near Pleasanton.....	411
Alameda Creek near Niles.....	412
Dry Creek at Union City.....	413
Patterson Creek at Union City.....	414
Alameda Creek at Union City.....	415
SAN LORENZO CREEK BASIN	
San Lorenzo Creek at Hayward.....	416
San Lorenzo Creek at San Lorenzo.....	417
CASTRO CREEK BASIN	
Castro Creek:	
Wildcat Creek at Richmond.....	418
RHEEM CREEK BASIN	
Rheem Creek at San Pablo.....	419
PINOLE CREEK BASIN	
Pinole Creek at Pinole.....	420
ARROYO DEL HAMBRE BASIN	
Arroyo del Hambre at Martinez.....	421
PACHECO CREEK BASIN	
Walnut Creek (head of Pacheco Creek):	
San Ramon Creek at San Ramon.....	422
San Ramon Creek at Walnut Creek.....	423
Walnut Creek at Concord.....	424

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
NAPA RIVER BASIN	
Napa River near St. Helena.....	425
Napa River near Napa.....	427
Milliken Creek near Napa.....	428
Redwood Creek (head of Napa Creek) near Napa.....	429
Napa Creek at Napa.....	430
SONOMA CREEK BASIN	
Sonoma Creek at Agua Caliente.....	431
NOVATO CREEK BASIN	
Novato Creek at Novato.....	432
CORTE MADERA CREEK BASIN	
Corte Madera Creek at Ross.....	433
ARROYO CORTE MADERA DEL PRESIDIO BASIN	
Arroyo Corte Madera del Presidio at Mill Valley.....	434
WALKER CREEK BASIN	
Walker Creek near Tomales.....	435
SALMON CREEK BASIN	
Salmon Creek at Bodega.....	436
RUSSIAN RIVER BASIN	
Russian River near Ukiah.....	437
East Fork Russian River near Calpella.....	438
Lake Mendocino near Ukiah.....	439
East Fork Russian River near Ukiah.....	440
Russian River near Hopland.....	441
Russian River near Cloverdale.....	442
Big Sulphur Creek near Cloverdale.....	443
Maacama Creek near Kellogg.....	444
Russian River near Healdsburg.....	445
Dry Creek near Cloverdale.....	446
Dry Creek near Geyserville.....	447
Santa Rosa Creek:	
Laguna de Santa Rosa near Graton.....	448
Russian River near Guerneville.....	449
GUALALA RIVER BASIN	
South Fork Gualala River (head of Gualala River) near Annapolis.....	450
GARCIA RIVER BASIN	
Garcia River near Point Arena.....	451
NAVARRO RIVER BASIN	
Navarro River near Navarro.....	452
BIG RIVER BASIN	
Big River:	
South Fork Big River near Comptche.....	453
NOYO RIVER BASIN	
Noyo River near Fort Bragg.....	454
PUDDING CREEK BASIN	
Pudding Creek near Fort Bragg.....	455
TENMILE RIVER BASIN	
Tenmile River:	
Middle Fork Tenmile River near Fort Bragg.....	456
MATTOLE RIVER BASIN	
Mattole River near Petrolia.....	457
EEL RIVER BASIN	
Lake Pillsbury near Potter Valley.....	458
Eel River below Scott Dam, near Potter Valley.....	459
Potter Valley powerhouse tailrace near Potter Valley.....	460
Eel River at Van Arsdale Dam, near Potter Valley.....	461
Eel River near Dos Rios.....	462
Outlet Creek near Longvale.....	463
Middle Fork Eel River:	
Black Butte River near Covelo.....	464
Mill Creek near Covelo.....	465
Elk Creek near Hearst.....	466
Middle Fork Eel River near Dos Rios.....	467
North Fork Eel River near Mina.....	468

## PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

## EEL RIVER BASIN--Continued

Eel River at Fort Seward.....	469
South Fork Eel River:	
Elder Creek near Branscomb.....	470
Tenmile Creek near Laytonville.....	471
South Fork Eel River at Leggett.....	472
East Branch South Fork Eel River near Garberville.....	473
South Fork Eel River near Miranda.....	474
Bull Creek near Weott.....	475
Eel River at Scotia.....	476
Van Duzen River near Dinsmores.....	477
Van Duzen River near Bridgeville.....	478
Yager Creek near Carlotta.....	479

## MAD RIVER BASIN

Ruth Reservoir near Forest Glen.....	480
Mad River near Forest Glen.....	481
Mad River near Kneeland.....	482
Mad River near Arcata.....	483

## LITTLE RIVER BASIN

Little River at Crannell.....	484
-------------------------------	-----

## REDWOOD CREEK BASIN

Redwood Creek at South Park boundary, near Orick.....	485
Redwood Creek at Orick.....	486

## LOST RIVER BASIN (CLOSED BASIN ADJACENT TO KLAMATH RIVER BASIN)

## BUTTE VALLEY BASIN (CLOSED BASIN ADJACENT TO KLAMATH RIVER BASIN)

## Butte Creek:

Antelope Creek near Tennant.....	487
----------------------------------	-----

## KLAMATH RIVER BASIN

Klamath River below John C. Boyle powerplant, near Keno, Oreg.....	488
Reservoirs in Klamath River basin.....	489
Klamath River below Iron Gate Dam.....	490
Cottonwood Creek at Hornbrook.....	491
Shasta River:	
Little Shasta River near Montague.....	492
Shasta River near Yreka.....	493
Scott River:	
East Fork Scott River below Houston Creek, near Callahan.....	494
East Fork Scott River above Kangaroo Creek, near Callahan.....	496
East Fork Scott River at Callahan.....	498
Cedar Gulch near Callahan.....	499
Scott River near Fort Jones.....	500
Klamath River near Seiad Valley.....	501
Indian Creek near Happy Camp.....	502
Salmon River at Somes Bar.....	503
Klamath River at Orleans.....	504
Trinity River above Coffee Creek, near Trinity Center.....	505
Clair Engle Lake near Lewiston.....	506
Judge Francis Carr powerplant near French Gulch.....	507
Trinity River at Lewiston.....	508
North Fork Trinity River at Helena.....	509
Trinity River near Burnt Ranch.....	510
South Fork Trinity River:	
Hayfork Creek near Hyampom.....	511
South Fork Trinity River below Hyampom.....	512
Willow Creek near Willow Creek.....	513
Trinity River at Hoopa.....	514
Blue Creek near Klamath.....	515
Klamath River near Klamath.....	516
SMITH RIVER BASIN	
Smith River near Crescent City.....	517

## WATER RESOURCES DATA FOR CALIFORNIA, 1971

### PART 1. SURFACE-WATER RECORDS

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#### INTRODUCTION

Surface-water records for the 1971 water year for California, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, are given in this report. Records for a few pertinent gaging stations in bordering States also are included. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of R. Stanley Lord, district chief. These data represent that portion of the National Water Data System collected by the Geological Survey and cooperating State and Federal agencies in California.

Through September 30, 1960, the records of discharge and stage of streams and canals and contents and stage of lakes or reservoirs were published in an annual series of Geological Survey water-supply papers entitled "Surface Water Supply of the United States."

Beginning with the 1961 water year, surface-water records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. The discharge and reservoir storage records for 1961-65 also has been published in a Geological Survey water-supply-paper series entitled "Surface Water Supply of the United States 1961-65." A similar series will be published for water years 1966-70.

## COOPERATION

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

California Department of Water Resources, William R. Gianelli, director.  
Berrenda Mesa Water District, T. D. Johnson, secretary-general manager.  
Alameda County Flood Control and Water Conservation District,  
Paul E. Lanferman, engineer-manager.  
Alameda County Water District, M. P. Whitfield, general manager-chief engineer.  
Antelope Valley-East Kern Water Agency, W. G. Spinarski, manager.  
Casitas Municipal Water District, Robert McKinney, general manager-chief engineer.  
Coachella Valley County Water District, Lowell O. Weeks, general manager-chief engineer.  
Contra Costa County Flood Control and Water Conservation District,  
C. C. Rich, chief engineer.  
East Bay Municipal Utility District, John S. Harnett, general manager.  
Georgetown Divide Public Utility District, C. F. Gierau, general manager.  
Imperial Irrigation District, R. F. Carter, general manager.  
Madera Irrigation District, F. G. Bandy, secretary manager.  
Montecito County Water District, E. A. Elevatorski, general manager.  
Monterey County Flood Control and Water Conservation District,  
Loran Bunte, Jr., district engineer.  
Napa County Flood Control and Water Conservation District, Edward Bernard, chairman.  
Orange County Flood Control District, H. G. Osborne, chief engineer.  
Paradise Irrigation District, C. Phillip Kelly, manager.  
Riverside County Flood Control and Water Conservation District,  
John W. Bryant, chief engineer.  
Sacramento County Department of Public Works, Water Resources Division,  
J. P. Alessandri, chief.  
San Benito County Water Conservation and Flood Control District,  
Ralph G. Towle, secretary.  
San Bernardino Valley Municipal Water District, Jack A. Beaver, general manager.  
San Bernardino Valley Water Conservation District, E. F. Dibble, engineer-secretary.  
San Diego, County of, Department of Sanitation and Flood Control,  
C. J. Houson, director.  
San Diego, City of, Water Utilities, Roy E. Dodson, director.  
San Francisco, City and County Water Department, Arthur H. Frye, Jr., general manager and chief engineer.  
San Luis Obispo County Engineering Department, George Protopapas, county engineer.  
San Mateo County Flood Control District, Vic. K. Sanders, manager.  
Santa Barbara City Water Department, Neil Mendenall, superintendent.  
Santa Barbara County Flood Control District, James Stubchaer, flood control engineer.  
Santa Barbara County Water Agency, Francis H. Beattie, chairman.  
Santa Clara County Flood Control and Water District, Donald K. Currlin, manager-counsel.  
Santa Cruz, City Water Department, Weston L. Webber, director.  
Santa Cruz County Flood Control and Water Conservation District,  
D. A. Porath, district engineer.  
Santa Maria Valley Water Conservation District, Maurice F. Twitchell, secretary.  
Santa Ynez River Conservation District, Andrew T. Petersen, president.  
Siskiyou County Flood Control and Water Conservation District, A. R. Cansino, district engineer.

Tehachapi-Cummings County Water District, Robert J. Jasper, general manager.  
Terra Bella Irrigation District, John E. Boudreau, engineer-manager.  
Tulare County Flood Control District, Jack L. Carlsen, flood control engineer.  
Turlock Irrigation District, R. S. Tillner, secretary-general manager.  
United Water Conservation District, Richard A. Smith, general manager-chief engineer.  
University of California (Berkeley), A. Starker Leopold, professor of zoology.  
Ventura River Municipal Water District, Robert McKinney, general manager-chief engineer.  
Woodbridge Irrigation District, Mabel Hall, secretary.  
Yolo County Flood Control and Water Conservation District, Bill McAnlis, general manager.

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

The following organizations and individuals aided in collecting records: Pacific Power and Light Co., Bear Valley Mutual Water Co., Metropolitan Water District of California, Fontana Union Water Co., Los Angeles City Department of Water and Power, Los Angeles County Flood Control District, Rancho California, Pacific Gas and Electric Co., Placer County Water Agency, Sacramento Municipal Utility District, Southern California Edison Co., Kern County Land and Water Co., Ventura County Flood Control District, Helix, Merced, Modesto, Nevada, Serrano and Carpenter, Oroville-Wyandotte, Oakdale-South San Joaquin, and Vista Irrigation Districts, Solano County Water Agency, and Yuba County Water Agency.

#### DEFINITION OF TERMS

Definition of terms related to streamflow and other hydrologic data, as used in this report, are defined as follows:

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

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

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

Cubic foot per second (cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

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



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

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

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

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

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

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

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

#### SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

International Hydrological Decade (IHD) River Stations provide a general index of runoff and materials in the water balance (discharge of water, and dissolved and transported solids) of the world. In the United States, IHD Stations provide indices of runoff and of the general distribution of water in the principal river basins of the conterminous United States and Alaska.

#### DOWNSTREAM ORDER AND STATION NUMBERS

Records are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit station number for each station, such as 11120800 includes the part number "11", the first two digits, followed by a 6-digit station number. In this report the complete number appears just to the left of the station name. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

## EXPLANATION OF SURFACE-WATER DATA

### Collection and Computation of Data

The base data collected at gaging stations consists of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents 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 gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. (See also SELECTED REFERENCES.) Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For a stream-gaging station rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in 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 control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other

sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information required for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is 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 gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1971 water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the

Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year:" the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

Skeleton rating tables are published for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

The daily tables for stream-gaging stations give the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean

discharge for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

The daily tables for reservoir stations give the contents corresponding to the water-surface elevation at a given time, usually at 2400 each day. For some reservoirs the elevation at a given time is given in the daily table.

The monthly summary is given below the daily table. For stream-gaging stations the line headed "TOTAL" gives the sum of the daily figures; it is the total cubic feet per second per day for the month. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is expressed in acre-feet (line headed "AC-FT").

For reservoir stations the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month. If elevation or gage height is given in the daily table, the monthly summary gives the contents at the end of the month, rather than the elevation or gage height. For some reservoirs a tabulation of monthly evaporation from the water surface also is included.

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges for the calendar and water years; likewise, the minimums in this summary are the minimum daily discharges.

For reservoir stations the yearly summary gives the change in contents for the calendar year and for the water year. For some reservoirs the yearly evaporation also is included.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

In a general footnote, introduced by the word "NOTE" certain periods are indicated for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs. Footnotes to reservoir tables may be used to explain the use of new capacity tables or for other special conditions.

### Accuracy of Data

The accuracy of discharge 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 interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures 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 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. 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 unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

### Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water records for the 5-year period October 1, 1960, to September 30, 1965, also includes lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Papers 1313(9), 1314(10), and 1315 A and B(11); records for October 1950 to September 1960 have been compiled and published in Water-Supply Papers 1733(9), 1734(10), and 1735(11). These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

#### Other Data Available

Data collected at partial-record stations and at miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites. Occasionally, discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also at the end of this report. Data for most crest-stage partial-record stations in California are not included in this report. They are published separately in an annual report, "Floods from Small Drainage Areas," copies of which may be obtained from the district office.

More detailed information than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in California through 1958 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on water temperature, on suspended-sediment concentration, and on the particle-size distribution of suspended sediment and bed material. These data are given in Part 2 of this report. Under the "REMARKS" paragraph of the gaging-station description, reference is made to water-quality records collected on a regular basis.

#### HYDROLOGIC CONDITIONS

Total annual runoff during the current year was above normal in northern California, approximately normal in basins at midlatitude of the State, and generally below normal in the southern half of the State. The principal exception to that trend occurred locally in the northern part of south coastal California--roughly between the cities of Los Angeles and Santa Barbara--where major winter storms produced heavy runoff in late November and December. Storage in major reservoirs was well above normal at the start of the water year and remained above normal throughout the year.

The water year started with a warm dry October during which runoff was below normal throughout most of the State. In southern California strong winds and low humidity were contributing factors in the brush and forest fires that burned 350,000 acres.

The first general rains of the season occurred in November, primarily over the northern half of California. The runoff from north coastal streams rose to values well above normal for November, and remained above normal for the entire year. In fact several streams attained daily and

monthly runoff values that exceeded their previously recorded maximum November values. The November runoff from Sierra Nevada basins ranged from well above normal in the north to slightly above normal in the south. Except for the previously mentioned local area north of Los Angeles, November runoff was below normal in southern California.

Heavy storms continued during December and January. Runoff was well above normal throughout most of the State, and moderate flooding occurred in January in north coastal California. The storms of December were accompanied by low temperatures and at high altitudes the precipitation was in the form of snow, in some mountain areas of southern California the snowfall totaled 4 to 6 feet.

Precipitation was generally below normal throughout the State during the months February through May, except for heavy rains in March in northwestern California. As a result of that 4-month precipitation pattern, runoff remained well above normal in north coastal California and declined to about normal in northern Sierra basins. Elsewhere in the State there was a steeper 4-month decline in runoff that was most drastic in the south. In southern California precipitation during the 4-month period had been the lightest recorded in those months since 1888. Low temperatures during the months, February through May, retarded melting of the Sierra snowpack and at the end of May, the water equivalent of the pack ranged from above normal in the north to below normal in the precipitation-deficient south.

Snowmelt at the higher altitudes in the Sierra Nevada became intense in June. Consequently, June runoff from Sierra basins ranged from well above normal in the north to about normal in the south. That same areal trend continued through the months of July and August. As mentioned earlier, runoff in northern California remained above normal during the summer. Summer runoff was below normal throughout southern California except where scattered convectional storms caused heavy runoff in local desert areas of the southeast. Most noteworthy was the flood flow of August 19 in Arch Creek near Earp, where a peak discharge of 7,160 cubic feet per second occurred on a drainage area of 1.52 square miles.

September brought the usual decline of streamflow to low levels, but September runoff was still above normal in the northwest, about normal in the Sierra Nevada, and well below normal in south coastal California.

The areal trend in total annual runoff in California in 1971 is shown in figure 1, where runoff is given as a percentage of the median annual runoff for the 30-year period, 1930-60. The circled figures on the map are the percentages for index stream-gaging stations in the various hydrographic areas. The value, 210 percent for the station on Salmon River at Somes Bar in north coastal California, represents the maximum annual runoff of record for the station.

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- Carter, R. W., and Davidian, Jacob, 1968, General procedure for gaging streams: U.S. Geol. Survey Techniques Water-Resources Inv., book 3, chap. A6, 13 p.
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- Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.



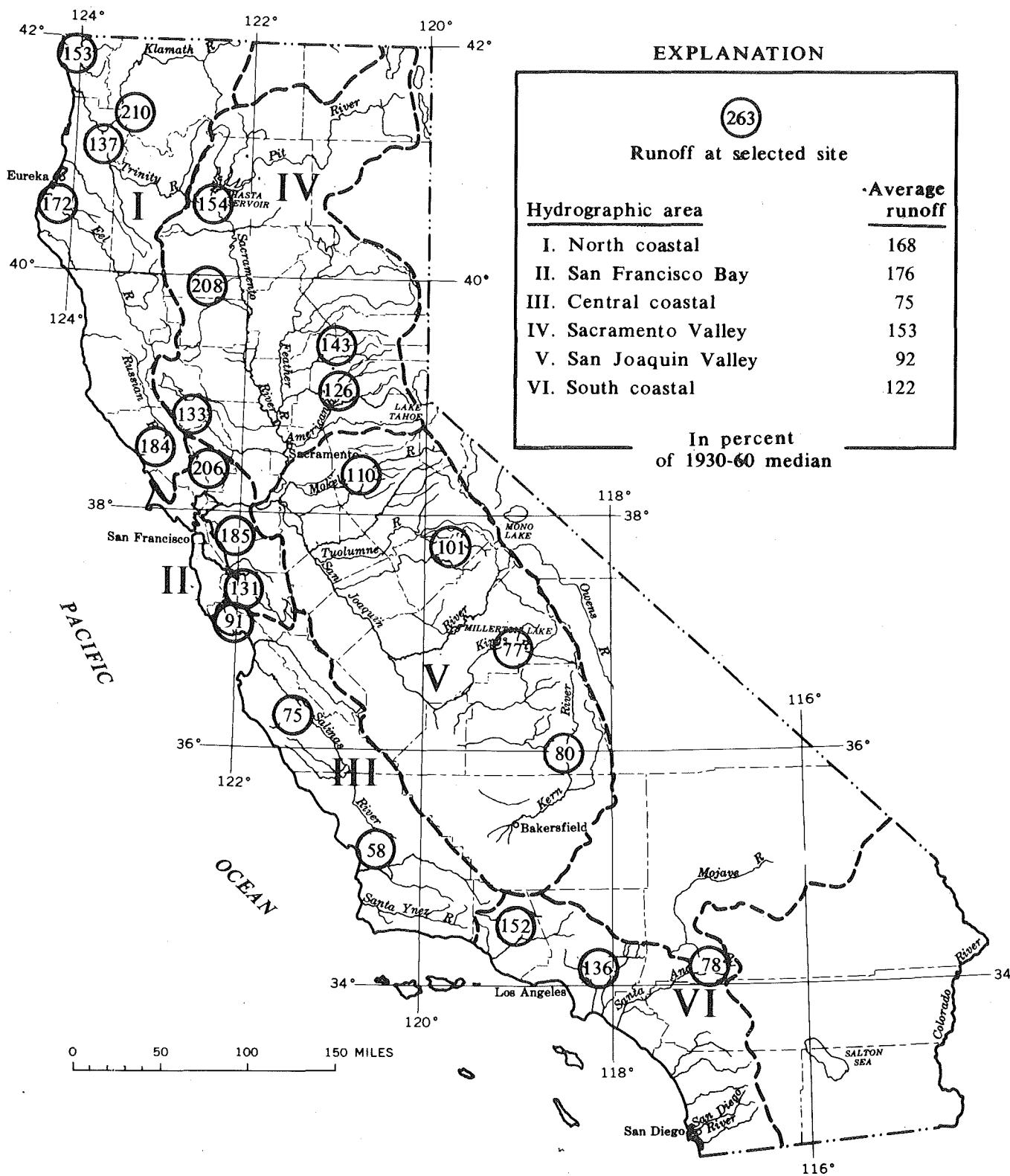


FIGURE 1.--Runoff for the 1971 water year.

## 09423000 COLORADO RIVER BELOW DAVIS DAM, ARIZ.-NEV.

LOCATION.--Lat 35°11'30", long 114°34'17", in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.1, T.32 S., R.66 E., Mount Diablo meridian, in Nevada, Clark County, on right bank 0.5 mile downstream from Davis Dam, 29 miles west of Kingman, Ariz., and 68 miles downstream from Hoover Dam.

DRAINAGE AREA.--169,300 sq mi, approximately.

PERIOD OF RECORD.--June 1905 to September 1907 (published as "at Hardyville"), March 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above mean sea level; gage readings have been reduced to elevations above mean sea level. 1905-7, nonrecording gage at site 4.8 miles downstream at datum about 13.4 ft lower. Mar. 16 to May 3, 1949, water-stage recorder at site 0.5 mile downstream at present datum. May 4, 1949, to Feb. 24, 1956, water-stage recorder at site 400 ft upstream at present datum.

AVERAGE DISCHARGE (unadjusted).--22 years (1949-71), 12,820 cfs (9,288,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 28,700 cfs July 28 (elevation, 506.39 ft); minimum daily, 2,200 cfs Dec. 1, 2.

1905-7: Maximum daily discharge, 116,000 cfs June 20, 1906; minimum daily, 2,850 cfs Jan. 5, 1906.

1949 to current year: Maximum discharge, 31,200 cfs Apr. 22, 1952 (elevation, 513.91 ft); no flow at Davis Dam parts of several days July to September and Dec. 27, 1950, when gates in dam were closed; minimum daily discharge, 285 cfs Aug. 3, 1950.

REMARKS.--Records excellent. Flow regulated by Lake Mead since Feb. 1, 1935, and by Lake Mohave since Jan. 17, 1950. Many diversions upstream for irrigation, industrial, and municipal uses.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,200	6,070	2,200	6,490	10,400	12,800	16,500	13,200	13,100	14,800	12,000	8,690
2	11,000	6,970	2,200	7,420	9,960	13,500	16,600	10,000	11,600	15,500	17,700	6,510
3	10,200	7,830	4,530	6,900	9,450	14,100	16,800	14,100	13,200	17,700	16,300	4,780
4	9,080	7,960	7,570	7,070	9,710	15,800	10,100	13,600	11,900	11,600	13,600	11,800
5	10,500	7,840	7,810	8,810	11,300	17,100	17,700	11,700	13,200	15,800	15,500	13,400
6	7,790	8,520	5,010	8,190	11,400	17,400	17,400	13,400	11,000	17,600	14,600	13,100
7	7,980	7,500	7,740	8,300	9,460	7,810	16,100	14,500	13,300	17,500	15,200	13,100
8	9,090	5,460	8,170	8,140	11,800	15,100	15,700	14,500	13,200	16,300	11,500	12,800
9	8,960	7,090	7,880	7,770	12,200	15,400	16,500	11,400	12,700	16,500	17,300	11,600
10	10,200	7,040	7,610	4,900	11,800	15,300	16,900	15,000	13,800	16,400	16,700	12,300
11	8,970	7,590	8,720	6,980	13,900	14,900	10,200	15,400	15,000	11,900	16,700	12,400
12	9,700	7,630	9,780	7,000	13,900	15,700	17,200	12,800	15,100	17,600	13,500	11,400
13	9,670	6,950	8,940	7,010	12,800	15,600	16,400	12,900	11,600	16,400	14,200	11,200
14	9,690	7,550	8,730	6,930	5,860	8,800	15,300	8,450	14,200	16,200	11,900	11,600
15	8,670	7,920	8,160	7,360	9,720	16,000	15,800	12,100	14,100	16,500	8,050	9,370
16	8,830	9,030	9,740	6,870	13,100	16,300	16,300	11,300	15,000	17,400	11,100	9,210
17	8,980	9,040	9,280	4,860	13,400	15,900	14,500	13,300	14,400	17,600	12,500	11,200
18	9,120	8,730	8,290	5,790	11,600	14,800	9,930	13,700	14,400	11,600	12,700	11,600
19	7,710	7,590	7,010	7,990	9,210	14,200	13,200	13,600	16,000	16,000	14,400	12,400
20	8,520	8,130	4,260	7,680	9,850	14,100	13,200	14,400	12,500	14,800	10,800	12,200
21	9,930	7,970	3,700	8,430	5,650	8,470	12,800	12,900	16,500	15,400	4,830	12,700
22	8,950	6,080	4,740	7,080	12,300	17,300	15,700	13,300	16,300	16,500	4,950	12,100
23	5,760	5,490	4,820	8,140	10,700	17,700	16,500	10,900	16,800	17,000	6,770	10,800
24	7,900	5,540	5,880	5,450	10,700	16,300	17,400	13,000	17,200	18,400	7,470	12,100
25	6,680	5,070	7,310	7,560	11,000	16,400	11,100	11,300	16,100	13,100	8,420	12,100
26	9,890	5,220	6,900	6,910	12,100	16,600	15,900	10,500	15,800	18,800	12,800	12,200
27	8,930	3,560	5,330	8,070	12,100	17,200	13,800	12,100	11,100	18,700	12,300	12,700
28	9,340	5,330	7,650	9,080	6,900	10,200	13,100	13,100	15,600	18,800	12,100	12,000
29	8,730	3,270	8,170	8,040	-----	17,500	14,600	13,000	18,400	17,600	11,000	5,250
30	7,680	2,440	6,980	9,440	-----	18,500	14,500	11,700	15,100	16,400	10,000	6,020
31	7,860	-----	7,010	5,460	-----	18,400	-----	12,900	-----	17,500	8,200	-----
TOTAL	281,510	202,410	212,120	226,120	302,270	465,180	447,730	394,050	428,200	503,900	375,090	328,630
MEAN	9,081	6,747	6,843	7,294	10,800	15,010	14,920	12,710	14,270	16,250	12,100	10,950
MAX	11,200	9,040	9,780	9,440	13,900	18,500	17,700	15,400	18,400	18,800	17,700	13,400
MIN	6,680	2,440	2,200	4,860	5,650	7,810	9,930	8,450	11,000	11,600	4,830	4,780
AC-FT	558,400	401,500	420,700	448,500	599,600	922,700	888,100	781,600	849,300	999,500	744,000	651,800
CAL YR 1970	TOTAL 4,095,650		MEAN 11,220		MAX 18,900		MIN 2,010		AC-FT 8,124,000			
WTR YR 1971	TOTAL 4,167,210		MEAN 11,420		MAX 18,800		MIN 2,200		AC-FT 8,266,000			

## COLORADO RIVER MAIN STEM

09423500 COLORADO RIVER AT NEEDLES, CALIF.

LOCATION.--Lat 34°51'06", long 114°36'33", in SE<sup>1</sup>SE<sup>1</sup> sec.19, T.9 N., R.23 E., San Bernardino meridian, San Bernardino County, on right bank at Needles, 18 miles upstream from gaging station near Topock, Ariz., 31 miles downstream from Davis Dam, and 98 miles downstream from Hoover Dam.

DRAINAGE AREA.--170,600 sq mi, approximately.

PERIOD OF RECORD.--April 1931 to current year (elevations only).

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above mean sea level. Prior to May 15, 1942, at site 550 ft downstream and May 15, 1942, to Feb. 16, 1969, at site 200 ft upstream; at datum 66.23 ft higher prior to Jan. 12, 1952, and at present datum thereafter.

EXTREMES.--Current year: Maximum elevation, 470.12 ft Mar. 31; minimum, 459.27 ft Dec. 3.

Period of record: Maximum elevation, 475.77 ft Nov. 30, 1944; minimum, 459.06 ft Nov. 14, 1969.

REMARKS.--Flow regulated by Lake Mead since Feb. 1, 1935, and by Lake Mohave since Jan. 17, 1950.

REVISIONS (WATER YEARS).--WSP 1119: 1931-47.

## GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	CCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65.04	62.71	59.84	62.30	62.40	62.89	67.71	65.77	65.62	66.30	65.80	63.57
2	64.51	62.24	59.32	62.12	63.75	65.31	66.90	65.65	65.34	66.59	66.09	63.89
3	64.64	62.47	59.64	62.62	63.78	65.75	67.21	64.54	65.22	67.02	67.43	64.35
4	63.56	62.77	61.44	62.24	63.62	66.11	66.01	65.76	65.80	65.94	66.18	64.80
5	63.56	62.87	62.67	62.43	64.11	66.99	65.59	65.48	65.09	65.21	66.23	65.12
6	64.36	63.11	62.30	63.36	64.36	67.36	67.42	65.06	65.16	66.60	66.11	65.82
7	62.66	62.84	61.74	62.79	63.82	65.85	67.23	66.14	65.26	67.20	66.33	65.66
8	63.25	62.51	62.73	63.06	64.87	64.03	66.83	66.27	65.78	67.10	65.62	65.64
9	63.65	61.71	63.02	63.01	64.94	66.57	66.76	65.72	65.24	66.70	66.19	64.68
10	63.45	62.43	62.68	62.38	64.62	66.38	67.08	65.58	66.10	66.70	67.18	65.42
11	64.11	62.32	62.93	61.43	65.39	66.45	66.20	66.54	66.05	65.20	67.35	65.34
12	64.13	62.64	63.42	62.46	65.94	66.60	65.32	66.00	66.55	65.50	66.25	65.23
13	63.87	62.71	63.91	62.32	65.55	66.61	67.13	65.40	65.67	66.90	65.67	64.75
14	63.98	62.35	62.96	62.35	64.27	65.36	67.17	65.20	65.55	66.70	65.74	64.68
15	63.78	63.33	63.42	62.35	62.25	64.78	66.36	63.40	66.10	66.30	64.09	64.38
16	63.25	62.72	63.15	62.58	64.98	66.82	67.05	65.20	66.12	66.90	63.50	64.04
17	63.55	63.46	63.92	61.99	65.37	66.86	66.90	64.90	66.63	67.80	65.23	64.14
18	63.69	63.57	63.38	61.31	65.11	66.68	65.29	65.80	66.18	66.60	65.04	64.75
19	63.45	62.60	63.11	62.24	65.03	65.97	64.40	65.93	66.29	65.70	66.02	65.01
20	62.88	62.91	61.84	62.65	63.52	65.89	65.67	66.52	66.73	66.10	65.94	65.28
21	63.32	62.84	60.87	62.96	62.97	65.01	65.21	65.68	66.24	66.32	62.16	65.20
22	63.98	62.65	60.54	62.91	62.81	64.76	65.69	65.69	67.16	66.58	61.67	65.01
23	63.50	61.91	61.02	62.52	65.09	67.64	67.07	65.64	67.38	66.61	61.72	64.89
24	63.84	61.44	61.25	62.56	64.12	67.07	67.45	64.93	67.59	67.41	63.04	65.84
25	62.87	61.69	61.83	61.85	64.26	67.05	66.61	65.26	67.01	66.59	63.04	65.16
26	63.06	61.15	62.33	62.44	64.44	67.01	65.18	64.62	66.38	66.70	64.93	65.18
27	63.58	61.38	62.10	62.68	64.89	67.47	66.53	64.90	65.43	68.05	65.29	64.60
28	63.92	60.91	61.59	62.85	64.76	66.05	65.93	64.88	64.87	67.54	65.07	65.13
29	63.43	61.07	62.90	63.41	-----	65.57	66.09	66.02	67.60	67.46	64.93	64.56
30	63.21	60.12	62.52	63.05	-----	67.96	66.39	65.06	66.20	66.91	64.45	61.37
31	62.88	-----	62.33	63.03	-----	68.06	-----	65.27	-----	67.17	63.76	-----
MEAN	63.66	62.31	62.15	62.52	64.32	66.22	66.41	65.45	66.08	66.66	65.10	64.78
MAX	65.04	63.57	63.92	63.41	65.94	68.06	67.71	66.54	67.60	68.05	67.43	65.84
MIN	62.66	60.12	59.32	61.31	62.25	62.89	64.40	63.40	64.87	65.20	61.67	61.37

CAL YR 1970  
WTR YR 1971

MAX 68.42 MIN 59.30  
MAX 68.06 MIN 59.32

LOCATION.--Lat 34°41'15", long 114°27'43", in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.13, T.15 N., R.21 W., Gila and Salt River meridian, Mohave County, on left bank in Mohave Canyon, 2.7 miles downstream from Topock, 39.5 miles upstream from Parker Dam, and 49 miles downstream from Davis Dam.

REVISIONS (WATER YEARS).--WSP 918: 1921. WSP 1313: 1918-19(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	CCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,200	7,560	2,260	7,020	5,800	6,850	16,800	13,800	13,700	15,000	15,300	8,080
2	10,900	6,160	1,970	6,610	9,030	11,000	15,500	13,700	13,800	15,000	12,800	9,290
3	10,800	6,820	1,810	7,030	9,070	12,200	15,300	11,400	12,800	15,600	15,900	9,870
4	10,200	7,290	3,420	6,920	8,690	12,800	14,800	12,900	13,900	16,300	14,800	10,700
5	9,080	7,580	5,950	6,900	9,240	14,200	11,000	13,300	12,900	13,000	13,600	11,000
6	10,200	7,690	6,630	8,240	10,100	15,600	15,200	12,400	13,500	15,200	14,200	12,200
7	7,960	8,020	4,730	7,840	10,200	15,500	15,600	13,600	12,400	16,500	14,200	12,200
8	7,960	7,250	6,680	8,110	9,580	9,090	14,900	14,300	13,700	16,400	14,100	12,300
9	8,950	5,800	7,420	8,000	10,600	13,200	14,300	14,100	13,300	15,700	12,500	11,300
10	8,820	6,690	7,060	7,670	11,000	13,900	15,000	12,700	13,500	15,600	15,600	11,000
11	9,790	6,740	7,180	5,350	11,000	14,000	14,900	14,500	13,900	15,100	15,900	11,500
12	9,350	7,060	8,310	6,690	12,400	14,000	11,000	14,800	14,600	12,800	14,600	11,500
13	9,650	6,980	9,230	6,940	12,500	14,400	14,800	13,600	14,200	15,800	13,700	10,900
14	9,630	6,680	8,510	6,870	11,400	14,000	15,200	13,800	12,300	15,500	13,800	10,500
15	9,450	7,440	8,760	6,760	6,270	9,680	14,100	10,900	13,500	15,200	11,400	10,600
16	8,800	7,320	8,250	7,020	8,860	13,900	14,800	12,900	13,700	15,500	9,100	9,520
17	8,850	8,300	9,560	6,660	11,400	14,700	15,200	11,900	14,200	16,800	11,900	9,170
18	9,100	8,510	9,240	4,950	11,900	14,600	13,500	13,300	14,000	15,800	11,600	10,300
19	9,200	7,980	8,450	5,620	11,300	13,600	10,900	13,700	14,000	12,500	12,600	10,800
20	8,190	7,300	7,380	7,250	9,080	13,200	12,700	14,100	15,000	14,500	14,200	11,500
21	8,680	7,660	5,070	7,280	8,740	12,700	12,600	14,400	13,100	14,100	8,710	11,300
22	9,520	7,510	4,330	7,850	6,340	9,250	12,600	13,700	15,200	14,900	6,360	11,300
23	9,250	6,190	4,850	6,860	10,800	15,000	14,900	13,900	15,500	14,900	5,730	11,000
24	9,600	5,610	5,030	7,520	9,920	15,800	15,700	12,500	16,200	15,900	7,570	11,600
25	8,300	5,580	5,950	5,620	10,200	15,200	15,300	13,700	15,700	16,400	7,520	11,400
26	7,070	5,340	7,050	6,870	9,960	15,100	11,900	12,900	15,400	13,700	9,210	11,400
27	8,850	5,230	6,900	6,590	10,900	15,500	14,300	12,600	14,800	17,000	11,300	10,600
28	8,780	4,210	5,630	7,470	11,700	15,400	13,300	13,300	12,100	17,300	11,300	11,600
29	8,850	5,080	7,260	8,300	-----	11,100	13,100	14,200	15,500	17,300	10,600	10,200
30	8,480	3,360	7,880	7,810	-----	15,600	14,000	13,900	16,400	16,100	10,000	4,900
31	7,580	-----	7,010	8,690	-----	17,000	-----	13,300	-----	15,900	9,550	-----
TOTAL	283,040	200,940	199,800	219,310	277,980	418,070	423,200	414,100	422,800	477,300	369,650	319,530
MEAN	9,130	6,698	6,445	7,075	9,928	13,490	14,110	13,360	14,090	15,400	11,920	10,650
MAX	11,200	8,510	9,560	8,690	12,500	17,000	16,800	14,800	16,400	17,300	15,900	12,300
MIN	7,070	3,360	1,810	4,950	5,800	6,850	10,900	10,900	12,100	12,500	5,730	4,900
AC-FT	561,400	398,600	396,300	435,000	551,400	829,200	839,400	821,400	838,600	946,700	733,200	633,800
CAL YR 1970	TOTAL 3,920,050		MEAN 10,740		MAX 11,200		MIN 1,810		AC-FT 7,775,000			
WTR YR 1971	TOTAL 4,025,720		MEAN 11,030		MAX 17,300		MIN 1,810		AC-FT 7,985,000			

## COLORADO RIVER MAIN STEM

09424000 COLORADO RIVER NEAR TOPOCK, ARIZ.--Continued

MEAN ELEVATION, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.70	51.54	48.98	51.09	50.60	51.11	54.99	53.93	54.01	54.37	54.42	51.77
2	52.60	50.90	48.76	50.90	52.05	52.84	54.53	53.92	54.02	54.38	53.54	52.18
3	52.58	51.20	48.63	51.09	52.07	53.27	54.47	53.09	53.78	54.57	54.67	52.40
4	52.33	51.41	49.77	51.05	51.93	53.52	54.28	53.70	54.18	54.81	54.31	52.74
5	51.91	51.54	51.12	51.04	52.15	54.05	52.95	53.84	53.84	53.67	53.88	52.84
6	52.35	51.60	51.40	51.63	52.49	54.54	54.45	53.52	54.03	54.43	54.12	53.26
7	51.45	51.74	50.39	51.49	52.50	54.49	54.59	53.96	53.64	54.89	54.11	53.28
8	51.45	51.40	51.31	51.58	52.28	52.18	54.34	54.19	54.10	54.85	54.05	53.29
9	51.86	50.71	51.61	51.55	52.70	53.73	54.15	54.11	53.97	54.62	53.51	52.94
10	51.81	51.14	51.38	51.40	52.82	54.00	54.37	53.61	54.04	54.58	54.61	52.84
11	52.19	51.16	51.39	50.30	52.82	54.02	54.35	54.25	54.18	54.39	54.71	53.03
12	52.02	51.31	51.83	50.97	53.36	54.04	52.94	54.35	54.42	53.58	54.27	53.04
13	52.14	51.27	52.16	51.11	53.39	54.16	54.30	53.95	54.27	54.63	53.94	52.78
14	52.13	51.14	51.79	51.07	52.97	54.01	54.43	54.02	53.62	54.50	53.97	52.66
15	52.06	51.50	51.85	51.03	50.85	52.44	54.06	52.95	54.05	54.39	53.12	52.69
16	51.80	51.45	51.65	51.16	52.00	53.98	54.31	53.69	54.12	54.49	52.26	52.27
17	51.82	51.86	52.18	51.00	52.99	54.28	54.45	53.34	54.29	54.95	53.31	52.14
18	51.92	51.96	52.05	50.14	53.18	54.24	53.86	53.82	54.21	54.61	53.21	52.57
19	51.96	51.71	51.73	50.50	52.95	53.86	52.91	53.99	54.18	53.45	53.57	52.78
20	51.55	51.42	51.26	51.30	52.10	53.72	53.55	54.14	54.51	54.15	54.14	53.01
21	51.77	51.58	50.13	51.31	51.94	53.54	53.53	54.23	53.82	54.03	52.08	52.93
22	52.14	51.51	49.73	51.57	50.88	52.28	53.53	53.96	54.57	54.31	51.06	52.93
23	52.05	50.90	50.01	51.12	52.76	54.38	54.34	54.06	54.63	54.29	50.73	52.84
24	52.21	50.61	50.10	51.42	52.42	54.65	54.61	53.55	54.85	54.64	51.61	53.06
25	51.71	50.59	50.60	50.51	52.53	54.44	54.46	53.97	54.68	54.81	51.60	52.99
26	51.18	50.46	51.10	51.12	52.45	54.40	53.26	53.69	54.57	53.87	52.30	52.99
27	51.98	50.41	51.03	50.99	52.80	54.55	54.12	53.57	54.34	55.01	53.09	52.68
28	51.97	49.87	50.42	51.40	53.10	54.49	53.79	53.82	53.40	55.11	53.09	53.05
29	52.02	50.46	51.20	51.75	-----	52.96	53.70	54.17	54.57	55.10	52.85	52.85
30	51.90	49.63	51.47	51.56	-----	54.56	54.02	54.04	54.86	54.72	52.63	50.82
31	51.53	-----	51.09	51.92	-----	55.04	-----	53.84	-----	54.64	52.43	-----
MEAN	51.97	51.13	50.91	51.16	52.40	53.80	54.05	53.85	54.19	54.48	53.26	52.72
MAX	52.70	51.96	52.18	51.92	53.39	55.04	54.99	54.35	54.86	55.11	54.71	53.29
MIN	51.18	49.63	48.63	50.14	50.60	51.11	52.91	52.95	53.40	53.45	50.73	50.82

NOTE.--Add 400.00 feet to obtain elevation above mean sea level.

09424150. Colorado River aqueduct near Parker Dam, Ariz.-Calif.

LOCATION.--Lat 34°18'58", long 114°09'23", in NW¼SW¼ sec.28, T.3 N., R.27 E., San Bernardino meridian, in California, San Bernardino County, at intake pumping plant of Metropolitan Water District of Southern California on Lake Havasu, 1.8 miles upstream from Parker Dam and 15¼ miles downstream from Hoover Dam.

PERIOD OF RECORD.--January 1939 to current year (monthly diversions only since October 1942). Published as a supplement to records for Colorado River below Parker Dam, 1942-50.

GAGE.--Venturi meters in pressure lines at intake pumping plant. Water-stage recorders with weirs on 4 percolation returns; prior to October 1964 miscellaneous measurements only.

AVERAGE DISCHARGE.--32 years, 773 cfs (560,000 acre-ft per year).

EXTREMES.--Period of record: Maximum daily diversion, 3,986 acre-ft (2,010 cfs) Oct. 25, 1970; no diversion at times.

REMARKS.--Pumping began Jan. 7, 1939. Figures of monthly diversion shown represent water pumped from Lake Havasu less return surface flow from Gene and Copper Basin Reservoirs. No water returned as surface flow from these reservoirs this year. Percolation return flow from Gene and Copper Basin Reservoirs was measured in 4 washes between pumping plant and Copper Basin Wash, each about 1 mile from the Colorado River. Infrequent storm runoff registered with percolation flow has not been deducted and is considered negligible. The percolation return flow is not subtracted from the diversion record.

COOPERATION.--Diversion records furnished by Metropolitan Water District of Southern California.

MONTHLY DIVERSIONS AND PERCOLATION RETURN FLOW, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Month	Total percolation	Diversions			
		Maximum	Minimum	Mean	Total
October.....	437	3,986	3,167	3,441	106,672
November.....	459	3,922	1,222	3,154	94,618
December.....	485	3,824	0	2,914	90,334
CAL YR 1970 .....	4,570	3,986	0	3,288	1,200,263
January.....	446	3,813	2,224	3,158	97,884
February.....	371	3,577	2,295	2,946	82,481
March.....	359	3,715	2,121	3,299	102,276
April.....	386	3,587	3,273	3,481	104,432
May.....	344	3,824	3,083	3,483	107,971
June.....	351	3,914	2,797	3,471	104,139
July.....	349	3,753	3,381	3,477	107,793
August.....	370	3,656	3,358	3,453	107,045
September.....	338	3,678	3,334	3,460	103,799
WTR YR 1971 .....	4,695	3,986	0	3,314	1,209,444

## COLORADO RIVER MAIN STEM

09427500 LAKE HAVASU NEAR PARKER DAM, ARIZ.-CALIF.

LOCATION.--Lat 34°18'58", long 114°09'23", in NW¼SW¼ sec.28, T.3 N., R.27 E., San Bernardino meridian, in California, San Bernardino County, at intake pumping plant for Colorado River aqueduct of Metropolitan Water District of Southern California, 1.8 miles upstream from Parker Dam on Colorado River, and 154 miles downstream from Hoover Dam.

DRAINAGE AREA.--178,800 sq mi, approximately.

PERIOD OF RECORD.--July 1938 to current year. Published as Parker Reservoir near Parker Dam 1938.

GAGE.--Water-stage recorder. Datum of gage is 400.54 ft above mean sea level. Gage readings have been reduced to elevations above mean sea level.

EXTREMES.--Current year: Maximum contents, 623,600 acre-ft May 14 (elevation, 450.75 ft); minimum, 531,500 acre-ft Mar. 3 (elevation, 445.92 ft).

Period of record: Maximum contents, 693,000 acre-ft (by temporary use of flashboards) Apr. 18, 1943, June 4, 1953; maximum elevation, 450.77 ft June 26, 1958; minimum contents, 71,400 acre-ft June 25, 1942 (elevation, 412.09 ft).

REMARKS.--Lake is formed by concrete-arch dam; dam was completed and storage began July 1, 1938. Usable capacity (based on April 1957 re-survey by Bureau of Reclamation between elevations 430.54 and 450.54 ft) 619,400 acre-ft between elevations 400.54 ft (sill of regulating gates) and 450.54 ft (top of regulating gates). Prior to Oct. 1, 1956, different capacity table used. Dead storage, 28,600 acre-ft below elevation 400.54 (based on original survey). About 0.07 ft fall indicated between gage and Parker Dam under normal operating conditions. Drawdown below elevation 440.54 ft not legally permissible except by consent of the Metropolitan Water District of Southern California or in an emergency affecting the safety of the dam. Lake is used for flood control, power development, rerregulation of river for irrigation demand, and as a basin from which water is pumped by Metropolitan Water District of Southern California to Colorado River aqueduct. Figures given herein represent usable contents. For record of diversion to Colorado River aqueduct and return flow, see record for Colorado River aqueduct near Parker Dam (sta 09424150).

## CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	CCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	558,800	556,200	557,500	544,000	534,800	537,800	569,700	600,200	614,200	613,600	597,800	574,300
2	559,000	553,100	551,700	546,100	534,400	533,500	570,900	601,800	615,200	611,800	592,200	572,800
3	557,900	552,400	546,800	544,300	536,900	532,100	573,000	599,000	617,400	610,000	597,200	571,100
4	555,800	554,100	545,900	541,600	539,100	533,700	574,500	600,400	618,800	611,000	601,400	567,800
5	551,200	557,100	548,100	536,400	537,800	535,500	565,900	603,400	617,200	603,800	603,600	565,900
6	550,600	558,800	549,200	534,100	538,000	540,400	566,700	605,200	616,800	601,600	605,600	565,800
7	549,900	560,000	546,300	535,000	537,800	545,600	570,700	605,200	612,400	604,200	604,200	566,300
8	548,500	558,400	544,300	536,000	535,500	538,700	577,700	607,000	611,600	609,000	601,400	566,100
9	549,500	554,400	544,100	539,100	535,900	539,500	578,100	608,400	611,400	608,600	593,200	569,400
10	548,800	551,700	545,900	541,400	538,000	543,800	578,900	605,400	611,600	605,800	592,600	568,200
11	547,700	549,900	543,800	539,300	540,200	549,900	578,500	608,600	610,600	603,400	596,600	567,500
12	547,600	553,300	542,700	540,200	543,400	550,300	570,500	615,400	611,400	595,600	606,000	568,000
13	550,600	553,500	541,800	542,300	547,600	552,600	571,100	619,800	611,800	596,400	607,600	567,500
14	552,100	551,900	540,900	545,400	549,400	554,400	575,200	619,000	607,600	596,200	611,600	568,600
15	553,900	551,000	540,900	543,600	540,400	547,700	582,300	611,400	606,200	597,200	610,200	570,100
16	552,100	548,100	540,700	544,900	537,100	549,200	586,100	610,000	607,200	596,600	601,600	569,000
17	550,400	547,700	548,500	543,600	540,000	554,600	594,200	604,000	610,800	601,800	596,800	566,500
18	549,700	549,200	552,400	542,900	546,500	557,900	598,600	603,400	605,800	603,400	589,300	563,300
19	551,200	552,800	553,900	540,500	551,700	557,500	593,800	605,400	605,800	597,400	590,400	560,900
20	551,000	551,000	552,400	540,500	552,600	556,200	592,800	609,800	605,400	598,400	600,400	558,100
21	552,400	552,400	551,700	542,700	551,000	553,900	594,400	614,200	599,800	595,800	599,200	557,300
22	557,500	553,100	552,100	543,800	540,500	542,900	591,800	614,600	601,400	596,200	590,100	557,900
23	557,300	556,000	548,300	542,700	543,400	545,600	590,400	616,600	602,400	592,400	582,300	561,300
24	558,200	557,500	545,900	541,800	546,700	552,800	590,300	615,800	605,000	590,300	580,600	561,300
25	554,400	558,200	542,900	539,300	551,300	560,200	591,000	617,800	605,000	590,600	573,400	562,400
26	550,600	559,000	542,200	535,800	550,600	565,000	586,600	618,400	605,400	586,100	571,100	562,500
27	551,300	561,500	541,100	539,800	549,500	568,600	588,900	618,200	605,400	587,600	572,200	562,700
28	552,100	562,700	538,900	541,600	547,000	570,100	590,400	617,800	600,800	590,100	575,100	561,500
29	555,600	562,700	540,200	544,900	-----	561,300	594,600	616,000	604,800	595,400	577,500	572,000
30	556,400	560,700	543,400	545,400	-----	560,300	597,400	614,600	609,600	596,400	578,900	574,300
31	555,800	-----	546,300	546,700	-----	564,000	-----	612,000	-----	597,800	579,200	-----
MAX	559,000	562,700	557,500	546,700	552,600	570,100	598,600	619,800	618,800	613,600	611,600	574,300
MIN	547,600	547,700	538,900	534,100	534,400	532,100	565,900	599,000	599,800	586,100	571,100	557,300
(a)	-900	+4,900	-14,400	+400	+300	+17,000	+33,400	+14,600	-2,400	-11,800	-18,600	-4,900

CAL YR 1970 MAX 617,400 MIN 528,800 a +7,400  
WTR YR 1971 MAX 619,800 MIN 532,100 a +17,600

a Change in contents, in acre-feet.

09427500 LAKE HAVASU NEAR PARKER DAM, ARIZ.--CALIF.--Continued

ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	447.42	447.28	447.35	446.61	446.10	446.27	448.00	449.58	450.28	450.25	449.46	448.24
2	447.43	447.12	447.04	446.73	446.08	446.03	448.06	449.66	450.33	450.17	449.18	448.16
3	447.37	447.08	446.77	446.63	446.22	445.95	448.17	449.52	450.44	450.07	449.43	448.07
4	447.26	447.17	446.72	446.48	446.34	446.04	448.25	449.59	450.51	450.12	449.64	447.90
5	447.01	447.33	446.84	446.19	446.27	446.14	447.80	449.74	450.43	449.76	449.75	447.80
6	446.98	447.42	446.90	446.06	446.28	446.41	447.84	449.83	450.41	449.65	449.85	447.79
7	446.94	447.48	446.74	446.11	446.27	446.70	448.05	449.83	450.19	449.78	449.78	447.82
8	446.86	447.40	446.63	446.17	446.14	446.32	448.42	449.92	450.15	450.02	449.64	447.81
9	446.92	447.19	446.62	446.34	446.16	446.36	448.44	449.99	450.14	450.00	449.23	447.98
10	446.88	447.04	446.72	446.47	446.28	446.60	448.48	449.84	450.15	449.86	449.20	447.92
11	446.82	446.94	446.60	446.35	446.40	446.94	448.46	450.00	450.10	449.74	449.40	447.88
12	446.81	447.13	446.54	446.40	446.58	446.96	448.04	450.34	450.14	449.35	449.87	447.91
13	446.98	447.14	446.49	446.52	446.81	447.09	448.07	450.56	450.16	449.39	449.95	447.88
14	447.06	447.05	446.44	446.69	446.91	447.19	448.29	450.52	449.95	449.38	450.15	447.94
15	447.16	447.00	446.44	446.59	446.41	446.82	448.66	450.14	449.88	449.43	450.08	448.02
16	447.06	446.84	446.43	446.66	446.23	446.90	448.86	450.07	449.93	449.40	449.65	447.96
17	446.97	446.82	446.86	446.59	446.39	447.20	449.28	449.77	450.11	449.66	449.41	447.83
18	446.93	446.90	447.08	446.55	446.75	447.37	449.50	449.74	450.06	449.74	449.03	447.66
19	447.01	447.10	447.16	446.42	447.04	447.35	449.26	449.84	449.86	449.44	449.09	447.53
20	447.00	447.00	447.08	446.42	447.09	447.28	449.21	450.06	449.84	449.49	449.59	447.38
21	447.08	447.08	447.04	446.54	447.00	447.16	449.29	450.28	449.56	449.36	449.53	447.34
22	447.35	447.12	447.06	446.60	446.42	446.55	449.16	450.30	449.64	449.38	449.07	447.37
23	447.34	447.27	446.85	446.54	446.58	446.70	449.09	450.40	449.69	449.19	448.66	447.55
24	447.39	447.35	446.72	446.49	446.76	447.10	449.08	450.36	449.82	449.08	448.57	447.55
25	447.19	447.39	446.55	446.35	447.02	447.49	449.12	450.46	449.82	449.10	448.19	447.61
26	446.98	447.43	446.51	446.38	446.98	447.75	448.89	450.49	449.84	448.86	448.07	447.62
27	447.02	447.56	446.45	446.38	446.92	447.94	449.01	450.48	449.84	448.94	448.13	447.63
28	447.06	447.63	446.33	446.48	446.78	448.02	449.09	450.46	449.61	449.07	448.28	447.56
29	447.25	447.63	446.40	446.66	-----	447.55	449.30	450.37	449.81	449.34	448.41	448.12
30	447.29	447.52	446.58	446.69	-----	447.50	449.44	450.30	450.05	449.39	448.48	448.24
31	447.26	-----	446.74	446.76	-----	447.70	-----	450.17	-----	449.46	448.50	-----
MAX	447.43	447.63	447.35	446.76	447.09	448.02	449.50	450.56	450.51	450.25	450.15	448.24
MIN	446.81	446.82	446.33	446.06	446.08	445.95	447.80	449.52	449.56	448.86	448.07	447.34



LOCATION.--Lat 34°17'44", long 114°08'22", in NW<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub> sec.3, T.2 N., R.27 E., San Bernardino meridian, in California, San Bernardino County, on north end of powerplant at Parker Dam, 13 miles northeast of Parker, Ariz., and 14 miles upstream from Headgate Rock Dam.

PERIOD OF RECORD.--February to September 1934 (gage heights and fragmentary discharge records), October 1934 to current year. Prior to October 1937, published as "near Parker, Ariz."

AVERAGE DISCHARGE (unadjusted).--37 years, 12,400 cfs (8,984,000 acre-ft per year).

REMARKS.--Records excellent. Flow regulated by Lake Mead since Feb. 1, 1935, Lake Mohave since Jan. 17, 1950, and by Lake Havasu since July 1, 1938. Many diversions above station. For record of diversion to Colorado River aqueduct and return flows, see record for Colorado River aqueduct near Parker Dam (sta 09424150). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,940	5,800	4,310	6,010	11,400	10,700	13,200	10,900	10,800	11,800	14,600	8,380
2	9,240	6,010	5,66C	5,180	7,760	10,700	14,300	11,100	10,400	13,900	14,100	8,300
3	9,660	5,550	4,940	5,070	6,980	11,000	13,800	10,500	8,940	14,500	12,400	9,310
4	9,670	4,860	4,630	6,170	6,510	10,400	13,400	10,500	10,900	14,500	12,200	10,800
5	9,850	4,290	5,49C	7,250	8,690	11,700	14,400	9,940	11,100	14,500	11,300	10,900
6	8,340	5,160	5,990	6,980	8,840	11,300	13,700	8,930	11,500	14,400	12,200	10,700
7	7,180	6,150	6,100	5,740	9,230	11,400	13,100	11,400	12,000	14,100	13,200	11,100
8	6,540	6,010	6,460	5,380	9,340	11,600	11,300	11,800	11,600	12,900	14,800	11,300
9	6,770	6,530	6,230	4,680	9,110	10,900	13,500	11,900	11,300	14,200	15,100	9,020
10	7,490	6,200	5,290	4,450	9,110	10,500	13,900	12,000	11,000	15,600	14,400	10,400
11	8,320	5,850	6,650	4,390	8,850	9,760	14,300	11,000	12,600	15,200	13,200	10,800
12	7,550	4,540	7,060	4,280	9,710	11,800	14,200	9,770	12,500	15,100	11,100	10,400
13	6,370	5,180	7,580	3,840	9,800	12,400	13,400	9,120	12,700	14,400	10,600	9,790
14	7,000	5,310	7,410	3,620	9,970	12,000	12,200	11,600	12,700	14,000	10,600	8,720
15	6,800	5,850	6,870	5,780	10,400	12,400	9,810	11,600	12,700	13,300	10,300	8,760
16	7,830	7,370	6,230	4,230	9,110	12,100	12,000	11,600	11,800	14,400	11,400	8,060
17	7,870	6,920	3,660	5,570	8,690	12,200	10,700	11,900	11,300	13,300	11,800	9,760
18	7,490	6,270	5,310	3,460	7,610	11,600	10,100	11,400	13,200	13,900	14,200	9,720
19	6,420	4,930	5,810	4,800	7,190	12,300	11,500	10,500	14,300	13,400	13,500	10,300
20	6,130	6,870	5,640	5,900	7,370	13,000	11,300	9,220	14,300	13,300	9,090	11,200
21	5,740	6,370	3,620	5,030	8,400	13,000	10,600	10,700	14,400	14,200	7,960	10,800
22	5,260	5,570	2,380	6,220	9,570	13,600	11,900	11,100	14,000	13,300	9,160	10,000
23	7,400	3,790	4,770	6,220	8,060	12,000	13,900	10,600	14,100	15,300	8,150	8,330
24	7,430	3,230	4,350	6,460	6,960	11,800	14,800	10,300	14,000	15,900	7,180	9,690
25	7,970	3,070	5,250	6,210	7,040	10,700	13,600	9,620	14,400	15,500	9,990	9,610
26	7,590	3,050	5,320	6,030	8,510	12,200	12,800	9,390	14,200	15,200	9,360	9,920
27	6,970	2,800	5,310	5,980	9,190	13,200	12,000	8,950	13,700	15,200	10,300	9,520
28	6,400	2,720	4,890	5,840	11,500	14,200	11,200	10,900	12,700	14,700	9,870	9,860
29	5,480	2,730	4,340	5,840	-----	14,600	9,870	11,700	12,400	13,900	8,850	5,390
30	6,740	4,210	4,310	6,800	-----	15,000	11,300	11,700	13,000	14,200	8,550	4,190
31	6,310	-----	3,470	7,310	-----	14,400	-----	11,400	-----	14,300	8,420	-----
TOTAL	228,750	153,190	165,370	170,720	244,900	374,460	376,080	333,040	374,540	442,400	347,880	285,030
MEAN	7,379	5,106	5,335	5,507	8,746	12,080	12,540	10,740	12,480	14,270	11,220	9,501
MAX	9,850	7,370	7,580	7,310	11,500	15,000	14,800	12,000	14,400	15,900	15,100	11,300
MIN	5,260	2,720	2,380	3,460	6,510	9,760	9,810	8,930	8,940	11,800	7,180	4,190
AC-FT	453,700	303,900	328,000	338,600	485,800	742,700	746,000	660,600	742,900	877,500	690,000	565,400
CAL YR 1970	TOTAL 3,356,760		MEAN 9,196		MAX 15,900		MIN 1,790		AC-FT 6,658,000			
WTR YR 1971	TOTAL 3,496,360		MEAN 9,579		MAX 15,900		MIN 2,380		AC-FT 6,935,000			

09428530 ARCH CREEK NEAR EARP, CALIF.

LOCATION.--Lat 34°09'55", long 114°22'20", in NE½ sec.20, T.1 N., R.25 E., San Bernardino County, on right bank on Parker Dam Road, 4 miles east of Earp.

DRAINAGE AREA.--1.52 sq mi.

PERIOD OF RECORD.--January 1960 to current year (destroyed by flood of Aug. 19, 1971. Discontinued as a continuous-record station; converted to a crest-stage partial-record station).

GAGE.--Water-stage recorder with rain-gage attachment and culvert control. Altitude of gage is 600 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 0.098 cfs (71 acre-ft per year); median of yearly mean discharges, 0.004 cfs (2.9 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,160 cfs Aug. 19 (gage height, 21.74 ft, from floodmark), on basis of slope-area measurement of maximum flow; no flow all year except Aug. 11, 19.

Period of record: Maximum discharge, 7,160 cfs Aug. 19, 1971 (gage height, 21.74 ft, from floodmark), on basis of slope-area measurement of maximum flow; no flow most of each year.

Flood of Sept. 13, 1959, reached a stage of 13.24 ft, from floodmarks (discharge, 674 cfs, based on computation of peak flow through culvert).

REMARKS.--Records poor. No regulation or diversion above station. Rainfall data, incomplete.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	
2											0	
3											0	
4											0	
5											0	
6											0	
7											0	
8											0	
9											0	
10											0	
11											60	
12											0	
13											0	
14											0	
15											0	
16											0	
17											0	
18											0	
19											300	
20											0	
21											0	
22											0	
23											0	
24											0	
25											0	
26											0	
27											0	
28											0	
29											0	
30											0	
31											0	
TOTAL	0	0	0	0	0	0	0	0	0	0	360	0
MEAN	0	0	0	0	0	0	0	0	0	0	11.6	0
MAX	0	0	0	0	0	0	0	0	0	0	300	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	714	0
(a)	0	0.1	0.1	0	0	0	0	0	0	-	-	-

CAL YR 1970 TOTAL 15.10 MEAN .041 MAX 15 MIN 0 AC-FT 30  
 WTR YR 1971 TOTAL 360.00 MEAN .99 MAX 300 MIN 0 AC-FT 714

a Precipitation, in inches.

## TRIBUTARIES AND DIVERSIONS BETWEEN PARKER DAM AND PALO VERDE DAM

## 09429000 PALO VERDE CANAL NEAR BLYTHE, CALIF.

LOCATION.--Lat 33°43'55", long 114°30'40", in NW¼NE¼ sec.19, T.5 S., R.24 E., San Bernardino meridian, Riverside County, at canal intake structure on west side of Palo Verde Diversion Dam, 10 miles northeast of Blythe, and 44 miles downstream from Headgate Rock Dam.

PERIOD OF RECORD.--January 1922 to December 1923, January 1925 to current year (prior to October 1950, monthly discharge only).

GAGE.--Recording gages above and below intakes to record head. Since May 18, 1964, recorder to show gate openings. Datum of gage is: Forebay gage, at mean sea level; tailrace gage, 274.13 ft above mean sea level. Aug. 7, 1950, to Nov. 30, 1952, water-stage recorder on tailrace and auxiliary recorder 0.5 mile downstream and Dec. 1, 1952, to Oct. 28, 1957, recording gage above and below former intake structure 0.2 mile upstream, at different datums.

AVERAGE DISCHARGE.--21 years (1950-71), 1,191 cfs (862,900 acre-ft per year).

EXTREMES.--1950 to current year: Maximum daily discharge, 2,180 cfs Aug. 7, 1962; no flow at times in several years.

REMARKS.--Records excellent except those below 300 cfs, which are good. Daily diversions computed on basis of head on intake gates and gate openings. Records published herein represent flow diverted from Colorado River during the 1970 calendar year for irrigation of 91,506 acres. Return flows to Colorado River are measured by 11 wasteways and drains extending throughout the project; 4 of these are equipped with water-stage recorder and Parshall flume, 3 are equipped with Sparling flowmeters. Return flows have not been subtracted; combined monthly return flows are given in table below. Check measurements of return flows are made about once a month by the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1213: 1946-48.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,110	912	894	1,110	878	1,140	1,450	1,590	1,520	1,720	1,820	1,340
2	1,080	816	784	813	941	1,150	1,410	1,480	1,280	1,780	1,900	1,340
3	1,070	865	740	0	958	1,270	1,310	1,580	1,320	1,790	1,850	1,470
4	973	891	731	0	942	1,270	1,160	1,700	1,300	1,700	1,720	1,460
5	1,110	957	729	0	968	1,220	1,430	1,360	1,330	1,800	1,740	1,370
6	1,150	979	647	0	1,030	1,120	1,470	1,700	1,240	1,830	1,640	1,400
7	1,090	927	786	0	950	1,080	1,530	1,720	1,360	1,860	1,570	1,430
8	1,010	935	792	0	1,120	1,060	1,510	1,630	1,440	1,940	1,530	1,440
9	1,010	998	828	0	1,140	994	1,530	1,490	1,470	1,940	1,750	1,510
10	940	1,050	825	0	1,180	962	1,460	1,560	1,480	2,050	1,760	1,590
11	908	1,070	792	0	1,280	1,010	1,350	1,580	1,500	1,970	1,630	1,590
12	967	1,160	781	0	1,350	992	1,430	1,700	1,370	1,950	1,670	1,540
13	1,040	1,170	694	0	1,360	957	1,490	1,690	1,270	1,920	1,600	1,560
14	1,070	1,150	779	0	1,240	889	1,430	1,630	1,400	1,880	1,470	1,640
15	1,140	1,020	690	0	1,340	1,020	1,510	1,490	1,460	2,010	1,360	1,560
16	1,060	985	789	619	1,250	1,070	1,620	1,370	1,660	2,000	1,510	1,640
17	916	967	798	845	1,290	1,270	1,530	1,640	1,690	1,920	1,500	1,620
18	756	1,020	740	1,320	1,280	1,340	1,370	1,640	1,680	1,780	1,630	1,470
19	815	1,050	746	1,490	1,070	1,440	1,400	1,560	1,720	1,750	1,590	1,330
20	843	991	678	1,480	982	1,380	1,380	1,450	1,680	1,780	1,010	1,410
21	849	857	853	1,390	845	1,300	1,590	1,340	1,680	1,870	975	1,410
22	793	774	915	1,380	1,080	1,400	1,660	1,240	1,640	1,910	770	1,410
23	788	873	827	1,200	1,120	1,360	1,700	1,060	1,710	1,930	738	1,350
24	916	836	536	1,060	1,200	1,380	1,790	1,370	1,720	1,860	707	1,280
25	934	722	330	1,110	1,110	1,410	1,680	1,460	1,750	1,860	785	1,190
26	975	661	436	1,060	1,090	1,480	1,580	1,550	1,720	1,930	984	1,150
27	1,100	795	417	1,020	1,060	1,460	1,560	1,560	1,500	2,030	1,040	1,200
28	1,170	772	702	983	990	1,350	1,610	1,590	1,490	1,940	1,120	1,150
29	1,090	783	1,010	997	-----	1,380	1,620	1,490	1,580	1,900	1,220	946
30	961	928	1,180	953	-----	1,360	1,610	1,430	1,700	1,900	1,400	627
31	1,000	-----	1,190	786	-----	1,400	-----	1,580	-----	1,900	1,370	-----
TOTAL	30,634	27,914	23,639	19,616	31,044	37,914	45,170	47,230	45,660	58,400	43,359	41,423
MEAN	988	930	763	633	1,109	1,223	1,506	1,524	1,522	1,884	1,399	1,381
MAX	1,170	1,170	1,190	1,490	1,360	1,480	1,790	1,720	1,750	2,050	1,900	1,640
MIN	756	661	330	0	845	889	1,160	1,060	1,240	1,700	707	627
AC-FT	60,760	55,370	46,890	38,910	61,580	75,200	89,590	93,680	90,570	115,800	86,000	82,160
(a)	40,380	35,480	34,680	30,160	30,860	36,360	37,320	41,690	36,480	39,190	41,800	39,500

CAL YR 1970 TOTAL 438,823.00 MEAN 1,202 MAX 1,880 MIN 0 AC-FT 870,400 a 460,300  
WTR YR 1971 TOTAL 452,003.00 MEAN 1,238 MAX 2,050 MIN 0 AC-FT 896,500 a 443,900

a Return flows, in acre-feet, to Colorado River.

## 09429010 COLORADO RIVER AT PALO VERDE DAM, ARIZ.-CALIF.

LOCATION.--Lat 33°43'55", long 114°30'40", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.19, T.5 S., R.24 E., San Bernardino meridian, in California, Riverside County, on west side of Palo Verde Diversion Dam, 10 miles northeast of Blythe, Calif., and 44 miles downstream from Headgate Rock Dam.

DRAINAGE AREA.--182,200 sq mi, approximately.

PERIOD OF RECORD.--April 1969 to current year. If records (available in files of Tucson district office) for Colorado River Indian Reservation drains entering below Palo Verde Dam are added to records for this station, records equivalent to those published 1956-69 as Colorado River below Palo Verde Dam can be obtained.

GAGE.--Water-stage recorders above and below dam to record head and water-stage recorder to record gate opening. Datum of gages is at mean sea level.

EXTREMES.--Maximum daily discharge, 12,300 cfs July 24; minimum daily, 2,190 cfs Dec. 23.

Period of record: Maximum daily discharge, 13,200 cfs Apr. 8, 1970; minimum daily, 1,360 cfs Nov. 19, 20, 1969.

REMARKS.--Records excellent. Record does not include diversion to Palo Verde Canal. (See elsewhere in this report.) Many diversions above station for irrigation, municipal, and industrial uses. Flow regulated by Lake Mead, Lake Mohave, and Lake Havasu.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,600	4,930	3,190	2,620	6,730	9,040	10,700	8,240	9,000	9,380	10,000	5,830
2	7,270	4,700	3,270	4,440	6,170	8,660	10,200	8,040	8,330	9,000	10,700	5,760
3	7,550	4,760	4,290	5,300	6,630	8,420	11,200	8,000	7,580	10,600	10,200	5,860
4	7,930	4,390	3,910	5,010	6,170	8,780	10,800	7,460	6,590	11,200	9,070	6,330
5	6,950	3,820	3,680	5,460	5,840	8,320	10,400	7,230	8,260	11,100	8,510	7,860
6	7,570	3,350	4,400	6,150	6,850	9,520	11,200	6,690	8,430	11,200	8,570	7,970
7	6,270	3,670	4,800	6,090	7,230	9,460	10,100	6,260	8,760	10,500	8,930	7,860
8	5,810	4,360	4,870	5,680	7,410	9,650	9,640	8,120	8,760	10,400	10,700	8,220
9	5,560	4,270	4,880	4,880	6,990	9,630	8,530	8,760	8,560	9,670	11,400	8,130
10	5,410	4,810	4,850	4,530	6,910	9,190	10,500	8,800	8,230	11,700	10,600	6,580
11	6,300	4,620	4,220	4,170	6,790	8,800	11,000	9,000	8,250	11,500	11,200	7,340
12	6,970	4,330	4,880	4,060	6,350	8,390	11,100	7,660	9,470	11,500	9,040	7,850
13	6,060	3,210	5,660	4,000	7,050	9,920	10,800	6,670	9,710	10,800	8,360	7,360
14	5,300	3,710	6,050	3,830	7,300	10,500	10,500	6,290	9,560	10,500	7,980	6,710
15	5,560	3,940	6,140	4,340	7,340	10,400	8,500	8,420	9,590	10,000	7,990	5,960
16	5,730	4,500	5,640	4,480	7,540	10,200	7,330	8,840	9,090	9,960	7,530	5,950
17	6,340	5,530	5,120	4,240	7,100	9,920	8,990	8,690	7,880	10,500	8,090	5,600
18	6,620	5,250	3,260	4,360	6,300	9,800	7,880	8,730	7,460	9,790	9,310	6,940
19	6,350	4,770	4,400	5,000	5,650	9,190	7,450	8,390	9,010	10,600	10,300	7,200
20	5,200	3,760	4,910	5,140	5,480	9,880	8,620	7,660	10,200	9,690	11,600	7,630
21	5,090	5,130	4,650	4,930	5,720	10,300	8,110	6,710	9,790	9,900	7,350	8,480
22	4,710	4,990	3,050	3,860	6,320	10,300	7,280	7,870	10,600	10,300	7,580	8,060
23	4,310	4,120	2,190	4,870	7,470	10,700	9,520	8,720	9,030	10,200	6,730	7,720
24	5,830	3,320	3,490	4,800	5,810	8,810	10,900	7,990	10,000	12,300	6,590	6,460
25	5,950	2,740	3,680	5,030	5,380	8,840	10,400	7,250	10,600	11,900	5,650	7,340
26	6,450	2,660	4,440	5,050	5,540	7,720	10,000	6,840	10,600	11,500	7,910	7,490
27	5,720	2,560	4,820	4,920	6,740	9,320	9,610	6,470	10,600	11,200	7,170	7,700
28	5,530	2,290	4,620	5,110	7,370	10,400	8,920	6,580	10,500	10,500	8,140	7,350
29	4,940	2,350	3,930	4,570	-----	10,900	7,980	8,400	8,930	11,000	7,430	8,030
30	4,620	2,330	3,820	4,720	-----	11,200	7,530	9,330	9,060	10,100	6,300	4,480
31	5,280	-----	3,420	5,340	-----	11,600	-----	9,260	-----	10,800	5,750	-----
TOTAL	187,780	119,170	134,530	146,980	184,180	297,760	285,690	243,370	272,430	329,290	266,680	212,050
MEAN	6,057	3,972	4,340	4,741	6,578	9,605	9,523	7,851	9,081	10,620	8,603	7,068
MAX	8,600	5,530	6,140	6,150	7,540	11,600	11,200	9,330	10,600	12,300	11,600	8,480
MIN	4,310	2,290	2,190	2,620	5,380	7,720	7,280	6,260	6,590	9,000	5,650	4,480
AC-FT	372,500	236,400	266,800	291,500	365,300	590,600	566,700	482,700	540,400	653,100	529,000	420,600

CAL YR 1970 TOTAL 2,615,700 MEAN 7,166 MAX 13,200 MIN 1,450 AC-FT 5,188,000  
WTR YR 1971 TOTAL 2,679,910 MEAN 7,342 MAX 12,300 MIN 2,190 AC-FT 5,316,000

## COLORADO RIVER MAIN STEM

09429500 COLORADO RIVER AT IMPERIAL DAM, ARIZ.-CALIF.

LOCATION.--Forebay gage: Lat 32°53'29", long 114°27'57", in NW¼SW¼ sec.9, T.15 S., R.24 E., San Bernardino meridian, in California, Imperial County, near All-American Canal headworks at west end of Imperial Dam, 5 miles upstream from Laguna Dam, 15 miles northeast of Yuma, 90 miles downstream from Palo Verde Dam, and 147 miles downstream from Parker Dam.

DRAINAGE AREA.--184,600 sq mi, approximately.

PERIOD OF RECORD.--Flow of Colorado River passing Imperial Dam: October 1960 to current year. Flow of Colorado River reaching Imperial Dam: 1903-34 (yearly discharge only), July 1934 to current year (monthly discharge only since October 1942). Prior to October 1942 published as "near Picacho, Calif."

GAGE.--Water-stage recorder in forebay, 12 calibrated gates on California sluiceway, 8 calibrated gates on Gila sluiceway, and calibrated manometer on each discharge pipe from desilting basin. Datum of forebay gage is 162.00 ft above mean sea level (Bureau of Reclamation bench mark). July 1, 1934, to Sept. 30, 1942, water-stage recorder at site 14.5 miles upstream at datum 167.38 ft above mean sea level. Oct. 1, 1942, to Sept. 30, 1960, no gage on river at this site (see REMARKS).

AVERAGE DISCHARGE (flow reaching Imperial Dam).--37 years (1934-71), 11,500 cfs (8,332,000 acre-ft per year).

EXTREMES (flow reaching Imperial Dam).--1934 to current year: Maximum discharge, 40,800 cfs Sept. 5, 1939; minimum, 538 cfs Aug. 3, 1934; minimum daily since regulation of Hoover Dam began, 1,450 cfs Feb. 17, 1935.

REMARKS.--Records excellent above 500 cfs and good below. Records of daily discharge show flow of Colorado River passing Imperial Dam, and include water released to river through California and Gila sluiceways, sludge from desilting basins returned to river, and leakage through dam. Records of flow reaching Imperial Dam (given in monthly and yearly summaries below) are based on combined monthly total cfs-days of Colorado River at this station and at gaging stations on All-American Canal near Imperial Dam (sta 09523000) and Gila Gravity Main Canal at Imperial Dam (sta 09522500), and diversion to Mittry Lake (see table below). Records for October 1942 to September 1960 were computed as combined flow of Colorado River at Yuma (sta 09521000) and the All-American and Gila Gravity Main Canals, less flow of Gila River near Dome (drainage and waste return flows and channel losses between the gaging stations and Imperial Dam were neglected).

Flow of Colorado River regulated by many reservoirs, principally Lake Mead, since 1935. Many diversions from Colorado River and tributaries above station. Additional regulation, beginning Jan. 31, 1966, to equalize supplies for downstream water users, is provided by pumped storage in reservoir on Senator Wash, about 2 miles upstream from Imperial Dam. Monthend contents of Senator Wash Reservoir (capacity, 13,840 acre-ft) is given in table below.

COOPERATION.--Records of gate openings and contents of Senator Wash Reservoir and sparring meter readings of diversion to Mittry Lake furnished by Bureau of Reclamation. Records of sludge return flow from desilting basins furnished by Imperial Irrigation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255	242	240	233	233	233	323	223	233	333	333	233
2	255	242	233	355	233	233	323	223	233	333	333	233
3	255	329	240	334	233	233	323	223	314	333	421	233
4	597	232	240	233	233	333	323	393	508	333	421	233
5	255	232	233	233	233	333	671	233	223	333	511	233
6	255	232	233	233	233	333	323	233	223	333	333	233
7	255	232	233	233	333	333	323	233	223	507	333	233
8	255	232	233	233	233	333	323	233	223	333	333	411
9	255	232	233	233	287	682	323	233	223	333	333	411
10	255	232	233	233	369	333	323	233	223	333	333	421
11	255	232	233	555	369	333	323	233	223	333	601	253
12	250	340	233	233	290	333	323	233	223	333	510	253
13	243	440	233	233	233	333	323	233	223	601	510	253
14	764	393	233	233	332	333	323	381	223	333	759	432
15	453	392	233	233	233	333	412	233	223	333	542	253
16	243	390	233	233	233	592	679	233	223	510	333	253
17	243	389	233	233	491	323	591	333	417	333	333	253
18	243	284	233	233	233	323	446	233	323	333	333	253
19	243	232	233	233	233	323	323	233	323	333	333	253
20	243	232	233	233	233	323	480	415	323	333	333	253
21	243	232	233	233	333	323	323	398	323	333	333	253
22	243	232	233	233	333	323	323	307	323	333	1,970	253
23	243	232	233	233	333	497	323	233	323	333	1,220	253
24	243	232	233	233	333	323	323	233	501	333	333	342
25	243	232	233	233	333	323	323	398	323	333	333	253
26	243	536	233	233	333	323	323	233	385	333	233	253
27	535	240	233	233	333	323	323	233	795	511	233	253
28	540	240	233	233	233	323	323	233	323	333	233	253
29	243	240	233	233	-----	323	567	233	323	333	233	1,470
30	243	240	409	233	-----	323	323	233	323	333	233	1,780
31	243	-----	233	233	-----	323	-----	333	-----	333	233	-----
TOTAL	9,334	8,417	7,510	7,768	8,065	10,656	11,275	8,287	9,372	11,120	13,858	10,946
MEAN	301	281	242	251	288	344	376	267	312	359	447	365
MAX	764	536	409	555	491	683	679	415	795	601	1,970	1,780
MIN	243	232	233	233	233	233	323	223	223	333	233	233
AC-FT	18,510	16,700	14,900	15,410	16,000	21,140	22,360	16,440	18,590	22,060	27,490	21,710
(a)	6,883	5,028	5,130	5,281	7,042	9,949	10,540	8,524	9,725	10,990	9,757	7,937
(b)	423,200	299,200	315,400	324,700	391,100	611,700	627,100	524,100	578,700	675,700	599,900	472,300
(c)	7,080	9,260	5,860	4,890	6,480	4,880	5,420	6,580	6,600	5,190	10,140	11,300
(d)	0	376	497	539	497	490	42	539	535	596	610	620

CAL YR 1970 TOTAL 120,776 MEAN 331 MAX 5,040 MIN 61 AC-FT 239,600 a 7,881 b 5,706,000  
WTR YR 1971 TOTAL 116,608 MEAN 319 MAX 1,970 MIN 223 AC-FT 231,300 a 8,071 b 5,843,000

a Mean flow reaching Imperial Dam, in cubic feet per second (combined monthly flow of Colorado River, All-American Canal near Imperial Dam, and Gila Gravity Main Canal at Imperial Dam).

b Flow reaching Imperial Dam, in acre-feet.

c Senator Wash Reservoir contents, in acre-feet, at end of month.

d Diversion, in acre-feet, to Mittry Lake.

## 09521100 COLORADO RIVER BELOW YUMA MAIN CANAL WASTEWAY, AT YUMA, ARIZ.

LOCATION.--Lat 32°43'54", long 114°37'55", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.26, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, on right bank 1,000 ft downstream from Yuma Main Canal wasteway, 0.6 mile downstream from former gaging station on Colorado River at Yuma, 1.1 miles northwest of Post Office in Yuma, 5.2 miles downstream from Gila River, and 6.4 miles upstream from northerly international boundary.

DRAINAGE AREA.--242,900 sq mi, approximately, including all closed basins entirely within the drainage boundary.

PERIOD OF RECORD.--October 1963 to current year. If records for Yuma Main Canal wasteway at Yuma (sta 09525000) and Reservation Main Drain No. 4 (sta 09530000) are subtracted from records at this station, records equivalent to those published 1902-64 as "Colorado River at Yuma" (sta 09521000) can be obtained.

GAGE.--Water-stage recorder. Datum of gage is 101.99 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 870 cfs (630,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,310 cfs Sept. 30 (gage height, 12.57 ft); minimum daily, 370 cfs June 14.

Period of record: Maximum discharge, 5,040 cfs Mar. 3, 1970 (gage height, 15.05 ft); minimum daily, 260 cfs Jan. 17, 1970.

Maximum gage height since at least 1878, 34.0 ft Jan. 22, 1916 (discharge, 250,000 cfs), at former gaging station at Yuma.

REMARKS.--Records excellent. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, municipal, and industrial uses, and return flows from irrigated areas.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	599	614	671	505	708	570	995	1,120	1,460	499	634	1,350
2	578	617	674	520	697	530	890	1,170	1,280	603	648	1,270
3	581	625	649	510	722	524	611	1,100	1,330	880	643	1,230
4	577	625	639	505	1,090	564	583	1,120	1,270	815	657	1,230
5	591	648	633	505	1,320	646	675	1,100	495	594	675	1,230
6	604	680	625	839	1,380	641	922	1,140	513	576	710	1,220
7	599	689	655	629	1,370	637	945	1,110	499	576	725	1,210
8	628	681	936	545	1,380	633	880	1,140	482	594	750	1,230
9	616	700	1,180	618	1,400	645	638	1,100	486	571	730	1,250
10	610	717	496	1,500	1,440	631	655	1,080	504	562	666	1,230
11	604	717	485	1,050	1,400	649	690	1,120	490	576	639	1,210
12	619	694	510	755	1,250	629	627	1,130	466	576	657	1,110
13	593	694	503	749	520	644	574	1,120	386	576	695	932
14	622	693	489	755	510	647	585	1,110	370	634	715	962
15	627	729	489	749	585	641	598	1,110	410	666	720	936
16	627	674	495	719	515	675	602	1,090	462	648	625	565
17	595	671	490	731	495	769	683	1,100	504	670	730	534
18	608	624	491	719	476	744	713	1,080	562	670	840	506
19	619	661	503	707	495	714	746	1,050	634	661	780	505
20	631	666	504	695	505	719	836	1,020	607	634	670	526
21	595	699	500	690	668	677	687	1,080	571	643	720	533
22	616	707	509	707	783	650	719	1,050	558	630	720	501
23	620	705	497	695	719	638	675	1,040	558	630	1,470	499
24	615	723	498	695	640	668	605	1,030	562	639	845	489
25	605	703	514	701	651	682	605	1,080	504	621	770	515
26	605	742	505	701	684	684	590	1,100	470	612	995	506
27	631	736	507	707	662	693	592	1,110	482	607	815	530
28	620	697	514	713	657	839	578	1,090	478	625	567	563
29	601	692	520	679	-----	1,010	669	1,090	446	612	535	647
30	598	715	516	701	-----	970	1,600	1,040	495	625	607	1,830
31	597	-----	505	701	-----	978	-----	1,110	-----	639	1,310	-----
TOTAL	18,831	20,538	17,702	21,995	23,722	21,341	21,768	33,930	18,334	19,464	23,263	26,849
MEAN	607	685	571	710	847	688	726	1,095	611	628	750	895
MAX	631	742	1,180	1,500	1,440	1,010	1,600	1,170	1,460	880	1,470	1,830
MIN	577	614	485	505	476	524	574	1,020	370	499	535	489
AC-FT	37,350	40,740	35,110	43,630	47,050	42,330	43,180	67,300	36,370	38,610	46,140	53,250
CAL YR 1970	TOTAL 260,024		MEAN 712	MAX 4,630	MIN 260	AC-FT 515,800						
WTR YR 1971	TOTAL 267,737		MEAN 734	MAX 1,830	MIN 370	AC-FT 531,100						

## COLORADO RIVER MAIN STEM

09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY  
ABOVE MORELOS DAM, NEAR ANDRADE, CALIF.

LOCATION.--Lat 32°43'07", long 114°43'05", in NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.21, T.8 S., R.24 W., Gila and Salt River meridian, in Arizona, Yuma County, on left bank at northerly international boundary, 0.5 mile east of Andrade, 1.1 miles upstream from Morelos Dam, 1.1 miles downstream from Rockwood Gate, and 6.4 miles downstream from gaging station on Colorado River below Yuma Main Canal wasteway.

DRAINAGE AREA.--243,000 sq mi, approximately, including all closed basins entirely within the drainage boundary.

PERIOD OF RECORD.--January 1950 to current year. Prior to October 1958, published as "at international boundary."

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Supplementary water-stage recorder 1,680 ft upstream at same datum.

EXTREMES.--Current year: Maximum discharge, 3,430 cfs Apr. 10; maximum elevation, 107.05 ft Sept. 30; minimum discharge, 520 cfs Sept. 25; minimum elevation, 101.82 ft Sept. 18.

Period of record: Maximum discharge, 25,390 cfs Jan. 1, 1953; maximum elevation, 114.24 ft Jan. 28, 1958; minimum discharge, 495 cfs Sept. 28, 1970; minimum elevation, 101.82 ft Sept. 18, 1971.

REMARKS.--This record shows water passing northerly international boundary. Minor diversions to the United States below this station from river and by pumping from ground water for irrigation in the floodway between river and Yuma levee.

COOPERATION.--Records furnished by International Boundary and Water Commission, U.S. Section (monthly summary figures rounded in accordance with Geological Survey standard practice).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	697	700	720	2,030	740	2,320	3,320	1,200	1,500	2,660	2,880	1,500
2	690	700	720	1,760	720	2,620	3,340	1,180	1,460	2,660	2,900	1,520
3	690	690	720	1,740	700	2,890	3,320	1,140	1,440	2,650	2,920	1,500
4	690	680	710	2,030	1,080	2,960	3,300	1,140	1,480	2,670	2,980	1,490
5	700	680	700	2,370	1,340	2,960	3,310	1,140	1,760	2,640	2,950	1,500
6	700	710	710	2,370	1,380	2,980	3,320	1,190	1,710	2,660	2,900	1,500
7	700	720	722	2,130	1,400	2,960	3,360	1,190	1,710	2,680	2,890	1,490
8	700	710	1,030	2,070	1,410	2,960	3,340	1,200	1,730	2,670	2,920	1,500
9	710	700	1,340	1,830	1,410	2,950	3,310	1,180	1,730	2,660	2,940	1,520
10	710	710	1,690	1,470	1,440	2,960	3,340	1,160	1,740	2,670	2,900	1,500
11	700	730	2,030	1,100	1,470	2,960	3,340	1,160	1,740	2,670	2,820	1,500
12	720	720	2,170	728	1,430	2,960	3,320	1,180	1,770	2,950	2,800	1,400
13	690	720	2,160	710	1,740	2,980	3,320	1,170	1,730	2,890	2,840	1,170
14	710	700	2,060	750	1,730	2,920	3,340	1,170	1,750	2,920	2,840	1,180
15	730	761	2,060	740	1,730	3,250	3,340	1,170	1,730	2,920	2,840	1,190
16	710	700	2,110	730	1,770	3,280	3,090	1,170	2,060	2,920	2,800	690
17	680	690	2,110	740	1,840	3,260	2,880	1,180	2,110	2,920	2,800	618
18	690	640	2,110	730	1,880	3,280	2,890	1,180	2,110	2,940	2,760	567
19	690	680	2,080	730	1,880	3,280	2,860	1,140	2,380	2,950	2,640	567
20	710	670	2,050	700	1,880	3,300	2,840	1,130	2,390	2,960	2,700	596
21	680	710	2,080	710	1,980	3,260	2,860	1,170	2,450	2,960	2,740	605
22	690	700	2,100	720	2,000	3,260	2,740	1,170	2,540	2,960	2,710	576
23	690	720	2,080	730	2,040	3,260	2,520	1,170	2,570	3,010	2,590	576
24	700	740	2,080	730	2,020	3,280	2,480	1,180	2,590	2,980	2,510	567
25	690	730	2,100	730	2,000	3,300	2,480	1,190	2,610	2,960	2,470	573
26	690	750	2,100	730	1,990	3,310	2,500	1,190	2,610	3,010	2,490	576
27	720	770	2,080	730	2,000	3,300	2,520	1,200	2,610	3,010	2,470	586
28	720	720	2,080	740	2,060	3,280	2,220	1,200	2,590	3,060	2,210	643
29	690	720	2,100	720	-----	3,280	1,940	1,220	2,590	3,060	1,880	732
30	690	730	2,110	720	-----	3,280	1,570	1,180	2,610	3,080	1,810	1,600
31	680	-----	2,120	740	-----	3,250	-----	1,190	-----	3,070	1,510	-----
TOTAL	21,657	21,301	53,032	35,458	45,060	96,090	88,310	36,430	61,800	88,820	82,410	31,532
MEAN	699	710	1,711	1,144	1,609	3,100	2,944	1,175	2,060	2,865	2,658	1,051
MAX	730	770	2,170	2,370	2,060	3,310	3,360	1,220	2,610	3,080	2,980	1,600
MIN	680	640	700	700	700	2,320	1,570	1,130	1,440	2,640	1,510	567
AC-FT	42,960	42,250	105,200	70,330	89,380	190,600	175,200	72,260	122,600	176,200	163,500	62,540

CAL YR 1970 TOTAL 661,834 MEAN 1,813 MAX 6,050 MIN 573 AC-FT 1,313,000  
WTR YR 1971 TOTAL 661,900 MEAN 1,813 MAX 3,360 MIN 567 AC-FT 1,313,000

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

27

09522500 GILA GRAVITY MAIN CANAL AT IMPERIAL DAM, ARIZ.-CALIF.

LOCATION.--Lat 32°52'34" (corrected), long 114°27'18", in SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.30, T.6 S., R.21 W., Gila and Salt River meridian, in Arizona, Yuma County, on right bank 3,200 ft downstream from intake at east end of Imperial Dam.

PERIOD OF RECORD.--August 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 160.00 ft above mean sea level.

AVERAGE DISCHARGE.--12 years (1959-71), 1,206 cfs (873,700 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 2,240 cfs May 25, 1965; no flow at canal intake at times in several years when intake gates were closed.

REMARKS.--Records excellent except those below 100 cfs, which are fair. Gila Gravity Main Canal diverts water from Colorado River at left end of Imperial Dam for irrigation of lands on Gila Project in Arizona. Diversion to this canal began Aug. 17, 1943. Diversion to North Gila Valley from this canal began Dec. 16, 1954. During the 1970 calendar year, water was used for irrigation of 97,354 acres divided as follows: North and South Gila Valleys, 16,190 acres; Yuma Mesa Division, 17,212 acres; Wellton-Mohawk Division, 60,756 acres; Yuma Mesa Auxiliary Division, 3,196 acres. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

CAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,570	426	0	376	801	921	1,840	1,280	1,990	2,040	1,980	2,100
2	1,440	983	0	332	898	1,300	1,810	1,170	1,790	2,070	2,090	2,110
3	1,040	1,090	0	487	982	1,300	1,340	1,880	1,750	1,790	2,050	1,950
4	814	567	144	999	1,090	1,060	1,310	1,930	1,700	1,520	2,080	1,610
5	1,270	929	957	1,120	940	866	1,690	1,980	1,300	1,850	2,020	1,380
6	1,310	817	656	1,030	785	710	1,770	2,030	1,140	2,110	2,070	1,780
7	1,350	594	839	938	696	708	1,880	1,690	1,650	2,070	1,920	1,830
8	1,350	471	950	895	1,180	1,070	1,700	1,350	1,610	2,080	1,620	1,920
9	961	559	1,020	587	1,230	1,180	1,600	891	1,720	2,120	1,890	1,930
10	831	576	1,070	354	1,420	1,240	1,070	1,580	1,740	1,920	2,050	1,900
11	672	1,090	915	702	1,240	1,270	868	1,780	1,740	1,540	2,060	1,920
12	1,170	855	528	675	1,190	1,070	1,750	1,870	1,350	2,000	2,080	1,560
13	1,290	777	474	846	991	984	1,840	1,900	1,200	2,080	1,900	1,810
14	1,320	693	951	741	753	811	2,010	1,700	1,740	2,090	1,770	1,890
15	1,430	489	969	577	1,330	1,280	1,710	1,270	1,870	2,120	1,480	1,920
16	1,300	1,090	999	379	1,540	1,530	1,360	965	1,970	2,090	1,820	1,990
17	938	1,220	956	355	1,500	1,520	1,110	1,640	1,760	1,840	1,890	2,040
18	790	1,340	886	664	1,530	1,610	755	1,900	1,840	1,530	1,970	1,820
19	1,060	1,370	633	738	1,050	1,240	1,610	1,870	1,580	1,840	1,880	1,470
20	1,360	1,250	495	669	737	1,030	1,820	1,810	1,130	1,880	1,510	1,620
21	1,410	833	990	664	671	1,170	1,710	1,610	1,520	1,870	1,240	1,600
22	1,320	1,140	1,020	755	951	1,470	1,750	1,300	1,560	1,800	724	1,760
23	1,060	1,650	813	509	1,300	1,570	1,550	1,070	1,800	1,910	1,370	1,750
24	626	1,510	229	556	1,100	1,600	1,290	1,600	1,860	1,700	1,500	1,460
25	532	894	71	902	1,030	1,290	1,240	1,710	1,950	1,630	1,520	1,170
26	982	57	185	1,010	970	1,460	1,780	1,880	1,640	2,060	1,610	1,050
27	1,120	3.7	228	999	993	1,320	1,880	1,800	1,530	2,000	1,720	1,330
28	1,010	0	892	904	731	1,160	1,910	1,830	1,990	2,000	1,380	1,530
29	815	0	1,010	818	-----	1,580	1,820	1,500	2,100	1,990	1,160	1,030
30	609	0	747	650	-----	1,830	1,580	1,080	2,020	2,060	1,820	405
31	358	-----	490	608	-----	1,870	-----	1,810	-----	1,870	1,960	-----
TOTAL	33,148	24,473.7	20,117	21,839	29,629	39,020	47,353	49,676	50,540	59,470	54,134	49,635
MEAN	1,069	816	649	704	1,058	1,259	1,578	1,602	1,685	1,918	1,746	1,655
MAX	1,570	1,650	1,070	1,120	1,540	1,870	2,010	2,030	2,100	2,120	2,090	2,110
MIN	398	0	0	332	671	708	755	891	1,130	1,520	724	405
AC-FT	65,750	48,540	39,900	43,320	58,770	77,400	93,920	98,530	100,200	118,000	107,400	98,450
CAL YR 1970	TOTAL	462,758.7	MEAN	1,268	MAX	2,130	MIN	0	AC-FT	917,900		
WTR YR 1971	TOTAL	479,034.7	MEAN	1,312	MAX	2,120	MIN	0	AC-FT	950,200		



## DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

## 09523000 ALL-AMERICAN CANAL NEAR IMPERIAL DAM, ARIZ.-CALIF.

LOCATION.--Lat 32°52'17", long 114°28'47", in SE¼NW¼ sec.17, T.15 S., R.24 E., San Bernardino meridian, in California, Imperial County, on left bank 6,000 ft downstream from intake at west end of Imperial Dam and 13.7 miles upstream from turnout to Yuma Main Canal.

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1939 monthly discharge only, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft above mean sea level (subject to undetermined changes caused by earthquake of May 18, 1940). Since Aug. 21, 1952, auxiliary water-stage recorder 18.5 miles downstream from base gage.

AVERAGE DISCHARGE.--30 years (1941-71), 6,989 cfs (5,064,000 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 13,500 cfs Apr. 16, 1938; no flow at times.

REMARKS.--Records excellent. All-American Canal diverts water from Colorado River at Imperial Dam. Water is used for power development and for irrigation in Yuma, Coachella, and Imperial Valleys. Water can be released back to the river through Pilot Knob powerplant and wasteway for power, regulatory purposes, or for downstream use in Mexico. First diversion to All-American Canal began October 1938, but prior to October 1940 was used only for priming canal.

COOPERATION.--Gage-height record furnished by Imperial Irrigation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,520	4,410	3,450	3,550	4,780	6,430	9,220	7,230	6,880	8,000	8,540	5,570
2	6,540	4,480	3,380	3,330	4,860	7,100	9,420	6,740	6,990	7,910	8,460	5,290
3	6,610	4,240	3,440	3,700	5,140	7,880	9,370	6,630	7,030	8,060	8,420	5,340
4	6,290	4,190	3,600	4,450	5,850	8,150	9,000	6,610	6,270	7,900	8,210	5,520
5	6,280	4,510	3,540	5,270	5,870	7,670	9,100	6,600	6,840	8,280	8,370	5,350
6	6,180	4,380	3,310	5,150	5,900	7,600	9,070	6,610	6,230	8,570	7,910	5,640
7	6,240	4,350	3,340	5,330	5,730	7,590	9,100	6,560	6,580	8,570	8,170	5,760
8	6,360	4,110	3,800	5,440	5,670	7,630	9,470	6,490	7,140	8,700	8,170	6,110
9	5,790	4,250	4,250	5,340	5,600	7,770	9,360	6,240	7,590	8,300	8,030	6,170
10	5,700	4,140	4,840	4,320	5,780	8,170	8,770	6,230	8,070	8,530	8,260	6,220
11	5,560	4,250	5,070	4,140	6,010	8,490	8,390	6,670	7,540	8,400	8,240	6,140
12	5,490	4,310	5,160	4,040	5,550	8,560	9,030	6,730	7,420	8,780	8,400	5,730
13	5,610	3,920	4,910	3,770	5,980	8,690	9,170	7,040	7,570	8,890	8,170	5,960
14	5,530	3,850	5,200	3,930	5,420	8,020	9,520	6,380	7,640	8,970	7,760	6,230
15	5,410	3,610	5,270	3,750	5,680	8,310	9,270	6,550	7,720	9,240	6,940	6,190
16	5,250	3,690	5,300	3,450	5,680	8,480	8,710	6,380	7,860	8,810	7,160	5,710
17	5,290	3,580	5,390	3,420	6,320	8,430	8,220	7,020	7,880	8,770	7,280	5,220
18	5,160	3,890	5,250	3,460	6,480	9,190	7,290	7,040	7,580	8,650	7,500	5,450
19	5,120	4,280	5,030	3,930	6,180	9,360	7,500	7,010	7,790	8,670	7,790	5,230
20	5,280	4,150	4,440	4,260	5,980	9,160	7,190	7,070	7,700	8,410	7,790	5,540
21	5,140	3,930	4,250	4,390	5,460	8,830	7,440	6,730	7,870	8,700	7,940	6,010
22	4,780	3,630	4,040	4,610	5,240	8,640	8,110	6,360	8,120	9,060	7,820	6,330
23	4,870	3,530	4,190	4,660	5,250	8,880	7,750	6,150	8,520	9,060	7,030	6,500
24	5,040	3,680	3,190	4,310	5,800	9,130	8,220	6,320	8,960	9,050	6,970	6,520
25	5,010	3,620	3,030	4,200	6,220	9,330	8,260	6,590	9,060	8,830	6,740	6,540
26	5,130	3,530	4,000	4,400	5,760	8,500	8,360	6,760	8,840	8,870	6,450	6,470
27	4,940	3,300	4,050	4,560	5,610	8,360	8,710	7,040	8,630	8,990	6,120	6,490
28	5,210	3,210	3,960	4,790	5,420	7,970	8,400	6,670	8,580	9,130	6,850	6,420
29	5,170	3,230	4,150	4,500	-----	8,360	8,320	6,610	8,420	9,300	6,390	5,830
30	4,760	3,480	4,330	4,680	-----	8,900	7,780	6,290	8,260	9,200	6,250	5,750
31	4,630	-----	3,980	4,700	-----	8,910	-----	6,660	-----	9,160	6,040	-----
TOTAL	170,890	117,730	131,140	133,830	159,220	258,490	257,520	206,010	231,580	269,760	234,170	177,230
MEAN	5,513	3,924	4,230	4,317	5,686	8,338	8,584	6,645	7,719	8,702	7,554	5,908
MAX	6,610	4,510	5,390	5,440	6,480	9,360	9,520	7,230	9,060	9,300	8,540	6,540
MIN	4,630	3,210	3,030	3,330	4,780	6,430	7,190	6,150	6,230	7,900	6,040	5,220
AC-FT	339,000	233,500	260,100	265,500	315,800	512,700	510,800	408,600	459,300	535,100	464,500	351,500
CAL YR 1970	TOTAL 2,291,890		MEAN 6,279		MAX 10,500		MIN 2,490		AC-FT 4,546,000			
WTR YR 1971	TOTAL 2,347,570		MEAN 6,432		MAX 9,520		MIN 3,030		AC-FT 4,656,000			

## 09527000 PILOT KNOB POWERPLANT AND WASTEWAY NEAR PILOT KNOB, CALIF.

LOCATION.--Lat 32°44'15", long 114°42'56", in NW¼SW¼ sec.25, T.16 S., R.21 E., San Bernardino meridian, Imperial County, 2 miles east of summit of Pilot Knob, 6 miles west of Yuma, Ariz., and 20.8 miles downstream from intake of All-American Canal at Imperial Dam.

PERIOD OF RECORD.--February 1939 to current year. Prior to October 1943 monthly discharge only, published in WSP 1313. Prior to October 1956, published as Pilot Knob wasteway near Pilot Knob.

GAGE.--Totalizing flowmeter on each turbine. In addition water-stage recorder in forebay on right bank of All-American Canal (also used as auxiliary gage for sta 09527500); tailrace gage with remote recorder logged hourly in control house; calibrated wicket gates for turbine flow and calibrated bypass gates for wasteway flow which are logged for each change. Datum of forebay nonrecording gage is 150.00 ft; that of tailrace nonrecording gage is 0.00 ft; elevation of sill of bypass gates is 147.88 ft above mean sea level.

EXTREMES.--Period of record: Maximum daily discharge, 8,350 cfs Jan. 26, 1958; no flow for long periods.

REMARKS.--Records excellent. Daily discharge computed from flowmeter equipment or from head and gate openings on wicket gates. Records show water released through Pilot Knob powerplant and wasteway from All-American Canal and returned to Colorado River through Rockwood gates. Pilot Knob wasteway completed in summer of 1938 and first flow occurred Feb. 5, 1939. Pilot Knob powerplant was completed in January 1957 and first flow occurred Jan. 14, 1957. See table below for monthly return flow by Pilot Knob wasteway only.

COOPERATION.--Midnight readings of flowmeter, recorder graph of forebay, and record of tailrace elevation and gate openings furnished by Imperial Irrigation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	1,300	0	1,440	2,350		0	1,840	1,910	0
2			0	1,070	0	1,810	2,350		0	1,800	1,940	0
3			0	1,080	0	2,090	2,350		0	1,460	1,950	0
4			0	1,350	0	2,120	2,360		0	1,520	2,000	0
5			0	1,670	0	2,010	2,400		1,090	1,750	1,940	0
6			0	1,360	0	2,040	2,370		1,030	1,800	1,870	0
7			0	1,280	0	2,010	2,380		1,000	1,800	1,880	0
8			0	1,330	0	2,040	2,360		1,020	1,780	1,840	0
9			33	1,100	0	2,020	2,340		1,040	1,800	1,880	0
10			1,050	0	0	2,030	2,310		1,040	1,800	1,930	0
11			1,380	0	0	2,030	2,260		1,040	1,800	1,870	0
12			1,450	0	36	2,050	2,320		1,000	2,030	1,830	0
13			1,460	0	1,030	2,020	2,360		1,050	2,080	1,830	0
14			1,380	0	1,010	1,960	2,380		1,100	2,060	1,820	0
15			1,400	0	961	2,310	2,390		1,030	2,000	1,780	0
16			1,440	0	1,080	2,330	2,110		1,260	2,040	1,850	0
17			1,440	0	1,150	2,200	1,910		1,270	2,080	1,760	0
18			1,430	0	1,150	2,260	1,850		1,270	2,110	1,620	0
19			1,400	0	1,130	2,260	1,800		1,440	2,080	1,600	0
20			1,340	0	1,090	2,270	1,730		1,450	2,070	1,820	0
21			1,400	0	1,180	2,260	1,890		1,680	2,070	1,840	0
22			1,400	0	1,200	2,310	1,720		1,680	2,080	1,780	0
23			1,390	0	1,140	2,320	1,500		1,720	2,130	1,170	0
24			1,400	0	1,080	2,330	1,540		1,710	2,100	1,520	0
25			1,400	0	1,040	2,320	1,500		1,810	2,100	1,740	0
26			1,420	0	1,000	2,320	1,580		1,860	2,130	1,480	0
27			1,410	0	1,060	2,290	1,620		1,840	2,140	1,590	0
28			1,370	0	1,110	2,290	1,340		1,790	2,140	1,590	0
29			1,390	0	-----	2,270	1,130		1,840	2,160	1,290	0
30			1,400	0	-----	2,330	0		1,800	2,170	1,070	104
31		-----	1,410	0	-----	2,290	-----		-----	2,140	0	-----
TOTAL	0	0	30,593	11,540	17,447	66,630	58,500	0	35,860	61,060	51,990	104
MEAN	0	0	987	372	623	2,149	1,950	0	1,195	1,970	1,677	3.47
MAX	0	0	1,460	1,670	1,200	2,330	2,400	0	1,860	2,170	2,000	104
MIN	0	0	0	0	0	1,440	0	0	0	1,460	0	0
AC-FT	0	0	60,680	22,890	34,610	132,200	116,000	0	71,130	121,100	103,100	206

CAL YR 1970 TOTAL 347,891.00 MEAN 953 MAX 2,950 MIN 0 AC-FT 690,000 a 0  
WTR YR 1971 TOTAL 333,724.00 MEAN 914 MAX 2,400 MIN 0 AC-FT 661,900 a 0

a Return flow, in acre-feet, by Pilot Knob wasteway (included in daily discharge table).

## DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

09527500 ALL-AMERICAN CANAL BELOW PILOT KNOB WASTEWAY, CALIF.

LOCATION.--Lat 32°44'07", long 114°43'23", in NW¼SE¼ sec.26, T.16 S., R.21 E., San Bernardino meridian, Imperial County, on left bank 0.4 mile downstream from Pilot Knob wasteway, 6 miles west of Yuma, Ariz., 15 miles upstream from turnout to Coachella Canal, and 21.2 miles downstream from intake at Imperial Dam.

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

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft above mean sea level. Auxiliary water-stage recorder on right bank 0.4 mile upstream used to determine head on Pilot Knob check gates (also used as forebay gage for sta 09527000, Pilot Knob powerplant and wasteway). Datum of auxiliary gage is 150.00 ft above mean sea level.

AVERAGE DISCHARGE.--10 years, 4,651 cfs (3,367,000 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 7,220 cfs July 12, 1963; no flow Jan. 4, 1967.

REMARKS.--Records excellent. Water is used for power development at three sites below station, and for irrigation in Coachella and Imperial Valleys.

COOPERATION.--Gage-height record and log of gate operation furnished by Imperial Irrigation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,550	3,720	2,950	1,840	3,810	4,330	6,010	5,940	5,210	5,290	6,050	4,180
2	5,550	3,740	2,870	1,810	3,830	4,480	6,180	5,650	5,360	5,240	5,890	3,830
3	5,670	3,510	2,940	2,110	3,890	5,000	6,240	5,430	5,360	5,730	5,800	3,840
4	5,500	3,500	3,120	2,480	4,390	5,340	6,140	5,300	4,710	5,690	5,560	4,040
5	5,390	3,680	3,110	3,030	4,390	5,080	6,190	5,400	4,850	5,810	5,400	3,950
6	5,240	3,520	2,980	3,330	4,390	5,050	6,180	5,280	4,670	5,890	5,060	4,150
7	5,310	3,460	2,870	3,640	4,320	5,100	6,090	5,280	4,960	5,810	5,260	4,250
8	5,430	3,350	2,910	3,890	4,250	5,100	6,170	5,210	5,440	5,890	5,310	4,540
9	4,970	3,390	3,070	3,820	4,160	5,150	6,050	5,110	5,750	5,620	5,130	4,610
10	4,870	3,290	3,290	3,440	4,310	5,350	5,660	5,070	5,960	5,880	5,150	4,790
11	4,790	3,330	3,230	3,490	4,610	5,640	5,490	5,280	5,550	5,830	5,190	4,780
12	4,700	3,440	3,290	3,410	4,330	5,630	5,930	5,350	5,620	5,840	5,400	4,530
13	4,780	3,310	3,170	3,130	4,310	5,700	5,960	5,640	5,800	5,920	5,280	4,700
14	4,770	3,400	3,380	3,320	4,000	5,640	6,170	5,100	5,720	5,970	5,000	4,880
15	4,680	3,330	3,450	3,260	4,250	5,570	6,190	5,260	5,710	6,310	4,540	4,890
16	4,560	3,380	3,470	3,070	4,180	5,690	5,930	5,150	5,620	5,940	4,680	4,760
17	4,590	3,300	3,570	3,060	4,480	5,660	5,550	5,610	5,640	5,950	4,680	4,260
18	4,470	3,390	3,440	3,010	4,530	6,150	5,040	5,740	5,350	5,930	4,960	4,510
19	4,350	3,390	3,320	3,210	4,110	6,200	5,220	5,720	5,490	5,920	5,010	4,310
20	4,370	3,280	2,880	3,490	4,020	6,130	4,910	5,720	5,650	5,570	5,010	4,580
21	4,220	3,200	2,580	3,570	3,780	5,970	4,730	5,320	5,610	5,690	5,420	5,020
22	3,810	3,060	2,330	3,780	3,540	5,810	5,460	5,260	5,800	5,970	5,470	5,390
23	3,970	2,950	2,470	3,930	3,510	5,950	5,380	5,080	6,050	6,030	5,330	5,660
24	4,140	3,050	1,490	3,680	4,120	6,090	5,720	5,120	6,320	6,030	4,800	5,710
25	4,170	3,000	1,330	3,560	4,360	6,040	5,780	5,210	6,310	5,880	4,400	5,670
26	4,240	2,950	2,210	3,620	4,020	5,320	5,870	5,250	6,140	5,910	4,420	5,640
27	4,030	2,920	2,340	3,630	3,890	5,240	6,130	5,360	6,050	5,930	4,020	5,630
28	4,270	2,830	2,290	3,830	3,720	5,020	6,140	5,160	5,930	5,930	4,680	5,590
29	4,300	2,820	2,440	3,590	-----	5,360	6,180	5,240	5,690	6,080	4,590	5,220
30	4,000	2,930	2,530	3,700	-----	5,740	6,130	5,110	5,580	6,030	4,500	5,120
31	3,860	-----	2,120	3,780	-----	5,760	-----	5,210	-----	6,070	4,570	-----
TOTAL	144,550	98,420	87,440	102,510	115,500	170,290	174,820	165,560	167,900	181,580	156,560	143,030
MEAN	4,663	3,281	2,821	3,307	4,125	5,493	5,827	5,341	5,597	5,857	5,050	4,768
MAX	5,670	3,740	3,570	3,930	4,610	6,200	6,240	5,940	6,320	6,310	6,050	5,710
MIN	3,810	2,820	1,330	1,810	3,510	4,330	4,730	5,070	4,670	5,240	4,020	3,830
AC-FT	286,700	195,200	173,400	203,300	229,100	337,800	346,800	328,400	333,000	360,200	310,500	283,700
CAL YR 1970	TOTAL 1,645,450		MEAN 4,508		MAX 6,610		MIN 1,330		AC-FT 3,264,000			
WTR YR 1971	TOTAL 1,708,160		MEAN 4,680		MAX 6,320		MIN 1,330		AC-FT 3,388,000			

## Return surface flows below Imperial Dam, Ariz.-Calif.

Between Imperial Dam and the international boundary return surface flows from irrigated areas enter the Colorado River through many drains and wasteways in Arizona and California. Other return flows enter the Gila River below the gaging station near Dome (09520500). In addition, return flows collected by the Main Drain and East Main Canal are delivered across the international boundary for use in Mexico.

Diversions for irrigation in the Gila project in Arizona are made at Imperial Dam by the Gila Gravity Main Canal. (See sta 09522500.) Diversions for the Yuma project in Arizona and California are made at Imperial Dam by the All-American Canal (see sta 09523000) and by the Yuma Main Canal.

See figure 2 for a schematic diagram showing location of diversions and return flows.

## 09528600. LAGUNA CANAL WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in  $SE\frac{1}{4}SW\frac{1}{4}$  sec.14, T.7 S., R.22 W., 1,000 ft downstream from Laguna Dam and 0.7 mile upstream from outlet to Colorado River.

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

REMARKS.--Record shows waste water from North Gila Valley Irrigation District returned to Colorado River. Flow record computed from standard weir rating.

## 09528800. LEVEE CANAL WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in  $SE\frac{1}{4}SW\frac{1}{4}$  sec.4, T.8 S., R.22 W., 1,000 ft upstream from outlet to Colorado River.

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

REMARKS.--Record shows waste water from North Gila Valley Irrigation District returned to Colorado River.

## 09529000. NORTH GILA DRAIN NO. 1.

LOCATION.--Enters Colorado River in  $NE\frac{1}{4}NW\frac{1}{4}$  sec.9, T.8 S., R.22 W., 5.6 miles downstream from Laguna Dam.

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

REMARKS.--Record shows waste water from North Gila Valley Irrigation District returned to Colorado River. There is no gage, but, due to fairly constant drainage, flow record is computed by interpolation between discharge measurements made monthly.

## 09529050. NORTH GILA DRAIN NO. 3.

LOCATION.--Drain enters wasteway to Gila River in  $NE\frac{1}{4}NE\frac{1}{4}$  sec.18, T.8 S., R.21 W., 1,000 ft upstream from Gila River.

PERIOD OF RECORD.--Monthly discharge April 1962 to current year.

REMARKS.--Record shows seepage from Gila Gravity Main Canal. There is no gage; records are computed by interpolation between discharge measurements made monthly.

## 09529100. FORTUNA WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in  $NE\frac{1}{4}$  sec.30, T.8 S., R.21 W., 1.3 miles upstream from Gila River.

PERIOD OF RECORD.--Monthly discharge October 1960 to September 1963, October 1964 to current year.

REMARKS.--Record shows waste water spilled from Gila Gravity Main Canal; flow rarely reaches Gila River.

## 09529150. NORTH GILA MAIN CANAL WASTEWAY.

LOCATION.--Water-stage recorder in  $NE\frac{1}{4}NW\frac{1}{4}$  sec.22, T.8 S., R.22 W., 1,000 ft upstream from outlet to Gila River. Prior to July 1966 water-stage recorder and sharp-crested weir, 1 mile upstream from outlet to Gila River.

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

REMARKS.--Record shows waste water from North Gila Valley Irrigation District. Prior to July 1966 record shows waste water less flow diverted for irrigation between gage and Gila River.

## 09529160. SOUTH GILA PUMP OUTLET CHANNEL NO. 3.

LOCATION.--Water-stage recorder in  $NW\frac{1}{4}SE\frac{1}{4}$  sec.22, T.8 S., R.22 W., 0.5 mile upstream from outlet to Gila River. Prior to Aug. 1, 1965, record obtained by Badger total flowmeter about 500 ft downstream.

PERIOD OF RECORD.--Monthly discharge January 1965 to current year.

REMARKS.--Record shows water pumped from wells in South Gila Valley Unit.

## 09529200. BRUCE CHURCH DRAIN.

LOCATION.--Pump in  $NW\frac{1}{4}NE\frac{1}{4}$  sec.21, T.8 S., R.22 W., 0.2 mile upstream from outlet to Gila River.

PERIOD OF RECORD.--Monthly discharge April 1962 to current year.

REMARKS.--Record shows seepage water from parts of secs.15, 16, and 21 (Bruce Church Ranch). Flow computed by interpolation between discharge measurements; prior to Nov. 30, 1970, flow determined from pump rating.

## DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

Return surface flows below Imperial Dam, Ariz.-Calif.--Continued

## 09529240. SOUTH GILA PUMP OUTLET CHANNEL NO. 2.

LOCATION.--Water-stage recorder in NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.28, T.8 S., R.22 W., 0.6 mile upstream from outlet to Gila River; prior to Oct. 18, 1965, outlet was to Wellton-Mohawk Main Outlet Drain. Prior to Aug. 1, 1965, Sparling meter at outlet to Wellton-Mohawk Main Outlet Drain.

PERIOD OF RECORD.--Monthly discharge January 1962 to current year.

REMARKS.--Record shows water pumped from wells in South Gila Valley Unit and conveyed by concrete channel to the Gila River.

## 09529250. BRUCE CHURCH WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.20, T.8 S., R.22 W., 500 ft upstream from outlet to Gila River.

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

REMARKS.--Record shows waste water from North Gila Valley Irrigation District returned to Gila River.

## 09529300. WELLTON-MOHAWK MAIN OUTLET DRAIN (CONVEYANCE CHANNEL).

LOCATION.--Water-stage recorder in NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.17, T.8 S., R.21 W., 8 miles upstream from outlet to Gila River, which is 0.6 mile upstream from mouth of Gila River. Prior to Feb. 20, 1962, gage heights measured from reference point on measuring bridge.

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

REMARKS.--Record shows water pumped from numerous wells in Wellton-Mohawk Irrigation and Drainage District to lower the water table. Drainage is conveyed by concrete and earth channels to Gila River or Colorado River. (See stas 09529350, 09531800, and 09531900.)

## 09529350. MAIN OUTLET DRAIN ABOVE GILA RIVER.

LOCATION.--Water-stage recorder in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.30, T.8 S., R.22 W., about 1,000 ft upstream from outlet to Gila River (M.O.D.E. 1), which is 0.6 mile upstream from mouth of Gila River, and 8 miles downstream from sta 09529300.

PERIOD OF RECORD.--Monthly discharge October 1965 to current year.

REMARKS.--Record shows water pumped from numerous drainage wells in Wellton-Mohawk Irrigation and Drainage District. Above this station flow passes through 8 miles of unlined channel. Since completion of the Main Outlet Drain Extension on Nov. 15, 1965, flow can be returned to the Gila River or Colorado River by any one of, or combination of, three outlets. These outlets are known as: M.O.D.E. 1 (release to the Gila River about 1,000 ft below sta 09529350); M.O.D.E. 2 (see sta 09531800), release to Colorado River above Morelos Dam; and M.O.D.E. 3 (see sta 09531900), release to Colorado River below Morelos Dam. For the 1971 water year 6,250 acre-ft was released to Gila River through M.O.D.E. 1.

## 09529360. SOUTH GILA PUMP OUTLET CHANNEL NO. 1.

LOCATION.--Water-stage recorder in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.30, T.8 S., R.22 W., 0.2 mile upstream from outlet to Gila River, which is 0.6 mile upstream from mouth of Gila River. Prior to Aug. 1, 1965, Sparling flowmeter 300 ft upstream.

PERIOD OF RECORD.--Monthly discharge August 1961 to current year.

REMARKS.--Record shows water pumped from wells in South Gila Valley Unit and conveyed by concrete channel to Gila River.

## 09529400. SOUTH GILA DRAIN NO. 2.

LOCATION.--Near center of sec.24, T.8 S., R.23 W., at outlet to Colorado River. Prior to Oct. 1, 1969, Sparling flowmeter at same site.

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

REMARKS.--Record shows ground-water drainage and occasional waste water from South Gila Valley Unit returned to Colorado River. There is no gage; flow record computed by interpolation between discharge measurements made monthly.

## 09529420. SOUTH GILA TERMINAL WASTEWAY.

LOCATION.--Water-stage recorder and Parshall flume in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.36, T.8 S., R.23 W., 2.0 miles upstream from outlet to Colorado River. Prior to Aug. 1, 1965, total flowmeter at same site.

PERIOD OF RECORD.--Monthly discharge March 1965 to current year.

REMARKS.--Record shows waste water from South Gila Canal of South Gila Valley Unit returned to Colorado River.

## 09529440. SOUTH GILA PUMP OUTLET CHANNEL NO. 4.

LOCATION.--Water-stage recorder and broad-crested weir, in NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.26, T.8 S., R.23 W., 1.5 miles upstream from outlet to Colorado River.

PERIOD OF RECORD.--Monthly discharge July 1965 to current year.

REMARKS.--Record shows water pumped from wells in South Gila Valley Unit and conveyed by concrete-lined channel to Colorado River.

## 09529600. RESERVATION DRAIN NO. 7.

LOCATION.--At downstream end of culvert on Avenue C in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.33, T.15 S., R.23 E., San Bernardino meridian, 0.5 mile upstream from outlet to Reservation Main Drain. Prior to Oct. 1, 1969, nonrecording gage at same site.

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

REMARKS.--Record shows drainage water from sec.34, T.15 S., R.23 E., and is used with sta 09529700 to determine seepage from All-American Canal. There is no gage; flow record computed by interpolation between discharge measurements made monthly. Beginning June 20, 1967, Imperial Irrigation District makes discharge measurements weekly.

## Return surface flows below Imperial Dam, Ariz.-Calif.--Continued

## 09529700. RESERVATION MAIN DRAIN NO. 6.

LOCATION.--Nonrecording gage on upstream right piling of 9th Street Bridge, in  $SE\frac{1}{4}SW\frac{1}{4}$  sec.32, T.15 S., R.23 E., San Bernardino meridian.

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

REMARKS.--Record shows waste and drainage water from the Reservation Division, and is used with sta 09529600 to determine seepage from All-American Canal, which parallels drain for 4 miles. Flow record computed by interpolation between discharge measurements made monthly. The Imperial Irrigation District makes discharge measurements weekly.

## 09529800. RESERVATION DRAIN NO. 2.

LOCATION.--At upstream side of bridge in  $SW\frac{1}{4}NW\frac{1}{4}$  sec.6, T.16 S., R.23 E., San Bernardino meridian, 0.9 mile upstream from outlet to Reservation Main Drain.

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

REMARKS.--Record used to compute seepage from All-American Canal in sec.31, T.15 S., R.22 E. There is no gage; flow record computed by interpolation between discharge measurements made monthly. The Imperial Irrigation District makes discharge measurements weekly.

## 09529900. RESERVATION DRAIN NO. 3.

LOCATION.--Nonrecording gage on pier on right side of 5th Street Bridge in  $SE\frac{1}{4}SE\frac{1}{4}$  sec.10, T.16 S., R.22 E., San Bernardino meridian, 1.0 mile upstream from outlet to Reservation Main Drain.

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

REMARKS.--Record used to compute seepage from All-American Canal upstream from Yuma Main Canal. Flow record computed by interpolation between discharge measurements made monthly. Imperial Irrigation District makes discharge measurements weekly.

## 09530000. RESERVATION MAIN DRAIN NO. 4.

LOCATION.--Water-stage recorder in  $NW\frac{1}{4}SE\frac{1}{4}$  sec.26, T.16 S., R.22 E., San Bernardino meridian, at upstream side of railroad culvert. Drainage canal enters Yuma Main Canal wasteway 200 ft downstream from spillway structure. Prior to May 1955, it entered 500 ft upstream from outlet of Yuma Main Canal wasteway in  $SE\frac{1}{4}SW\frac{1}{4}$  sec.26, T.16 S., R.22 E., San Bernardino meridian.

PERIOD OF RECORD.--Monthly discharge January 1913 to April 1920, October 1921 to March 1925, January 1934 to current year (calendar year discharge only 1934-36). Prior to October 1955, published as California drainage canal. Prior to January 1937, no gage; 1937 to Apr. 16, 1941, nonrecording gages at same site at different datums.

REMARKS.--Record shows waste and drainage water from area east of Yuma Main Canal on Reservation Division. Since 1939, seepage from All-American Canal has caused large increase. Flow is not included in the record of Yuma Main Canal wasteway.

## 09530200. YUMA MESA OUTLET DRAIN.

LOCATION.--Venturi meter with recorder in  $SE\frac{1}{4}SW\frac{1}{4}$  sec.28, T.16 S., R.22 E., San Bernardino meridian, in Arizona, Yuma County, 0.3 mile from outlet to Colorado River.

PERIOD OF RECORD.--Monthly discharge July 1970 to current year.

REMARKS.--Record shows water pumped from wells on the Yuma Mesa and conveyed by underground conduit to Colorado River.

COOPERATION.--Records furnished by Bureau of Reclamation.

## 09530400. RESERVATION DRAIN NO. 11.

LOCATION.--At outlet to Drain 8-B (Araz drain), in  $NE\frac{1}{4}NE\frac{1}{4}$  sec.19, T.16 S., R.22 E., San Bernardino meridian.

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

REMARKS.--Record shows drainage from sec.20, T.16 S., R.22 E. Flow at this station, with that at sta 09530500, is used to determine seepage from All-American Canal. There is no gage; flow record computed by interpolation between discharge measurements made monthly. Beginning June 20, 1967, Imperial Irrigation District makes discharge measurements weekly.

## 09530500. DRAIN 8-B.

LOCATION.--Enters Colorado River in  $NE\frac{1}{4}NW\frac{1}{4}$  sec.30, T.16 S., R.22 E., San Bernardino meridian, 4 miles downstream from outlet of Yuma Main Canal wasteway.

PERIOD OF RECORD.--Monthly discharge March 1948 to current year. Prior to October 1955, published as Araz drain.

REMARKS.--Record shows seepage from All-American Canal, and waste and drainage water west of Yuma Main Canal on the Reservation Division. Flow at this station, with that at sta 09530400, is used to determine seepage from All-American Canal. There is no gage, but due to fairly constant drainage, flow record is computed by interpolation between discharge measurements made monthly. Imperial Irrigation District makes discharge measurements weekly at site 1,000 ft upstream.

## 09531800. MAIN OUTLET DRAIN EXTENSION ABOVE MORELOS DAM (N.O.D.E. 2).

LOCATION.--Water-stage recorder and Parshall flume in  $NW\frac{1}{4}NW\frac{1}{4}$  sec.36, T.16 S., R.21 E., San Bernardino meridian, at outlet to Colorado River, 1.7 miles upstream from Morelos Dam.

PERIOD OF RECORD.--Monthly discharge November 1965 to current year.

REMARKS.--Record shows water conveyed to Colorado River 1.7 miles above Morelos Dam, from numerous drainage wells in Wellton-Mohawk Irrigation and Drainage District. (See also stas 09529300, 09529350, 09531900.)

## DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

Return surface flows below Imperial Dam, Ariz.--Calif.--Continued

09531850 (formerly 09532000). COOPER WASTEWAY.

LOCATION.--Water-stage recorder and weir, in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.28, T.8 S., R.24 W., 0.6 mile upstream from Morelos Dam. Prior to July 14, 1971, at site 1 mile downstream.

PERIOD OF RECORD.--Monthly discharge January 1934 to current year.

REMARKS.--Record shows waste water from Valley Division returned to Colorado River.

COOPERATION.--Record furnished by International Boundary and Water Commission (U.S. Section).

09531900. MAIN OUTLET DRAIN EXTENSION BELOW MORELOS DAM (M.O.D.E. 3).

LOCATION.--Water-stage recorder and Parshall flume in NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.28, T.8 S., R.24 W., at outlet to Colorado River just downstream from Morelos Dam.

PERIOD OF RECORD.--Monthly discharge November 1965 to current year.

REMARKS.--Record shows water conveyed to Colorado River below Morelos Dam, from numerous drainage wells in Wellton-Mohawk Irrigation and Drainage District. (See also stas 09529300, 09529350, 09531800.)

COOPERATION.--Record furnished by International Boundary and Water Commission (U.S. Section).

09532500. ELEVEN MILE WASTEWAY.

LOCATION.--Water-stage recorder and regulating gate in SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.8, T.9 S., R.24 W., 3.2 miles downstream from Morelos Dam.

PERIOD OF RECORD.--Monthly discharge January 1924 to current year.

REMARKS.--Record shows waste water from Valley Division returned to Colorado River.

COOPERATION.--Record furnished by International Boundary and Water Commission (U.S. Section).

09533000. TWENTY-ONE MILE WASTEWAY.

LOCATION.--Water-stage recorder and weir in NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.35, T.10 S., R.25 W., 0.6 mile upstream from outlet to Colorado River, which is 2.4 miles upstream from southerly international boundary and 2.6 miles northwest of San Luis, Ariz. Prior to May 1, 1971, water-stage recorder and Parshall flume at site 200 ft upstream.

PERIOD OF RECORD.--Monthly discharge March 1939 to current year.

REMARKS.--Record shows waste water from Valley Division returned to Colorado River.

COOPERATION.--Record furnished by International Boundary and Water Commission (U.S. Section).

09534000. MAIN DRAIN.

LOCATION.--Flowmeters in discharge pipes at pumping plant in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.11, T.11 S., R.25 W., 0.4 mile west of San Luis, Ariz. Prior to Apr. 1, 1969, rated pumps with forebay and afterbay gages to measure head.

PERIOD OF RECORD.--Monthly discharge January 1919 to current year.

REMARKS.--Record shows flow which consists mostly of drainage water from the Valley Division which is pumped across the Arizona-Sonora boundary for use in Mexico. Flowmeters checked by discharge measurements made by International Boundary and Water Commission (U.S. Section).

COOPERATION.--Record furnished by International Boundary and Water Commission (U.S. Section).

09534300. WEST MAIN CANAL WASTEWAY.

LOCATION.--Water-stage recorder in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.11, T.11 S., R.25 W., 150 ft upstream from outlet to Main drain, which is 175 ft upstream from East Main Canal wasteway and 0.4 mile west of San Luis, Ariz.

PERIOD OF RECORD.--Monthly discharge February to September 1971.

REMARKS.--Record shows waste water from Valley Division which is discharged across the Arizona-Sonora boundary for use in Mexico.

COOPERATION.--Record furnished by International Boundary and Water Commission (U.S. Section).

09534500. EAST MAIN CANAL WASTEWAY.

LOCATION.--Water-stage recorder, in NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.12, T.11 S., R.25 W., 0.2 mile east of Main drain pumping plant and 0.2 mile west of San Luis, Ariz.

PERIOD OF RECORD.--Monthly discharge January 1924 to June 1928, January 1932 to December 1933, April 1935 to current year. Calendar year estimates 1934 and 1935, published in WSP 1313.

REMARKS.--Record shows amount of unused water at the extreme end of the Valley Division which is discharged across the Arizona-Sonora boundary for use in Mexico.

COOPERATION.--Record furnished by International Boundary and Water Commission (U.S. Section).

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM  
Return surface flows below Imperial Dam, Ariz.-Calif.--Continued

35

MONTHLY RETURN FLOWS, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Month	Laguna Canal wasteway 09528600	Levee Canal wasteway 09528800	North Gila Drain No. 1 09529000	North Gila Drain No. 3 09529050	Fortuna wasteway 09529100
October .....	0	184	500	35	125
November .....	3.2	166	405	32	50
December .....	3.9	123	343	17	51
CAL YR 1970 .....	7.1	1,780	5,120	434	770
January .....	3.6	95	254	25	41
February .....	1.8	110	290	22	43
March .....	1.4	175	579	15	40
April .....	.4	104	752	12	139
May .....	.2	126	799	17	46
June .....	0	156	504	18	61
July .....	0	243	432	16	32
August .....	9.3	132	559	18	82
September .....	0	157	718	13	30
WTR YR 1971 .....	24	1,770	6,140	240	740

Month	North Gila Main Canal wasteway 09529150	South Gila Pump Outlet Channel No. 3 09529160	Bruce Church Drain 09529200	South Gila Pump Outlet Channel No. 2 09529240	Bruce Church wasteway 09529250
October .....	9.6	0.08	98	618	27
November .....	117	5.8	119	1,280	29
December .....	5.5	797	55	2,220	127
CAL YR 1970 .....	400	9,440	521	17,440	409
January .....	14	282	55	1,180	7.5
February .....	30	817	50	1,370	51
March .....	3.0	2,240	39	2,570	63
April .....	0	2,180	32	2,460	17
May .....	2.2	8.8	28	488	20
June .....	4.0	641	32	1,890	22
July .....	18	2,160	29	2,480	126
August .....	50	2,070	29	2,310	15
September .....	105	38	30	1,660	40
WTR YR 1971 .....	358	11,240	596	20,520	545

Month	Wellton-Mohawk Main Outlet Drain 09529300	Main Outlet Drain above Gila River 09529350	South Gila Pump Outlet Channel No. 1 09529360	South Gila Drain No. 2 09529400	South Gila Terminal wasteway 09529420
October .....	18,900	18,700	2,250	53	79
November .....	18,340	18,410	2,370	3.0	48
December .....	19,370	19,050	2,430	6.0	25
CAL YR 1970 .....	218,400	214,100	27,250	360	599
January .....	18,660	18,690	2,260	6.7	36
February .....	15,710	15,940	2,180	21	33
March .....	18,580	18,640	2,640	22	51
April .....	17,740	17,210	2,440	1.0	100
May .....	16,560	16,020	2,280	0	197
June .....	17,490	17,110	2,320	0	117
July .....	18,860	18,240	2,370	0	66
August .....	18,490	18,010	2,480	0	42
September .....	17,060	16,680	2,180	3.0	66
WTR YR 1971 .....	215,800	212,700	28,200	116	860



## DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

Return surface flows below Imperial Dam, Ariz.-Calif.--Continued

MONTHLY RETURN FLOWS, IN ACRE-FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Month	South Gila Pump Outlet Channel No. 4 09529440	Reservation Drain No. 7 09529600	Reservation Main Drain No. 6 09529700	Reservation Drain No. 2 09529800	Reservation Drain No. 3 09529900	Reservation Main Drain No. 4 09530000
October .....	12	66	861	31	268	3,100
November .....	5.3	59	833	24	250	2,830
December .....	.5	47	861	18	241	2,670
CAL YR 1970 .....	6,440	966	11,540	335	3,050	35,900
January .....	0	45	861	18	221	2,570
February .....	627	54	777	19	191	2,470
March .....	1,520	64	861	27	228	2,760
April .....	270	65	833	31	239	3,280
May .....	0	72	861	31	258	3,120
June .....	129	69	934	30	265	3,220
July .....	1,040	75	972	32	281	3,270
August .....	1,230	100	916	36	287	3,560
September .....	4.6	103	1,010	34	243	3,620
WTR YR 1971 .....	4,840	819	10,580	331	2,970	36,460

Month	Yuma Mesa Outlet Drain 09530200	Reservation Drain No. 11 09530400	Drain 8-B 09530500	M.O.D.E 2 (above Morelos Dam) 09531800	Cooper wasteway 09531850	M.O.D.E 3 (below Morelos Dam) 09531900
October .....	280	14	119	0	158	18,710
November .....	97	16	119	0	98	18,230
December .....	0	12	117	6,460	97	12,650
CAL YR 1970 .....	1,230	170	1,400	83,080	1,100	126,200
January .....	0	8.9	96	3,120	115	15,510
February .....	0	8.7	78	7,870	95	6,980
March .....	4	19	126	16,340	136	7
April .....	242	24	159	13,640	69	247
May .....	165	21	149	7,670	96	8,140
June .....	0	11	107	14,050	106	2,990
July .....	692	9.9	100	15,730	67	2,430
August .....	180	19	154	12,480	41	5,460
September .....	0	44	186	4,900	25	11,810
WTR YR 1971 .....	1,660	208	1,510	102,300	1,100	103,200

Month	Eleven Mile wasteway 09532500	Twenty-one Mile wasteway 09533000	Main Drain 09534000	West Main Canal wasteway *09534300	East Main Canal wasteway 09534500
October .....	343	291	11,880		519
November .....	443	355	10,980		535
December .....	457	79	10,830		514
CAL YR 1970 .....	3,420	2,420	132,600		5,060
January .....	255	141	10,120		382
February .....	338	198	10,010	7	337
March .....	281	23	11,070	203	438
April .....	228	23	11,000	175	230
May .....	55	49	11,480	217	245
June .....	223	53	11,240	308	357
July .....	83	1	11,280	242	419
August .....	194	1	11,490	166	438
September .....	135	6	11,570	406	409
WTR YR 1971 .....	3,040	1,220	133,000	1,720	4,820

\* Flow began Feb. 23.

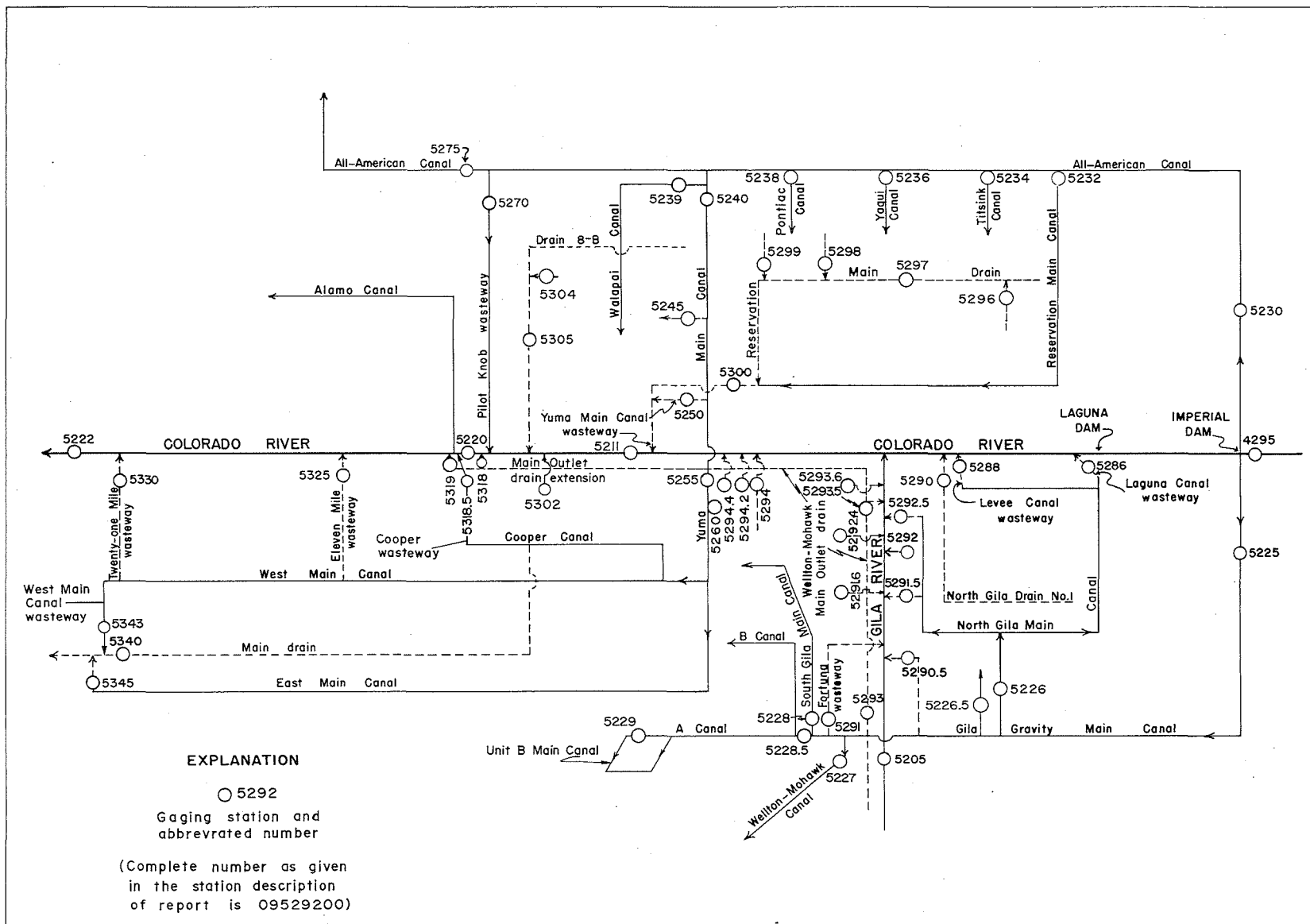


Figure 2.--Schematic diagram showing gaging stations on streams, diversions, and return flows between Imperial Dam and the southerly international boundary

## PANAMINT VALLEY

10250600 WILDROSE CREEK NEAR WILDROSE STATION, CALIF.  
(Hydrologic bench-mark station)

LOCATION.--Lat 36°15'54", long 117°10'40", (unsurveyed), Inyo County, Death Valley National Monument, on left bank 0.4 mile east of Wildrose Range headquarters, 2 miles east of Wildrose Spring, and 2.5 miles east of Wildrose Station.

DRAINAGE AREA.--23.7 sq mi.

PERIOD OF RECORD.--October 1960 to current year. Weather records since June 1964.

INSTRUMENTATION.--Water-stage recorder with rain-gage attachment at altitude of 4,300 ft (from topographic map). Recording and storage-type precipitation gages, recording anemometer, and maximum-minimum thermometer at altitude of 9,990 ft; similar instruments and 24-inch screened evaporation pan at altitude of 5,750 ft; recording rain gages at altitudes of 7,200, 6,400, 5,300, and 5,200 ft; flowmeter recording ground-water withdrawals at altitude of 4,300 ft. (Apr. 28 to Sept. 30.)

AVERAGE DISCHARGE.--11 years, 0.025 cfs (18 acre-ft per year); median of yearly mean discharges, 0.0005 cfs (0.4 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 0.92 cfs Nov. 29 (gage height, 0.57 ft); no flow all year except Nov. 29.

Period of record: Maximum discharge, 1,060 cfs Sept. 4, 1967 (gage height, 6.24 ft), on basis of slope-area measurement of maximum flow; no flow all or most of each year.

REMARKS.--Records poor. No regulation or diversion above station except spring diversion to ranger headquarters.

Period	Pan evaporation (inches)	Temperature (°C) at altitude:				Ground water (acre-feet) 4,300 ft
		9,990 ft		5,750 ft		
		Maximum	Minimum	Maximum	Minimum	
July 21 to Oct. 15	36.04	-	-	25.6	4.4	2.68
Oct. 15 to Dec. 17	9.16	-	-	16.7	-13.3	-
Dec. 17 to Feb. 23	5.14	-	-	13.9	-4.4	4.56
Feb. 23 to Apr. 21	10.18	-	-	15.6	-2.2	-
Apr. 21 to May 25	6.11	17.8	-1.1	25.6	4.4	3.21
May 25 to July 27	23.27	28.9	4.4	33.9	15.6	2.04

## Precipitation (inches) at location and altitude:

Month	117°05'05" 36°13'05"	117°04'15" 36°15'30"	117°06'50" 36°13'55"	117°06'40" 36°15'10"	117°08'10" 36°16'15"	117°09'50" 36°14'45"	117°10'40" 36°15'55"
	9,990 ft	7,200 ft	6,400 ft	5,750 ft	5,300 ft	5,200 ft	4,300 ft
October 1970.....	0	0	0	0	0	0	0
November.....	0	1.75	1.57	.50	.97	1.60	1.9
December.....	.01	.43	.21	.08	.06	.50	.3
CAL YR 1970.....	4.81	8.73	5.22	4.58	2.57	5.06	4.6
January 1971.....	.02	.05	.36	.08	0	0	0
February.....	0	.50	.40	.10	.20	.54	.5
March.....	0	.02	0	0	.07	0	0
April.....	0	.42	.30	.10	.06	.23	.2
May.....	.64	.78	.82	.70	.71	1.11	.9
June.....	0	0	0	0	0	0	0
July.....	.11	.17	.21	0	0	0	0
August.....	.42	.05	.33	0	.04	.12	0
September.....	.04	.05	.13	0	0	.06	.1
WTR YR 1971.....	1.24	4.22	4.33	1.56	2.11	4.16	3.9

Average Wind Velocity (mph) at location and altitude:  
117°05'05", 36°13'05"      117°06'40", 36°15'10"

Month	9,990 ft	5,750 ft
October 1970....	10.29	5.84
November.....	11.83	5.55
December.....	11.67	5.35
January 1971....	13.98	5.78
February.....	13.43	5.78
March.....	11.64	5.27
April.....	9.22	4.55
May.....	9.42	6.03
June.....	7.08	5.86
July.....	6.60	5.60
August.....	5.98	5.59
September.....	9.07	5.86

## 10250600 WILDROSE CREEK NEAR WILDROSE STATION, CALIF.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0										
2		0										
3		0										
4		0										
5		0										
6		0										
7		0										
8		0										
9		0										
10		0										
11		0										
12		0										
13		0										
14		0										
15		0										
16		0										
17		0										
18		0										
19		0										
20		0										
21		0										
22		0										
23		0										
24		0										
25		0										
26		0										
27		0										
28		0										
29		.01										
30		0										
31		-----			-----		-----		-----			-----
TOTAL	0	.01	0	0	0	0	0	0	0	0	0	0
MEAN	0	.0003	0	0	0	0	0	0	0	0	0	0
MAX	0	.01	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	.02	0	0	0	0	0	0	0	0	0	0

CAL YR 1970 TOTAL 0.01 MEAN 0 MAX .01 MIN 0 AC-FT .02  
WTR YR 1971 TOTAL 0.01 MEAN 0 MAX .01 MIN 0 AC-FT .02

PEAK DISCHARGE (BASE, 5.0 CFS).--No peak above base.

19S/44E-23K1. U.S. Geological Survey observation well drilled in alluvium to bedrock. Diameter 1½ inches.  
Depth 30.0 ft. LSD 4,320 ft above MSL.

HIGHEST WATER LEVEL.--24.37 ft below LSD, Feb. 17, 1969.

LOWEST STATIC WATER LEVEL.--26.59 ft below LSD, Apr. 28, 1971.

PERIOD OF RECORD.--February 1969 to current year.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 17, 1969	24.37	Dec. 17, 1970	24.80	Apr. 28, 1971	26.59	July 27, 1971	26.50
Oct. 15, 1970	26.55	Feb. 23, 1971	26.55	May 25	26.50		

## PANAMINT VALLEY

10250800 DARWIN CREEK NEAR DARWIN, CALIF.

LOCATION.--Lat 36°19'14", long 117°31'23", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.34, T.18 S., R.41 E., Inyo County, on left bank 510 ft downstream from Darwin Falls, 1.6 miles upstream from unnamed tributary, and 5.2 miles northeast of Darwin.

DRAINAGE AREA.--173 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 2,640 ft (from topographic map). U.S. Weather Bureau nonrecording rain gage at Darwin. Prior to Aug. 6, 1970, at site 190 ft downstream at same datum.

AVERAGE DISCHARGE.--9 years, 0.56 cfs (406 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 0.66 cfs Nov. 29 (gage height, 2.70 ft); minimum daily, 0.05 cfs July 31 to Aug. 10.

Period of record: Maximum discharge, 4,400 cfs Jan. 25, 1969 (gage height, 20.42 ft, at present site, from floodmarks), on basis of slope-conveyance measurement of maximum flow; minimum daily, 0.05 cfs Aug. 30 to Sept. 4, 1969.

REMARKS.--Records good. No regulation above station. Town of Darwin pumps water above station for municipal supply.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	.25	.32	.19	.19	.15	.25	.15	.19	.11	.05	.09
2	.19	.25	.25	.19	.19	.15	.25	.19	.19	.11	.05	.09
3	.19	.25	.19	.19	.19	.15	.25	.19	.19	.15	.05	.09
4	.19	.25	.19	.19	.19	.15	.19	.25	.19	.11	.05	.09
5	.19	.25	.19	.19	.19	.15	.19	.19	.15	.11	.05	.09
6	.19	.25	.19	.19	.19	.19	.19	.19	.15	.11	.05	.09
7	.19	.25	.19	.19	.19	.19	.15	.25	.15	.11	.05	.09
8	.19	.25	.19	.15	.19	.19	.11	.19	.15	.11	.05	.09
9	.19	.19	.19	.15	.19	.19	.11	.19	.15	.11	.05	.09
10	.19	.19	.19	.15	.19	.25	.11	.19	.11	.11	.05	.09
11	.19	.19	.19	.15	.19	.25	.11	.15	.11	.10	.07	.09
12	.19	.19	.19	.15	.19	.25	.09	.15	.11	.10	.07	.09
13	.19	.19	.19	.15	.19	.25	.09	.15	.11	.10	.07	.09
14	.19	.19	.19	.15	.19	.25	.09	.15	.15	.10	.07	.09
15	.19	.19	.19	.15	.19	.25	.09	.15	.15	.10	.07	.09
16	.19	.19	.19	.15	.25	.19	.09	.11	.15	.10	.09	.09
17	.19	.19	.19	.15	.41	.19	.11	.15	.15	.10	.09	.09
18	.25	.19	.19	.15	.32	.19	.11	.15	.19	.09	.09	.09
19	.25	.19	.19	.15	.25	.19	.11	.15	.19	.09	.09	.09
20	.25	.19	.19	.15	.25	.19	.15	.15	.19	.09	.09	.09
21	.25	.19	.19	.15	.25	.15	.19	.15	.19	.09	.09	.09
22	.25	.19	.19	.15	.25	.15	.19	.15	.15	.09	.09	.09
23	.25	.19	.19	.15	.25	.15	.19	.15	.11	.09	.09	.09
24	.25	.19	.19	.19	.19	.15	.19	.15	.11	.09	.11	.09
25	.25	.19	.19	.19	.19	.15	.19	.11	.11	.09	.11	.09
26	.25	.19	.19	.19	.19	.15	.19	.11	.15	.09	.11	.09
27	.25	.19	.19	.19	.19	.19	.19	.25	.19	.09	.11	.09
28	.25	.19	.19	.19	.19	.19	.19	.25	.15	.09	.09	.09
29	.25	.51	.19	.19	-----	.19	.19	.25	.11	.07	.09	.09
30	.25	.41	.19	.19	-----	.19	.15	.19	.11	.07	.09	.09
31	.25	-----	.19	.19	-----	.25	-----	.19	-----	.05	.09	-----
TOTAL	6.73	6.72	6.08	5.25	6.03	5.87	4.70	5.39	4.50	3.02	2.37	2.70
MEAN	.22	.22	.20	.17	.22	.19	.16	.17	.15	.097	.077	.090
MAX	.25	.51	.32	.19	.41	.25	.25	.25	.19	.15	.11	.09
MIN	.19	.19	.19	.15	.19	.15	.09	.11	.11	.05	.05	.09
AC-FT	13	13	12	10	12	12	9.3	11	8.9	6.0	4.7	5.4
(a)	0	1.35	.83	0	.02	0	.08	.86	0	.11	.59	0

CAL YR 1970 TOTAL 70.24 MEAN .19 MAX .51 MIN .05 AC-FT 139  
WTR YR 1971 TOTAL 59.36 MEAN .16 MAX .51 MIN .05 AC-FT 118

PEAK DISCHARGE (BASE, 10 CFS).--No peak above base.

a Precipitation, in inches.

## 10251300 AMARGOSA RIVER AT TECOPA, CALIF.

LOCATION.--Lat 35°50'53", long 116°13'43", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.9, T.20 N., R.7 E., Inyo County, on right bank 20 ft upstream from county road and 0.2 mile west of Tecopa.

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

GAGE.--Water-stage recorder and concrete-culvert control. Altitude of gage is 1,310 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 2.67 cfs (1,930 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 33 cfs Nov. 29 (gage height, 1.85 ft); no flow many days.

Period of record: Maximum discharge, 5,000 cfs (estimated) Feb. 26, 1969 (gage height, 18.34 ft, from floodmark); no flow many days in most years.

Flood (date unknown) reached a stage of 8.1 ft, from floodmarks (discharge, 790 cfs, based on computation of maximum flow through culvert).

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.39	1.6	1.8	1.7	1.7	.52	.64	.07	0	.01	0
2	.15	.39	1.3	2.3	1.6	.75	.65	.46	.09	0	.01	0
3	.15	.39	1.1	.85	1.7	1.0	.82	.39	.14	0	.01	0
4	.16	.42	1.3	.60	.99	1.4	.61	.35	.14	0	.01	0
5	.16	.44	1.4	.71	1.1	1.4	.64	.45	.12	0	.01	0
6	.16	.30	1.4	1.0	1.5	1.0	.70	.45	.15	0	.01	0
7	.16	.35	1.5	1.5	1.4	1.2	.58	.70	.17	0	.01	0
8	.16	.61	1.5	1.8	1.1	1.4	.78	1.1	.13	0	.01	0
9	.17	.60	1.4	2.0	1.3	1.4	.95	.76	.07	0	.01	0
10	.17	.67	1.5	1.9	1.4	1.3	.68	.77	.03	0	.01	0
11	.18	.67	.99	1.6	1.6	1.5	.54	.66	.02	0	.01	0
12	.18	.77	1.2	1.7	1.2	1.3	.70	.59	.02	0	.01	0
13	.18	.54	1.4	1.3	1.3	.95	.81	.44	.02	0	.01	0
14	.18	.26	1.5	1.5	1.5	1.1	.68	.27	.02	0	.01	0
15	.18	.33	1.5	1.5	1.6	1.3	.99	.31	.02	0	.01	0
16	.12	.62	1.4	1.6	1.7	1.4	.76	.28	.02	0	.01	.01
17	.06	.85	1.0	1.7	2.0	1.4	.47	.18	.01	0	.01	.01
18	.13	.95	1.2	1.7	1.8	.88	.50	.08	.01	0	.01	.01
19	.19	.94	2.3	1.7	1.4	.87	.78	.10	.01	0	.01	.01
20	.11	.71	1.9	1.7	1.3	1.0	.56	.12	.01	0	.01	.01
21	.07	.95	1.6	1.7	.98	1.2	.58	.07	.01	0	.01	.01
22	.21	1.1	2.4	1.4	1.0	1.2	.64	.10	.01	.01	.01	.01
23	.26	1.1	1.7	1.3	1.3	1.2	.57	.12	.01	.01	.01	.01
24	.14	1.2	1.8	1.2	1.4	.98	.52	.12	0	.01	.01	.01
25	.28	1.1	1.5	1.4	1.4	1.1	.64	.14	0	0	.01	.01
26	.31	.77	1.5	1.5	1.0	.80	.64	.09	0	0	.01	.01
27	.20	.79	1.8	1.6	.93	.75	.81	.05	0	.01	.01	.01
28	.10	1.1	1.7	1.6	1.1	1.0	.81	.05	0	.01	.01	.01
29	.17	4.3	1.7	1.6	-----	.95	.76	.09	0	0	.01	.01
30	.33	7.2	1.7	1.6	-----	.87	.73	.10	.01	0	.01	.01
31	.38	-----	1.8	1.6	-----	.64	-----	.07	-----	.01	.01	-----
TOTAL	5.55	30.81	47.59	46.96	38.30	34.94	20.42	10.10	1.31	.06	.31	.15
MEAN	.18	1.03	1.54	1.51	1.37	1.13	.68	.33	.044	.002	.010	.005
MAX	.38	7.2	2.4	2.3	2.0	1.7	.99	1.1	.17	.01	.01	.01
MIN	.06	.26	.99	.60	.93	.64	.47	.05	0	0	.01	0
AC-FT	11	61	94	93	76	69	41	20	2.6	.1	.6	.3

CAL YR 1970 TOTAL 505.19 MEAN 1.38 MAX 48 MIN 0 AC-FT 1,000  
WTR YR 1971 TOTAL 236.50 MEAN .65 MAX 7.2 MIN 0 AC-FT 469

PEAK DISCHARGE (BASE, 15 CFS).--Nov. 29 (2230) 33 cfs (1.85 ft).

## IVANPAH VALLEY

10252300 CHINA SPRING CREEK NEAR MOUNTAIN PASS, CALIF.

LOCATION.--Lat 35°28'07", long 115°30'29", in E $\frac{1}{2}$  sec.31, T.16 N., R.14 E., San Bernardino County, on upstream right bank of State highway culvert on U.S. Highways 466 and 91 and 2.0 miles east of Mountain Pass.

DRAINAGE AREA.--0.94 sq mi.

PERIOD OF RECORD.--January 1959 to current year.

GAGE.--Water-stage recorder with rain-gage attachment. Culvert control since Oct. 9, 1963. Altitude of gage is 4,400 ft (from topographic map). Prior to Oct. 9, 1963, at different datum.

AVERAGE DISCHARGE.--12 years (1960-71), 0.001 cfs (0.7 acre-ft per year); median of yearly mean discharges, zero.

EXTREMES.--Current year: Maximum discharge, 46 cfs Aug. 29 (gage height, 1.90 ft); no flow all year except Aug. 29.

Period of record: Maximum discharge, 113 cfs Aug. 5, 1964 (gage height, 2.75 ft), by computation of maximum flow through culvert; no flow most years.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	
2											0	
3											0	
4											0	
5											0	
6											0	
7											0	
8											0	
9											0	
10											0	
11											0	
12											0	
13											0	
14											0	
15											0	
16											0	
17											0	
18											0	
19											0	
20											0	
21											0	
22											0	
23											0	
24											0	
25											0	
26											0	
27											0	
28											0	
29											.99	
30											0	
31											0	
TOTAL	0	0	0	0	0	0	0	0	0	0	.99	0
MEAN	0	0	0	0	0	0	0	0	0	0	.032	0
MAX	0	0	0	0	0	0	0	0	0	0	.99	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	2.0	0
(a)	0	.6	.2	0	0	0	0	1.0	0	.7	1.1	0
CAL YR 1970	TOTAL 0.00	MEAN .0000	MAX .00	MIN 0	AC-FT .0							
WTR YR 1971	TOTAL 0.99	MEAN .0030	MAX .99	MIN 0	AC-FT 2.0							

a Precipitation, in inches.

10252550 CARUTHERS CREEK NEAR IVANPAH, CALIF.

LOCATION.--Lat 35°14'33", long 115°17'58", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.6, T.13 N., R.16 E., San Bernardino County, on left bank 6.6 miles south of Ivanpah.

DRAINAGE AREA.--1.13 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,640 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 0.082 cfs (59 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 102 cfs Aug. 15 (gage height, 2.95 ft); no flow most of year.  
Period of record: Maximum discharge, 518 cfs Aug. 25, 1969 (gage height, 4.77 ft), on basis of slope-conveyance measurement of maximum flow; no flow most of each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										0	.22	
2										0	.07	
3										0	0	
4										0	0	
5										0	0	
6										0	0	
7										0	0	
8										0	0	
9										0	0	
10										0	0	
11										0	0	
12										0	0	
13										0	0	
14										0	0	
15										0	3.9	
16										0	1.0	
17										0	.10	
18										0	.01	
19										0	0	
20										2.7	0	
21										.23	3.5	
22										0	2.9	
23										0	.02	
24										0	0	
25										0	0	
26										0	.22	
27										0	.14	
28										0	.07	
29					-----					0	.04	
30					-----					0	.01	
31		-----			-----		-----		-----	0	0	-----
TOTAL	0	0	0	0	0	0	0	0	0	2.93	12.20	0
MEAN	0	0	0	0	0	0	0	0	0	.095	.39	0
MAX	0	0	0	0	0	0	0	0	0	2.7	3.9	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	5.8	24	0
CAL YR 1970	TOTAL	1.40	MEAN .0040	MAX .20	MIN 0	AC-FT 2.8						
WTR YR 1971	TOTAL	15.13	MEAN .042	MAX 3.9	MIN 0	AC-FT 30						

## PEAK DISCHARGE (BASE, 10 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
7-20	1600	2.36	46	8-21	1230	2.45	49
8-15	1400	2.95	102				





## 10253350 FORTYNINE PALMS CREEK NEAR TWENTYNINE PALMS, CALIF.

LOCATION.--Lat 34°07'12", long 116°05'43", (unsurveyed), San Bernardino County, in Joshua Tree National Monument, on left bank 50 ft upstream from North Monument boundary, 1.1 miles downstream from Fortynine Palms Oasis, and 2.6 miles southwest of Twentynine Palms.

DRAINAGE AREA.--8.55 sq mi.

PERIOD OF RECORD.--October 1962 to September 1971 (discontinued as a continuous-record station; converted to a crest-stage partial-record station).

GAGE.--Water-stage recorder with rain-gage attachment. Altitude of gage is 2,260 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 0.10 cfs (72 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 462 cfs Aug. 26 (gage height, 3.28 ft); no flow most of year. Period of record: Maximum discharge, 1,240 cfs Aug. 7, 1963 (gage height, 4.55 ft, from crest-stage gage), from rating curve extended above 0.2 cfs on basis of slope-area measurements at gage heights 2.55 and 4.55 ft; no flow most of each year. Flood in August 1961, reached a stage of 4.9 ft, from profile of floodmarks on left bank (discharge, 1,240 cfs from slope-area measurement).

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	
2											0	
3											0	
4											0	
5											0	
6											0	
7											0	
8											0	
9											0	
10											0	
11											0	
12											0	
13											0	
14											0.	
15											0	
16											0	
17											0	
18											0	
19											15	
20											.01	
21											0	
22											0	
23											0	
24											0	
25											0	
26											21	
27											.19	
28											9.7	
29					-----						0	
30					-----						0	
31		-----			-----		-----		-----		0	-----
TOTAL	0	0	0	0	0	0	0	0	0	0	45.90	0
MEAN	0	0	0	0	0	0	0	0	0	0	1.48	0
MAX	0	0	0	0	0	0	0	0	0	0	21	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	91	0
(a)	0	.2	.3	0	0	0	.3	0	0	.2	2.0	0

CAL YR 1970 TOTAL 26.45 MEAN .073 MAX 20 MIN 0 AC-FT 52  
WTR YR 1971 TOTAL 45.90 MEAN .13 MAX 21 MIN 0 AC-FT 91

a Precipitation, in inches.

## CHUCKWALLA VALLEY

10253540 CORN SPRINGS WASH NEAR DESERT CENTER, CALIF.

LOCATION.--Lat 33°37'28", long 115°19'20", (unsurveyed), Riverside County, on right bank 0.1 mile downstream from unnamed tributary and 7.6 miles southeast of Desert Center.

DRAINAGE AREA.--24.1 sq mi.

PERIOD OF RECORD.--October 1963 to September 1971 (discontinued).

GAGE.--Water-stage recorder at altitude 1,600 ft (from topographic map). Recording rain gage at altitude 2,050 ft. Oct. 1, 1963, to Oct. 28, 1966, at site 45 ft upstream at datum 2.88 ft higher and May 29, 1966, to Dec. 10, 1969, at datum 0.98 ft higher.

AVERAGE DISCHARGE.--8 years, 0.18 cfs (130 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 480 cfs Aug. 21 (gage height, 4.60 ft); no flow most of year. Period of record: Maximum discharge, 10,500 cfs Oct. 3, 1968 (gage height, 11.46 ft, present datum, from floodmark), on basis of slope-area measurement of maximum flow; greatest flood observed by William C. Seidel, who has lived at Aztec Wells for 40 years; no flow most of each year.

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											4.6	
2											0	
3											0	
4											0	
5											0	
6											0	
7											0	
8											0	
9											0	
10											0	
11											0	
12											0	
13											0	
14											0	
15											0	
16											0	
17											0	
18											4.3	
19											0	
20											0	
21											5.5	
22											0	
23											0	
24											0	
25											.09	
26											0	
27											0	
28											2.2	
29											0	
30											0	
31											0	
TOTAL	0	0	0	0	0	0	0	0	0	0	16.69	0
MEAN	0	0	0	0	0	0	0	0	0	0	.54	0
MAX	0	0	0	0	0	0	0	0	0	0	5.5	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	33	0
(a)	0	.29	.35	.12	0	0	0	0	0	0	3.50	0

CAL YR 1970 TOTAL 1.05 MEAN .0030 MAX .54 MIN 0 AC-FT 2.1  
WTR YR 1971 TOTAL 16.69 MEAN .046 MAX 5.5 MIN 0 AC-FT 33

PEAK DISCHARGE (BASE, 50 CFS).--Aug. 1 (2100) 145 cfs (3.46 ft); Aug. 21 (1145) 480 cfs (4.60 ft).

a Precipitation, in inches.

## 10254005 SALTON SEA NEAR WESTMORLAND, CALIF.

LOCATION.--Lat 33°11'37", long 115°49'54", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.21, T.11 S., R.11 E., Imperial County, at outer end of third mooring pier from western shore at Sandy Beach and 15.5 miles northwest of Westmorland.

DRAINAGE AREA.--8,360 sq mi, approximately.

PERIOD OF RECORD.--November 1904 to current year. Records prior to 1932 are published in WSP 735.

GAGE.--Water-stage recorder. Datum of gage is 250.00 ft below mean sea level; gage readings have been converted to elevations below mean sea level. See WSP 1734 for history of changes prior to Mar. 2, 1956.

EXTREMES.--Current year: Maximum elevation, 231.7 ft below mean sea level Apr. 6-17; minimum, 232.8 ft below mean sea level Oct. 26 to Nov. 23.

Period of record: Maximum elevation, 195.9 ft below mean sea level in February and March 1907; minimum since 1906, 251.6 ft below mean sea level in November 1924.

REMARKS.--Bottom of sea is 277.7 ft below mean sea level. See WSP 300, 735, and 918 for condensed history of Salton Sea.

## MONTHEND ELEVATIONS, IN FEET, BELOW MEAN SEA LEVEL, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet)	Date	Elevation (feet)
Sept. 30.....	232.7	Apr. 30.....	231.8
Oct. 31.....	232.8	May 31.....	231.9
Nov. 30.....	232.7	June 30.....	231.9
Dec. 31.....	232.6	July 31.....	232.1
Jan. 31.....	232.3	Aug. 31.....	232.2
Feb. 28.....	232.0	Sept. 30.....	232.5
Mar. 31.....	231.8		

## INFLOW TO SALTON SEA, CALIF.

Salton Sea, located near the northeast corner of Imperial County, is a closed basin consisting of 8,360 sq mi. The following table shows monthly and annual inflow, in acre-feet, for the water year October 1970 to September 1971 and the calendar year January to December 1970. Inflow from Imperial Valley is the sum of flows in Alamo River (see sta 10254730), New River (see sta 10255550), 21 drains and wasteways, and since October 1967 San Felipe Creek (see sta 10255885). Since October 1967 inflow from Coachella Valley is the sum of flows in Whitewater River (see sta 10259540), Salt Creek (see sta 10254050), and 20 drains. Flow in Whitewater River and Salt Creek was measured at gaging stations, that for the drains was furnished by Coachella County Water District (see Salton Sea basin for other flows to the sea). Table also shows amount of flow in Alamo and New Rivers contributed by Mexico as furnished by Imperial Irrigation District.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Inflow from												
Imperial Valley	107,300	84,820	76,250	89,670	92,000	121,000	113,500	103,800	93,860	96,670	95,830	97,160
Coachella Valley	9,990	9,010	9,090	11,420	9,910	12,290	11,540	11,850	11,140	11,520	12,920	11,440
TOTAL CAL YR 1970	1,200,000 AC-FT											
TOTAL WTR YR 1971	1,304,000 AC-FT											

## FLOW FROM MEXICO AT INTERNATIONAL BOUNDARY

Alamo River	135	160	162	118	102	114	106	108	116	115	131	161
New River	7,020	6,450	7,180	8,320	6,930	9,970	10,600	9,140	8,150	9,390	11,140	9,140
CAL YR 1970: Alamo River	1,640 AC-FT			WTR YR 1971: 1,530 AC-FT								
CAL YR 1970: New River	99,680 AC-FT			WTR YR 1971: 103,400 AC-FT								

## SALTON SEA BASIN

10254050 SALT CREEK NEAR MECCA, CALIF.

LOCATION.--Lat 33°26'49", long 115°50'33", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.28, T.8 S., R.11 E., Riverside County, on pier of Southern Pacific Railroad bridge, 0.3 mile upstream from mouth, and 16 miles southeast of Mecca.

DRAINAGE AREA.--269 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 230 ft below mean sea level (from topographic map).

AVERAGE DISCHARGE.--10 years, 5.77 cfs (4,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,260 cfs Aug. 10 (gage height, 6.92 ft), from rating curve extended as explained below; minimum daily, 0.80 cfs June 19.

Period of record: Maximum discharge, 1,260 cfs Aug. 10, 1971 (gage height, 6.92 ft), from rating curve extended above 25 cfs on basis of slope-area measurement at gage height 6.62 ft; minimum daily, 0.40 cfs Aug. 10, 1966.

REMARKS.--Records good. No regulation or diversion above station. Flow sustained by irrigation seepage.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	3.0	5.5	7.0	7.2	6.1	3.7	3.2	2.7	2.0	1.7	1.2
2	1.7	3.2	5.1	7.2	7.2	6.4	3.5	3.2	2.7	2.0	27	1.3
3	1.8	3.2	4.8	7.2	7.0	6.1	3.5	3.0	2.4	2.0	3.2	1.6
4	2.1	3.2	4.4	6.1	7.0	6.4	3.5	3.0	2.1	1.8	3.2	1.7
5	2.2	3.2	4.6	5.5	6.7	7.0	3.5	2.8	2.6	1.7	3.2	1.5
6	2.2	3.3	5.1	5.8	7.2	7.5	3.5	2.8	2.6	1.7	3.2	1.5
7	2.2	3.3	5.3	6.1	7.5	8.4	3.3	2.8	2.6	1.4	3.0	1.6
8	2.2	3.3	5.3	6.7	7.2	7.0	3.3	2.7	2.6	1.3	3.0	1.8
9	2.0	3.2	5.5	7.2	7.2	7.0	3.2	2.7	2.2	1.2	3.0	2.0
10	2.4	3.2	5.3	9.1	7.2	8.4	3.2	2.7	2.0	1.5	54	2.0
11	2.6	3.3	4.8	8.4	7.2	11	3.5	2.6	2.0	1.3	132	1.5
12	2.6	3.3	4.4	14	7.2	9.1	3.3	2.6	1.8	1.5	5.5	1.2
13	2.6	3.3	4.8	8.4	7.2	7.0	3.3	2.4	1.6	1.5	4.0	1.2
14	2.6	2.8	4.8	11	7.0	6.4	3.5	2.4	1.8	1.4	3.0	1.0
15	2.2	2.8	4.8	9.5	7.0	5.5	3.5	2.2	2.0	1.2	2.6	1.1
16	2.2	3.0	4.8	8.4	7.0	5.5	3.5	2.2	1.8	1.2	2.2	1.6
17	2.2	3.3	5.1	8.1	7.5	6.7	4.2	2.1	1.4	1.2	1.8	2.1
18	2.2	3.7	5.3	7.2	8.1	6.7	4.2	2.1	.90	1.4	1.1	2.0
19	2.4	4.0	5.5	14	7.5	5.5	4.2	2.0	.80	1.6	1.7	2.0
20	2.4	4.0	6.4	13	7.2	5.1	4.2	1.7	1.0	1.6	1.7	1.6
21	2.6	4.0	7.0	9.2	7.2	5.3	4.2	1.4	1.3	1.6	2.2	1.8
22	2.7	4.0	7.8	8.1	7.2	5.3	4.2	1.6	1.6	1.7	2.2	1.8
23	2.8	4.0	7.2	7.5	7.0	5.1	4.0	1.8	1.7	1.7	3.2	1.5
24	2.8	4.2	7.2	7.0	7.5	4.8	4.0	1.8	1.8	1.7	2.8	1.8
25	3.0	4.4	7.2	7.2	6.7	5.1	3.7	1.8	2.0	1.7	2.1	2.1
26	3.0	4.6	7.0	7.0	6.7	4.8	3.7	1.6	2.0	1.7	1.7	2.2
27	2.7	4.6	7.0	7.5	6.1	4.8	3.5	1.7	2.0	1.7	1.6	2.4
28	2.4	4.4	6.7	7.5	5.8	4.6	3.5	2.1	1.8	1.6	1.7	2.6
29	2.6	4.6	6.7	7.5	-----	4.4	3.3	2.6	1.8	1.6	1.6	2.7
30	2.7	5.5	6.7	7.5	-----	4.2	3.3	2.8	1.8	1.6	1.5	2.8
31	2.8	-----	7.0	7.5	-----	4.0	-----	2.8	-----	1.6	1.2	-----
TOTAL	74.5	109.9	179.1	253.4	198.5	191.2	109.0	73.2	57.40	48.7	281.9	53.2
MEAN	2.40	3.66	5.78	8.17	7.09	6.17	3.63	2.36	1.91	1.57	9.09	1.77
MAX	3.0	5.5	7.8	14	8.1	11	4.2	3.2	2.7	2.0	132	2.8
MIN	1.6	2.8	4.4	5.5	5.8	4.0	3.2	1.4	.80	1.2	1.1	1.0
AC-FT	148	218	355	503	394	379	216	145	114	97	559	106

CAL YR 1970 TOTAL 1,862.50 MEAN 5.10 MAX 144 MIN .75 AC-FT 3,690  
WTR YR 1971 TOTAL 1,630.00 MEAN 4.47 MAX 132 MIN .80 AC-FT 3,230

## SALTON SEA BASIN

49

10254730 ALAMO RIVER NEAR NILAND, CALIF.

LOCATION.--Lat 33°12'03", long 115°36'07", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.22, T.11 S., R.13 E., Imperial County, on left bank 0.6 mile upstream from mouth and 5.8 miles southwest of Niland.

PERIOD OF RECORD.--January 1943 to current year. Monthly discharge only for January 1943 to September 1960, published in WSP 1734.

GAGE.--Water-stage recorder. Altitude of gage is 235 ft below mean sea level (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 2,080 cfs Nov. 27, 1967; minimum daily, 288 cfs Jan. 2, 1966.

REMARKS.--Discharge represents seepage and return flow from irrigated areas.

COOPERATION.--Records furnished by Imperial Irrigation District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,160	984	752	601	903	908	1,120	1,100	908	823	913	733
2	1,160	979	705	653	936	861	1,090	1,110	903	833	955	691
3	1,180	1,040	705	601	894	894	1,130	1,110	960	809	941	644
4	1,180	908	700	549	871	979	1,140	1,040	913	861	871	663
5	1,210	856	729	667	932	984	1,130	970	955	861	871	677
6	1,220	885	705	663	932	989	1,130	998	917	861	856	672
7	1,120	922	710	700	951	998	1,090	946	932	852	819	714
8	1,060	875	729	786	979	1,060	1,090	965	880	838	819	752
9	1,140	875	729	814	994	1,110	1,080	970	889	894	838	757
10	1,230	880	681	861	970	1,120	1,090	936	861	913	856	786
11	1,200	852	667	866	1,090	1,210	1,150	936	866	917	823	800
12	1,110	838	653	852	1,080	1,230	1,100	922	903	936	889	833
13	1,070	800	696	833	1,090	1,160	1,060	946	913	917	880	875
14	979	786	738	823	1,030	1,140	1,090	951	989	880	908	852
15	1,060	766	771	842	984	1,190	1,190	894	979	880	856	861
16	1,050	790	766	880	984	1,220	1,200	880	941	908	823	885
17	1,120	805	790	847	1,020	1,180	1,170	880	941	951	809	852
18	1,040	805	790	795	951	1,140	1,100	889	908	917	809	861
19	1,020	805	786	790	989	1,180	1,010	946	852	856	814	805
20	1,090	842	747	833	984	1,350	1,050	979	842	866	762	880
21	1,140	776	714	880	922	1,360	965	979	832	885	805	951
22	1,030	776	686	913	927	1,330	894	951	852	861	856	1,100
23	979	795	620	908	903	1,280	1,010	951	823	838	903	1,190
24	984	781	653	922	856	1,290	1,030	927	885	871	922	1,160
25	965	757	597	875	871	1,340	1,010	894	927	903	776	1,200
26	932	776	478	861	927	1,310	979	913	936	913	757	1,170
27	951	724	478	889	927	1,190	984	922	894	861	733	1,240
28	852	719	582	903	913	1,090	1,070	903	856	842	752	1,240
29	946	724	658	903	-----	1,070	1,080	955	842	833	847	1,290
30	975	714	635	889	-----	1,040	1,090	951	838	871	809	1,640
31	908	-----	635	889	-----	1,040	-----	917	-----	885	752	-----
TOTAL	33,061	24,835	21,285	25,088	26,810	35,243	32,322	29,631	26,937	27,136	26,024	27,774
MEAN	1,066	828	687	809	958	1,137	1,077	956	898	875	839	926
MAX	1,230	1,040	790	922	1,090	1,360	1,200	1,110	989	951	955	1,640
MIN	852	714	478	549	856	861	894	880	823	809	733	644
AC-FT	65,580	49,260	42,220	49,760	53,180	69,900	64,110	58,770	53,430	53,820	51,620	55,090
CAL YR 1970	TOTAL	312,062	MEAN	855	MAX	1,360	MIN	464	AC-FT	619,000		
WTR YR 1971	TOTAL	336,146	MEAN	921	MAX	1,640	MIN	478	AC-FT	666,700		

## SALTON SEA BASIN

10255550 NEW RIVER NEAR WESTMORLAND, CALIF.

LOCATION.--Lat 33°06'17", long 115°39'49", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.19, T.12 S., R.13 E., Imperial County, on right bank 3.5 miles upstream from mouth and 5.2 miles northwest of Westmorland.

PERIOD OF RECORD.--January 1943 to current year. Monthly discharge only for January 1943 to September 1960, published in WSP 1734.

GAGE.--Water-stage recorder. Altitude of gage is 220 ft below mean sea level (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 1,180 cfs Sept. 19, 1963; minimum daily, 293 cfs Jan. 6, 1967.

REMARKS.--Discharge represents seepage and return flow from irrigated areas.

COOPERATION.--Records furnished by Imperial Irrigation District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	542	557	451	477	586	607	734	668	609	528	601	596
2	563	526	472	459	596	580	712	708	596	572	607	588
3	617	513	494	448	572	570	728	681	576	549	660	547
4	588	504	442	464	601	634	738	634	566	517	596	549
5	566	543	427	513	598	611	702	609	570	542	523	530
6	574	536	459	485	640	600	700	622	566	555	505	545
7	538	496	455	504	603	653	691	596	549	561	492	574
8	536	461	435	521	600	630	681	641	564	525	494	601
9	545	526	400	511	624	611	683	657	547	519	557	566
10	605	526	433	555	578	600	693	632	543	557	609	555
11	603	457	442	592	590	601	689	619	555	576	881	557
12	561	449	473	615	534	626	615	590	561	659	862	559
13	594	472	464	607	568	700	621	586	559	619	641	563
14	563	479	475	555	580	695	647	588	551	586	536	551
15	523	511	455	538	621	732	662	607	557	611	536	542
16	511	532	422	545	596	726	698	624	564	582	542	557
17	498	515	442	564	605	791	722	598	563	607	532	555
18	545	485	479	538	563	764	762	621	511	636	515	584
19	549	463	463	536	566	760	760	624	572	601	551	588
20	566	457	507	523	570	776	712	598	545	598	528	557
21	538	477	490	536	559	816	687	566	568	523	538	566
22	488	490	475	555	549	802	683	568	584	555	551	574
23	453	481	453	580	483	781	670	570	543	568	584	607
24	485	466	433	605	530	734	672	590	572	584	588	613
25	513	461	426	574	572	722	695	622	568	574	536	626
26	543	477	398	555	536	679	740	566	580	570	547	617
27	517	463	442	536	547	634	764	578	586	555	511	640
28	525	429	473	576	576	634	687	588	568	580	545	649
29	536	436	457	530	-----	659	666	584	540	605	611	679
30	555	468	444	542	-----	668	653	563	549	594	636	724
31	570	-----	492	572	-----	666	-----	594	-----	598	624	-----
TOTAL	16,910	14,656	14,073	16,711	16,143	21,062	20,867	18,892	16,882	17,806	18,039	17,559
MEAN	545	489	454	539	577	679	696	609	563	574	582	585
MAX	617	557	507	615	640	816	764	708	609	659	881	724
MIN	453	429	398	448	483	570	615	563	511	517	492	530
AC-FT	33,540	29,070	27,910	33,150	32,020	41,780	41,390	37,470	33,490	35,320	35,780	34,830

CAL YR 1970 TOTAL 196,871 MEAN 539 MAX 776 MIN 394 AC-FT 390,500  
WTR YR 1971 TOTAL 209,600 MEAN 574 MAX 881 MIN 398 AC-FT 415,700

## 10255700 SAN FELIPE CREEK NEAR JULIAN, CALIF.

LOCATION.--Lat 33°07'07", long 112°26'04", San Diego County, in Anza Borrego State Park, on left bank under bridge on State Highway 78, in Sentenac Canyon 1.0 mile upstream from Grapevine Canyon, and 10 miles northeast of Julian.

DRAINAGE AREA.--89.2 sq mi.

PERIOD OF RECORD.--August 1958 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 1,872.69 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 0.27 cfs (196 acre-ft per year); median of yearly mean discharges, 0.2 cfs (140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2.6 cfs Dec. 21 (gage height, 1.52 ft); no flow Oct. 1 to Nov. 16, June 15 to Sept. 30.

Period of record: Maximum discharge, 1,050 cfs Aug. 22, 1967 (gage height, 4.08 ft), from rating curve extended above 12 cfs on basis of slope-area measurement at gage height 3.50 ft; no flow for many days in each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.20	.34	.38	.38	.30	.24	.10			
2		0	.18	.96	.38	.38	.30	.21	.10			
3		0	.18	.58	.38	.38	.30	.24	.10			
4		0	.18	.35	.38	.41	.31	.24	.10			
5		0	.18	.32	.38	.40	.29	.27	.06			
6		0	.18	.34	.38	.38	.27	.27	.06			
7		0	.18	.31	.38	.38	.26	.27	.04			
8		0	.19	.35	.42	.38	.27	.30	.04			
9		0	.20	.38	.42	.34	.27	.27	.04			
10		0	.20	.38	.42	.34	.27	.24	.03			
11		0	.21	.39	.42	.34	.24	.21	.03			
12		0	.21	.44	.42	.34	.24	.18	.03			
13		0	.21	.45	.42	.38	.21	.15	.03			
14		0	.21	.42	.40	.38	.24	.12	.03			
15		0	.21	.42	.35	.34	.27	.10	0			
16		0	.22	.42	.34	.34	.27	.08	0			
17		.01	.25	.43	.42	.34	.30	.08	0			
18		.05	.26	.44	.38	.34	.34	.08	0			
19		.08	.53	.45	.38	.34	.30	.10	0			
20		.08	.41	.46	.38	.34	.30	.10	0			
21		.10	1.1	.42	.37	.34	.30	.10	0			
22		.10	.64	.44	.41	.34	.30	.15	0			
23		.11	.36	.42	.64	.33	.27	.12	0			
24		.12	.30	.42	.49	.33	.27	.08	0			
25		.11	.30	.42	.44	.33	.30	.06	0			
26		.14	.30	.43	.41	.33	.30	.04	0			
27		.15	.30	.45	.39	.32	.30	.06	0			
28		.15	.30	.46	.42	.30	.30	.15	0			
29		.20	.30	.46	-----	.30	.27	.18	0			
30		.31	.30	.48	-----	.30	.24	.15	0			
31		-----	.30	.39	-----	.30	-----	.12	-----			
TOTAL	0	1.71	9.09	13.42	11.40	10.77	8.40	4.96	.79	0	0	0
MEAN	0	.057	.29	.43	.41	.35	.28	.16	.026	0	0	0
MAX	0	.31	1.1	.96	.64	.41	.34	.30	.10	0	0	0
MIN	0	0	.18	.31	.34	.30	.21	.04	0	0	0	0
AC-FT	0	3.4	18	27	23	21	17	9.8	1.6	0	0	0

CAL YR 1970 TOTAL 92.84 MEAN .25 MAX 12 MIN 0 AC-FT 184  
WTR YR 1971 TOTAL 60.54 MEAN .17 MAX 1.1 MIN 0 AC-FT 120

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.



## 10255800 COYOTE CREEK NEAR BORREGO SPRINGS, CALIF.

LOCATION.--Lat 33°22'06", long 116°25'14", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.26, T.9 S., R.5 E., San Diego County, on left bank 0.5 mile downstream from Box Canyon, 1.8 miles northwest of Rancho De Anza, and 8.2 miles northwest of Borrego Springs.

DRAINAGE AREA.--144 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,250 ft (from topographic map). Prior to Mar. 24, 1967, at site 0.6 mile upstream at different datum.

AVERAGE DISCHARGE.--21 years, 2.01 cfs (1,460 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 111 cfs Aug. 9 (gage height, 8.31 ft), from rating curve extended above 2.0 cfs on basis of slope-area measurement at gage-height 13.85 ft; minimum daily, 0.54 cfs July 12-14. Period of record: Maximum discharge, 3,800 cfs July 28, 1951 (gage height, 14.14 ft, from floodmarks, site and datum then in use), on basis of slope-area measurement of maximum flow; minimum daily, 0.29 cfs Sept. 3, 1969.

REMARKS.--Records good except those above 2.5 cfs, which are poor. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	.96	1.5	1.6	1.4	1.4	1.4	1.1	1.1	.72	.71	1.1
2	1.2	1.1	1.4	1.6	1.5	1.4	1.4	1.1	1.2	.70	.75	1.1
3	1.1	1.1	1.4	1.6	1.6	1.3	1.4	1.0	1.1	.64	.74	1.1
4	1.1	1.0	1.4	1.6	1.6	1.3	1.3	1.1	1.0	.61	.83	1.1
5	1.1	1.0	1.4	1.5	1.6	1.3	1.4	1.1	1.0	.61	.75	1.1
6	1.1	1.0	1.4	1.5	1.6	1.3	1.4	1.1	.98	.61	.69	1.0
7	1.1	1.0	1.5	1.6	1.6	1.4	1.4	1.2	.96	.61	.70	1.1
8	1.1	1.0	2.6	1.6	1.6	1.3	1.6	1.2	.96	.60	.76	1.0
9	1.1	1.0	1.6	1.6	1.6	1.3	1.6	1.1	.96	.56	6.2	.89
10	1.2	.97	1.5	1.6	1.6	1.3	1.5	1.0	1.0	.55	1.1	1.0
11	1.3	1.0	1.5	1.5	1.6	1.3	1.4	.98	1.0	.55	1.0	.97
12	1.3	1.0	1.4	1.5	1.5	1.3	1.0	.92	1.0	.54	1.0	.85
13	1.3	1.0	1.4	1.5	1.3	1.3	.92	.88	.93	.54	1.0	.94
14	1.3	1.0	1.4	1.5	1.3	1.3	1.1	.88	.90	.54	1.0	.93
15	1.3	1.0	1.4	1.5	1.3	1.4	1.1	.87	.86	.60	1.0	.90
16	1.3	1.1	1.4	1.5	1.3	1.4	1.1	.80	.82	.61	1.1	.93
17	1.4	1.1	1.5	1.5	1.3	1.3	1.2	.80	.80	.61	1.1	.93
18	1.2	1.1	1.4	1.5	1.4	1.3	1.2	.93	.80	.62	1.1	.94
19	1.1	1.1	1.7	1.5	1.4	1.3	1.3	.97	.75	.58	1.1	.96
20	1.0	1.2	1.5	1.5	1.4	1.5	1.4	.91	.76	.65	1.1	.96
21	1.0	1.3	3.8	1.5	1.4	1.6	1.3	1.1	.74	.64	1.1	.98
22	1.0	1.3	1.7	1.5	1.4	1.4	1.4	1.1	.71	.68	1.0	.99
23	1.0	1.3	1.7	1.4	1.4	1.3	1.4	1.0	.72	.64	.92	1.0
24	1.0	1.3	1.8	1.4	1.3	1.2	1.4	.96	.72	.59	1.0	1.0
25	1.0	1.2	1.7	1.4	1.3	1.1	1.5	.95	.72	.59	.95	1.0
26	.97	1.3	1.8	1.4	1.4	1.2	1.4	.94	.69	.56	.96	1.1
27	.95	1.3	1.7	1.4	1.4	1.2	1.4	1.1	.72	.57	1.0	1.1
28	.95	1.3	1.7	1.4	1.4	1.2	1.3	1.2	.75	.67	1.1	1.1
29	.95	1.4	1.6	1.5	-----	1.1	1.3	1.1	.75	.72	1.2	1.0
30	.95	1.4	1.6	1.5	-----	1.1	1.2	1.1	.74	.66	1.1	.66
31	.95	-----	1.6	1.5	-----	1.2	-----	1.1	-----	.76	1.1	-----
TOTAL	34.82	33.83	51.0	46.7	40.5	40.3	39.72	31.59	26.14	19.13	35.16	29.73
MEAN	1.12	1.13	1.65	1.51	1.45	1.30	1.32	1.02	.87	.62	1.13	.99
MAX	1.5	1.4	3.8	1.6	1.6	1.6	1.6	1.2	1.2	.76	6.2	1.1
MIN	.95	.96	1.4	1.4	1.3	1.1	.92	.80	.69	.54	.69	.66
AC-FT	69	67	101	93	80	80	79	63	52	38	70	59

CAL YR 1970 TOTAL 559.06 MEAN 1.53 MAX 47 MIN .45 AC-FT 1,110  
WTR YR 1971 TOTAL 428.62 MEAN 1.17 MAX 6.2 MIN .54 AC-FT 850

PEAK DISCHARGE (BASE, 50 CFS).--Aug. 9 (1830) 111 cfs (8.31 ft).

## 10255810 BORREGO PALM CREEK NEAR BORREGO SPRINGS, CALIF.

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

DRAINAGE AREA.--21.8 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,200 ft (from topographic map).

AVERAGE DISCHARGE.--21 years, 0.36 cfs (261 acre-ft per year); median of yearly mean discharges, 0.2 cfs (140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1.6 cfs Dec. 22 (gage height, 1.92 ft); no flow most of year. Period of record: Maximum discharge, 2,000 cfs (estimated) Aug. 23, 1955 (gage height, 9.9 ft, from floodmarks); no flow for several months in each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.08	.26	.26	.02	.02				
2			0	.95	.26	.24	.02	.02				
3			0	.82	.26	.23	.03	.03				
4			0	.54	.26	.20	.03	.03				
5			0	.44	.26	.19	.03	.03				
6			0	.32	.26	.18	.03	.03				
7			0	.29	.25	.17	.03	.03				
8			0	.29	.23	.12	.03	.03				
9			0	.26	.23	.16	.03	.03				
10			0	.29	.24	.16	.03	.02				
11			0	.29	.24	.13	.03	.02				
12			0	.29	.24	.14	.03	.02				
13			0	.40	.24	.39	.03	.02				
14			0	.40	.23	.39	.03	.02				
15			0	.40	.23	.28	.03	.02				
16			0	.40	.25	.23	.03	.02				
17			0	.40	.57	.23	.03	.02				
18			0	.40	.40	.22	.03	.02				
19			0	.40	.49	.24	.03	.02				
20			0	.40	.76	.24	.03	.01				
21			.25	.40	.54	.20	.03	.02				
22			.95	.40	.40	.18	.03	.01				
23			.26	.36	.40	.17	.03	.01				
24			.04	.32	.36	.16	.03	.01				
25			0	.32	.32	.15	.03	0				
26			0	.29	.29	.16	.03	0				
27			0	.29	.26	.11	.03	.01				
28			0	.29	.26	.02	.02	.01				
29			0	.29	-----	.02	.02	0				
30			0	.26	-----	.02	.02	0				
31		-----	.05	.29	-----	.02	-----	0	-----			-----
TOTAL	0	0	1.55	11.57	8.99	5.61	.85	.53	0	0	0	0
MEAN	0	0	.050	.37	.32	.18	.028	.017	0	0	0	0
MAX	0	0	.95	.95	.76	.39	.03	.03	0	0	0	0
MIN	0	0	0	.08	.23	.02	.02	0	0	0	0	0
AC-FT	0	0	3.1	23	18	11	1.7	1.1	0	0	0	0

CAL YR 1970 TOTAL 64.08 MEAN .18 MAX 4.7 MIN 0 AC-FT 127  
WTR YR 1971 TOTAL 29.10 MEAN .080 MAX .95 MIN 0 AC-FT 58

PEAK DISCHARGE (BASE, 15 CFS).--No peak above base.

## SALTON SEA BASIN

10255850 VALLECITO CREEK NEAR JULIAN, CALIF.

LOCATION.--Lat 32°59'10", long 116°25'10", in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.1, T.14 S., R.5 E., San Diego County, on right bank 0.2 mile downstream from Cottonwood Wash and 12.6 miles southeast of Julian.

DRAINAGE AREA.--39.7 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,950 ft above mean sea level (from topographic map). U.S. Weather Bureau nonrecording rain gage at site 2.0 miles upstream.

AVERAGE DISCHARGE.--8 years, 0.15 cfs (109 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 350 cfs Aug. 4 (gage height, 5.40 ft); minimum daily, 0.03 cfs some days.

Period of record: Maximum discharge, 434 cfs July 17, 1969 (gage height, 5.82 ft, from high-water mark in well), from rating curve extended above 160 cfs on basis of velocity-area study of maximum flow; no flow at times in some years.

REMARKS.--Records good. No regulation or diversion above station. Flow is diverted for irrigation 300 ft below gage.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.04	.07	.06	.10	.09	.08	.07	.04	.12	.04	.05
2	.03	.04	.06	.07	.10	.09	.08	.07	.04	.12	.05	.05
3	.03	.04	.07	.06	.11	.09	.08	.07	.04	.10	.05	.05
4	.03	.04	.06	.06	.11	.09	.08	.06	.04	.04	18	.05
5	.03	.04	.06	.06	.11	.09	.08	.06	.04	.05	.07	.05
6	.03	.04	.06	.06	.11	.09	.08	.06	.04	.05	.06	.05
7	.03	.04	.06	.06	.11	.09	.08	.06	.04	.05	.06	.04
8	.03	.04	.06	.06	.11	.09	.07	.06	.04	.05	.06	.04
9	.03	.04	.06	.06	.11	.09	.08	.06	.04	.05	.06	.04
10	.03	.04	.06	.08	.11	.09	.08	.06	.04	.05	.06	.04
11	.03	.04	.07	.05	.11	.09	.08	.06	.04	.05	.05	.04
12	.03	.05	.07	.06	.11	.09	.08	.06	.04	.05	.05	.04
13	.03	.05	.06	.07	.11	.09	.08	.05	.04	.05	.05	.04
14	.04	.05	.06	.07	.10	.09	.08	.05	.04	.07	.05	.04
15	.04	.05	.06	.06	.11	.09	.08	.04	.04	.06	4.4	.04
16	.04	.05	.07	.06	.11	.09	.08	.04	.04	.06	.06	.04
17	.03	.04	.06	.06	.12	.08	.08	.04	.04	.06	.06	.04
18	.03	.04	.07	.06	.11	.08	.09	.04	.04	.25	.83	.04
19	.04	.05	.07	.07	.11	.08	.08	.05	.05	.03	.09	.04
20	.04	.05	.07	.07	.10	.08	.08	.04	.05	.03	.16	.04
21	.04	.05	.09	.07	.10	.08	.08	.04	.05	.03	.20	.04
22	.04	.05	.06	.07	.10	.08	.08	.04	.05	.03	.12	.04
23	.04	.05	.06	.08	.10	.08	.08	.04	.06	.03	.06	.04
24	.04	.05	.06	.08	.09	.08	.08	.04	.06	.03	.05	.04
25	.03	.05	.06	.08	.10	.08	.08	.04	.06	.03	.05	.04
26	.03	.06	.06	.09	.09	.08	.08	.04	.07	.03	.06	.04
27	.04	.06	.06	.09	.09	.08	.08	.04	.08	.03	.06	.04
28	.04	.07	.06	.09	.09	.08	.07	.05	.08	.03	.06	.04
29	.04	.07	.06	.09	-----	.08	.07	.04	.10	.04	.06	.04
30	.04	.07	.06	.11	-----	.08	.07	.04	.11	.04	.06	.04
31	.04	-----	.06	.11	-----	.08	-----	.04	-----	.05	.05	-----
TOTAL	1.07	1.45	1.97	2.22	2.93	2.64	2.37	1.55	1.54	1.76	25.14	1.26
MEAN	.035	.048	.064	.072	.10	.085	.079	.050	.051	.057	.81	.042
MAX	.04	.07	.09	.11	.12	.09	.09	.07	.11	.25	.18	.05
MIN	.03	.04	.06	.05	.09	.08	.07	.04	.04	.03	.04	.04
AC-FT	2.1	2.9	3.9	4.4	5.8	5.2	4.7	3.1	3.1	3.5	50	2.5
(a)	2.29	2.20	4.03	2.51	1.81	1.09	2.42	1.18	0	2.87	8.46	0

CAL YR 1970 TOTAL 19.03 MEAN .052 MAX .14 MIN .02 AC-FT 38  
WTR YR 1971 TOTAL 45.90 MEAN .13 MAX 18 MIN .03 AC-FT 91

PEAK DISCHARGE (BASE, 15 CFS) a Precipitation, in inches.

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
8-4	1630	5.40	350	8-18	1800	2.70	33
8-15	1745	4.35	186				

## 10255885 SAN FELIPE CREEK NEAR WESTMORLAND, CALIF.

LOCATION.--Lat 33°07'25", long 115°51'08", in NW¼SW¼ sec.17, T.12 S., R.11 E., Imperial County, on left bank 320 ft downstream from U.S. Highway 99 and 14.6 miles northwest of Westmorland.

DRAINAGE AREA.--1,693 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 190 ft below mean sea level (from topographic map).

AVERAGE DISCHARGE.--10 years (1961-71), 4.08 cfs (2,960 acre-ft per year); median of yearly mean discharges, 2.4 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,020 cfs Aug. 11 (gage height, 9.30 ft, from floodmark), result of slope-area measurement; no flow most of year.

Period of record: Maximum discharge, 7,790 cfs Sept. 2, 1967 (gage height, 10.93 ft), from rating curve extended above 6 cfs on basis of slope-area measurements at gage heights 6.56, 10.18, and 10.75 ft; no flow for some months in each year.

REMARKS.--Records fair. No regulation above station. Diversion and pumping for domestic use and irrigation in Borrego Valley 25 miles upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.12	.15	.07	0				42	
2			0	.15	.18	.12	.07				129	
3			0	.09	.12	.12	.15					.20
4			0	.07	.12	.22	.15				0	
5			0	.07	.12	.18	.05				0	
6			0	.09	.18	.15	.12				0	
7			0	.09	.18	.15	.02				0	
8			0	.09	.15	.18	0				0	
9			0	.12	.15	.18	0				0	
10			0	.12	.15	.15	0				0	
11			0	.12	.15	.15	0				402	
12			0	.15	.15	.15	0				3.2	
13			.46	.15	.15	.07	0				.20	
14			.73	.09	.15	.07	0				0	
15			.83	.09	.15	.07	0				0	
16			.93	.09	.15	.09	0				0	
17			1.2	.09	.12	.09	.01				0	
18			1.2	.12	.12	.07	0				0	
19			1.5	.12	.09	.09	0				0	
20			1.7	.12	.07	.12	0				0	
21			2.0	.12	.09	.12	0				0	
22			2.2	.12	.18	.12	0				0	
23			1.3	.12	.12	.12	0				0	
24			.73	.12	.18	.12	0				0	
25			.46	.12	.18	.09	0				0	
26			.27	.12	.12	.09	0				0	
27			.15	.12	.15	.07	0				0	
28			.12	.12	.18	.07	0				0	
29			.12	.12	-----	.07	0				0	
30			.12	.12	-----	.12	0				0	
31		-----	.12	.12	-----	0	-----		-----		0	-----
TOTAL	0	0	16.14	3.47	4.00	3.48	.57	0	0	0	576.60	0
MEAN	0	0	.52	.11	.14	.11	.019	0	0	0	18.6	0
MAX	0	0	2.2	.15	.18	.22	.15	0	0	0	402	0
MIN	0	0	0	.07	.07	0	0	0	0	0	0	0
AC-FT	0	0	32	6.9	7.9	6.9	1.1	0	0	0	1,140	0

CAL YR 1970 TOTAL 1,044.71 MEAN 2.86 MAX 439 MIN 0 AC-FT 2,070

WTR YR 1971 TOTAL 604.26 MEAN 1.66 MAX 402 MIN 0 AC-FT 1,200

PEAK DISCHARGE (BASE, 200 CFS).--Aug. 1 (2330) 910 cfs (8.22 ft); Aug. 11 (time unknown) 2,020 cfs (9.30 ft).

## SALTON SEA BASIN

## 10256000 WHITEWATER RIVER AT WHITE WATER, CALIF.

LOCATION.--Lat 33°56'48", long 116°38'24", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.2, T.3 S., R.3 E., Riverside County, on right bank 1.5 miles north of White Water and 3.5 miles upstream from San Geronio River.

DRAINAGE AREA.--57.4 sq mi.

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

GAGE.--Water-stage recorder on river (supplementary gage used Oct. 1 to Sept. 30); water-stage recorder and Cipolletti weir on diversion 500 ft downstream. Datum of gage is 1,610 ft above mean sea level. Feb. 24, 1950, to Sept. 30, 1952, and Apr. 13, 1960, to June 19, 1968, supplementary gages at different sites and datums within 200 ft of base gage. Since Aug. 12, 1969, supplementary gage at site 1.5 miles downstream at different datum.

AVERAGE DISCHARGE (River only).--23 years, 16.9 cfs (12,240 acre-ft per year).

(Combined river and infiltration line).--22 years (1949-71), 18.5 cfs (13,400 acre-ft per year);

median of yearly mean discharges, 13 cfs (9,420 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 1,000 cfs Feb. 28 (gage height, 5.00 ft), on

basis of slope-conveyance measurement; minimum daily, 6.3 cfs June 19, 20.

Period of record: Maximum discharge, 24,000 cfs Nov. 22, 1965 (gage height, 13.60 ft), from rating curve extended above 660 cfs on basis of field estimate of maximum flow; no flow at times in some years.

Maximum discharge, 42,000 cfs Mar. 2, 1938, by slope-area measurement of peak flow, at site 2.5 miles upstream (drainage area, 51.4 sq mi).

REMARKS.--Records good. White Water Mutual Water Co. diverts 50 ft downstream. Diversion was added to flow at supplementary gage to obtain daily discharge for the water year 1971. Monthly discharge is combined with flow from infiltration line that bypasses station. No regulation above station. Water is diverted out of basin about 15 miles upstream to powerplants in San Geronio River basin and then to an area north of Banning for irrigation. One small diversion for domestic use and one for irrigation are made 2 to 3 miles upstream.

COOPERATION.--Records of bypass in infiltration line furnished by White Water Mutual Water Co.; records of diversion, 15 miles upstream, furnished by Southern California Edison Co.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	16	30	26	16	13	11	11	10	8.3	8.2	12
2	14	15	29	25	16	12	11	11	9.5	8.5	8.1	11
3	14	15	28	20	16	12	11	10	10	7.7	9.4	12
4	14	15	27	18	16	12	11	12	10	7.8	9.4	12
5	14	16	26	16	16	12	11	12	10	8.2	8.6	11
6	14	17	25	16	15	12	11	12	10	8.1	8.5	10
7	14	19	24	16	15	12	10	14	9.4	8.1	7.8	10
8	14	17	23	15	16	11	11	14	9.3	8.1	8.1	10
9	14	13	22	16	16	12	11	12	9.5	7.8	8.9	11
10	14	13	21	17	16	12	10	13	9.6	7.1	8.7	13
11	15	12	20	18	16	11	9.7	13	9.3	7.2	8.9	13
12	14	13	19	19	14	11	9.9	11	8.7	7.7	9.0	13
13	14	13	18	19	13	13	9.7	11	7.8	7.5	9.1	12
14	14	14	18	19	12	12	10	10	7.6	7.7	7.7	11
15	15	14	17	19	12	12	11	9.5	7.5	8.0	8.0	11
16	13	15	17	18	12	12	9.4	9.5	7.5	7.9	8.8	11
17	13	15	17	18	14	12	11	10	6.9	7.3	8.9	12
18	17	15	17	19	13	12	11	9.5	7.3	7.3	10	11
19	15	15	20	23	14	13	12	8.5	6.3	7.7	11	11
20	14	15	19	23	14	12	13	8.5	6.3	7.9	12	11
21	15	16	38	21	12	12	13	9.6	7.5	8.0	11	11
22	15	16	22	20	12	11	12	9.8	7.6	8.4	11	11
23	16	16	22	19	14	11	12	8.9	8.1	8.6	11	11
24	16	14	23	16	13	12	11	8.9	8.2	7.9	10	11
25	16	15	22	17	12	12	13	8.4	8.1	7.6	11	9.9
26	16	17	22	16	13	12	12	8.3	7.6	8.7	10	11
27	18	19	23	16	12	12	13	9.7	7.7	8.6	10	11
28	18	18	21	16	12	12	12	10	8.5	8.8	10	10
29	18	139	21	16	-----	11	12	10	8.5	8.1	14	11
30	17	29	21	15	-----	10	11	9.8	7.2	8.2	13	11
31	18	-----	21	15	-----	10	-----	9.0	-----	8.2	13	-----
TOTAL	467	596	693	567	392	365	335.7	323.9	251.5	247.0	303.1	335.9
MEAN	15.1	19.9	22.4	18.3	14.0	11.8	11.2	10.4	8.38	7.97	9.78	11.2
MAX	18	139	38	26	16	13	13	14	10	8.8	14	13
MIN	13	12	17	15	12	10	9.4	8.3	6.3	7.1	7.7	9.9
AC-FT	926	1,180	1,370	1,120	778	724	666	642	499	490	601	666
(a)	984	1,230	1,410	1,160	817	769	712	690	537	515	635	705
(b)	130	120	147	148	134	148	149	140	102	89	86	86

CAL YR 1970 TOTAL 7,916.3 MEAN 21.7 MAX 139 MIN 9.1 AC-FT 15,700 AC-FT a 16,440

WTR YR 1971 TOTAL 4,877.1 MEAN 13.4 MAX 139 MIN 6.3 AC-FT 9,670 AC-FT a 10,160

PEAK DISCHARGE (BASE, 100 CFS).--Nov. 29 (0430) 1,000 cfs (6.25 ft); Dec. 21 (1130) 100 cfs (6.13 ft).

a Combined discharge of river and infiltration line.

b Discharge diverted from basin 15 miles upstream.

10256400 SAN GORGONIO RIVER NEAR WHITE WATER, CALIF.

LOCATION.--Lat 33°55'14", long 116°41'45", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.8, T.3 S., R.3 E., Riverside County, on right bank 0.2 mile south of Interstate Highway 10 and 3.4 miles west of town of White Water.

DRAINAGE AREA.--154 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,320 ft (from topographic map). Prior to Mar. 19, 1968, flood-hydrograph recorder.

EXTREMES.--Current year: Maximum discharge, 254 cfs Dec. 2 (gage height, 1.89 ft), result of dam failure at Cabazon; no flow most of year.

Period of record: Maximum discharge, 7,250 cfs Jan. 25, 1969 (gage height, 6.0 ft, from floodmarks), on basis of slope-area measurement of maximum flow; no flow most of each year.

Flood of Nov. 23, 1965, reached a stage of 6.10 ft, from floodmarks (discharge, 4,500 cfs on basis of slope-area measurement).

REMARKS.--Records poor. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0									
2		0	10									
3		0	0									
4		0	0									
5		0	0									
6		0	0									
7		0	0									
8		0	0									
9		0	0									
10		0	0									
11		0	0									
12		0	0									
13		0	0									
14		0	0									
15		0	0									
16		0	0									
17		0	0									
18		0	0									
19		0	.28									
20		0	0									
21		0	7.1									
22		0	0									
23		0	0									
24		0	0									
25		0	0									
26		0	0									
27		0	0									
28		0	0									
29		5.5	0		-----							
30		0	0		-----							
31		-----	0		-----		-----		-----			-----
TOTAL	0	5.5	17.38	0	0	0	0	0	0	0	0	0
MEAN	0	.18	.56	0	0	0	0	0	0	0	0	0
MAX	0	5.5	10	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	11	34	0	0	0	0	0	0	0	0	0

CAL YR 1970 TOTAL 27.29 MEAN .075 MAX 10 MIN 0 AC-FT 54  
WTR YR 1971 TOTAL 22.88 MEAN .063 MAX 10 MIN 0 AC-FT 45

PEAK DISCHARGE (BASE, 50 CFS)  
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE  
11-29 -- 2.38 91 12-21 1400 2.07 66  
12- 2 1140 1.89 254

NOTE.--No gage-height record Nov. 29, Dec. 2.

## SALTON SEA BASIN

10256500 SNOW CREEK NEAR WHITE WATER, CALIF.

LOCATION.--Lat 33°52'14", long 116°40'49", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.33, T.3 S., R.3 E., Riverside County, on left bank 300 ft upstream from Southern Pacific Railroad diversion dam, 300 ft downstream from East Fork, 2.5 miles upstream from mouth, and 4.4 miles southwest of White Water. Prior to Oct. 6, 1970, at site 250 ft downstream.

DRAINAGE AREA.--10.8 sq mi.

PERIOD OF RECORD.--July to December 1921, May 1922 to February 1927, December 1927 to September 1931, October 1959 to current year. Yearly discharge only for 1930, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 2,000 ft (from topographic map). Prior to September 1931, at various sites within 500 ft of present site at different datums. September 1931 to Oct. 6, 1970, at site 250 ft downstream at datum 15.9 ft lower.

AVERAGE DISCHARGE.--19 years (1922-26, 1928-31, 1959-71), 8.39 cfs (6,080 acre-ft per year); median of yearly mean discharges, 6.0 cfs (4,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 282 cfs Nov. 29 (gage height, 18.09 ft); minimum daily, 2.6 cfs July 12, 17.

Period of record: Maximum discharge, 13,000 cfs Jan. 25, 1969 (gage height, 27.4 ft, from floodmarks, present datum), from rating curve extended above 55 cfs on basis of slope-area measurement of maximum flow; minimum daily, 2.1 cfs June 23-27, Sept. 5-11, 1961.

REMARKS.--Records good. No regulation or diversion above station. Palm Springs Water Company diverts 50 ft downstream, generally taking the entire base flow.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	3.8	9.9	6.3	5.4	4.9	6.6	5.4	5.7	3.5	3.2	3.6
2	3.6	3.8	7.1	6.2	5.1	4.8	6.2	5.7	5.4	3.5	3.1	3.6
3	3.8	3.7	6.2	6.2	5.1	4.9	5.9	6.0	5.4	3.2	3.1	3.6
4	3.5	3.7	5.6	6.1	4.9	5.0	5.8	6.4	5.4	3.2	3.1	3.5
5	3.8	3.7	5.3	6.0	5.5	4.9	5.6	6.4	5.4	3.2	3.0	3.5
6	3.6	3.6	5.2	5.4	5.6	4.8	5.7	6.8	5.7	3.0	3.0	3.4
7	3.6	3.6	5.1	5.4	5.4	4.6	5.8	6.4	5.4	3.0	3.0	3.4
8	3.6	3.5	5.3	5.4	5.4	4.7	6.0	7.2	6.4	3.0	2.9	3.3
9	3.5	3.5	5.7	5.4	5.7	4.9	5.9	7.2	6.4	3.0	2.9	3.3
10	3.5	3.5	6.1	5.4	5.4	4.9	5.8	7.2	6.4	3.0	2.8	3.2
11	3.5	3.5	5.8	5.2	5.5	4.9	5.8	7.6	6.4	3.0	2.8	3.2
12	3.7	3.5	5.4	5.4	5.4	4.9	5.4	6.8	6.0	2.6	2.8	3.2
13	3.8	3.6	5.9	6.0	5.4	6.0	5.4	7.2	6.0	2.8	2.8	3.1
14	3.8	3.7	6.6	5.4	5.4	5.6	6.0	8.4	6.0	2.8	2.9	3.1
15	3.5	3.8	6.5	5.2	5.5	5.2	6.0	8.8	6.0	2.8	2.9	3.1
16	3.5	3.8	6.3	5.4	6.1	5.2	5.7	9.2	6.0	2.7	3.0	3.2
17	3.5	3.7	8.1	7.2	6.9	5.1	6.4	8.8	5.7	2.6	3.0	3.1
18	3.6	3.4	7.4	17	6.6	5.2	6.4	8.0	5.2	2.7	3.1	3.2
19	3.7	3.3	9.4	22	6.3	5.1	6.0	7.6	5.2	2.8	3.1	3.2
20	4.0	3.2	8.7	25	6.0	5.1	6.0	7.2	4.9	3.5	3.2	3.3
21	4.0	3.2	15	18	6.0	4.9	5.7	7.2	4.9	6.8	3.3	3.4
22	4.1	3.4	13	12	5.6	5.0	5.4	7.2	4.9	18	3.4	3.7
23	4.0	3.5	10	9.3	5.4	5.1	5.4	6.8	4.9	12	3.5	3.4
24	4.0	3.7	9.1	7.7	5.3	5.4	5.2	6.4	4.3	4.3	3.6	3.4
25	4.0	3.9	8.2	6.7	5.2	5.7	5.2	6.4	4.3	3.9	3.6	3.2
26	4.0	9.1	7.6	6.1	5.0	7.5	5.4	6.8	4.0	3.7	3.6	3.5
27	4.0	8.0	7.2	5.5	5.0	10	5.2	7.2	4.0	3.6	3.6	3.4
28	4.0	3.6	7.0	5.6	5.1	8.6	5.4	7.2	3.8	3.5	3.7	3.5
29	3.9	93	6.8	5.4	-----	7.7	5.4	6.4	4.0	3.4	3.7	3.2
30	3.9	27	6.6	5.2	-----	7.2	5.4	6.0	3.5	3.4	3.7	3.3
31	3.8	-----	6.4	5.2	-----	6.9	-----	5.7	-----	3.3	3.6	-----
TOTAL	116.5	233.3	228.5	248.3	155.2	174.7	172.1	217.6	157.6	125.8	99.0	100.1
MEAN	3.76	7.68	7.37	8.01	5.54	5.64	5.74	7.02	5.25	4.06	3.19	3.34
MAX	4.1	93	15	25	6.9	10	6.6	9.2	6.4	18	3.7	3.7
MIN	3.5	3.2	5.1	5.2	4.9	4.6	5.2	5.4	3.5	2.6	2.8	3.1
AC-FT	231	457	453	493	308	347	341	432	313	250	196	199

CAL YR 1970 TOTAL 2,155.6 MEAN 5.63 MAX 93 MIN 2.8 AC-FT 4,080  
WTR YR 1971 TOTAL 2,025.7 MEAN 5.55 MAX 93 MIN 2.6 AC-FT 4,020

PEAK DISCHARGE (BASE, 50 CFS).--Nov. 29 (1600) 282 cfs (18.09 ft); July 23 (0630) 91 cfs (17.23 ft).

NOTE.--No gage-height record July 26 to Sept. 14.

## 10257600 MISSION CREEK NEAR DESERT HOT SPRINGS, CALIF.

LOCATION.--Lat 34°00'40", long 116°37'38", in NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.12, T.2 S., R.3 E., Riverside County, in Mission Creek Indian Reservation, 0.6 mile downstream from West Fork, and 6.8 miles northwest of Desert Hot Springs.

DRAINAGE AREA.--35.7 sq mi.

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

GAGE.--Water-stage recorder with rain-gage attachment. Altitude of gage is 2,400 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 14 cfs Nov. 29 (gage height, 2.50 ft); no flow Aug. 29 to Sept. 3, Sept. 5-30.

Period of record: Maximum discharge, 1,660 cfs Jan. 25, 1969 (gage height, 6.40 ft), on basis of slope-area measurement of maximum flow; no flow much of most years.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	1.0	2.7	2.4	1.7	2.0	1.7	1.0	.84	.31	.10	0
2	.97	1.0	2.2	2.5	1.8	2.0	1.6	1.0	.84	.28	.10	0
3	1.1	1.0	2.0	1.1	1.8	1.9	1.5	.97	.78	.31	.10	0
4	1.1	1.0	2.0	1.0	1.9	1.8	1.5	1.1	.72	.28	.11	.01
5	1.0	1.0	1.8	1.0	1.9	2.0	1.3	1.0	.67	.28	.11	0
6	1.0	1.0	1.8	1.0	1.9	2.0	1.3	1.1	.62	.26	.11	0
7	1.0	1.0	1.8	.90	1.9	1.8	1.3	1.2	.62	.24	.10	0
8	1.1	1.0	1.8	.90	1.9	1.7	1.2	1.2	.62	.24	.10	0
9	1.1	1.0	1.8	1.0	1.8	1.6	1.2	.97	.62	.24	.10	0
10	1.0	.97	1.8	1.1	1.8	1.6	1.1	1.1	.62	.22	.10	0
11	.97	.90	1.8	1.2	1.7	1.6	1.0	1.0	.62	.20	.11	0
12	.97	.97	1.8	1.3	1.7	1.6	.97	.97	.57	.16	.13	0
13	.90	.97	1.8	1.4	1.7	1.7	.97	.97	.53	.16	.13	0
14	.90	.97	1.9	1.5	1.7	1.7	1.1	.97	.53	.16	.13	0
15	.90	.97	1.7	1.5	1.7	1.6	1.1	.90	.49	.16	.13	0
16	.90	1.0	1.8	1.5	1.8	1.7	.97	.84	.45	.18	.13	0
17	.90	1.0	1.9	1.5	1.9	1.6	1.2	.97	.45	.20	.13	0
18	.90	1.0	1.9	1.5	1.9	1.7	1.4	.97	.45	.18	.14	0
19	.90	1.0	2.2	1.5	1.9	1.8	1.2	.90	.45	.16	.14	0
20	.90	1.0	2.0	1.5	2.0	1.8	1.2	.90	.41	.14	.14	0
21	.90	.90	2.4	1.6	2.0	1.8	1.3	.97	.41	.13	.16	0
22	.90	.90	1.8	1.6	2.0	1.7	1.2	.97	.37	.11	.16	0
23	.90	.90	2.2	1.7	2.2	1.7	1.1	.90	.37	.11	.16	0
24	.90	.78	2.0	1.7	2.0	1.7	1.1	.84	.37	.10	.14	0
25	.90	.84	2.0	1.7	2.0	1.7	1.3	.78	.37	.09	.14	0
26	.97	.78	2.0	1.7	2.0	1.6	1.3	.78	.34	.09	.14	0
27	.97	.78	2.0	1.7	2.0	1.7	1.2	.97	.34	.08	.16	0
28	1.0	.97	2.0	1.7	2.0	1.6	1.2	1.0	.34	.08	.08	0
29	1.0	5.6	2.0	1.7	-----	1.6	1.1	.97	.34	.10	0	0
30	1.0	4.6	2.0	1.7	-----	1.6	1.0	.84	.34	.10	0	0
31	1.0	-----	2.0	1.7	-----	1.7	-----	.84	-----	.10	0	-----
TOTAL	29.92	36.80	60.9	45.80	52.6	53.6	36.61	29.89	15.49	5.45	3.48	.01
MEAN	.97	1.23	1.96	1.48	1.88	1.73	1.22	.96	.52	.18	.11	.0003
MAX	1.1	5.6	2.7	2.5	2.2	2.0	1.7	1.2	.84	.31	.16	.01
MIN	.90	.78	1.7	.90	1.7	1.6	.97	.78	.34	.08	0	0
AC-FT	59	73	121	91	104	106	73	59	31	11	6.9	.02
(a)	0	1.3	2.4	.3	.1	.2	.7	.1	0	0	0	0

CAL YR 1970 TOTAL 685.60 MEAN 1.88 MAX 7.6 MIN .30 AC-FT 1,360  
WTR YR 1971 TOTAL 370.55 MEAN 1.02 MAX 5.6 MIN 0 AC-FT 735

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

a Precipitation, in inches.



## SALTON SEA BASIN

10257800 LONG CREEK NEAR DESERT HOT SPRINGS, CALIF.

LOCATION.--Lat 33°57'53", long 116°26'35", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.27, T.2 S., R.5 E., Riverside County, on left bank 0.4 mile downstream from Metropolitan Water District aqueduct and 3.3 miles east of Desert Hot Springs.

DRAINAGE AREA.--19.4 sq mi.

PERIOD OF RECORD.--April 1963 to September 1971 (discontinued as a continuous-record station, converted to a crest-stage partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 1,520 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 0.002 cfs (1.4 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 38 cfs Oct. 27 (gage height, 1.37 ft); no flow most of year.  
Period of record: Maximum discharge, 9,270 cfs Aug. 7, 1963 (gage height, 8.0 ft, from floodmarks), on basis of field estimate of maximum flow; no flow most of each year.

REMARKS.--Records poor. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0									
2	0	0	0									
3	0	0	0									
4	0	0	0									
5	0	0	0									
6	0	0	0									
7	0	0	0									
8	0	0	0									
9	0	0	0									
10	0	0	0									
11	0	0	0									
12	0	0	0									
13	0	0	0									
14	0	0	0									
15	0	0	0									
16	0	0	0									
17	0	0	0									
18	0	0	0									
19	0	0	0									
20	0	0	0									
21	0	0	.69									
22	0	0	0									
23	0	0	0									
24	0	0	0									
25	0	0	0									
26	0	0	0									
27	.47	0	0									
28	0	0	0									
29	0	.14	0		-----							
30	0	0	0		-----							
31	0	-----	0		-----		-----		-----		-----	
TOTAL	.47	.14	.69	0	0	0	0	0	0	0	0	0
MEAN	.015	.005	.022	0	0	0	0	0	0	0	0	0
MAX	.47	.14	.69	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.9	.3	1.4	0	0	0	0	0	0	0	0	0
CAL YR 1970	TOTAL 1.37	MEAN .0040	MAX .69	MIN 0	AC-FT 2.7							
WTR YR 1971	TOTAL 1.30	MEAN .0040	MAX .69	MIN 0	AC-FT 2.6							

## SALTON SEA BASIN

61

10258000 TAHQUITZ CREEK NEAR PALM SPRINGS, CALIF.

LOCATION.--Lat 33°48'18", long 116°33'30", in NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.22, T.4 S., R.4 E., Riverside County, on left bank 2.2 miles southwest of Palm Springs and 7 miles upstream from mouth.

DRAINAGE AREA.--16.8 sq mi.

PERIOD OF RECORD.--October 1947 to current year.

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

AVERAGE DISCHARGE.--24 years, 4.04 cfs (2,930 acre-ft per year); median of yearly mean discharges, 1.7 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 37 cfs Nov. 29 (gage height, 4.29 ft); no flow July 19 to Sept. 30.

Period of record: Maximum discharge, 2,900 cfs Nov. 22, 1965, Jan. 25, 1969 (gage height, 12.34 ft, present datum), from rating curve extended above 80 cfs on basis of slope-area measurements at gage heights 8.45 and 10.34 ft; no flow for parts of each year.

REMARKS.--Records poor. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.50	6.1	1.4	1.9	2.4	1.7	1.5	1.5	.26		
2	.01	.51	1.5	1.5	1.9	2.3	1.7	1.5	1.5	.24		
3	.05	.51	1.0	1.7	2.0	2.3	1.7	1.5	1.4	.22		
4	.05	.52	.92	1.6	1.9	2.3	1.7	1.5	1.4	.20		
5	.20	.52	.83	1.5	1.9	2.3	1.7	1.5	1.0	.16		
6	.27	.54	.78	1.4	1.8	2.2	1.6	1.5	.84	.14		
7	.27	.54	.76	1.3	1.8	2.2	1.6	1.5	.78	.12		
8	.31	.55	.72	1.3	1.7	2.2	1.6	1.8	.76	.10		
9	.31	.54	.72	1.3	1.7	2.2	1.6	1.8	.74	.09		
10	.32	.53	.72	1.2	1.7	2.1	1.6	1.8	.72	.08		
11	.33	.52	.72	1.2	1.6	2.1	1.6	1.8	.70	.07		
12	.34	.52	.70	1.2	1.7	2.1	1.6	1.7	.68	.06		
13	.35	.55	.72	1.2	1.9	2.1	1.6	1.7	.66	.05		
14	.36	.63	.72	1.2	2.0	2.0	1.6	1.7	.64	.04		
15	.36	.67	.70	1.1	2.1	2.0	1.6	1.7	.60	.03		
16	.37	.68	.68	1.1	2.1	2.0	1.6	1.6	.58	.02		
17	.38	.67	.66	1.1	2.5	2.0	1.6	1.6	.56	.02		
18	.39	.65	.68	2.2	2.3	2.0	1.5	1.6	.54	.01		
19	.40	.67	1.2	8.2	2.9	2.0	1.5	1.6	.52	0		
20	.41	.68	.92	13	2.6	1.9	1.5	1.6	.50	0		
21	.42	.68	12	15	2.5	1.9	1.5	1.6	.47	0		
22	.43	.70	4.0	8.6	2.5	1.9	1.5	1.6	.45	0		
23	.43	.71	1.8	4.2	2.5	1.9	1.5	1.6	.43	0		
24	.43	.68	1.6	2.8	2.5	1.8	1.5	1.5	.41	0		
25	.45	.68	1.5	2.2	2.4	1.8	1.5	1.5	.38	0		
26	.45	.90	1.5	1.8	2.4	1.8	1.5	1.5	.36	0		
27	.45	1.1	1.5	1.8	2.4	1.8	1.5	1.5	.34	0		
28	.45	1.1	1.4	1.8	2.4	1.8	1.5	1.5	.31	0		
29	.47	10	1.4	1.8	-----	1.8	1.5	1.5	.29	0		
30	.48	20	1.4	1.8	-----	1.7	1.5	1.5	.28	0		
31	.49	-----	1.4	1.8	-----	1.7	-----	1.5	-----	0		-----
TOTAL	10.43	48.05	51.25	89.3	59.6	62.6	47.2	49.3	20.34	1.91	0	0
MEAN	.34	1.60	1.65	2.88	2.13	2.02	1.57	1.59	.68	.062	0	0
MAX	.49	20	12	15	2.9	2.4	1.7	1.8	1.5	.26	0	0
MIN	0	.50	.66	1.1	1.6	1.7	1.5	1.5	.28	0	0	0
AC-FT	21	95	102	177	118	124	94	98	40	3.8	0	0

CAL YR 1970 TOTAL 750.19 MEAN 2.06 MAX 20 MIN 0 AC-FT 1,490  
 WTR YR 1971 TOTAL 439.98 MEAN 1.21 MAX 20 MIN 0 AC-FT 873

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

NOTE.--No gage-height record Mar. 1 to June 4.

## SALTON SEA BASIN

10258100 PALM CANYON CREEK TRIBUTARY NEAR ANZA, CALIF.

LOCATION.--Lat 33°34'08", long 116°30'43", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.18, T.7 S., R.5 E., Riverside County, in San Bernardino National Forest, on left bank at culvert on State Highway 74, or Pines to Palms Highway, and 9.4 miles east of Anza.

DRAINAGE AREA.--0.47 sq mi.

PERIOD OF RECORD.--Water years 1962-67 (annual maximum), February 1967 to current year.

GAGE.--Water-stage recorder with rain-gage attachment and crest-stage gage. Altitude of gage is 4,500 ft (from topographic map). Nov. 8, 1961, to Feb. 15, 1967, crest-stage gage only at same site and datum.

EXTREMES.--Current year: Maximum discharge, 16 cfs Aug. 17 (gage height, 5.28 ft); no flow most of year. Period of record: Maximum discharge, 28 cfs Aug. 30, 1967 (gage height, 6.23 ft, 5.92 ft from crest-stage gage), on basis of computation of maximum flow through culvert; no flow most of each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0									0	
2		0									0	
3		0									0	
4		0									0	
5		0									0	
6		0									0	
7		0									0	
8		0									0	
9		0									0	
10		0									0	
11		0									0	
12		0									0	
13		0									0	
14		0									0	
15		0									0	
16		0									0	
17		0									.55	
18		0									0	
19		0									0	
20		0									0	
21		0									0	
22		0									0	
23		0									0	
24		0									0	
25		0									0	
26		0									0	
27		0									0	
28		0									0	
29		.03			-----						0	
30		0			-----						0	
31		-----			-----		-----		-----		0	-----
TOTAL	0	.03	0	0	0	0	0	0	0	0	.55	0
MEAN	0	.001	0	0	0	0	0	0	0	0	.018	0
MAX	0	.03	0	0	0	0	0	0	0	0	.55	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	.06	0	0	0	0	0	0	0	0	1.1	0
(a)	.1	2.3	2.3	.7	.6	.4	.4	.5	0	.3	1.6	0
CAL YR 1970	TOTAL	2.14	MEAN .0060	MAX 1.1	MIN 0	AC-FT 4.2						
WTR YR 1971	TOTAL	0.58	MEAN .0020	MAX .55	MIN 0	AC-FT 1.2						

a Precipitation, in inches.

## 10258500 PALM CANYON CREEK NEAR PALM SPRINGS, CALIF.

LOCATION.--Lat 33°44'42", long 116°32'05", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.11, T.5 S., R.4 E., Riverside County, on right bank 0.8 mile upstream from Murray Canyon Creek and 6 miles south of Palm Springs.

DRAINAGE AREA.--93.3 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 700 ft (from topographic map). Prior to Jan. 14, 1942, at datum 0.2 ft higher.

AVERAGE DISCHARGE.--35 years (1930-41, 1947-71), 3.58 cfs (2,590 acre-ft per year); median of yearly mean discharges, 0.5 cfs (360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 84 cfs Dec. 21 (gage height, 2.58 ft); no flow most of year. Period of record: Maximum discharge, 3,850 cfs Feb. 6, 1937 (gage height, 5.80 ft, present datum), from rating curve extended above 120 cfs on basis of velocity-area measurement of maximum flow; no flow for several months in most years.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.15	.13	.01						
2			0	1.0	.13	0						
3			0	1.6	.07	.01						
4			0	.94	.07	.02						
5			0	.74	.10	0						
6			0	.65	.10	0						
7			0	.57	.05	0						
8			0	.57	.03	0						
9			0	.49	.01	0						
10			0	.49	.01	0						
11			0	.42	.01	0						
12			0	.42	0	0						
13			0	.57	0	.06						
14			0	.49	0	.16						
15			0	.49	0	.03						
16			0	.49	.01	.01						
17			0	.57	.20	.01						
18			0	.84	.10	0						
19			0	1.2	.06	0						
20			0	1.2	.07	0						
21			26	1.0	.04	0						
22			26	.84	.05	0						
23			2.8	.65	.05	0						
24			.94	.49	.02	0						
25			.36	.42	.01	0						
26			.09	.36	0	0						
27			0	.30	.01	0						
28			0	.25	.01	0						
29			0	.20	-----	0						
30			0	.16	-----	0						
31		-----	0	.16	-----	0	-----		-----			-----
TOTAL	0	0	56.19	18.72	1.34	.31	0	0	0	0	0	0
MEAN	0	0	1.81	.60	.048	.010	0	0	0	0	0	0
MAX	0	0	26	1.6	.20	.16	0	0	0	0	0	0
MIN	0	0	0	.15	0	0	0	0	0	0	0	0
AC-FT	0	0	111	37	2.7	.6	0	0	0	0	0	0

CAL YR 1970 TOTAL 245.56 MEAN .67 MAX 55 MIN 0 AC-FT 487  
WTR YR 1971 TOTAL 76.56 MEAN .21 MAX 26 MIN 0 AC-FT 152

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

## SALTON SEA BASIN

10259000 ANDREAS CREEK NEAR PALM SPRINGS, CALIF.

LOCATION.--Lat 33°45'36", long 116°32'57", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.3, T.5 S., R.4 E., Riverside County, on left bank at Bureau of Indian Affairs diversion dam, 1.1 miles above mouth, and 5.1 miles south of Palm Springs.

DRAINAGE AREA.--8.61 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 800 ft (from topographic map). Prior to Mar. 25, 1949, reference point at same site at different datum.

AVERAGE DISCHARGE.--23 years, 2.19 cfs (1,590 acre-ft per year); median of yearly mean discharges, 1.5 cfs (1,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 95 cfs Nov. 29 (gage height, 2.28 ft); minimum daily, 0.20 cfs Sept. 13-16.

Period of record: Maximum discharge, 1,960 cfs Aug. 31, 1954 (gage height, 7.11 ft), from rating curve extended above 80 cfs on basis of slope-area measurement of maximum flow; no flow at times in some years.

REMARKS.--Records fair. No regulation above station. One small diversion for domestic use about one mile above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	1.4	2.6	2.8	2.9	1.8	1.8	1.5	1.2	.60	.47	.26
2	.69	1.4	2.0	2.9	3.0	1.8	1.7	1.5	1.2	.59	.47	.25
3	.85	1.4	1.9	2.9	3.0	1.8	1.7	1.5	1.2	.61	.46	.24
4	.83	1.5	2.1	2.8	3.0	1.8	1.7	1.6	1.2	.58	.46	.24
5	.80	1.5	1.6	3.0	3.0	1.8	1.6	1.6	1.2	.55	.46	.23
6	.81	1.4	1.1	2.9	3.0	1.7	1.6	1.6	1.2	.53	.45	.21
7	.73	1.3	1.1	2.8	2.7	1.8	1.6	1.6	1.2	.52	.45	.26
8	.78	1.5	1.1	2.7	2.7	2.0	1.5	1.7	1.2	.52	.45	.26
9	.78	1.7	1.1	2.7	2.5	2.0	1.6	1.6	1.2	.52	.45	.23
10	.77	1.8	1.0	2.8	2.5	2.0	1.5	1.6	1.3	.52	.45	.37
11	.84	1.8	1.1	3.0	2.2	2.0	1.5	1.4	1.3	.52	.45	.22
12	.83	1.8	1.0	3.0	2.4	2.0	1.4	1.3	1.3	.52	.45	.21
13	.83	1.8	1.2	3.0	2.7	2.1	1.4	1.4	1.2	.52	.45	.20
14	.88	1.8	1.2	3.0	2.6	1.8	1.4	1.4	1.1	.52	.46	.20
15	.91	1.9	1.1	3.0	2.1	1.9	1.4	1.4	1.1	.52	.47	.20
16	.89	1.5	1.3	2.9	2.3	1.8	1.4	1.4	1.0	.53	.48	.20
17	.91	1.2	1.3	3.0	2.5	1.8	1.3	1.4	.94	.58	.49	.22
18	1.0	1.2	1.3	3.4	2.5	1.8	1.4	1.4	.94	.54	.49	.22
19	1.1	1.1	2.0	4.3	2.5	1.8	1.4	1.4	.82	.54	.51	.28
20	1.1	1.2	1.3	3.5	3.1	1.9	1.4	1.3	.84	.54	.43	.30
21	1.2	1.3	3.1	3.8	2.9	1.6	1.4	1.4	.79	.54	.48	.38
22	1.2	1.1	2.0	2.9	2.6	1.6	1.4	1.5	.68	.55	.44	.33
23	1.2	1.1	2.2	2.8	2.6	1.6	1.4	1.3	.68	.53	.36	.32
24	1.2	1.1	2.3	3.1	1.6	1.6	1.4	1.2	.66	.52	.35	.35
25	1.4	1.1	2.4	3.1	1.5	1.7	1.4	1.2	.64	.51	.33	.38
26	1.4	3.0	2.5	3.0	1.7	1.8	1.4	1.2	.61	.50	.33	.50
27	1.4	1.9	2.5	3.0	1.7	1.7	1.5	1.2	.59	.50	.32	.56
28	1.4	1.8	2.6	3.0	1.9	1.6	1.5	1.3	.61	.49	.31	.51
29	1.4	2.5	2.7	3.0	-----	1.6	1.5	1.3	.62	.48	.31	.58
30	1.4	5.1	2.7	2.8	-----	1.6	1.5	1.3	.61	.48	.28	.69
31	1.4	-----	2.7	2.7	-----	1.7	-----	1.3	-----	.47	.27	-----
TOTAL	31.63	72.7	56.1	93.6	69.7	55.5	44.7	43.8	29.13	16.44	13.03	9.40
MEAN	1.02	2.42	1.81	3.02	2.49	1.79	1.49	1.41	.97	.53	.42	.31
MAX	1.4	25	3.1	4.3	3.1	2.1	1.8	1.7	1.3	.61	.51	.69
MIN	.69	1.1	1.0	2.7	1.5	1.6	1.3	1.2	.59	.47	.27	.20
AC-FT	63	144	111	186	138	110	89	87	58	33	26	19

CAL YR 1970 TOTAL 678.01 MEAN 1.86 MAX 25 MIN .64 AC-FT 1,340  
WTR YR 1971 TOTAL 535.73 MEAN 1.47 MAX 25 MIN .20 AC-FT 1,060

PEAK DISCHARGE (BASE, 30 CFS).--Nov. 29 (1815) 95 cfs (2.28 ft).

## SALTON SEA BASIN

65

10259200 DEEP CREEK NEAR PALM DESERT, CALIF.

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

DRAINAGE AREA.--30.6 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 1,440 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 0.86 cfs (478 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 131 cfs July 22 (gage height, 3.18 ft); no flow most of year.  
Period of record: Maximum discharge, 1,300 cfs Nov. 23, 1965 (gage height, 5.15 ft in gage well, 6.15 ft, from profile of floodmarks), from rating curve extended above 3.3 cfs on basis of slope-area measurements at gage heights 2.68 and 5.15 ft; no flow much of each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.17	.15	.09	.04	.03	0	0	
2			0	0	.17	.15	.09	.04	.03	0	0	
3			0	0	.15	.15	.07	.04	.03	0	0	
4			0	0	.15	.15	.07	.04	.02	0	0	
5			0	0	.15	.15	.07	.04	.02	0	0	
6			0	0	.15	.15	.07	.04	.02	0	0	
7			0	0	.15	.15	.07	.05	.01	0	0	
8			0	0	.15	.15	.07	.04	0	0	0	
9			0	0	.15	.15	.06	.04	0	0	0	
10			0	0	.15	.15	.06	.04	0	0	0	
11			0	0	.15	.15	.06	.04	0	0	0	
12			0	0	.15	.15	.06	.04	0	0	0	
13			0	0	.15	.17	.06	.04	0	0	0	
14			0	.06	.15	.17	.06	.04	0	0	0	
15			0	.10	.15	.17	.06	.04	0	0	0	
16			0	.11	.15	.15	.06	.04	0	0	0	
17			0	.11	.24	.15	.05	.03	0	0	0	
18			0	.11	.19	.13	.05	.03	0	0	0	
19			0	.11	.17	.13	.05	.04	0	0	0	
20			0	.15	.17	.13	.05	.04	0	0	0	
21			.09	.27	.15	.13	.04	.04	0	.02	0	
22			.04	.30	.15	.13	.04	.05	0	9.3	0	
23			.01	.27	.15	.13	.04	.05	0	.46	0	
24			.01	.24	.17	.13	.04	.05	0	0	0	
25			.01	.21	.17	.13	.04	.04	0	0	0	
26			0	.21	.15	.13	.04	.04	0	0	0	
27			0	.19	.15	.11	.04	.04	0	0	0	
28			0	.19	.15	.11	.04	.04	0	0	2.1	
29			0	.17	-----	.11	.04	.04	0	0	.04	
30			0	.17	-----	.11	.04	.04	0	0	0	
31		-----	0	.17	-----	.11	-----	.03	-----	0	0	-----
TOTAL	0	0	.16	3.14	4.45	4.33	1.68	1.25	.16	9.78	2.14	0
MEAN	0	0	.005	.10	.16	.14	.056	.040	.005	.32	.069	0
MAX	0	0	.09	.30	.24	.17	.09	.05	.03	9.3	2.1	0
MIN	0	0	0	0	.15	.11	.04	.03	0	0	0	0
AC-FT	0	0	.3	6.2	8.8	8.6	3.3	2.5	.3	19	4.2	0

CAL YR 1970 TOTAL 132.01 MEAN .36 MAX 40 MIN 0 AC-FT 262  
WTR YR 1971 TOTAL 27.09 MEAN .074 MAX 9.3 MIN 0 AC-FT 54

PEAK DISCHARGE (BASE, 20 CFS).--July 22 (1700) 131 cfs (3.18 ft); Aug. 28 (1900) 20 cfs (2.23 ft).

## SALTON SEA BASIN

## 10259300 WHITEWATER RIVER AT INDIO, CALIF.

LOCATION.--Lat 33°44'06", long 116°14'39", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.15, T.5 S., R.7 E., Riverside County, at center bridge pier on Interstate Highway 10, 2 miles northwest of Indio.

DRAINAGE AREA.--1,073 sq mi.

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

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 5 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 4.68 cfs (3,390 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 194 cfs Mar. 6 (gage height, 7.23 ft); no flow most of year.  
 Period of record: Maximum discharge, 11,400 cfs Jan. 25, 1969 (gage height, 14.41 ft), from rating curve extended above 1,300 cfs on basis of slope-area measurement at gage height 15.3 ft; no flow most of each year.  
 Flood of Mar. 2 or 3, 1938, 29,000 cfs, result of slope-area measurement at site 4.5 miles upstream.  
 Flood of Nov. 22, 1965, reached a stage of 15.3 ft, from floodmarks (discharge, 14,100 cfs, on basis of slope-area measurement of peak flow).

REMARKS.--Records poor. No regulation above station. Water diverted from tributary streams for municipal supply in vicinity of Palm Springs. At times water is released to river at Coachella Canal crossing, 0.8 mile upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0		0				
2						0		0				
3						0		0				
4						0		0				
5						0		0				
6						14		0				
7						0		0				
8						0		0				
9						0		0				
10						0		.28				
11						0		0				
12						0		0				
13						0		0				
14						0		0				
15						0		0				
16						0		0				
17						0		0				
18						0		0				
19						0		0				
20						0		0				
21						0		0				
22						0		0				
23						0		0				
24						0		0				
25						0		0				
26						0		0				
27						0		0				
28						0		0				
29					-----	0		0				
30					-----	0		0				
31		-----			-----	0	-----	0	-----			-----
TOTAL	0	0	0	0	0	14	0	.28	0	0	0	0
MEAN	0	0	0	0	0	.45	0	.009	0	0	0	0
MAX	0	0	0	0	0	14	0	.28	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	28	0	.6	0	0	0	0

CAL YR 1970 TOTAL 1.42 MEAN .0040 MAX .8 MIN 0 AC-FT 2.8  
 WTR YR 1971 TOTAL 14.28 MEAN .039 MAX 14 MIN 0 AC-FT 28

PEAK DISCHARGE (BASE, 200 CFS).--No peak above base.

## 10259540 WHITEWATER RIVER NEAR MECCA, CALIF.

LOCATION.--Lat 33°31'29", long 116°04'36", in NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.32, T.7 S., R.9 E., Riverside County, on left bank 1.6 miles upstream from mouth, and 3.3 miles south of Mecca.

DRAINAGE AREA.--1,494 sq mi (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 221.00 ft below mean sea level (levels by Coachella County Water District). Oct. 1, 1960, to Mar. 22, 1967, at site 1.3 miles downstream and Mar. 23, 1967, to July 22, 1970, at site 0.7 mile downstream at different datums.

EXTREMES.--Period of record: Maximum daily discharge, 2,500 cfs (estimated) Jan. 25, 1969; minimum daily, 37 cfs Nov. 25-29, 1960.

REMARKS.--Records fair except those for Aug. 23 to Sept. 21, which are poor. Most of the flow represents seepage and return flow from irrigated areas.

COOPERATION.--Forty-seven discharge measurements furnished by Coachella Valley County Water District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	90	87	98	110	130	112	118	128	110	110	112
2	106	88	77	100	108	128	112	119	119	107	110	112
3	109	91	71	93	110	132	112	119	128	106	108	112
4	118	83	72	93	110	137	113	112	118	104	112	112
5	106	83	71	98	116	136	116	114	113	102	118	112
6	97	80	73	102	114	130	116	112	118	101	118	111
7	89	83	85	101	108	140	118	108	106	101	118	111
8	93	83	76	98	106	124	119	110	118	101	116	111
9	98	85	74	98	106	120	114	108	125	104	114	111
10	99	87	72	98	104	126	122	108	118	101	113	111
11	94	91	74	97	102	130	119	112	110	100	114	110
12	98	91	78	95	102	130	114	116	114	101	114	110
13	92	88	81	92	106	126	114	116	112	101	114	110
14	99	88	90	92	106	125	116	122	114	102	113	110
15	101	86	85	97	108	120	118	124	112	106	114	110
16	101	82	92	101	113	118	116	125	94	107	113	109
17	104	85	96	101	101	116	114	130	92	110	125	109
18	105	92	93	106	101	114	114	114	101	110	113	109
19	102	90	92	100	102	114	114	114	100	110	113	108
20	85	92	87	97	102	113	113	128	116	108	113	108
21	87	90	90	98	102	113	106	120	116	108	119	108
22	77	93	95	100	102	114	102	106	114	108	119	107
23	76	93	93	101	108	113	107	106	114	108	114	102
24	80	95	92	102	113	112	108	110	120	102	114	106
25	80	97	90	102	114	112	101	119	118	106	114	110
26	80	97	88	106	117	112	101	120	108	97	113	108
27	81	97	85	107	130	112	106	116	102	97	113	110
28	82	94	84	107	130	110	106	125	98	101	113	110
29	84	93	83	112	-----	110	108	126	97	102	113	108
30	87	87	84	114	-----	112	110	118	107	104	113	110
31	88	-----	92	112	-----	112	-----	139	-----	106	113	-----
TOTAL	2,914	2,674	2,602	3,118	3,051	3,741	3,361	3,634	3,350	3,231	3,541	3,287
MEAN	94.0	89.1	83.9	101	109	121	112	117	112	104	114	110
MAX	118	97	96	114	130	140	122	139	128	110	125	112
MIN	76	80	71	92	101	110	101	106	92	97	108	102
AC-FT	5,780	5,300	5,160	6,180	6,050	7,420	6,670	7,210	6,640	6,410	7,020	6,520

CAL YR 1970 TOTAL 38,092 MEAN 104 MAX 135 MIN 71 AC-FT 75,560  
WTR YR 1971 TOTAL 38,504 MEAN 105 MAX 140 MIN 71 AC-FT 76,370

NOTE.--No gage-height record Aug. 23 to Sept. 21.



## SALTON SEA BASIN

10259600 COTTONWOOD WASH NEAR COTTONWOOD SPRING, CALIF.

LOCATION.--Lat 33°44'40", long 115°49'35", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.10, T.5 S., R.11 E., Riverside County, on right bank on Cottonwood Spring Road, 1 mile northwest of Cottonwood Spring.

DRAINAGE AREA.--0.71 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder with rain-gage attachment, crest-stage gage, and corrugated-pipe culvert control. Altitude of gage is 3,100 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 0.0007 cfs (0.5 acre-ft per year); median of yearly mean discharges, zero.

EXTREMES.--Current year: Maximum discharge, 22 cfs Aug. 27 (gage height, 3.50 ft); no flow all year except Aug. 27.

Period of record: Maximum discharge, 34 cfs Oct. 3, 1966 (gage height, 3.77 ft, from crest-stage gage), on basis of culvert computation of maximum flow; no flow most of each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	
2											0	
3											0	
4											0	
5											0	
6											0	
7											0	
8											0	
9											0	
10											0	
11											0	
12											0	
13											0	
14											0	
15											0	
16											0	
17											0	
18											0	
19											0	
20											0	
21											0	
22											0	
23											0	
24											0	
25											0	
26											0	
27											.50	
28											0	
29											0	
30											0	
31											0	
TOTAL	0	0	0	0	0	0	0	0	0	0	.50	0
MEAN	0	0	0	0	0	0	0	0	0	0	.016	0
MAX	0	0	0	0	0	0	0	0	0	0	.50	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	1.0	0
(a)	0	.4	.3	.3	.2	0	0	0	0	.1	.9	0
CAL YR 1970	TOTAL 0.02	MEAN .0001	MAX .02	MIN 0	AC-FT .0							
WTR YR 1971	TOTAL 0.50	MEAN .0010	MAX .50	MIN 0	AC-FT 1.0							

a Precipitation, in inches.

## 10259920 WASTEWAY NO. 1 NEAR MECCA, CALIF.

LOCATION.--Lat 33°31'40", long 115°58'23", in NW¼SW¼SW¼ sec.29, T.7 S., R.10 E., Riverside County, on right bank of channel, 1,000 ft upstream from mouth, 2,250 ft downstream from State Highway 111, and 6.6 miles southeast of Mecca.

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

GAGE.--Water-stage recorder. Altitude of gage is 220 ft below mean sea level (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 348 cfs Mar. 7, 1971; minimum daily, 2.0 cfs Dec. 26, 27, Mar. 8, 1970.

REMARKS.--Records good. Discharge represents seepage and return flows from irrigated areas. At times water is wasted from Coachella Canal.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	23	3.2	3.5	4.4	4.1	14	4.8	5.2	4.8	4.8	4.8
2	4.8	18	3.2	3.5	4.4	4.1	12	4.8	5.2	5.2	4.8	4.8
3	4.8	26	3.2	3.5	3.8	4.1	13	4.8	5.2	5.5	5.2	4.8
4	4.8	14	3.8	3.8	3.5	4.1	9.6	4.8	5.2	5.5	5.2	4.8
5	4.4	5.3	4.1	4.1	3.8	89	7.6	5.2	5.2	5.5	5.2	4.8
6	4.4	4.9	4.1	4.4	4.1	181	7.2	5.2	4.4	5.2	5.2	4.8
7	4.4	4.4	3.8	9.7	4.4	348	4.8	5.2	5.2	5.2	5.2	4.8
8	5.5	4.1	3.5	87	5.5	202	3.8	5.2	5.2	5.2	52	5.2
9	5.2	4.1	3.5	141	4.4	144	4.1	5.2	5.2	5.2	59	5.2
10	5.2	4.4	3.5	170	4.4	74	5.5	5.2	5.2	5.2	5.2	5.2
11	4.8	4.4	3.2	153	4.1	3.8	7.6	5.2	5.2	5.2	5.2	5.2
12	19	4.4	3.2	52	3.8	4.1	3.8	5.2	5.2	4.8	5.2	5.2
13	15	4.4	3.2	51	3.8	4.8	3.8	5.2	5.2	4.8	4.8	5.2
14	4.1	4.4	3.2	13	3.8	5.2	3.8	5.2	5.2	4.8	4.8	5.2
15	3.8	4.4	3.5	25	3.2	5.5	8.5	5.2	5.2	4.8	4.8	5.2
16	3.2	4.4	3.5	49	3.2	5.9	4.4	5.2	5.2	5.2	4.4	5.5
17	4.1	4.4	3.2	56	3.8	5.9	4.4	5.2	5.2	5.5	3.8	5.5
18	4.8	4.4	3.0	19	4.2	6.3	4.4	5.2	5.2	5.5	3.5	5.5
19	4.8	4.1	3.2	4.8	3.5	6.7	4.4	5.2	5.2	4.8	3.8	5.5
20	4.8	3.8	3.5	5.5	3.8	7.2	4.8	5.2	5.2	5.2	4.4	5.2
21	4.8	3.8	3.5	6.3	4.1	61	4.8	5.2	5.2	5.2	4.4	5.2
22	4.8	3.5	3.5	5.9	4.1	9.5	4.8	5.2	5.2	5.2	4.4	5.2
23	5.2	3.2	3.5	5.2	4.1	8.6	4.8	41	5.2	5.2	4.1	5.2
24	5.2	3.2	3.5	4.8	4.1	5.9	4.8	127	4.4	4.8	4.1	5.2
25	5.2	3.2	3.5	4.8	4.1	5.2	4.8	71	4.4	4.4	4.1	5.2
26	5.2	3.2	20	4.8	4.1	5.9	4.8	44	4.4	4.4	4.1	5.2
27	4.8	3.2	21	4.8	4.1	7.2	4.8	5.2	4.4	3.8	4.1	5.2
28	5.2	3.2	3.2	4.8	3.8	8.2	4.8	5.2	4.4	4.4	4.1	5.2
29	4.8	3.2	3.2	4.8	-----	9.2	4.8	5.2	4.4	4.4	4.1	5.2
30	4.8	3.2	3.2	5.5	-----	9.6	4.8	5.2	4.8	4.4	69	5.2
31	4.8	-----	3.2	5.5	-----	12	-----	5.2	-----	4.4	4.4	-----
TOTAL	171.9	184.2	139.9	916.0	112.4	1,252.1	179.5	421.8	150.0	153.7	307.4	154.4
MEAN	5.55	6.14	4.51	29.5	4.01	40.4	5.98	13.6	5.00	4.06	9.92	5.15
MAX	19	26	21	170	5.5	348	14	127	5.2	5.5	69	5.5
MIN	3.2	3.2	3.0	3.5	3.2	3.8	3.8	4.8	4.4	3.8	3.5	4.8
AC-FT	341	365	277	1,820	223	2,480	356	837	298	305	610	306

CAL YR 1970 TOTAL 4,635.7 MEAN 12.7 MAX 273 MIN 2.0 AC-FT 9,190  
WTR YR 1971 TOTAL 4,143.3 MEAN 11.4 MAX 348 MIN 3.0 AC-FT 8,220

## EMERSON LAKE BASIN

10260200 PIPES CREEK NEAR YUCCA VALLEY, CALIF.

LOCATION.--Lat 34°10'19", long 116°32'45", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.15, T.1 N., R.4 E., San Bernardino County, on left bank 2.8 miles upstream from Antelope Wash and 6.8 miles northwest of Yucca Valley.

DRAINAGE AREA.--15.1 sq mi.

PERIOD OF RECORD.--September 1958 to September 1971 (discontinued as a continuous-record station; converted to a crest-stage partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 4,435.40 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 0.028 cfs (20 acre-ft per year); median of yearly mean discharges, zero.

EXTREMES.--Current year: Maximum discharge, 0.17 cfs Nov. 6 (gage height, 2.92 ft); no flow most of year.  
Period of record: Maximum discharge, 350 cfs Dec. 29, 1965 (gage height, 3.52 ft), on basis of field estimate of maximum flow; no flow for all or most of each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0										
2	0	0										
3	0	.01										
4	0	0										
5	0	0										
6	0	.01										
7	0	0										
8	0	0										
9	0	0										
10	0	0										
11	0	0										
12	0	0										
13	.01	0										
14	.01	0										
15	.01	0										
16	.01	0										
17	.01	0										
18	.01	0										
19	0	0										
20	0	0										
21	0	0										
22	0	0										
23	0	0										
24	0	0										
25	0	0										
26	0	0										
27	0	0										
28	0	0										
29	0	0										
30	0	0										
31	0											
TOTAL	.06	.02	0	0	0	0	0	0	0	0	0	0
MEAN	.002	.0007	0	0	0	0	0	0	0	0	0	0
MAX	.01	.01	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.1	.04	0	0	0	0	0	0	0	0	0	0
CAL YR 1970	TOTAL 2.00	MEAN .0060	MAX 1.9	MIN 0	AC-FT 4.0							
WTR YR 1971	TOTAL 0.08	MEAN .0002	MAX .01	MIN 0	AC-FT .2							

## 10260400 CUSHENBURY CREEK NEAR LUCERNE VALLEY, CALIF.

LOCATION.--Lat 34°21'52", long 116°50'42", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.14, T.3 N., R.1 E., San Bernardino County, in San Bernardino National Forest, on right bank 0.3 mile upstream from forest boundary, and 9 miles southeast of Lucerne Valley.

DRAINAGE AREA.--6.36 sq mi.

PERIOD OF RECORD.--August 1957 to September 1971 (discontinued as a continuous-record station; converted to a crest-stage partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 4,750 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 0.032 cfs (23 acre-ft per year); median of yearly mean discharges, 0.0002 cfs (0.1 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 530 cfs Feb. 25, 1969 (gage height, 5.20 ft), from rating curve extended above 160 cfs; no flow most years.

REMARKS.--No flow since May 13, 1969. No regulation or diversion above station.

## MOJAVE RIVER BASIN

## 10260500 DEEP CREEK NEAR HESPERIA, CALIF.

LOCATION.--Lat 34°20'28", long 117°13'39", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.18, T.3 N., R.3 W., San Bernardino County, on right bank 0.5 mile upstream from confluence with West Fork Mojave River and 7 miles southeast of Hesperia.

DRAINAGE AREA.--136 sq mi.

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

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

AVERAGE DISCHARGE.--60 years, 68.6 cfs (49,700 acre-ft per year); median of yearly mean discharges, 43 cfs (31,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,320 cfs Nov. 29 (gage height, 4.90 ft); minimum daily, 0.81 cfs Aug. 29, 30.

Period of record: Maximum discharge, 46,600 cfs Mar. 2, 1938, based on slope-area measurement of maximum flow; no flow July 17, 18, 1961.

REMARKS.--Records fair. Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft), used principally for recreation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	6.3	74	37	43	27	26	19	11	4.3	1.7	.96
2	3.8	6.2	43	47	43	21	24	17	11	4.3	1.7	.96
3	3.8	6.2	37	33	41	25	23	15	11	4.2	1.6	1.0
4	3.9	6.2	28	31	37	27	22	16	10	4.2	1.6	1.0
5	4.0	6.3	24	30	34	26	21	14	9.5	4.1	1.5	1.2
6	4.1	6.4	23	28	33	25	20	14	9.1	4.0	1.5	1.7
7	4.1	6.4	23	25	33	24	20	38	8.8	4.0	1.4	1.8
8	4.2	6.5	23	25	31	25	19	43	8.3	3.8	1.4	1.8
9	4.3	6.6	25	26	30	26	19	44	7.8	3.8	1.4	1.8
10	4.3	6.8	38	28	29	26	19	37	7.6	3.6	1.3	1.6
11	4.4	7.0	27	32	30	26	18	41	8.2	3.4	1.3	1.5
12	4.5	7.2	22	41	35	27	17	36	7.9	3.3	1.3	1.5
13	4.5	7.4	20	52	37	33	15	30	7.1	3.1	1.2	1.5
14	4.6	7.4	21	37	37	37	15	25	6.6	3.0	1.2	1.5
15	4.6	7.4	20	34	38	32	21	22	6.6	2.9	1.2	1.5
16	4.6	7.2	18	36	41	30	19	18	6.2	2.8	1.1	1.5
17	4.7	7.1	51	45	58	30	17	16	5.8	2.7	1.1	1.5
18	4.8	7.0	43	89	54	29	22	14	5.7	2.6	1.1	1.5
19	4.8	7.0	36	138	49	29	21	12	5.3	2.5	1.1	1.5
20	4.9	7.0	32	157	43	29	20	11	5.3	2.5	1.1	1.6
21	4.9	6.9	41	144	38	28	24	11	5.3	2.4	1.1	1.6
22	4.8	6.9	31	109	36	28	21	12	4.8	2.3	1.1	1.7
23	5.0	6.8	37	82	36	28	19	11	4.8	2.2	1.0	1.7
24	5.1	6.8	36	67	33	30	18	11	4.7	2.2	1.0	1.8
25	5.2	7.0	31	58	31	31	19	11	4.6	2.1	1.0	1.8
26	5.3	7.8	30	51	30	30	21	10	4.6	2.0	1.0	1.9
27	5.4	9.0	32	50	27	33	20	13	4.5	2.0	1.0	1.9
28	5.6	11	32	52	27	32	22	22	4.5	1.9	.96	2.0
29	5.8	687	30	49	-----	29	21	16	4.4	1.9	.81	2.0
30	6.3	217	31	47	-----	27	20	13	4.4	1.8	.81	2.0
31	6.4	-----	33	45	-----	27	-----	12	-----	1.7	.88	-----
TOTAL	146.4	1,101.8	992	1,725	1,034	877	603	624	205.4	91.6	37.46	47.32
MEAN	4.72	36.7	32.0	55.6	36.9	28.3	20.1	20.1	6.85	2.95	1.21	1.58
MAX	6.4	687	74	157	58	37	26	44	11	4.3	1.7	2.0
MIN	3.7	6.2	18	25	27	21	15	10	4.4	1.7	.81	.96
AC-FT	290	2,190	1,970	3,420	2,050	1,740	1,200	1,240	407	182	74	94

CAL YR 1970 TOTAL 7,966.10 MEAN 21.8 MAX 687 MIN 1.5 AC-FT 15,800  
WTR YR 1971 TOTAL 7,484.98 MEAN 20.5 MAX 687 MIN .81 AC-FT 14,850

PEAK DISCHARGE (BASE, 400 CFS).--Nov. 29 (1700) 3,320 cfs (4.90 ft).

## 10261000 WEST FORK MOJAVE RIVER NEAR HESPERIA, CALIF.

LOCATION.--Lat 34°20'27", long 117°14'24", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.18, T.3 N., R.3 W., San Bernardino County, San Bernardino National Forest, on left bank at highway bridge, 0.5 mile upstream from confluence with Deep Creek, and 6.5 miles southeast of Hesperia.

DRAINAGE AREA.--74.7 sq mi.

PERIOD OF RECORD.--October 1904 to September 1922, October 1929 to September 1971 (discontinued). Prior to February 1930, monthly discharge only, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 3,050 ft (from topographic map). Prior to June 30, 1922, nonrecording gage and water-stage recorder several hundred feet downstream at different datum. June 30, 1942, to Apr. 14, 1966, at datum 2.00 ft higher.

AVERAGE DISCHARGE.--60 years, 39.4 cfs (28,550 acre-ft per year); median of yearly mean discharges, 23 cfs (16,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,200 cfs Nov. 29 (gage height, 10.81 ft); no flow most of year. Period of record: Maximum discharge, 26,100 cfs Mar. 2, 1938, by slope-area measurement of maximum flow; no flow for several months in each year.

REMARKS.--Records good. No regulation above station. Water diverted from Lake Gregory for domestic use and fire protection. One small diversion for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	19	21	27	8.8	2.8		.01			
2		0	5.0	22	23	8.1	2.8		.01			
3		0	3.2	18	21	8.8	3.0		.01			
4		0	1.9	18	20	9.6	2.8		.01			
5		0	2.5	15	18	9.2	2.8		.01			
6		0	1.3	16	17	8.8	2.6		.01			
7		0	1.1	14	16	8.8	2.2		.01			
8		0	.45	14	16	9.2	2.4		.01			
9		0	.21	16	15	8.8	2.5		.01			
10		0	.45	16	15	8.4	2.4		.01			
11		0	.25	14	12	8.4	2.2		.01			
12		0	.02	21	9.3	8.8	2.0		.01			
13		0	0	58	11	9.6	1.9		.01			
14		0	1.1	39	12	11	1.9		0			
15		0	1.3	33	11	9.6	2.0		0			
16		0	1.0	27	6.2	10	1.3		0			
17		0	9.8	33	12	10	1.3		0			
18		0	7.9	21	8.9	8.8	2.0		0			
19		0	10	17	7.8	7.8	1.4		0			
20		0	11	18	7.5	8.1	1.0		0			
21		0	218	22	7.2	7.8	.92		0			
22		0	115	91	7.2	7.5	1.1		0			
23		0	65	35	8.4	7.5	.84		0			
24		0	46	27	8.1	7.8	.76		0			
25		0	31	23	8.1	7.4	.84		0			
26		0	41	19	7.8	22	1.1		0			
27		0	38	18	8.8	22	.69		0			
28		0	28	19	8.8	8.1	.50		0			
29		447	23	17	-----	5.7	.25		0			
30		146	21	60	-----	4.7	.05		0			
31		-----	22	29	-----	3.0	-----		-----			
TOTAL	0	593	725.48	811	350.1	284.1	50.35	0	.13	0	0	0
MEAN	0	19.8	23.4	26.2	12.5	9.16	1.68	0	.004	0	0	0
MAX	0	447	218	91	27	22	3.0	0	.01	0	0	0
MIN	0	0	0	14	6.2	3.0	.05	0	0	0	0	0
AC-FT	0	1,180	1,440	1,610	694	564	100	0	.3	0	0	0

CAL YR 1970 TOTAL 2,840.71 MEAN 7.78 MAX 447 MIN 0 AC-FT 5,630  
WTR YR 1971 TOTAL 2,814.16 MEAN 7.71 MAX 447 MIN 0 AC-FT 5,580

PEAK DISCHARGE (BASE, 500 CFS).--Nov. 29 (1900) 2,200 cfs (10.81 ft); Dec. 21 (1430) 520 cfs (7.35 ft).

## MOJAVE RIVER BASIN

## 10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CALIF.

LOCATION.--Lat 34°34'23", long 117°19'11", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.29, T.6 N., R.4 W., San Bernardino County, on left bank 650 ft upstream from bridge on county road, formerly U.S. Highway 66, 0.6 mile downstream from Atchison, Topeka, and Santa Fe Railway bridge, and 3 miles northwest of Victorville.

DRAINAGE AREA.--514 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 2,650 ft (from topographic map). See WSP 1314 for history of gage changes prior to Mar. 28, 1938. Mar. 28, 1938, to Apr. 14, 1966, at site 350 ft upstream at datum 5.00 ft higher; Apr. 14, 1966, to July 17, 1969, at site 350 ft upstream at datum 3.00 ft higher.

AVERAGE DISCHARGE.--48 years, 75.8 cfs (54,920 acre-ft per year); median of yearly mean discharges, 37 cfs (26,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 127 cfs Dec. 21 (gage height, 4.01 ft); minimum daily, 8.4 cfs some days.

Period of record: Maximum discharge, 70,600 cfs Mar. 2, 1938 (gage height, 23.7 ft, present datum), from rating curve extended above 10,000 cfs on basis of slope-area measurement of maximum flow; minimum daily, 6 cfs Aug. 19, 21, 26, 1951.

REMARKS.--Records poor. Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation) and by Mojave Forks Reservoir since June 1970 (capacity, 89,700 acre-ft), with ungated opening, capacity, 23,500 cfs. Since 1970 effluent from Mojave State Fish Hatchery diverted to Spring Valley Lake. Diversions and pumping for irrigation of about 5,000 acres above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	38	46	43	46	40	24	24	17	20	9.0	16
2	28	40	30	43	43	32	28	24	21	21	9.0	16
3	24	38	28	40	40	36	40	24	22	21	9.0	14
4	22	43	26	43	34	30	43	24	26	22	9.0	14
5	22	36	26	43	38	28	52	24	26	22	9.0	14
6	21	36	30	43	46	24	49	24	26	23	9.6	14
7	28	32	30	43	43	24	43	22	26	24	10	14
8	22	38	32	52	52	28	43	20	26	24	9.6	14
9	21	34	30	52	38	34	46	17	30	26	9.0	16
10	21	32	28	55	36	32	36	22	38	26	9.0	18
11	24	32	32	58	34	26	43	21	28	24	9.0	18
12	22	32	38	55	40	32	38	22	22	26	9.0	18
13	22	32	38	49	32	36	34	22	28	20	9.0	18
14	21	36	58	43	40	28	28	22	28	22	9.6	18
15	24	32	40	36	36	30	26	17	32	28	9.6	17
16	20	34	40	32	40	30	32	18	34	24	10	17
17	26	30	46	36	43	30	49	20	36	21	9.0	17
18	22	28	32	46	38	28	38	18	32	14	9.0	17
19	24	28	38	46	49	28	49	17	26	12	8.4	17
20	24	30	38	49	36	24	52	17	26	9.0	8.4	17
21	26	30	81	46	32	26	38	17	28	12	8.4	17
22	26	26	49	49	38	28	34	16	21	9.6	8.4	17
23	26	30	34	43	40	28	32	18	17	9.6	8.4	17
24	26	26	34	46	43	28	40	18	17	8.4	9.6	17
25	28	24	34	46	43	38	38	16	17	8.4	9.0	17
26	32	24	34	46	36	49	36	17	18	9.6	9.0	17
27	36	22	34	38	34	46	34	26	18	8.4	10	17
28	34	36	36	38	30	49	28	22	19	9.6	10	17
29	38	76	36	38	-----	40	26	22	19	9.6	12	17
30	36	68	36	36	-----	43	24	24	20	9.6	14	17
31	43	-----	43	43	-----	28	-----	21	-----	9.0	14	-----
TOTAL	809	1,043	1,157	1,376	1,100	1,003	1,123	636	744	532.8	296.0	494
MEAN	26.1	34.8	37.3	44.4	39.3	32.4	37.4	20.5	24.8	17.2	9.55	16.5
MAX	43	76	81	58	52	49	52	26	38	28	14	18
MIN	20	22	26	32	30	24	24	16	17	8.4	8.4	14
AC-FT	1,600	2,070	2,290	2,730	2,180	1,990	2,230	1,260	1,480	1,060	587	980

CAL YR 1970 TOTAL 10,727.0 MEAN 29.4 MAX 102 MIN 9.6 AC-FT 21,280  
WTR YR 1971 TOTAL 10,313.8 MEAN 28.3 MAX 81 MIN 8.4 AC-FT 20,460

PEAK DISCHARGE (BASE, 200 CFS).--No peak above base.

## 10262000 MOJAVE RIVER NEAR HODGE, CALIF.

LOCATION.--Lat 34°50'09", long 117°11'27", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.28, T.9 N., R.3 W., San Bernardino County, at county bridge 1.5 miles north of Hodge and 10.9 miles southwest of Barstow.

DRAINAGE AREA.--1,090 sq mi.

PERIOD OF RECORD.--October 1930 to September 1932, October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 2,260 ft (from topographic map). Prior to Oct. 1, 1970, at different datum.

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 8,900 cfs Feb. 9, 1932 (gage height, 5.20 ft, datum then in use); no flow most of each year.

REMARKS.--Probably no flow since March 1970. Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation). Diversion and pumping for irrigation of about 12,000 acres above station.



## MOJAVE RIVER BASIN

10262500 MOJAVE RIVER AT BARSTOW, CALIF.

LOCATION.--Lat 34°54'25", long 117°01'19", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.31, T.10 N., R.1 W., San Bernardino County, on left bank 75 ft upstream from bridge on U.S. Highway 91 at Barstow.

DRAINAGE AREA.--1,290 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 2,089.80 ft above mean sea level.

AVERAGE DISCHARGE.--41 years, 24.6 cfs (17,820 acre-ft per year); median of yearly mean discharges, zero.

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 64,300 cfs Mar. 3, 1938 (gage height, 8.60 ft), on basis of slope-area measurement of maximum flow; no flow for several months in each year.

REMARKS.--No flow since Sept. 6, 1969. Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation). Diversions and pumping for irrigation of about 15,000 acres above station.

## 10262600 BOOM CREEK NEAR BARSTOW, CALIF.

LOCATION.--Lat 34°54'20", long 116°56'57", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.2, T.9 N., R.1 W., San Bernardino County, at culvert on U.S. Highways 91 and 466, 4.3 miles east of Barstow.

DRAINAGE AREA.--0.24 sq mi.

PERIOD OF RECORD.--Water years 1959-66 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder with rain-gage attachment and culvert control. Altitude of gage is 2,280 ft (from topographic map). Jan. 13, 1959, to Feb. 8, 1967, nonrecording crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--5 years, 0.002 cfs (1.4 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 125 cfs Sept. 1, 1960 (gage height, 14.23 ft), on basis of computation of maximum flow through culvert; no flow most of each year.

REMARKS.--No flow since Aug. 26, 1970. No regulation or diversion above station. Monthly precipitation, in inches, is as follows: November, 0.4; December, 0.1; May, 0.2; the water year, 0.7. Discharge for the calendar year 1970 is as follows: Maximum daily, 2.2 cfs; minimum, zero; mean, 0.006 cfs; total, 4.4 acre-ft.

## MOJAVE RIVER BASIN

10263000 MOJAVE RIVER AT AFTON, CALIF.

LOCATION.--Lat 35°02'14", long 116°23'00", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.18, T.11 N., R.6 E., San Bernardino County, on downstream end of right pier of Union Pacific Railroad bridge, 0.3 mile west of Afton.

DRAINAGE AREA.--2,120 sq mi.

PERIOD OF RECORD.--October 1929 to September 1932, October 1952 to current year. Records for the water year 1930 incomplete, yearly estimate published in WSP 1314.

GAGE.--Water-stage recorder. Datum of gage is 1,400.15 ft above mean sea level. Dec. 21, 1929, to Sept. 30, 1932, at site 1.7 miles downstream at different datum.

AVERAGE DISCHARGE.--22 years, 6.38 cfs (4,620 acre-ft per year); median of yearly mean discharges, 1.1 cfs (800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1.7 cfs Nov. 29 (gage height, 2.69 ft, from recorded range in stage); no flow June 17 to Aug. 27, Sept. 3, 4, 7, 8, 11-21.  
Period of record: Maximum discharge, 18,000 cfs Jan. 26, 1969 (gage height, 10.40 ft), from rating curve extended above 3,200 cfs on basis of slope-area measurement of maximum flow; no flow for some days in many years.

REMARKS.--Records poor. Natural flow affected by ground-water withdrawals, diversions, municipal use, and storage in two small reservoirs.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.16	1.5	1.1	1.0	1.0	.82	.68	.18	0	0	
2	.14	.16	1.4	1.1	1.0	1.0	.82	.68	.16	0	0	
3	.14	.16	1.4	1.1	1.0	1.0	.82	.68	.16	0	0	
4	.14	.16	1.4	1.1	1.0	1.0	.75	.68	.16	0	0	
5	.12	.16	1.3	1.1	1.0	1.0	.75	.68	.14	0		.01
6	.10	.16	1.3	1.1	1.0	.97	.75	.62	.12	0		.01
7	.08	.16	1.3	1.1	1.0	.97	.75	.62	.12	0	0	
8	.08	.16	1.3	1.1	1.0	.97	.75	.57	.12	0	0	
9	.08	.16	1.3	1.1	1.0	.97	.75	.52	.08	0		.01
10	.08	.16	1.3	1.1	1.0	.97	.75	.47	.08	0	0	
11	.08	.18	1.3	1.1	1.0	.97	.75	.47	.08	0	0	
12	.08	.18	1.3	1.0	1.0	.97	.75	.42	.08	0	0	
13	.08	.18	1.3	1.0	1.0	.97	.75	.38	.06	0	0	
14	.08	.18	1.3	1.0	1.0	.89	.82	.34	.05	0	0	
15	.08	.18	1.3	1.0	1.0	.89	.82	.30	.05	0	0	
16	.10	.18	1.3	1.0	1.0	.89	.82	.27	.03	0	0	
17	.10	.18	1.3	1.0	1.1	.89	.82	.27	0	0	0	
18	.10	.18	1.3	1.0	1.1	.89	.82	.27	0	0	0	
19	.12	.18	1.3	1.0	1.0	.89	.82	.27	0	0	0	
20	.14	.18	1.3	1.0	1.0	.89	.89	.27	0	0	0	
21	.14	.18	1.3	1.0	1.0	.89	.89	.24	0	0	0	
22	.14	.18	1.3	1.0	1.1	.89	.89	.24	0	0		.01
23	.14	.18	1.2	1.0	1.1	.82	.89	.24	0	0		.02
24	.14	.18	1.2	1.0	1.1	.82	.89	.24	0	0		.03
25	.14	.18	1.2	1.0	1.1	.82	.89	.21	0	0		.02
26	.16	.52	1.2	1.0	1.1	.82	.89	.18	0	0		.03
27	.16	.57	1.2	1.0	1.1	.82	.89	.18	0	0		.04
28	.16	.62	1.2	1.0	1.0	.82	.82	.18	0		.42	.07
29	.16	1.5	1.2	1.0	-----	.82	.82	.18	0		1.2	.10
30	.16	1.6	1.2	1.0	-----	.82	.75	.18	0		.07	.12
31	.16	-----	1.2	1.0	-----	.82	-----	.18	-----		.01	-----
TOTAL	3.72	9.11	39.9	32.1	28.8	28.15	24.39	11.71	1.67	0	1.70	.47
MEAN	.12	.30	1.29	1.04	1.03	.91	.81	.38	.056	0	.055	.016
MAX	.16	1.6	1.5	1.1	1.1	1.0	.89	.68	.18	0	1.2	.12
MIN	.08	.16	1.2	1.0	1.0	.82	.75	.18	0	0	0	0
AC-FT	7.4	18	79	64	57	56	48	23	3.3	0	3.4	.9

CAL YR 1970 TOTAL 243.95 MEAN .67 MAX 3.2 MIN 0 AC-FT 484  
WTR YR 1971 TOTAL 181.72 MEAN .50 MAX 1.6 MIN 0 AC-FT 360

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

NOTE.--No gage-height record Oct. 8 to Dec. 7, Dec. 21 to Jan. 18, Feb. 24 to Apr. 9.

## 10263500 BIG ROCK CREEK NEAR VALYERMO, CALIF.

LOCATION.--Lat 34°25'15", long 117°50'19", in NW¼SE¼NE¼ sec.20, T.4 N., R.9 W., Los Angeles County, on left bank 0.1 mile upstream from Punchbowl Canyon and 1.9 miles southwest of Valyermo.

DRAINAGE AREA.--22.9 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 4,050 ft (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 mile downstream (below Punchbowl Canyon) at different datum.

AVERAGE DISCHARGE.--48 years, 16.2 cfs (11,740 acre-ft per year); median of yearly mean discharges, 9.7 cfs (7,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 534 cfs Nov. 29 (gage height, 5.21 ft); minimum daily, 3.0 cfs Nov. 5.

Period of record: Maximum discharge, 8,300 cfs Mar. 2, 1938, on basis of slope-area measurement of maximum flow; minimum daily, 0.70 cfs Nov. 5, 1951.

REMARKS.--Records fair. No regulation or diversion above station. Some infiltration into the streambed in the immediate vicinity of station. Records of water temperatures for the current year are published in Part 2 of this report.

COOPERATION.--Sixteen discharge measurement furnished by Los Angeles County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.1	35	13	16	10	13	12	9.5	8.1	5.9	4.7
2	3.2	3.2	14	19	15	10	13	11	9.5	7.9	6.5	4.6
3	3.4	3.2	12	15	14	11	13	11	9.5	7.7	6.3	4.6
4	3.4	3.2	11	11	14	11	13	11	9.5	7.6	6.3	4.4
5	3.3	3.0	11	10	13	11	13	11	9.5	7.5	6.2	4.2
6	3.3	3.2	11	10	13	11	13	11	10	7.2	6.2	4.4
7	3.4	3.4	11	10	12	11	12	12	10	7.1	6.1	4.4
8	3.5	3.5	11	10	12	11	12	10	10	7.1	6.0	4.2
9	3.4	3.5	12	9.9	11	11	12	10	11	6.9	5.9	4.2
10	3.3	3.2	12	9.7	11	11	12	10	10	6.8	5.9	4.1
11	3.3	3.3	12	9.7	11	11	14	9.8	10	6.7	5.9	4.1
12	3.3	3.5	12	11	11	11	14	9.8	9.5	6.6	5.8	4.1
13	3.3	3.7	11	11	11	12	12	10	9.5	6.6	6.0	3.9
14	3.3	3.8	11	11	11	12	12	11	9.7	6.4	5.9	3.8
15	3.4	4.1	11	11	11	11	12	10	9.6	6.7	5.8	3.8
16	3.3	3.7	10	11	12	11	13	10	9.5	6.6	5.7	3.8
17	3.4	3.6	11	11	13	11	13	11	9.4	6.8	5.6	3.8
18	3.4	3.5	11	18	12	11	13	12	9.1	6.6	5.5	3.8
19	3.4	3.8	11	27	12	11	12	11	9.2	6.5	5.2	3.8
20	3.5	3.8	11	40	12	11	12	11	9.5	6.4	4.6	3.8
21	3.6	3.5	12	43	11	11	12	11	9.5	6.5	4.7	3.8
22	3.7	3.5	12	35	11	11	12	12	9.6	6.4	4.8	3.8
23	3.6	3.5	11	32	11	12	12	11	9.5	6.3	4.8	3.8
24	3.8	3.5	11	29	11	12	12	11	9.5	6.2	6.0	3.8
25	3.4	3.8	11	26	11	12	12	11	9.4	6.1	5.1	4.0
26	3.5	4.3	11	24	11	12	12	10	9.5	6.1	4.9	4.1
27	3.5	4.3	12	21	10	14	12	10	10	6.0	4.8	4.3
28	3.5	7.2	12	21	10	13	12	10	10	5.9	4.8	4.3
29	3.5	166	12	19	-----	13	12	10	9.1	5.9	4.8	4.3
30	3.4	74	12	18	-----	13	12	9.5	8.2	6.0	4.8	4.3
31	3.1	-----	12	17	-----	13	-----	9.5	-----	5.9	4.8	-----
TOTAL	105.6	342.9	379	563.3	333	356	373	329.6	287.8	207.1	171.6	123.0
MEAN	3.41	11.4	12.2	18.2	11.9	11.5	12.4	10.6	9.59	6.68	5.54	4.10
MAX	3.8	166	35	43	16	14	14	12	11	8.1	6.5	4.7
MIN	3.1	3.0	10	9.7	10	10	12	9.5	8.2	5.9	4.6	3.8
AC-FT	209	680	752	1,120	661	706	740	654	571	411	340	244

CAL YR 1970 TOTAL 3,761.3 MEAN 10.3 MAX 166 MIN 3.0 AC-FT 7,460  
WTR YR 1971 TOTAL 3,571.9 MEAN 9.79 MAX 166 MIN 3.0 AC-FT 7,080

PEAK DISCHARGE (BASE, 50 CFS).--Nov. 29 (1445) 534 cfs (5.21 ft).

## ANTELOPE VALLEY

## 10264000 LITTLE ROCK CREEK NEAR LITTLE ROCK, CALIF.

LOCATION.--Lat 34°27'47", long 118°01'04", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.3, T.4 N., R.11 W., Los Angeles County, on right bank 0.3 mile upstream from Santiago Creek, 1.6 miles upstream from Little Rock Palmdale Irrigation District's dam, and 5 miles south of Little Rock.

DRAINAGE AREA.--49.0 sq mi.

PERIOD OF RECORD.--October 1930 to February 1938, May to September 1938, April 1939 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,290 ft (from topographic map). Prior to May 1943, at site 500 ft downstream at different datums (datum changed in March 1939).

AVERAGE DISCHARGE.--39 years (1930-37, 1939-71), 17.0 cfs (12,320 acre-ft per year); median of yearly mean discharges, 9.6 cfs (7,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,490 cfs Nov. 29 (gage height, 10.89 ft); no flow Oct. 1 to Nov. 9, Aug. 9 to Sept. 30.

Period of record: Maximum discharge, 17,000 cfs (estimated) Mar. 2, 1938; no flow at times in most years.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	70	19	23	15	13	7.8	5.5	1.1	.30	
2		0	51	24	21	13	10	7.8	5.5	1.1	.20	
3		0	39	20	20	14	11	7.8	5.5	1.1	.10	
4		0	32	20	18	13	10	7.8	5.0	1.1	.10	
5		0	29	19	16	12	8.5	7.8	5.0	1.1	.10	
6		0	26	17	16	12	9.2	7.8	5.0	1.1	.10	
7		0	24	19	16	12	9.2	7.8	4.4	1.1	.10	
8		0	22	17	15	12	9.2	7.8	3.8	.60	.10	
9		0	21	20	15	12	9.2	7.8	3.3	1.1	0	
10		1.1	21	23	15	12	10	7.8	3.3	.60	0	
11		1.6	19	27	17	12	10	7.8	3.8	1.1	0	
12		1.1	19	31	18	13	9.2	7.8	3.8	.60	0	
13		2.8	16	33	18	18	9.2	7.8	3.3	.60	0	
14		2.8	15	33	17	18	12	7.8	3.3	1.1	0	
15		2.2	14	34	17	17	12	7.8	2.8	.60	0	
16		1.6	13	37	20	16	11	7.8	2.2	.60	0	
17		1.1	12	53	25	15	12	7.8	1.6	.60	0	
18		.60	7.0	79	21	15	12	7.0	2.2	.60	0	
19		1.1	5.5	82	20	15	12	7.0	2.2	.60	0	
20		1.1	4.4	84	19	15	11	5.5	2.2	.60	0	
21		.60	8.5	88	19	10	10	5.5	2.2	.60	0	
22		.60	7.8	64	18	10	11	5.5	1.6	.60	0	
23		1.1	6.2	54	19	11	9.2	5.0	1.6	.60	0	
24		1.1	6.2	46	19	12	9.2	5.0	1.1	.60	0	
25		1.1	6.2	34	19	13	9.2	5.0	.60	.60	0	
26		1.6	7.0	35	18	15	10	5.0	.60	.60	0	
27		2.2	9.2	32	16	18	10	5.0	.60	.60	0	
28		3.3	9.2	30	15	16	9.2	7.8	.60	.60	0	
29		453	10	27	-----	15	8.5	7.0	1.1	.60	0	
30		130	12	26	-----	15	7.8	6.2	1.1	.50	0	
31		-----	15	24	-----	15	-----	5.5	-----	.40	0	-----
TOTAL	0	611.70	557.2	1,151	510	431	303.8	214.6	84.80	23.30	1.10	0
MEAN	0	20.4	18.0	37.1	18.2	13.9	10.1	6.92	2.83	.75	.036	0
MAX	0	453	70	88	25	18	13	7.8	5.5	1.1	.30	0
MIN	0	0	4.4	17	15	10	7.8	5.0	.60	.40	0	0
AC-FT	0	1,210	1,110	2,280	1,010	855	603	426	168	46	2.2	0

CAL YR 1970 TOTAL 4,186.95 MEAN 11.5 MAX 453 MIN 0 AC-FT 8,300  
WTR YR 1971 TOTAL 3,888.50 MEAN 10.7 MAX 453 MIN 0 AC-FT 7,710

10264560 SPENCER CANYON CREEK NEAR FAIRMONT, CALIF.

LOCATION.--Lat 34°46'33", long 118°34'08", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.15, T.8 N., R.16 W., Los Angeles County, on county road culvert, 8.5 miles northwest of Fairmont.

DRAINAGE AREA.--3.60 sq mi.

PERIOD OF RECORD.--Water years 1959-64 (annual maximum), August 1964 to current year.

GAGE.--Flood-hydrograph recorder and crest-stage gage. Altitude of gage is 2,950 ft (from topographic map). Jan. 19, 1959, to Aug. 26, 1964, nonrecording and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--7 years (1964-71), 0.066 cfs (48 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 78 cfs Nov. 29 (gage height, 10.64 ft); no flow except Nov. 29.  
Period of record: Maximum discharge, 290 cfs Feb. 25, 1969 (gage height, 12.50 ft, from crest-stage gage), from rating curve based on computation of flow through culvert at gage heights 11.11, 11.29, and 11.90 ft; no flow most of each year.

REMARKS.--Records poor. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0										
2		0										
3		0										
4		0										
5		0										
6		0										
7		0										
8		0										
9		0										
10		0										
11		0										
12		0										
13		0										
14		0										
15		0										
16		0										
17		0										
18		0										
19		0										
20		0										
21		0										
22		0										
23		0										
24		0										
25		0										
26		0										
27		0										
28		0										
29		3.2										
30		0										
31		-----			-----		-----		-----			-----
TOTAL	0	3.2	0	0	0	0	0	0	0	0	0	0
MEAN	0	.11	0	0	0	0	0	0	0	0	0	0
MAX	0	3.2	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	6.4	0	0	0	0	0	0	0	0	0	0
CAL YR 1970	TOTAL 3.20	MEAN .0090	MAX 3.2	MIN 0	AC-FT 6.4							
WTR YR 1971	TOTAL 3.20	MEAN .0090	MAX 3.2	MIN 0	AC-FT 6.4							

## ANTELOPE VALLEY

10264590 COTTONWOOD CREEK NEAR ROSAMOND, CALIF.

LOCATION.--Lat 34°53'08", long 118°26'11", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.11, T.9 N., R.15 W., Kern County, on right side of culvert on dirt road 1.3 miles southeast of West Antelope aqueduct station, 8.2 miles west of town of Willow Springs, and 15.3 miles west of Rosamond.

DRAINAGE AREA.--35.7 sq mi.

PERIOD OF RECORD.--February 1965 to current year.

GAGE.--Flood-hydrograph recorder. Altitude of gage is 2,880 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 0.015 cfs (11 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15 cfs (estimated) Nov. 29; no flow except Nov. 29.

Period of record: Maximum discharge, 260 cfs Feb. 25, 1969 (gage height, 22.17 ft), by computation of flow through culvert; no flow most of each year.

REMARKS.--Records poor. No regulation above station. Some pumping at Tejon Ranch Company headquarters for domestic use.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0										
2		0										
3		0										
4		0										
5		0										
6		0										
7		0										
8		0										
9		0										
10		0										
11		0										
12		0										
13		0										
14		0										
15		0										
16		0										
17		0										
18		0										
19		0										
20		0										
21		0										
22		0										
23		0										
24		0										
25		0										
26		0										
27		0										
28		0										
29		.62			-----							
30		0			-----							
31		-----			-----		-----		-----			-----
TOTAL	0	.62	0	0	0	0	0	0	0	0	0	0
MEAN	0	.021	0	0	0	0	0	0	0	0	0	0
MAX	0	.62	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	1.2	0	0	0	0	0	0	0	0	0	0
CAL YR 1970	TOTAL 0.62	MEAN .0020	MAX .62	MIN 0	AC-FT 1.2							
WTR YR 1971	TOTAL 0.62	MEAN .0020	MAX .62	MIN 0	AC-FT 1.2							

ANTELOPE VALLEY

83

10264600 OAK CREEK NEAR MOJAVE, CALIF.

LOCATION.--Lat 35°03'00", long 118°21'25", in NW¼ sec.15, T.11 N., R.14 W., Kern County, on upstream right wingwall of culvert, 100 ft downstream from unnamed tributary, 0.1 mile west of junction of Oak Creek and Willow Springs Roads, and 10.5 miles west of Mojave.

DRAINAGE AREA.--15.8 sq mi.

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,100 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 0.74 cfs (536 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 82 cfs Nov. 29 (gage height, 2.27 ft); minimum daily, 0.03 cfs Oct. 1-4.

Period of record: Maximum discharge, 97 cfs Feb. 25, 1969 (gage height, 2.39 ft), from rating curve extended above 14 cfs; no flow for some months in most years.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.14	.89	.82	.72	.82	.81	.48	.62	.32	.09	.11
2	.03	.15	.81	.82	.73	.77	.81	.49	.65	.28	.08	.11
3	.03	.15	.75	.74	.75	.83	.71	.53	.63	.26	.08	.12
4	.03	.16	.70	.65	.78	.83	.50	.49	.59	.25	.08	.11
5	.04	.16	.70	.71	.78	.82	.46	.36	.57	.23	.07	.10
6	.04	.20	.69	.76	.78	.80	.46	.37	.56	.22	.09	.11
7	.04	.22	.70	.78	.78	.82	.46	.37	.54	.21	.09	.11
8	.05	.22	.68	.70	.78	.80	.47	.39	.50	.21	.09	.09
9	.05	.22	.72	.70	.78	.80	.45	.42	.53	.24	.08	.09
10	.05	.22	.70	.70	.78	.81	.44	.48	.57	.25	.07	.09
11	.04	.23	.70	.70	.77	.82	.45	.51	.55	.24	.07	.08
12	.05	.23	.70	.70	.75	.83	.44	.51	.51	.23	.07	.08
13	.05	.23	.63	.70	.75	1.0	.44	.51	.49	.21	.07	.07
14	.06	.25	.63	.68	.75	.90	.49	.52	.47	.19	.07	.07
15	.06	.25	.64	.70	.77	.86	.47	.50	.46	.20	.07	.07
16	.07	.25	.70	.67	.85	.85	.44	.51	.42	.19	.07	.06
17	.08	.25	.70	.70	.84	.86	.55	.53	.38	.23	.07	.07
18	.08	.26	.70	.70	.79	.85	.66	.54	.35	.23	.07	.07
19	.10	.28	.73	.70	.85	.86	.55	.54	.33	.20	.07	.08
20	.12	.29	.76	.70	.85	.84	.50	.50	.34	.18	.07	.08
21	.13	.29	.85	.73	.84	.83	.42	.58	.33	.17	.07	.08
22	.14	.29	.76	.76	.85	.82	.37	.58	.30	.19	.08	.09
23	.12	.29	.72	.74	.93	.83	.43	.53	.30	.17	.09	.09
24	.11	.29	.73	.74	.87	.85	.49	.52	.34	.16	.09	.09
25	.12	.33	.74	.77	.85	.86	.51	.51	.33	.16	.09	.11
26	.13	.38	.71	.76	.83	.83	.50	.55	.33	.15	.09	.13
27	.14	.34	.73	.75	.84	.83	.49	.62	.38	.14	.09	.14
28	.15	.70	.74	.74	.85	.82	.48	.68	.37	.12	.08	.14
29	.15	17	.76	.75	-----	.82	.48	.66	.36	.10	.08	.15
30	.15	1.2	.81	.75	-----	.82	.47	.64	.34	.10	.09	.17
31	.14	-----	.84	.74	-----	.82	-----	.64	-----	.10	.10	-----
TOTAL	2.58	25.47	22.62	22.56	22.49	25.90	15.20	16.06	13.44	6.13	2.47	2.96
MEAN	.083	.85	.73	.73	.80	.84	.51	.52	.45	.20	.080	.099
MAX	.15	.17	.89	.82	.93	1.0	.81	.68	.65	.32	.10	.17
MIN	.03	.14	.63	.65	.72	.77	.37	.36	.30	.10	.07	.06
AC-FT	5.1	51	45	45	45	51	30	32	27	12	4.9	5.9

CAL YR 1970 TOTAL 368.56 MEAN 1.01 MAX 17 MIN .03 AC-FT 731  
WTR YR 1971 TOTAL 177.88 MEAN .49 MAX 17 MIN .03 AC-FT 353

PEAK DISCHARGE (BASE, 10 CFS).--Nov. 29 (1100) 82 cfs (2.27 ft).



## KOEHN LAKE BASIN

10264710 GOLER GULCH NEAR RANDSBURG, CALIF.

LOCATION.--Lat 35°23'34", long 117°47'43", in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.21, T.29 S., R.39 E., Kern County, on Garlock Road 500 ft east of Southern Pacific Railroad and 8.0 miles west of Randsburg.

DRAINAGE AREA.--41.3 sq mi (including 3.03 sq mi in closed dry lake basin).

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

GAGE.--Flood-hydrograph recorder and crest-stage gage. Altitude of gage is 2,100 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 0.023 cfs (17 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 776 cfs Feb. 25, 1969 (gage height, 6.94 ft), from rating curve based on computation of flow through culvert and road overflow; no flow most of each year.

Flood of Sept. 19, 1963, reached a stage of 7.42 ft, from floodmarks (discharge, 972 cfs, based on computation of flow through culvert and road overflow).

REMARKS.--No flow during year. No regulation or diversion above station. Discharge for the calendar year 1970 is as follows: Maximum daily, 1.5 cfs; minimum, zero; mean, 0.004 cfs; total, 3.0 acre-ft.

## 10264740 CACHE CREEK NEAR MOJAVE, CALIF.

LOCATION.--Lat. 35°07'01", long 118°12'05", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 27, T.32 S., R.35 E., Kern County, on left wingwall of Cache Creek bridge on State Highway 58, 4.7 miles northwest of Mojave.

DRAINAGE AREA.--96.5 sq mi.

PERIOD OF RECORD.--January 1965 to current year.

GAGE.--Flood-hydrograph recorder. Altitude of gage is 3,280 ft (from topographic map). Recording rain gage at site 12 miles upstream.

AVERAGE DISCHARGE.--6 years, 0.075 cfs (54 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 48 cfs Nov. 29, result of velocity-area study; no flow most of year. Period of record: Maximum discharge, 75 cfs Dec. 6, 1966 (gage height, 9.16 ft, from floodmarks), on basis of slope-conveyance measurement of maximum flow; no flow most of each year.

REMARKS.--Records poor. No regulation above station. Pumping for domestic supply by Tehachapi, Monolith, and Cache Creek Park.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0									
2		0	0									
3		0	0									
4		0	0									
5		0	0									
6		0	0									
7		0	0									
8		0	0									
9		0	0									
10		0	0									
11		0	0									
12		0	0									
13		0	0									
14		0	0									
15		0	0									
16		0	0									
17		0	0									
18		0	0									
19		0	0									
20		0	0									
21		0	.50									
22		0	0									
23		0	0									
24		0	0									
25		0	0									
26		0	0									
27		0	0									
28		0	0									
29		2.0	0		-----							
30		0	0		-----							
31		-----	0		-----		-----		-----			-----
TOTAL	0	2.0	.50	0	0	0	0	0	0	0	0	0
MEAN	0	.067	.016	0	0	0	0	0	0	0	0	0
MAX	0	2.0	.50	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	4.0	1.0	0	0	0	0	0	0	0	0	0
(a)	0	2.9	1.7	.0	.2	0	.16	.02	0	0	0	0
CAL YR 1970	TOTAL	2.50	MEAN .0070	MAX 2.0	MIN 0	AC-FT 5.0						
WTR YR 1971	TOTAL	2.50	MEAN .0070	MAX 2.0	MIN 0	AC-FT 5.0						

a Precipitation, in inches.

## KOEHN LAKE BASIN

10264750 PINE TREE CREEK NEAR MOJAVE, CALIF.

LOCATION.--Lat 35°13'50", long 118°05'07", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.14, T.31 S., R.36 E., Kern County, on downstream side of city of Los Angeles aqueduct-siphon pier near right bank, 0.5 mile downstream from unnamed tributary, and 13 miles northeast of Mojave.

DRAINAGE AREA.--33.5 sq mi.

PERIOD OF RECORD.--July 1958 to current year.

GAGE.--Water-stage recorder with rain-gage attachment. Altitude of gage is 2,700 ft (from topographic map). Prior to Oct. 1, 1961, at datum 3.0 ft higher.

AVERAGE DISCHARGE.--13 years, 0.23 cfs (167 acre-ft per year); median of yearly mean discharges, 0.03 cfs (22 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 30,000 cfs Aug. 23, 1961, on basis of field estimate of maximum flow; no flow most of each year.

REMARKS.--No flow since Feb. 26, 1969. No regulation or diversion above station. Rainfall data incomplete.

## 10264770 COTTONWOOD CREEK NEAR CANTIL, CALIF.

LOCATION.--Lat 35°18'50", long 118°02'38", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.19, T.30 S., R.36 E., Kern County, on downstream side of city of Los Angeles aqueduct-siphon pier, 4.3 miles west of Cantil.

DRAINAGE AREA.--163 sq mi.

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

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 2,400 ft (from topographic map).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 1,170 cfs Aug. 7, 1968 (gage height, 4.14 ft, from crest-stage gage), on basis of slope-area measurement of maximum flow; no flow most of each year.

Flood of Aug. 8, 1963, 5,150 cfs, by slope-area measurement.

REMARKS.--No flow since Feb. 25, 1969. No regulation or diversion above station.

## INDIAN WELLS VALLEY

10264878 NINEMILE CREEK NEAR BROWN, CALIF.

LOCATION.--Lat 35°50'35", long 117°55'35", (unsurveyed), Inyo County, on left bank 600 ft upstream from Los Angeles aqueduct and 6.4 miles northwest of Brown.

DRAINAGE AREA.--10.4 sq mi.

PERIOD OF RECORD.--October 1961 to September 1971 (discontinued as a continuous-record station; converted to a crest-stage partial-record station).

GAGE.--Water-stage recorder. Altitude of gage is 3,350 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 0.69 cfs (500 acre-ft per year); median of yearly mean discharges, 0.3 cfs (220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7.0 cfs Dec. 9 (gage height, 3.67 ft); no flow Oct. 1-31, July 18 to Sept. 30.

Period of record: Maximum discharge, 437 cfs Oct. 17, 1963 (gage height, 6.50 ft), from rating curve extended above 20 cfs on basis of slope-area measurement of maximum flow; no flow most of each year.

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		.01	.76	.31	.22	.11	.14	.11	.93	.02		
2		.02	1.2	.31	.18	.11	.14	.14	1.0	.02		
3		.02	.93	.31	.14	.14	.11	.18	.84	.02		
4		.11	2.5	.31	.14	.14	.11	.22	.68	.02		
5		.22	3.3	.31	.14	.14	.11	.26	.54	.02		
6		.26	4.8	.31	.14	.14	.11	.61	.42	.01		
7		.31	5.6	.31	.14	.14	.11	.61	.26	.01		
8		.48	5.9	.31	.11	.14	.11	.48	.22	.01		
9		.61	6.2	.36	.11	.14	.11	.36	.18	.01		
10		.54	2.1	.36	.11	.14	.11	.36	.22	.01		
11		.54	.36	.36	.11	.14	.08	.36	.18	.01		
12		.42	.31	.36	.11	.14	.08	.31	.11	.01		
13		.48	.31	.36	.11	.14	.08	.31	.08	.01		
14		.61	.26	.31	.11	.14	.08	.22	.08	.01		
15		.68	.26	.22	.14	.14	.48	.22	.05	.01		
16		.76	.31	.22	.14	.14	.42	.14	.05	0		
17		.68	.31	.31	.14	.11	.36	.42	.04	0		
18		.68	.36	.31	.14	.11	.36	.48	.04	0		
19		.68	.36	.26	.14	.11	.31	.48	.04	0		
20		.76	.36	.22	.14	.11	.31	.48	.06	0		
21		.76	.36	.22	.14	.11	.31	.84	.06	0		
22		.76	.36	.18	.14	.11	.31	.84	.05	0		
23		.76	.31	.18	.18	.11	.26	.42	.05	0		
24		.84	.31	.18	.14	.11	.26	.42	.04	0		
25		1.1	.31	.18	.14	.11	.26	.42	.04	0		
26		1.5	.31	.18	.14	.11	.26	.42	.03	0		
27		1.3	.31	.18	.14	.11	.22	.84	.03	0		
28		1.5	.31	.18	.11	.11	.18	1.0	.03	0		
29		3.4	.31	.18	-----	.11	.14	.84	.03	0		
30		1.1	.31	.18	-----	.11	.11	.93	.03	0		
31		-----	.31	.22	-----	.11	-----	.93	-----	0		-----
TOTAL	0	21.89	40.00	8.19	3.84	3.83	6.03	14.65	6.41	.20	0	0
MEAN	0	.73	1.29	.26	.14	.12	.20	.47	.21	.007	0	0
MAX	0	3.4	6.2	.36	.22	.14	.48	1.0	1.0	.02	0	0
MIN	0	.01	.26	.18	.11	.11	.08	.11	.03	0	0	0
AC-FT	0	43	79	16	7.6	7.6	12	29	13	.4	0	0

CAL YR 1970 TOTAL 247.38 MEAN .68 MAX 11 MIN 0 AC-FT 491  
WTR YR 1971 TOTAL 105.04 MEAN .29 MAX 6.2 MIN 0 AC-FT 208

PEAK DISCHARGE (BASE, 10 CFS).--No peak above base.

## 10265200 CONVICT CREEK NEAR MAMMOTH LAKES, CALIF.

LOCATION.--Lat 37°36'26", long 118°50'52", in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.14, T.4 S., R.28 E., Mono County, on right bank 1.1 miles downstream from Convict Lake, 2.0 miles upstream from U.S. Highway 395, and 7.0 miles southeast of Mammoth Lakes (Ranger Station).

DRAINAGE AREA.--18.2 sq mi (revised).

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1959 monthly discharge only, published in WSP 1314 and 1734.

GAGE.--Water-stage recorder and wood control. Altitude of gage is 7,450 ft (from topographic map). Prior to Nov. 15, 1926, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--46 years, 24.4 cfs (17,680 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 89 cfs June 18, 19, 23, 24 (gage height, 2.17 ft); minimum daily, 7.2 cfs Mar. 24.  
Period of record: Maximum discharge, 290 cfs June 29, 1932 (gage height, 4.43 ft); minimum daily, 1.3 cfs Jan. 10, 1951.

REMARKS.--Some regulation by Convict Lake above station. No diversion above station.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power, and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	15	12	10	12	8.4	10	25	79	46	24
2	12	11	13	11	10	9.9	8.7	11	24	77	52	23
3	12	11	13	11	10	8.7	8.7	11	23	74	57	22
4	12	11	14	11	10	8.4	8.7	12	23	74	57	22
5	12	12	13	11	10	8.7	8.7	13	24	73	53	22
6	12	12	13	11	10	7.8	9.0	16	27	73	50	22
7	12	11	13	11	10	7.8	9.0	16	33	71	51	23
8	12	11	14	11	10	8.1	9.0	16	40	67	43	24
9	12	11	14	11	9.9	8.1	9.6	16	50	64	41	25
10	12	11	14	11	9.6	8.1	9.9	17	58	61	39	25
11	12	11	14	11	9.3	8.4	8.1	17	65	59	37	24
12	12	11	13	11	9.0	8.4	8.4	17	69	57	36	24
13	12	11	13	12	9.0	9.3	9.0	17	68	55	36	24
14	12	11	13	26	9.0	9.3	9.0	18	80	53	36	23
15	12	11	13	14	9.0	8.4	9.3	18	84	53	37	22
16	12	11	13	11	9.0	8.4	9.6	19	87	57	37	22
17	12	11	13	11	9.0	8.4	10	19	88	60	36	21
18	12	10	13	11	8.7	8.1	10	21	89	60	35	20
19	12	10	13	11	8.7	8.1	10	22	89	60	34	20
20	12	10	13	11	8.7	8.4	10	23	88	61	32	19
21	12	10	13	11	8.7	8.4	10	23	87	60	31	19
22	12	10	13	11	8.7	8.4	10	23	88	59	29	19
23	12	10	13	11	8.7	8.7	10	24	89	57	29	19
24	12	10	13	11	8.7	7.2	10	25	89	55	29	18
25	12	11	13	11	9.3	8.7	9.9	25	88	51	28	18
26	12	12	13	11	9.3	8.7	9.9	25	88	48	27	17
27	12	12	13	11	9.6	8.7	10	27	88	47	27	16
28	12	11	13	11	10	8.4	10	30	88	44	26	16
29	12	13	12	10	-----	8.4	10	30	87	40	26	16
30	12	15	12	10	-----	9.0	10	30	86	39	25	15
31	12	-----	12	10	-----	8.1	-----	27	-----	39	24	-----
TOTAL	372	333	407	358	261.9	265.5	282.9	618	2,012	1,827	1,146	624
MEAN	12.0	11.1	13.1	11.5	9.35	8.56	9.43	19.9	67.1	58.9	37.0	20.8
MAX	12	15	15	26	10	12	10	30	89	79	57	25
MIN	12	10	12	10	8.7	7.2	8.1	10	23	39	24	15
AC-FT	738	661	807	710	519	527	561	1,230	3,990	3,620	2,270	1,240

CAL YR 1970 TOTAL 9,133.0 MEAN 25.0 MAX 79 MIN 10 AC-FT 18,120  
WTR YR 1971 TOTAL 8,507.3 MEAN 23.3 MAX 89 MIN 7.2 AC-FT 16,870

NOTE.--No gage-height record Oct. 1-31.

## OWENS LAKE BASIN

10265700 ROCK CREEK AT LITTLE ROUND VALLEY, NEAR BISHOP, CALIF.

LOCATION.--Lat 37°33'15", long 118°41'03", in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.32, T.4 S., R.30 E., Mono County, on right bank just upstream from diversion to Little Round Valley, 0.6 mile south of Toms Place, and 20 miles northwest of Bishop.

DRAINAGE AREA.--35.8 sq mi.

PERIOD OF RECORD.--January to December 1918, January 1920 to current year. Prior to October 1959 monthly discharge only, published in WSP 1314 and 1734.

GAGE.--Water-stage recorder. Parshall flume since May 1953. Altitude of gage is 7,280 ft (from topographic map). See WSP 1734 for history of changes prior to May 28, 1953.

AVERAGE DISCHARGE.--51 years (1920-71), 29.9 cfs (21,660 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 88 cfs June 18 (gage height, 2.26 ft); minimum daily, 7.4 cfs Mar. 8, 10.

1926 to current year: Maximum discharge, 312 cfs May 30, 1969 (gage height, 5.00 ft); minimum daily, 3.2 cfs Mar. 11, 1926.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.8	13	10	9.0	19	10	15	29	60	38	17
2	11	9.8	11	12	8.7	15	10	17	27	61	43	16
3	11	9.8	15	15	9.0	12	11	17	27	62	47	16
4	11	11	11	11	9.0	10	11	17	28	62	46	16
5	11	11	11	11	8.7	15	11	18	29	62	42	15
6	10	11	11	12	8.7	8.5	11	20	33	60	39	17
7	10	11	11	11	8.2	7.7	11	19	40	58	35	17
8	9.0	11	12	12	8.5	7.4	11	19	47	55	33	18
9	9.2	11	11	11	8.2	7.7	11	19	54	53	33	19
10	9.2	11	12	11	8.5	7.4	11	19	55	51	32	18
11	9.2	11	10	10	8.5	7.7	11	20	59	49	30	18
12	9.5	10	11	9.5	8.7	8.5	12	21	60	46	29	17
13	9.5	10	12	7.7	8.7	9.0	12	21	62	46	29	16
14	9.6	11	12	9.2	8.7	9.2	12	26	66	47	29	15
15	9.8	10	12	9.5	8.7	8.5	12	32	68	49	27	15
16	9.8	10	12	10	8.7	8.2	13	36	73	55	25	15
17	9.5	10	11	11	8.7	7.6	13	36	77	60	23	15
18	9.5	10	14	9.8	8.7	8.0	12	35	83	65	22	15
19	9.5	10	11	9.8	8.7	8.2	12	34	83	66	21	14
20	9.5	10	19	9.8	9.0	8.2	12	34	78	68	20	14
21	9.8	9.8	15	9.2	9.5	8.5	11	36	78	67	20	14
22	9.8	9.8	19	9.2	8.7	9.2	11	35	80	61	20	13
23	9.8	9.8	19	9.2	8.7	9.5	11	33	81	56	19	13
24	10	9.8	20	9.2	9.0	9.2	11	33	80	50	19	12
25	9.8	12	20	9.0	9.5	10	11	34	77	45	19	12
26	9.8	13	19	9.2	12	10	12	36	74	41	20	12
27	10	14	13	9.0	11	10	13	39	72	40	20	11
28	10	13	12	9.0	16	10	14	40	74	39	20	11
29	9.5	14	12	9.0	-----	11	14	37	70	39	19	11
30	9.8	13	12	8.7	-----	11	14	34	65	38	17	10
31	10	-----	11	9.0	-----	10	-----	31	-----	38	17	-----
TOTAL	306.3	326.6	414	312.0	258.0	301.2	351	863	1,829	1,649	853	442
MEAN	9.88	10.9	13.4	10.1	9.21	9.72	11.7	27.8	61.0	53.2	27.5	14.7
MAX	11	14	20	15	16	19	14	40	83	68	47	19
MIN	9.0	9.8	10	7.7	8.2	7.4	10	15	27	38	17	10
AC-FT	608	648	821	619	512	597	696	1,710	3,630	3,270	1,690	877

CAL YR 1970 TOTAL 9,233.9 MEAN 25.3 MAX 97 MIN 9.0 AC-FT 18,320  
WTR YR 1971 TOTAL 7,905.1 MEAN 21.7 MAX 83 MIN 7.4 AC-FT 15,680

## 10267000 PINE CREEK AT DIVISION BOX, NEAR BISHOP, CALIF.

LOCATION.--Lat 37°24'59", long 118°37'15", in SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.19, T.6 S., R.31 E., Inyo County, on right bank 0.2 mile upstream from division box (at Rovana), 1.9 miles west of Round Valley schoolhouse, and 13 miles northwest of Bishop.

DRAINAGE AREA.--36.4 sq mi (revised).

PERIOD OF RECORD.--October 1921 to current year. Prior to October 1959 monthly discharge only, published in WSP 1314 and 1734.

GAGE.--Water-stage recorder. Parshall flume since November 1938. Altitude of gage is 5,280 ft (from topographic map).

AVERAGE DISCHARGE.--50 years, 45.1 cfs (32,670 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 207 cfs June 17 (gage height, 3.85 ft); minimum daily, 22 cfs for some days.

Period of record: Maximum discharge, 509 cfs July 2, 1967 (gage height, 6.05 ft); minimum daily, 10 cfs Jan. 8, 1930, Jan. 21, 1935.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	24	26	23	24	25	23	28	48	121	63	30
2	27	24	26	23	24	24	24	30	47	125	64	30
3	27	24	26	23	24	24	24	32	49	130	65	30
4	27	24	26	22	24	23	24	31	59	126	62	29
5	27	23	26	23	24	23	24	30	70	119	61	30
6	27	24	26	23	24	23	24	33	36	114	58	33
7	27	24	27	23	24	23	24	33	53	109	54	42
8	27	24	26	23	23	23	25	32	130	103	52	42
9	27	24	26	23	23	23	25	30	123	100	50	37
10	27	24	26	24	24	23	25	30	130	94	48	34
11	27	24	26	23	24	22	25	35	141	91	47	33
12	26	24	25	24	24	22	26	37	151	91	46	32
13	26	24	25	24	24	23	27	41	159	90	46	32
14	26	24	26	24	24	22	27	48	166	95	45	31
15	26	24	24	24	24	22	27	63	171	102	44	31
16	26	24	24	24	24	22	28	74	179	104	42	30
17	26	24	24	24	23	22	28	66	183	111	38	30
18	26	25	24	24	23	22	28	58	171	120	36	30
19	26	25	24	25	23	22	28	55	155	116	37	29
20	26	25	24	25	23	22	27	59	155	135	37	28
21	26	25	24	25	23	22	26	62	163	115	36	28
22	26	25	22	25	23	22	25	54	160	95	36	27
23	26	25	22	26	23	22	25	54	155	86	36	27
24	26	25	23	25	23	22	24	65	147	81	36	27
25	26	27	24	25	24	23	24	76	138	80	35	27
26	26	26	23	25	24	23	24	86	141	75	35	26
27	26	25	22	25	24	22	23	84	150	73	35	26
28	25	26	22	25	25	22	24	69	141	70	34	26
29	26	26	22	25	-----	23	25	58	126	68	33	26
30	24	26	22	24	-----	23	26	54	123	68	32	26
31	24	-----	23	24	-----	23	-----	49	-----	66	31	-----
TOTAL	813	738	756	745	663	702	759	1,556	3,820	3,073	1,374	909
MEAN	26.2	24.6	24.4	24.0	23.7	22.6	25.3	50.2	127	99.1	44.3	30.3
MAX	28	27	27	26	25	25	28	86	183	135	65	42
MIN	24	23	22	22	23	22	23	28	36	66	31	26
AC-FT	1,610	1,460	1,500	1,480	1,320	1,390	1,510	3,090	7,580	6,100	2,730	1,800

CAL YR 1970 TOTAL 17,820 MEAN 48.8 MAX 190 MIN 15 AC-FT 35,350  
 WTR YR 1971 TOTAL 15,908 MEAN 43.6 MAX 183 MIN 22 AC-FT 31,550



## OWENS LAKE BASIN

10268700 SILVER CANYON CREEK NEAR LAWS, CALIF.

LOCATION.--Lat 37°24'16", long 118°18'30", in NW $\frac{1}{4}$  sec.25, T.6 S., R.33 E., Inyo County, on right bank at mouth of canyon, 2.0 miles east of Laws.

DRAINAGE AREA.--21.6 sq mi (revised).

PERIOD OF RECORD.--March 1930 to current year. Prior to October 1959 monthly discharge only, published in WSP 1314 and 1734.

GAGE.--Water-stage recorder and Parshall flume (Cipolletti weir used during low flow). Altitude of gage is 4,600 ft (from topographic map). See WSP 1734 for history of changes prior to Feb. 24, 1943.

AVERAGE DISCHARGE.--41 years, 1.64 cfs (1,190 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2.8 cfs Nov. 25 (gage height, 0.79 ft); minimum daily, 1.4 cfs Aug. 7-21, 23.

Period of record: Maximum discharge, 9.6 cfs June 16, 1969 (gage height, 1.65 ft); no flow at times in some years.

REMARKS.--No regulation; occasional diversion above station.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.5	2.5	2.4	2.2	2.0	2.0	1.8	1.8	1.6	1.5	1.5
2	2.3	2.4	2.5	2.4	2.2	2.0	2.0	1.7	1.8	1.6	1.5	1.5
3	2.3	2.4	2.5	2.4	2.2	1.9	2.0	1.7	1.8	1.6	1.5	1.6
4	2.3	2.4	2.5	2.4	2.2	1.9	2.0	1.7	1.8	1.6	1.5	1.6
5	2.3	2.4	2.5	2.4	2.2	1.9	2.0	1.7	1.8	1.6	1.5	1.6
6	2.3	2.4	2.5	2.4	2.2	1.9	2.0	1.8	1.8	1.5	1.5	1.6
7	2.3	2.4	2.5	2.4	2.2	1.9	2.0	1.8	1.8	1.5	1.4	1.6
8	2.3	2.4	2.5	2.4	2.2	1.8	2.0	1.8	1.8	1.5	1.4	1.6
9	2.3	2.4	2.5	2.4	2.1	1.8	2.0	1.7	1.8	1.5	1.4	1.6
10	2.3	2.4	2.5	2.3	2.1	1.8	2.0	1.7	1.8	1.5	1.4	1.6
11	2.3	2.4	2.5	2.3	2.1	1.8	2.0	1.8	1.8	1.5	1.4	1.6
12	2.3	2.4	2.5	2.3	2.1	1.8	1.9	1.8	1.8	1.5	1.4	1.6
13	2.3	2.5	2.5	2.3	2.1	1.9	1.8	1.8	1.7	1.5	1.4	1.6
14	2.3	2.5	2.5	2.3	2.1	1.9	2.0	1.8	1.7	1.5	1.4	1.6
15	2.4	2.5	2.5	2.3	2.1	1.9	2.0	1.8	1.7	1.5	1.4	1.6
16	2.4	2.5	2.5	2.2	2.1	1.9	2.0	1.8	1.7	1.5	1.4	1.6
17	2.4	2.5	2.5	2.2	2.1	1.9	2.0	1.8	1.7	1.6	1.4	1.7
18	2.4	2.5	2.5	2.2	2.1	1.9	2.0	1.8	1.7	1.5	1.4	1.7
19	2.5	2.5	2.5	2.2	2.1	2.0	2.0	1.8	1.7	1.5	1.4	1.7
20	2.5	2.5	2.5	2.2	2.1	2.0	2.0	1.8	1.7	1.6	1.4	1.7
21	2.5	2.5	2.5	2.2	2.1	2.0	2.0	1.8	1.7	1.5	1.4	1.8
22	2.4	2.5	2.5	2.2	2.1	2.0	2.0	1.8	1.6	1.5	1.5	1.8
23	2.5	2.5	2.5	2.2	2.1	2.0	2.0	1.8	1.6	1.5	1.4	1.8
24	2.5	2.5	2.5	2.2	2.0	2.0	2.0	1.8	1.6	1.5	1.5	1.7
25	2.5	2.5	2.5	2.2	2.0	2.0	2.0	1.8	1.6	1.5	1.5	1.7
26	2.5	2.5	2.5	2.2	2.1	2.0	2.0	1.8	1.6	1.5	1.5	1.8
27	2.5	2.5	2.5	2.2	2.1	2.0	2.0	1.8	1.6	1.5	1.5	1.8
28	2.5	2.5	2.5	2.2	2.0	2.0	1.9	1.9	1.6	1.5	1.5	1.8
29	2.5	2.5	2.5	2.2	-----	2.0	1.9	1.8	1.6	1.5	1.5	1.8
30	2.5	2.5	2.4	2.2	-----	2.0	1.9	1.8	1.6	1.5	1.5	1.8
31	2.5	-----	2.4	2.2	-----	2.0	-----	1.8	-----	1.5	1.5	-----
TOTAL	74.2	73.9	77.3	70.6	59.3	59.9	59.4	55.3	51.3	47.2	44.9	50.0
MEAN	2.39	2.46	2.49	2.28	2.12	1.93	1.98	1.78	1.71	1.52	1.45	1.67
MAX	2.5	2.5	2.5	2.4	2.2	2.0	2.0	1.9	1.8	1.6	1.5	1.8
MIN	2.3	2.4	2.4	2.2	2.0	1.8	1.8	1.7	1.6	1.5	1.4	1.5
AC-FT	147	147	153	140	118	119	118	110	102	94	89	99

CAL YR 1970 TOTAL 1,060.00 MEAN 2.90 MAX 4.3 MIN .29 AC-FT 2,100  
WTR YR 1971 TOTAL 723.30 MEAN 1.98 MAX 2.5 MIN 1.4 AC-FT 1,430

## 10271210 BISHOP CREEK BELOW POWERPLANT NO. 6, NEAR BISHOP, CALIF.

LOCATION.--Lat 37°20'59", long 118°27'41", in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.9, T.7 S., R.32 E., Inyo County, below powerplant No. 6 tailrace and 3.6 miles west of Bishop.

DRAINAGE AREA.--104 sq mi (Natural flow).

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

GAGE.--None.

AVERAGE DISCHARGE (Actual flow).--36 years, 98.7 cfs (71,510 acre-ft per year).  
(Natural flow).--36 years, 107 cfs (77,520 acre-ft per year).

EXTREMES (Actual flow).--Water year 1970: Maximum daily discharge, 180 cfs July 20; minimum daily, 48 cfs Mar. 4.  
Water year 1971: Maximum daily discharge, 232 cfs July 21; minimum daily, 56 cfs Mar. 19.

(Natural flow).--Water year 1970: Maximum daily discharge, 698 cfs June 27; minimum daily, 62 cfs Oct. 2.  
Water year 1971: Maximum daily discharge, 608 cfs June 17; minimum daily, 22 cfs Sept. 22.

REMARKS.--Flow regulated for power development by South Lake, Lake Sabrina, and Intake No. 2 Reservoir (combined capacity, 20,660 acre-ft) and many powerhouses. Records for "actual flow" include Bishop Creek above powerplant No. 6 tailrace and Bishop Creek powerplant No. 6 conduit. Records for "natural flow" include "actual flow" of Bishop Creek below powerplant No. 6, Abelour ditch near Bishop minus Birch-McGee diversion to Bishop Creek powerplant near Bishop, and the change in contents and evaporation for South Lake, Lake Sabrina, and Intake No. 2 Reservoir.

COOPERATION.--Records furnished by Southern California Edison Co. and reviewed by Geological Survey, in connection with a Federal Power Commission project.

## ACTUAL FLOW MONTHLY AND YEARLY MEAN DISCHARGE, IN CUBIC FEET PER SECOND

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1936	83.9	93.1	93.7	68.2	65.6	71.9	80.8	110	123	118	117	85.7	92.6
1937	86.1	96.7	103	97.9	77.8	65.4	74.2	146	125	205	117	99.1	108
1938	98.5	83.1	93.3	89.9	101	95.8	72.1	138	257	367	258	112	148
1939	92.7	97.0	94.2	96.9	97.2	87.5	81.4	88.9	96.1	91.8	84.2	66.9	89.6
1940	71.5	77.2	86.8	81.2	83.0	77.4	93.2	91.1	120	138	87.1	89.9	91.3
1941	88.8	76.4	70.4	85.8	91.4	97.1	100	123	181	347	193	90.2	129
1942	89.0	80.2	89.6	100	101	100	104	105	117	257	180	96.6	117
1943	86.6	86.6	87.6	89.9	88.2	79.9	90.2	125	114	187	128	80.8	104
1944	70.0	82.5	98.4	91.9	92.5	85.7	80.3	94.9	105	95.3	94.8	74.7	88.8
1945	57.1	56.5	88.2	96.8	94.6	80.6	86.0	113	143	290	158	87.7	113
1946	81.2	73.5	70.8	76.1	95.1	93.5	111	132	158	230	114	78.9	110
1947	72.5	76.8	74.6	78.8	77.3	80.8	91.9	102	105	108	84.7	83.3	86.3
1948	75.7	71.7	65.5	55.0	55.3	36.5	48.3	63.6	85.1	101	84.9	67.0	65.6
1949	52.3	65.6	76.9	77.7	80.3	53.2	68.4	96.5	121	113	89.4	67.5	80.1
1950	62.9	71.1	84.8	90.8	78.4	71.8	79.4	95.3	94.5	87.4	72.6	59.4	79.0
1951	59.6	72.0	68.4	87.7	91.0	97.2	63.1	74.7	89.1	124	97.2	83.6	84.0
1952	60.2	60.5	74.8	102	113	82.6	77.5	178	251	241	206	103	129
1953	91.0	113	115	103	77.0	90.4	78.5	82.2	98.3	136	102	85.7	97.8
1954	79.8	74.9	65.0	85.2	76.6	67.0	75.1	120	118	104	96.5	99.4	88.4
1955	64.8	57.0	51.8	60.3	83.4	76.1	71.9	80.5	102	94.1	98.9	86.3	77.2
1956	71.1	66.9	59.6	66.5	116	113	95.1	113	156	221	141	97.3	110
1957	73.0	108	84.4	71.6	106	111	64.9	87.1	110	106	89.7	69.9	90.0
1958	83.3	91.2	82.3	89.9	100	95.5	87.1	142	166	185	197	102	119
1959	73.5	92.2	106	84.4	85.1	106	73.4	75.2	90.2	77.6	70.6	57.9	82.7
1960	48.9	54.0	53.7	57.8	39.9	45.0	54.2	77.1	92.6	80.4	61.8	47.1	59.6
1961	40.9	59.2	60.0	64.1	44.0	36.6	48.3	64.2	73.0	65.2	72.9	72.1	58.4
1962	48.6	41.2	43.7	63.9	81.2	66.0	87.4	125	124	130	104	67.0	81.8
1963	78.5	91.5	65.4	43.0	70.2	130	84.0	110	152	179	162	125	108
1964	58.9	65.8	94.0	128	65.8	60.3	58.3	78.9	97.4	94.7	82.8	55.5	78.6
1965	45.7	48.3	59.4	78.1	82.0	62.4	54.4	84.9	99.2	150	164	110	88.6
1966	119	83.1	83.2	72.5	70.1	73.5	65.9	86.3	91.5	90.8	95.9	88.0	85.1
1967	52.2	52.2	56.9	52.7	69.3	84.2	80.7	135	210	404	283	155	137
1968	77.0	84.8	78.5	98.4	80.8	109	85.3	85.0	88.5	97.2	98.4	84.0	89.0
1969	66.1	60.7	82.6	82.5	96.4	108	122	295	514	348	300	145	185

## OWENS LAKE BASIN

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

NATURAL FLOW MONTHLY AND YEARLY MEAN DISCHARGE, IN CUBIC FEET PER SECOND

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1936	32.2	34.8	34.6	32.5	45.5	38.0	83.9	181	280	213	106	44.1	93.9
1937	46.6	38.2	41.2	42.0	50.4	44.3	56.4	221	333	257	105	50.4	108
1938	40.0	34.5	57.7	40.0	59.4	57.2	70.7	195	496	405	258	109	152
1939	75.7	51.1	48.0	50.7	49.9	48.5	97.5	147	173	138	101	53.9	86.5
1940	45.7	36.9	33.4	42.1	43.3	49.2	68.2	179	300	162	78.2	42.2	90.1
1941	39.8	34.6	44.9	49.6	48.0	47.8	60.4	224	365	399	197	71.6	132
1942	52.6	51.4	64.3	58.0	51.7	49.4	73.4	132	297	331	157	66.2	116
1943	46.7	44.5	42.5	55.9	49.6	49.5	83.7	206	239	251	122	63.1	105
1944	45.1	42.5	45.0	45.9	47.9	49.0	52.5	137	185	213	94.9	56.4	84.7
1945	38.0	42.2	35.6	45.7	45.7	45.5	73.6	186	322	341	155	82.3	118
1946	84.8	65.9	61.8	47.3	45.7	45.7	91.8	194	245	239	115	59.8	109
1947	54.3	55.9	49.7	42.3	40.9	46.2	76.7	216	181	121	79.5	54.4	84.8
1948	42.0	39.2	38.2	33.7	35.1	35.7	50.0	97.2	178	146	62.6	38.8	69.1
1949	28.8	30.3	33.7	33.7	36.9	39.4	65.8	160	275	139	81.1	45.0	80.8
1950	35.5	41.1	37.6	39.2	39.5	38.2	77.3	154	218	146	53.2	46.4	77.2
1951	29.7	60.9	54.9	40.4	39.1	37.8	62.8	132	244	184	76.8	40.0	83.5
1952	31.2	33.8	39.9	51.1	42.3	42.5	64.4	235	357	399	201	84.7	132
1953	60.8	53.3	56.9	55.4	44.1	48.7	66.4	87.7	189	267	97.9	56.6	90.6
1954	42.4	42.7	39.0	43.2	45.7	45.9	84.4	197	207	163	69.7	43.0	85.4
1955	35.9	36.9	39.4	40.7	39.9	38.2	46.7	110	257	165	108	45.1	80.4
1956	31.6	41.4	59.8	59.4	51.6	42.7	69.3	153	331	349	141	78.9	118
1957	59.5	46.5	44.0	38.6	42.7	46.2	49.6	98.5	317	183	91.8	49.7	89.1
1958	42.4	43.1	40.4	39.0	44.1	44.5	64.7	215	325	289	194	83.2	119
1959	46.0	45.9	45.3	46.2	54.7	52.5	69.8	90.5	181	116	71.4	53.7	72.8
1960	39.2	32.2	31.3	33.8	35.7	36.5	54.9	88.4	145	79.9	55.7	37.9	56.0
1961	33.4	38.4	34.6	31.9	32.3	31.6	50.1	78.9	149	80.2	89.3	39.8	57.5
1962	31.5	31.2	35.0	34.1	54.1	37.7	74.9	118	303	256	110	51.0	94.8
1963	38.3	34.8	29.3	27.5	51.0	41.5	46.7	133	311	321	154	77.5	106
1964	59.9	51.4	44.0	42.0	36.6	37.2	46.3	109	164	118	86.7	36.3	69.4
1965	29.1	33.2	49.9	49.0	35.7	31.7	52.3	116	242	267	191	54.4	96.4
1966	38.1	44.3	39.2	38.4	33.5	34.8	68.4	146	149	105	80.3	33.2	87.7
1967	28.7	27.9	53.9	39.8	34.1	40.6	35.6	148	346	515	277	156	143
1968	52.6	44.5	47.0	41.3	40.5	46.7	58.9	117	172	138	83.9	43.9	74.0
1969	68.2	62.0	83.2	124	109	107	143	690	1,170	1,040	544	208	365

ACTUAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	80	136	110	107	62	85	105	124	126	146	93
2	135	77	138	113	106	62	82	120	124	121	142	96
3	141	72	132	116	107	65	82	123	129	124	134	114
4	140	71	132	115	106	48	82	124	117	124	130	108
5	141	73	133	114	108	84	83	121	124	124	123	117
6	142	81	136	116	107	83	80	125	124	130	126	120
7	141	81	136	112	109	81	82	123	124	131	126	122
8	144	89	135	116	107	80	84	124	124	99	123	122
9	142	82	135	117	111	79	83	124	124	128	124	120
10	142	78	132	116	106	80	83	121	125	130	125	120
11	141	79	135	115	103	82	83	121	122	132	126	124
12	143	81	134	96	106	81	83	119	122	130	119	122
13	142	80	137	83	107	80	83	122	124	129	119	122
14	143	80	135	82	107	81	83	119	124	129	127	122
15	145	81	135	84	106	80	84	119	125	132	128	120
16	143	81	135	102	86	80	82	121	124	126	129	102
17	144	79	136	111	74	81	84	123	125	128	124	123
18	143	80	136	104	73	79	83	124	122	136	120	123
19	141	81	135	107	74	81	82	122	123	156	119	124
20	100	80	136	106	70	81	82	124	123	180	122	123
21	77	83	133	109	77	80	83	120	123	173	122	123
22	77	82	126	106	73	78	81	125	126	167	123	124
23	77	83	134	107	73	82	83	126	128	154	122	125
24	80	87	138	104	75	81	83	124	125	155	121	121
25	76	95	137	106	64	81	83	126	130	146	121	115
26	80	102	135	106	64	80	79	125	129	144	125	120
27	78	116	134	106	64	79	83	124	127	142	122	120
28	77	122	135	107	61	79	83	122	133	142	124	121
29	77	137	126	104	-----	79	81	125	126	143	123	121
30	78	138	113	107	-----	80	82	123	161	151	122	123
31	80	-----	116	107	-----	74	-----	122	-----	147	108	-----
TOTAL	3,647	2,631	4,126	3,304	2,531	2,403	2,476	3,786	3,781	4,279	3,865	3,550
MEAN	118	87.7	133	107	90.4	77.5	82.5	122	126	138	125	118
MAX	145	138	138	117	111	84	85	126	161	180	146	125
MIN	76	71	113	82	61	48	79	105	117	99	108	93
AC-FT	7,230	5,220	8,180	6,550	5,020	4,770	4,910	7,510	7,500	8,490	7,670	7,040

WTR YR 1970 TOTAL 40,379 MEAN 111 MAX 180 MIN 48 AC-FT 80,090

ACTUAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	101	80	81	83	81	71	71	86	106	141	99
2	103	90	99	82	82	80	69	70	101	104	141	85
3	103	79	99	82	81	78	68	71	93	110	140	85
4	101	81	81	86	84	84	68	70	99	111	139	86
5	100	78	82	83	82	87	68	71	100	111	134	84
6	100	79	81	83	83	80	68	70	99	111	128	85
7	102	78	81	82	82	80	61	72	99	112	121	86
8	101	79	81	82	82	80	73	72	100	106	115	87
9	104	78	81	82	81	80	66	74	102	102	115	86
10	103	77	81	82	80	80	63	73	102	103	108	86
11	101	79	81	81	80	80	64	72	99	101	111	85
12	100	78	81	82	75	80	64	70	99	102	103	86
13	103	79	81	84	75	80	64	70	101	102	107	84
14	99	78	80	82	80	80	64	71	103	105	108	85
15	101	78	81	83	81	67	64	71	103	103	108	87
16	102	79	82	82	80	58	64	76	104	105	107	85
17	102	78	82	83	79	60	64	77	105	121	108	85
18	102	79	80	83	82	57	64	76	111	136	109	86
19	101	79	81	82	80	56	64	76	110	196	108	85
20	102	80	82	81	80	57	64	75	108	229	107	86
21	101	80	80	81	80	57	66	74	108	232	109	87
22	101	79	80	81	81	57	64	74	108	209	108	86
23	102	79	82	82	80	57	66	73	110	184	109	87
24	103	79	82	81	79	57	64	71	116	164	106	87
25	111	78	83	82	81	59	63	73	108	156	108	88
26	101	80	83	82	80	61	59	74	99	150	110	88
27	99	80	81	81	79	61	64	73	113	147	101	88
28	100	79	82	79	79	61	66	74	120	142	119	90
29	100	81	82	81	-----	66	68	74	113	138	110	86
30	100	80	83	82	-----	70	71	74	112	139	108	88
31	102	-----	83	82	-----	71	-----	73	-----	143	107	-----
TOTAL	3,162	2,402	2,558	2,542	2,251	2,162	1,966	2,255	3,131	4,180	3,553	2,598
MEAN	102	80.1	82.5	82.0	80.4	69.7	65.5	72.7	104	135	115	86.6
MAX	112	101	99	86	84	87	73	77	120	232	141	99
MIN	99	77	80	79	75	56	59	70	86	101	101	84
AC-FT	6,273	4,760	5,070	5,040	4,460	4,290	3,900	4,470	6,210	8,290	7,050	5,150
CAL YR 1970 TOTAL	38,097		MEAN 104	MAX 180	MIN 48	AC-FT 75,570						
WTR YR 1971 TOTAL	32,760		MEAN 89.8	MAX 232	MIN 56	AC-FT 64,980						

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

NATURAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	133	123	104	113	109	123	121	538	328	243	145
2	62	137	127	116	119	96	115	166	571	325	227	119
3	120	121	144	113	118	106	123	160	565	351	230	109
4	125	106	90	108	111	69	137	196	554	368	215	72
5	128	100	126	108	120	120	143	208	549	414	216	110
6	135	139	127	99	102	106	148	182	516	457	219	113
7	133	125	125	105	110	113	143	186	524	442	219	109
8	121	129	122	119	112	108	141	201	514	429	207	108
9	124	128	115	148	119	104	154	207	465	519	196	105
10	82	133	106	132	123	112	182	194	406	495	212	106
11	122	134	124	127	97	108	179	192	339	438	209	111
12	125	129	113	174	110	112	169	176	341	394	195	78
13	115	135	118	134	109	124	152	211	313	388	221	85
14	150	134	112	137	110	113	144	251	257	363	227	92
15	153	132	116	133	106	116	145	275	242	336	221	98
16	200	107	110	207	153	105	126	330	251	378	216	78
17	147	125	121	155	133	115	131	401	268	384	213	88
18	142	122	121	146	114	97	140	404	305	390	206	87
19	133	127	147	144	101	106	134	393	388	404	197	67
20	251	123	136	131	98	103	137	361	476	448	169	79
21	142	117	138	132	127	107	122	353	549	402	153	80
22	134	106	115	139	110	98	133	415	617	367	119	91
23	118	118	114	134	109	127	143	452	590	310	165	77
24	118	91	130	144	130	120	126	469	567	353	169	83
25	132	109	150	127	118	124	148	457	581	330	173	79
26	141	93	110	118	107	105	133	442	613	321	171	75
27	120	75	111	134	108	94	122	478	698	283	170	87
28	119	71	110	128	106	106	118	484	546	294	246	95
29	137	102	133	117	-----	101	120	489	414	273	150	97
30	134	122	116	90	-----	102	119	516	423	274	155	109
31	149	-----	115	123	-----	91	-----	550	-----	260	259	-----
TOTAL	4,143	3,523	3,765	4,026	3,193	3,317	4,150	9,920	13,980	11,518	6,188	2,832
MEAN	134	117	121	130	114	107	138	320	466	372	200	94.4
MAX	251	139	150	207	153	127	182	550	698	519	259	145
MIN	62	71	90	90	97	69	115	121	242	260	119	67
AC-FT	8,220	6,990	7,470	7,990	6,330	6,580	8,230	19,680	27,730	22,850	12,270	5,620

WTR YR 1970 TOTAL 70,555 MEAN 193 MAX 698 MIN 62 AC-FT 139,900

NATURAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	67	104	87	67	72	90	119	165	382	295	129
2	110	74	128	84	83	79	90	110	176	420	292	121
3	110	65	132	70	79	84	92	122	184	426	309	130
4	100	71	118	109	89	46	87	116	211	433	262	120
5	90	93	112	83	86	108	101	121	222	429	265	115
6	47	80	103	88	82	77	111	132	253	397	262	139
7	42	75	129	95	85	85	74	137	284	381	243	160
8	81	58	116	92	65	71	108	119	315	365	230	163
9	74	89	108	86	63	78	104	129	339	348	223	145
10	73	70	105	83	69	72	97	141	356	324	223	152
11	72	85	100	73	104	79	109	144	391	314	213	133
12	79	49	87	109	104	84	115	157	424	322	205	129
13	77	71	97	99	74	81	114	163	472	320	214	124
14	75	78	96	94	94	78	108	207	521	345	208	122
15	67	82	93	81	90	83	108	237	581	359	193	127
16	76	70	117	95	77	84	114	209	579	396	186	116
17	75	80	109	111	83	70	108	189	608	495	158	110
18	70	72	96	91	92	84	107	176	555	558	160	117
19	66	62	102	97	86	75	104	183	480	569	157	107
20	55	83	99	94	79	91	104	230	503	606	152	99
21	100	75	104	90	82	81	97	138	542	505	157	109
22	25	67	98	90	84	94	87	163	535	465	143	95
23	90	93	83	84	78	85	93	158	513	390	148	92
24	62	77	94	91	81	93	92	187	491	340	134	80
25	86	142	89	78	76	108	92	224	454	360	142	85
26	65	93	102	90	72	94	83	225	468	333	145	72
27	58	96	91	71	71	81	94	215	486	314	140	83
28	62	103	98	79	77	92	102	175	468	280	165	85
29	63	159	79	89	-----	88	103	176	438	318	148	85
30	59	99	94	80	-----	77	108	173	419	298	133	22
31	71	-----	56	95	-----	85	-----	138	-----	287	144	-----
TOTAL	2,298	2,478	3,139	2,758	2,272	2,559	2,996	5,113	12,433	12,079	6,049	3,366
MEAN	74.1	82.6	101	89.0	81.1	82.5	99.9	165	414	390	195	112
MAX	118	159	132	111	104	108	115	237	608	606	309	163
MIN	25	49	56	70	63	46	74	110	165	280	133	22
AC-FT	4,560	4,920	6,230	5,470	4,510	5,080	5,940	10,140	24,660	23,960	12,000	6,680
CAL YR 1970	TOTAL 67,039		MEAN 184	MAX 698	MIN 25	AC-FT 133,000						
WTR YR 1971	TOTAL 57,540		MEAN 158	MAX 608	MIN 22	AC-FT 114,100						

LOCATION.--Lat 37°08'42", long 118°18'52", in SW<sup>1</sup>SW<sup>1</sup>SE<sup>1</sup> sec.24, T.9 S., R.33 E., Inyo County, on left bank 0.3 mile downstream from Little Pine Creek, 0.5 mile downstream from powerhouse No. 3, and 2.2 miles southwest of Big Pine.

PERIOD OF RECORD.--November 1907 to February 1911, January 1920 to current year; combined records of creek and diversions, June 1930 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734.

AVERAGE COMBINED DISCHARGE.--41 years (1930-71), 41.2 cfs (29,850 acre-ft per year).

REMARKS.--No regulation above station. Diversions above station for power and irrigation. At times since 1962 discharge from Little Pine Creek has been spread in nearby meadows and does not reach gage as surface flow. For records of combined discharge of Big Pine Creek and Giroux ditches which divert above station, see following page.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	14	13	13	11	9.0	11	15	74	63	31
2	15	15	15	13	13	13	9.0	12	16	83	62	30
3	17	15	15	13	12	11	9.0	12	16	87	74	29
4	20	16	15	13	12	11	9.0	11	17	90	80	28
5	19	15	15	14	12	10	9.5	12	19	83	68	27
6	19	15	15	15	13	10	9.8	14	24	78	59	35
7	19	17	16	14	12	11	9.8	15	31	77	63	71
8	19	17	15	14	12	11	10	14	37	74	62	47
9	18	17	15	14	12	11	10	14	40	71	57	38
10	17	16	14	14	12	10	9.8	15	42	64	57	36
11	17	15	14	13	12	11	10	15	40	65	61	37
12	17	14	14	13	13	11	11	16	50	68	57	37
13	17	15	13	13	13	11	14	18	58	71	54	35
14	17	15	14	13	13	10	15	20	60	89	50	33
15	17	15	14	13	11	10	12	24	66	96	48	33
16	17	15	14	13	13	9.8	12	26	74	98	48	33
17	17	15	13	14	13	8.0	13	20	75	114	47	30
18	17	14	13	14	12	9.0	11	17	72	122	44	27
19	17	14	13	14	11	8.7	11	17	60	112	44	23
20	16	14	14	14	11	8.7	11	17	65	99	43	20
21	16	14	14	14	12	9.0	10	18	72	89	42	20
22	16	14	14	13	12	9.0	9.5	16	75	86	42	22
23	16	14	13	13	12	8.5	9.0	16	77	77	39	21
24	16	14	13	13	11	8.5	9.0	19	68	77	39	19
25	16	16	14	13	10	9.5	9.5	20	62	78	37	15
26	16	16	14	13	10	9.5	9.0	22	64	74	37	13
27	16	15	13	12	11	9.0	9.0	21	81	73	38	11
28	16	15	13	12	11	9.0	9.0	19	87	71	42	9.8
29	16	16	13	11	-----	9.5	9.5	16	77	71	39	8.5
30	16	14	13	13	-----	9.8	10	16	77	71	39	8.0
31	15	-----	13	13	-----	9.8	-----	15	-----	67	35	-----
TOTAL	522	452	432	411	334	307.3	308.4	518	1,617	2,549	1,570	827.3
MEAN	16.8	15.1	13.9	13.3	11.9	9.91	10.3	16.7	53.9	82.2	50.6	27.6
MAX	20	17	16	15	13	13	15	26	87	122	80	71
MIN	15	14	13	11	10	8.0	9.0	11	15	64	35	8.0
AC-FT	1,040	897	857	815	662	610	612	1,030	3,210	5,060	3,110	1,640
CAL YR 1970	TOTAL	12,616.0	MEAN	34.6	MAX	167	MIN	12	AC-FT	25,020		
WTR YR 1971	TOTAL	9,848.0	MEAN	27.0	MAX	122	MIN	8.0	AC-FT	19,530		

## 10276000 BIG PINE CREEK NEAR BIG PINE, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF BIG PINE CREEK AND UPPER AND  
LOWER GIROUX DITCHES, NEAR BIG PINE, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	19	18	16	16	14	14	16	25	87	78	44
2	24	19	19	16	16	16	14	18	26	96	78	43
3	24	19	18	16	15	14	14	18	26	100	90	42
4	24	20	18	16	15	14	14	17	27	103	96	41
5	23	19	18	17	15	13	15	18	30	96	84	40
6	23	18	18	18	16	13	15	20	35	91	74	48
7	23	20	19	17	15	14	15	21	43	90	79	84
8	23	20	18	17	15	14	15	20	49	88	77	60
9	22	20	18	17	15	14	15	19	52	85	72	51
10	21	19	17	17	15	13	15	20	54	78	72	49
11	21	19	17	16	15	14	15	20	52	79	76	50
12	21	17	17	16	16	14	16	22	62	82	72	50
13	21	18	16	16	16	14	20	24	70	85	68	48
14	21	18	18	16	16	13	21	26	72	103	63	46
15	21	18	18	16	14	12	17	30	78	110	60	46
16	21	18	18	16	16	13	17	32	86	112	60	46
17	21	18	17	17	16	12	18	26	87	128	60	43
18	20	18	16	17	15	13	16	26	84	136	57	40
19	20	18	16	17	14	13	16	27	72	126	56	35
20	19	18	17	17	14	13	16	28	77	113	56	32
21	20	18	17	17	15	14	15	29	85	103	55	32
22	20	18	17	16	15	14	15	26	88	102	55	34
23	20	18	16	16	15	13	14	26	90	93	52	33
24	20	18	16	16	14	13	14	30	81	93	52	31
25	20	20	17	16	14	14	15	31	75	94	50	27
26	20	20	17	16	14	14	14	33	77	90	50	24
27	20	19	16	15	14	13	14	32	94	89	51	22
28	20	19	16	15	14	13	14	29	100	87	55	21
29	20	20	16	14	-----	14	15	26	90	87	52	20
30	20	18	16	16	-----	14	15	26	90	87	52	19
31	19	-----	16	16	-----	14	-----	25	-----	83	48	-----
TOTAL	656	561	531	504	420	420	463	761	1,977	2,996	2,000	1,201
MEAN	21.2	18.7	17.1	16.3	15.0	13.5	15.4	24.5	65.9	96.6	64.5	40.0
MAX	24	20	19	18	16	16	21	33	100	136	96	84
MIN	19	17	16	14	14	12	14	16	25	78	48	19
AC-FT	1,300	1,110	1,050	1,000	833	833	918	1,510	3,920	5,940	3,970	2,380
CAL YR 1970	TOTAL 14,943		MEAN 40.9		MAX 182		MIN 15		AC-FT 29,640			
WTR YR 1971	TOTAL 12,490		MEAN 34.2		MAX 136		MIN 12		AC-FT 24,770			



## OWENS LAKE BASIN

10277500 OWENS RIVER NEAR BIG PINE, CALIF.

LOCATION.--Lat 37°00'55", long 118°13'25", in NW¼SE¼ sec.2, T.11 S., R.34 E., Inyo County, on left bank 0.1 mile downstream from Little Seeley Spring, 0.2 mile downstream from Charlies Butte, and 10.8 miles southeast of Big Pine.

DRAINAGE AREA.--1,977 sq mi (revised).

PERIOD OF RECORD.--January 1906 to current year. Monthly discharge only for some periods, published in WSP 1314. Prior to 1912 published as "near Tinemaha".

GAGE.--Water-stage recorder. Rock control since October 1958. Altitude of gage is 3,800 ft (from topographic map). Prior to Oct. 8, 1922, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum daily discharge, 825 cfs Nov. 14, 16; minimum daily, 1.0 cfs Oct. 9-27.  
Period of record: Maximum discharge, 3,220 cfs (estimated) Jan. 26, 1914 (gage height, 11.2 ft), from rating curve extended above 1,100 cfs; no flow Jan. 9-13, 21-26, 1937.

REMARKS.--Flow regulated since 1941 by Lake Crowley (capacity, 183,500 acre-ft) and several small reservoirs (combined capacity, 41,400 acre-ft). Diversions from both main stream and tributaries. Water imported from Mono Lake basin since 1941 for diversion to Los Angeles aqueduct which diverts 4 miles downstream.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	652	600	771	714	380	233	460	500	500	700	750	631
2	652	600	775	714	380	233	408	488	500	702	752	631
3	654	600	767	715	380	233	406	485	501	700	752	634
4	654	557	769	680	375	231	406	503	536	700	753	633
5	658	610	769	714	375	288	406	510	647	702	754	634
6	656	685	769	710	375	462	406	510	695	703	756	637
7	654	691	769	712	375	562	330	505	696	705	753	633
8	265	693	769	621	375	575	206	501	706	703	743	637
9	1.0	691	769	502	263	585	206	500	720	712	736	642
10	1.0	687	767	486	172	586	206	395	721	730	742	641
11	1.0	697	767	430	137	587	206	2.0	723	731	731	642
12	1.0	700	763	352	75	587	206	302	720	733	725	645
13	1.0	730	763	336	76	589	204	620	720	735	715	88
14	1.0	825	766	332	75	591	206	615	721	754	708	3.0
15	1.0	823	771	331	75	591	206	630	724	752	699	3.0
16	1.0	825	769	330	75	591	271	660	723	754	683	3.0
17	1.0	821	769	328	75	593	516	690	724	758	647	3.0
18	1.0	803	769	327	75	595	604	720	714	756	643	3.0
19	1.0	765	763	326	74	593	610	709	679	755	640	3.0
20	1.0	765	752	326	73	599	607	700	678	622	640	3.0
21	1.0	767	735	325	73	593	607	680	689	250	640	3.0
22	1.0	769	716	334	125	593	604	615	704	418	641	3.0
23	1.0	767	703	354	225	615	547	610	706	700	641	3.0
24	1.0	767	699	353	225	612	505	609	709	699	641	3.0
25	1.0	777	699	353	225	615	505	608	707	695	640	3.0
26	1.0	781	699	354	226	590	505	609	709	701	638	3.0
27	1.0	777	703	354	226	510	505	605	709	717	627	3.0
28	175	771	705	353	225	508	505	585	707	749	609	3.0
29	296	791	705	353	-----	510	505	515	692	752	609	3.0
30	600	775	707	353	-----	510	505	514	649	753	607	3.0
31	600	-----	707	353	-----	510	-----	510	-----	753	607	-----
TOTAL	6,535.0	21,910	23,124	13,825	5,810	16,070	12,369	17,005.0	20,329	21,594	21,222	7,779.0
MEAN	211	730	746	446	208	518	412	549	678	697	685	259
MAX	658	825	775	715	380	615	610	720	724	758	756	645
MIN	1.0	557	699	325	73	231	204	2.0	500	250	607	3.0
AC-FT	12,960	43,460	45,870	27,420	11,520	31,870	24,530	33,730	40,320	42,830	42,090	15,430
CAL YR 1970	TOTAL 199,292.0		MEAN 546	MAX 825	MIN 1.0	AC-FT 395,300						
WTR YR 1971	TOTAL 187,572.0		MEAN 514	MAX 825	MIN 1.0	AC-FT 372,000						

## 10281800 INDEPENDENCE CREEK BELOW PINYON CREEK, NEAR INDEPENDENCE, CALIF.

LOCATION.--Lat 36°46'43", long 118°15'49", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.27, T.13 S., R.34 E., Inyo County, on right bank 0.2 mile downstream from Pinyon Creek and 4.0 miles southwest of Independence.

DRAINAGE AREA.--18.1 sq mi (revised).

PERIOD OF RECORD.--January 1923 to current year. Prior to October 1959 monthly discharge only, published in WSP 1734.

GAGE.--Water-stage recorder and Parshall flume (Cipolletti weir used during low flow). Altitude of gage is 5,300 ft (from topographic map). See WSP 1734 for history of changes prior to Dec. 13, 1936.

AVERAGE DISCHARGE.--48 years, 12.8 cfs (9,270 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 41 cfs June 18 (gage height, 1.83 ft); minimum daily, 2.2 cfs Dec. 18.

Period of record: Maximum discharge, 169 cfs June 1, 1969 (gage height, 4.45 ft); minimum daily, 0.70 cfs Jan. 25, 1926, Dec. 15, 1935.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.0	3.8	2.9	2.6	3.3	3.6	4.5	13	29	12	5.4
2	3.8	3.0	3.8	3.3	2.6	3.2	3.6	4.9	12	28	12	5.2
3	3.9	3.0	3.6	4.1	2.6	3.5	3.6	5.5	12	27	12	5.2
4	4.1	3.0	3.6	4.1	2.5	3.3	3.8	5.5	13	26	11	5.0
5	3.9	3.0	3.3	3.3	2.8	3.2	3.8	5.4	13	25	11	4.9
6	3.5	3.0	3.2	3.6	2.6	3.0	3.9	6.2	14	24	11	5.0
7	3.2	3.0	3.3	3.6	2.6	2.8	4.1	7.5	15	23	10	5.2
8	3.6	3.0	3.3	3.5	2.8	2.5	4.1	6.6	18	22	10	4.7
9	3.6	3.0	3.0	2.8	2.8	2.5	4.2	6.2	20	22	9.5	4.4
10	3.5	3.0	3.0	2.6	2.6	2.4	4.2	6.2	22	20	8.9	4.2
11	3.3	2.9	2.9	2.6	2.6	2.4	4.4	6.8	23	19	8.7	4.1
12	3.3	2.6	2.9	2.6	2.6	2.4	4.5	7.2	24	19	8.5	3.9
13	3.3	2.5	2.9	2.8	2.8	2.6	4.9	7.5	26	18	8.5	3.9
14	3.5	2.8	2.8	3.0	2.8	2.6	5.2	8.5	28	18	8.3	3.8
15	3.5	2.8	2.6	3.0	2.8	2.6	5.4	11	31	18	8.3	3.8
16	3.5	2.6	2.8	3.0	2.8	2.5	5.4	13	35	17	8.1	3.5
17	3.5	2.5	2.9	3.8	3.0	2.4	5.4	14	38	19	7.7	3.3
18	3.5	2.5	2.2	3.2	2.8	2.4	5.4	14	39	20	7.2	3.6
19	3.3	2.4	2.8	3.0	2.8	2.5	5.7	14	38	20	7.0	3.8
20	3.2	2.4	3.9	3.0	2.8	2.5	5.5	14	37	19	6.8	3.8
21	3.2	2.4	3.2	3.0	3.2	2.6	5.2	14	37	18	6.4	3.6
22	3.2	2.4	3.2	2.9	3.0	2.6	5.0	14	37	17	6.2	3.6
23	3.2	2.4	3.3	2.8	3.0	2.6	4.9	13	38	16	6.2	3.5
24	3.3	2.4	3.2	2.6	3.0	2.6	4.5	14	38	15	6.2	3.3
25	3.3	4.1	3.5	2.5	2.8	3.0	4.7	15	36	14	6.2	3.2
26	3.0	4.4	3.3	2.5	2.8	3.6	4.5	17	35	14	6.2	3.2
27	3.0	3.6	3.2	2.5	3.0	3.3	4.4	19	35	13	6.0	3.2
28	3.2	3.8	3.2	2.5	3.5	3.3	4.2	18	35	13	5.9	3.2
29	3.2	4.7	2.9	2.5	-----	3.3	4.1	16	35	12	5.7	3.2
30	3.0	3.8	3.3	2.5	-----	3.3	4.2	15	30	12	5.4	3.0
31	3.0	-----	2.9	2.6	-----	3.3	-----	14	-----	12	5.4	-----
TOTAL	105.4	90.0	97.8	92.7	78.6	88.1	136.4	337.5	827	589	252.3	119.7
MEAN	3.40	3.00	3.15	2.99	2.81	2.84	4.55	10.9	27.6	19.0	8.14	3.99
MAX	4.1	4.7	3.9	4.1	3.5	3.6	5.7	19	39	29	12	5.4
MIN	3.0	2.4	2.2	2.5	2.5	2.4	3.6	4.5	12	12	5.4	3.0
AC-FT	209	179	194	184	156	175	271	669	1,640	1,170	500	237

CAL YR 1970 TOTAL 3,276.4 MEAN 8.98 MAX 38 MIN 2.2 AC-FT 6,500  
WTR YR 1971 TOTAL 2,814.5 MEAN 7.71 MAX 39 MIN 2.2 AC-FT 5,580

## OWENS LAKE BASIN

10282480 MAZOURKA CREEK NEAR INDEPENDENCE, CALIF.

LOCATION.--Lat 36°50'50", long 118°05'05", in NE $\frac{1}{4}$  lot 11, N $\frac{1}{2}$  sec.5, T.13 S., R.36 E., Inyo County, on right bank 7 miles northeast of Independence.

DRAINAGE AREA.--15.6 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 0.076 cfs (55 acre-ft per year); median of yearly mean discharges, zero.

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 1,300 cfs Dec. 6, 1966 (gage height, 2.46 ft, from inside gage, 3.10 ft, from profile of floodmarks), from rating curve extended above 1.0 cfs on basis of slope-area measurement of maximum flow; no flow for all or most of each year.

REMARKS.--No flow since Jan. 25, 1969. No regulation or diversion above station.

## 10284800 INYO CREEK NEAR LONE PINE, CALIF.

LOCATION.--Lat 36°35'50", long 118°10'55", in SE<sup>1</sup>SE<sup>1</sup> sec.29, T.15 S., R.35 E., Inyo County, Inyo National Forest, at culvert on Mount Whitney Road, 7 miles west of Lone Pine.

DRAINAGE AREA.--1.54 sq mi.

PERIOD OF RECORD.--Water years 1963-68 (annual maximum), May 1968 to current year.

GAGE.--Water-stage recorder with rain-gage attachment. Altitude of gage is 6,000 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 1.8 cfs July 21 (gage height, 2.68 ft); no flow most of year.  
Period of record: Maximum discharge, 42 cfs Aug. 2, 1969 (gage height, 7.57 ft), from rating curve extended above 6.6 cfs on basis of culvert computations of flow at gage heights 4.9 and 7.57 ft; no flow most of each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	0	0		
2								0	0	0		
3								0	0	0		
4								0	0	0		
5								0	0	0		
6								0	.01	0		
7								0	.02	0		
8								0	.07	0		
9								0	.07	0		
10								0	.07	0		
11								0	.08	0		
12								0	.08	0		
13								0	.08	0		
14								0	.08	0		
15								0	.08	0		
16								0	.08	0		
17								0	.07	0		
18								0	.05	0		
19								0	.04	0		
20								0	.02	0		
21								0	.02	.12		
22								0	.01	.03		
23								0	0	0		
24								0	0	0		
25								.04	0	0		
26								.06	0	0		
27								.04	0	0		
28								.01	0	0		
29								0	0	0		
30								0	0	0		
31		-----			-----		-----	0	-----	0		-----
TOTAL	0	0	0	0	0	0	0	.15	.93	.15	0	0
MEAN	0	0	0	0	0	0	0	.005	.031	.005	0	0
MAX	0	0	0	0	0	0	0	.06	.08	.12	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	.3	1.8	.3	0	0
(a)	0	2.21	.54	0	0	0	0	0	0	.22	0	0

CAL YR 1970 TOTAL 16.38 MEAN .045 MAX 2.0 MIN 0 AC-FT 32  
WTR YR 1971 TOTAL 1.23 MEAN .0030 MAX .12 MIN 0 AC-FT 2.4

a Precipitation, in inches.

## OWENS LAKE BASIN

10285700 OWENS RIVER AT KEELER BRIDGE, NEAR LONE PINE, CALIF.

LOCATION.--Lat 36°34'46", long 118°01'06", in NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.1, T.16 S., R.36 E., Inyo County, on left bank under old timber bridge 0.5 mile upstream from bridge on State Highway 190 and 3.4 miles southeast of Lone Pine.

DRAINAGE AREA.--2,604 sq mi.

PERIOD OF RECORD.--January 1927 to current year. Prior to October 1959 monthly discharge only, published in WSP 1314 and 1734.

GAGE.--Water-stage recorder and Cipolletti weir. Altitude of gage is 3,600 ft (from topographic map). See WSP 1734 for history of changes prior to Feb. 14, 1935. Feb. 14, 1935, to Nov. 22, 1964, water-stage recorder and Cipolletti weir at same site and datum. Nov. 23, 1964, to June 26, 1967, nonrecording gage and Cipolletti weir at same site and datum.

EXTREMES.--Current year: Maximum daily discharge, 55 cfs Oct. 14 (gage height, 1.39 ft); minimum daily, 0.62 cfs Aug. 10-12, 19-22, 30, 31.

Period of record: Maximum daily discharge, 1,360 cfs June 19, 1969 (gage height, 5.98 ft); no flow at times in some years.

REMARKS.--Natural flow affected by storage in several reservoirs, many natural lakes, diversions for irrigation, and return flow from irrigated areas. Major portion of discharge from basin is diverted through Los Angeles aqueduct. Discharge reported herein is wasted into Owens Lake.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	11	24	18	17	16	14	12	7.6	2.4	.91	.76
2	5.5	11	20	18	17	15	14	12	7.6	2.4	.91	.76
3	5.8	11	18	16	17	15	15	11	7.6	2.2	.91	.76
4	5.8	11	18	15	16	16	16	11	7.6	2.2	1.1	.91
5	6.1	11	17	16	17	16	15	11	7.6	2.0	1.1	.91
6	6.4	11	17	16	17	16	14	11	7.3	2.0	1.1	.91
7	6.1	11	17	17	17	15	14	12	7.3	2.0	.91	.91
8	6.4	11	17	18	17	15	14	13	7.0	1.8	.76	1.1
9	6.7	12	17	18	17	15	14	14	6.7	1.8	.76	1.1
10	7.3	12	17	18	17	16	15	14	6.7	1.8	.62	1.1
11	16	12	17	18	17	16	15	13	6.4	1.6	.62	.91
12	52	12	17	18	16	16	15	13	6.1	1.6	.62	.91
13	55	12	17	18	16	16	15	29	5.8	1.4	.76	.91
14	52	12	17	18	16	15	14	16	5.5	1.4	.91	.91
15	32	12	17	17	16	15	14	14	5.3	1.2	1.1	.76
16	18	13	17	17	16	15	15	12	5.0	1.2	1.1	.91
17	14	13	17	18	16	15	15	11	4.7	1.4	.91	.91
18	13	13	17	18	16	15	14	11	4.5	1.6	.76	.91
19	12	13	17	18	16	15	14	10	4.2	1.6	.62	1.2
20	11	13	18	18	16	15	14	9.8	4.0	1.4	.62	1.4
21	11	14	18	18	16	15	14	9.8	3.7	1.4	.62	1.4
22	10	14	19	18	16	15	14	9.5	3.5	1.4	.62	1.4
23	10	14	19	18	16	15	14	9.2	3.2	1.2	.76	1.4
24	10	14	19	18	16	15	14	9.2	3.0	1.1	.91	1.4
25	10	14	19	17	16	15	14	8.8	3.0	1.1	1.1	1.4
26	10	16	18	17	17	15	14	8.8	2.8	1.1	.91	1.6
27	10	18	18	17	17	15	14	7.9	2.8	.91	.91	1.8
28	10	19	18	17	16	15	14	8.2	2.6	.91	.91	2.0
29	10	21	18	17	-----	14	14	8.2	2.6	.91	.91	2.2
30	10	22	18	17	-----	14	14	8.2	2.4	.91	.62	2.4
31	11	-----	18	17	-----	14	-----	8.2	-----	.91	.62	-----
TOTAL	448.9	403	555	539	460	470	430	355.8	154.1	46.85	25.99	35.95
MEAN	14.5	13.4	17.9	17.4	16.4	15.2	14.3	11.5	5.14	1.51	.84	1.20
MAX	55	22	24	18	17	16	16	29	7.6	2.4	1.1	2.4
MIN	5.5	11	17	15	16	14	14	7.9	2.4	.91	.62	.76
AC-FT	890	799	1,100	1,070	912	932	853	706	306	93	52	71

CAL YR 1970 TOTAL 8,305.00 MEAN 22.8 MAX 199 MIN 3.0 AC-FT 16,470  
 WTR YR 1971 TOTAL 3,924.59 MEAN 10.8 MAX 55 MIN .62 AC-FT 7,780

## 10286000 COTTONWOOD CREEK NEAR OLANCHA, CALIF.

LOCATION.--Lat 36°26'20", long 118°04'48", (unsurveyed), Inyo County, Inyo National Forest, just downstream from intake to Cottonwood powerhouse and 11.2 miles north of Olancha.

DRAINAGE AREA.--40.1 sq mi (revised).

PERIOD OF RECORD.--January 1906 to March 1911, January 1914 to current year; combined records of creek and flow through powerhouse, November 1938 to current year. Monthly discharge only January 1914 to September 1959, published in WSP 1314 and 1734.

GAGE.--Water-stage recorder and Parshall flume (Cipolletti weir used during low flow) on creek, destroyed by flood of May 15, 1969; water-stage recorder and Cipolletti weir on powerhouse diversion. Altitude of gage is 4,660 ft (from topographic map). See WSP 1734 for history of changes prior to Oct. 31, 1938. Since May 15, 1969, supplementary gage at site 5.0 miles downstream at different datum.

AVERAGE COMBINED DISCHARGE.--61 years (1906-10, 1914-71), 22.7 cfs (16,450 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 37 cfs May 13 (gage height, 1.48 ft); no flow Dec. 20 to Jan. 6, Jan. 30 to Mar. 25.  
Period of record: Maximum discharge, 520 cfs June 3, 1969 (gage height, unknown); no flow for some days in some years.  
(Combined flow).--Current year: Maximum discharge, 47 cfs May 13; minimum daily, 1.4 cfs Jan. 9.  
Period of record: Maximum discharge, 520 cfs June 3, 1969; minimum daily, 1.0 cfs July 22, 23, 1961.

REMARKS.--No regulation above station. Cottonwood powerhouse (maximum capacity, 22 cfs) has diverted since Nov. 13, 1908. For records of combined discharge of Cottonwood Creek and powerhouse, see following page.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	3.9	4.0	0		0	6.6	6.6	18	8.3	.50	.50
2	1.6	3.9	4.0	0		0	7.3	6.4	18	7.6	.50	.50
3	1.6	3.6	2.4	0		0	7.8	5.3	16	6.9	.50	.50
4	1.6	3.9	3.8	0		0	8.4	4.7	15	6.0	.50	.50
5	1.6	4.1	5.0	0		0	9.9	5.9	14	5.3	.50	.50
6	1.6	4.5	5.0	0		0	11	7.7	14	4.9	.50	.50
7	1.8	4.7	4.5	.76		0	8.7	7.7	15	4.5	.50	.50
8	2.1	4.3	3.8	4.0		0	9.9	6.4	15	3.7	.50	.50
9	1.9	5.2	7.5	1.4		0	12	8.7	18	3.2	.50	.50
10	1.9	5.0	6.5	1.5		0	11	8.9	16	2.4	.50	.50
11	1.8	5.0	6.5	1.6		0	11	14	16	1.9	.50	.50
12	1.9	4.5	5.7	2.2		0	14	14	16	1.0	.50	.50
13	2.1	4.5	5.7	1.6		0	14	19	16	.50	.50	.50
14	2.2	5.2	2.8	3.2		0	9.6	24	15	.33	.50	.50
15	2.2	5.2	.11	2.5		0	9.6	23	15	.19	.50	.50
16	2.6	5.2	.11	2.5		0	12	22	15	.19	.50	.50
17	2.6	5.2	.11	3.1		0	10	20	15	1.5	.50	.50
18	2.6	5.2	.11	3.2		0	7.1	20	15	2.1	.50	.50
19	2.8	5.0	.03	3.2		0	8.4	21	15	1.9	.50	.50
20	2.8	4.3	0	3.4		0	8.7	20	15	2.4	.50	.50
21	2.8	4.3	0	3.5		0	6.6	21	14	4.5	.50	.50
22	3.0	4.7	0	3.4		0	6.0	21	14	2.2	.50	.50
23	3.0	5.0	0	3.4		0	7.5	19	13	1.6	.50	.50
24	3.1	4.7	0	3.5		0	7.3	19	12	.79	.50	.50
25	3.1	5.8	0	3.5		0	6.2	20	10	.50	.50	.50
26	3.3	4.7	0	3.2		2.1	6.2	19	10	.50	.50	.50
27	3.5	4.5	0	2.9		3.9	6.4	20	10	.50	.50	.50
28	3.5	5.4	0	2.8		3.8	5.6	21	10	.41	.50	.50
29	3.9	7.2	0	2.1	-----	4.9	5.2	24	9.4	.41	.50	.50
30	4.4	6.1	0	0	-----	7.5	5.2	22	8.7	.50	.50	.50
31	4.6	-----	0	0	-----	7.0	-----	20	-----	.50	.50	-----
TOTAL	79.1	144.8	67.67	62.46	0	29.2	259.2	491.3	423.1	77.22	15.50	15.00
MEAN	2.55	4.83	2.18	2.01	0	.94	8.64	15.8	14.1	2.49	.50	.50
MAX	4.6	7.2	7.5	4.0	0	7.5	14	24	18	8.3	.50	.50
MIN	1.6	3.6	0	0	0	0	5.2	4.7	8.7	.19	.50	.50
AC-FT	157	287	134	124	0	58	514	974	839	153	31	30

CAL YR 1970 TOTAL 1,631.68 MEAN 4.47 MAX 31 MIN 0 AC-FT 3,240  
WTR YR 1971 TOTAL 1,664.55 MEAN 4.56 MAX 24 MIN 0 AC-FT 3,300

## OWENS LAKE BASIN

## 10286000 COTTONWOOD CREEK NEAR OLANCHA, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF COTTONWOOD CREEK AND  
POWERHOUSE NEAR OLANCHA, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.9	4.0	7.4	6.8	8.2	17	17	28	19	10	6.0
2	1.7	3.9	4.0	6.6	6.6	7.1	17	16	28	18	10	6.0
3	1.8	3.6	2.4	5.0	6.6	7.1	18	15	26	18	11	5.7
4	1.8	3.9	3.8	5.2	6.6	7.1	18	15	25	17	11	5.7
5	1.8	4.1	5.0	6.0	6.3	7.1	20	16	24	16	11	5.5
6	1.8	4.5	5.0	6.0	6.3	7.1	21	18	24	15	11	5.5
7	2.0	4.7	4.5	5.0	6.3	7.1	19	18	23	15	10	6.0
8	2.4	4.3	3.8	4.3	6.3	7.1	20	16	25	14	9.3	5.5
9	2.1	5.2	7.5	1.4	6.3	7.1	22	19	28	14	8.8	5.2
10	2.1	5.0	6.5	1.5	6.3	7.1	21	19	26	13	8.2	5.2
11	2.0	5.0	6.5	1.6	6.6	7.1	20	24	26	12	7.9	5.0
12	2.1	4.5	5.7	2.2	6.8	7.1	23	24	26	10	7.9	4.8
13	2.3	4.5	5.7	1.6	7.4	7.1	23	29	26	11	7.9	5.0
14	2.4	5.2	5.7	3.2	7.7	7.1	19	34	25	11	7.9	5.0
15	2.4	5.2	6.4	2.5	7.7	7.1	19	32	25	11	10	5.0
16	2.8	5.2	6.4	2.5	8.0	7.1	21	31	25	11	10	5.2
17	2.8	5.2	6.1	3.1	8.2	7.1	19	29	25	12	8.8	5.5
18	2.8	5.2	6.4	3.2	7.7	7.1	16	29	25	13	7.9	5.5
19	3.0	5.0	6.3	3.2	8.0	7.1	18	30	25	13	7.6	5.5
20	3.0	4.3	6.3	3.4	7.7	7.1	19	29	25	13	7.3	5.2
21	3.0	4.3	6.3	3.5	8.0	7.1	16	30	24	16	7.0	5.2
22	3.1	4.7	6.3	3.4	8.0	9.2	16	30	24	13	7.0	5.2
23	3.1	5.0	6.3	3.4	8.2	9.2	18	28	23	13	6.8	5.0
24	3.2	4.7	6.3	3.5	8.2	10	17	28	22	12	7.0	4.8
25	3.2	5.8	6.3	3.5	8.2	10	16	29	20	11	7.0	4.8
26	3.6	4.7	6.3	3.2	8.2	12	16	28	20	11	6.8	4.8
27	3.5	4.5	6.3	2.9	8.2	14	16	29	20	11	7.0	5.0
28	3.5	5.4	6.3	2.8	8.2	14	16	30	20	11	6.8	5.2
29	3.9	7.2	6.3	3.9	-----	15	15	33	20	10	7.0	5.5
30	4.4	6.1	7.4	6.8	-----	18	15	31	19	10	6.5	5.7
31	4.6	-----	7.4	7.1	-----	17	-----	29	-----	9.9	6.2	-----
TOTAL	84.1	144.8	179.5	118.9	205.4	278.6	551	785	722	403.9	258.6	159.2
MEAN	2.71	4.83	5.79	3.84	7.34	8.99	18.4	25.3	24.1	13.0	8.34	5.31
MAX	4.6	7.2	7.5	7.4	8.2	18	23	34	28	19	11	6.0
MIN	1.7	3.6	2.4	1.4	6.3	7.1	15	15	19	9.9	6.2	4.8
AC-FT	167	287	356	236	407	553	1,090	1,560	1,430	801	513	316

CAL YR 1970 TOTAL 4,476.8 MEAN 12.3 MAX 43 MIN 1.7 AC-FT 8,880  
WTR YR 1971 TOTAL 3,891.0 MEAN 10.7 MAX 34 MIN 1.4 AC-FT 7,720

## 10287000 MONO LAKE NEAR MONO LAKE, CALIF.

LOCATION.--Lat 37°58'46", long 119°08'11", in NW $\frac{1}{4}$  sec.5, T.2 N., R.26 E., Mono County, on west bank 1 mile south of town of Mono Lake.

DRAINAGE AREA.--785 sq mi.

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

GAGE.--Nonrecording gage or reference point read once a week. Gage heights prior to October 1944 are converted to elevations above mean sea level in WSP 1314. Gage readings have been reduced to elevations above mean sea level.

EXTREMES.--Period of record: Maximum elevation observed, 6,428.1 ft July 18, 1919, present datum; minimum observed, 6,386.18 ft Sept. 27, 1971.

REMARKS.--Since 1941 water diverted to Owens Lake basin via Mono tunnel (capacity, 200 cfs).

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

## ELEVATION, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
Oct. 2	6,388.02	Jan. 20	6,387.76	Apr. 12	6,387.67	July 12	6,387.12
5	6,388.01	26	6,387.73	22	6,387.68	19	6,387.10
13	6,387.95	Feb. 5	6,387.76	28	6,387.61	29	6,387.03
21	6,387.94	9	6,387.76	May 7	6,387.62	Aug. 5	6,386.93
27	6,387.75	19	6,387.77	20	6,387.53	10	6,386.87
Nov. 13	6,387.64	23	6,387.78	27	6,387.55	16	6,386.81
17	6,387.63	Mar. 2	6,387.71	June 1	6,387.54	23	6,386.73
23	6,387.60	9	6,387.71	10	6,387.45	30	6,386.68
Dec. 7	6,387.77	18	6,387.72	16	6,387.42	Sept. 7	6,386.47
16	6,387.79	24	6,387.68	24	6,387.33	13	6,386.45
22	6,387.82	29	6,387.73	30	6,387.25	20	6,386.34
30	6,387.74	Apr. 7	6,387.71	July 7	6,387.19	27	6,386.18
Jan. 5	6,387.71						



## 10287070 MILL CREEK BELOW LUNDY LAKE, NEAR MONO LAKE, CALIF.

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

DRAINAGE AREA.--18.1 sq mi (Natural flow).

PERIOD OF RECORD.--October 1942 to current year.

GAGE.--Water-stage recorder and Parshall flume on creek. Altitude of gage is 7,760 ft (from topographic map).

AVERAGE DISCHARGE (Actual flow).--30 years, 29.0 cfs (21,010 acre-ft per year).  
(Natural flow).--30 years, 31.0 cfs (22,460 acre-ft per year).

EXTREMES (Actual flow).--Water year 1970: Maximum daily discharge, 85 cfs July 14-16; minimum daily, 1.6 cfs Oct. 29, 30.

Water year 1971: Maximum daily discharge, 89 cfs July 5, 6; no flow Apr. 13-18.

(Natural flow).--Water year 1970: Maximum daily discharge, 145 cfs June 27; minimum daily, 7.0 cfs Dec. 15.

Water year 1971: Maximum daily discharge, 141 cfs June 27; minimum daily, 3.0 cfs Jan. 11.

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

COOPERATION.--Records furnished by Southern California Edison Co. and reviewed by Geological Survey, in connection with a Federal Power Commission project.

## ACTUAL FLOW MONTHLY AND YEARLY MEAN DISCHARGE, IN CUBIC FEET PER SECOND

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1942	35.5	14.0	18.2	13.2	6.5	14.6	26.2	33.2	63.5	119	66.7	45.1	38.4
1943	18.7	15.1	11.8	13.0	13.9	29.1	12.3	50.1	84.9	101	75.7	31.4	38.3
1944	20.0	12.6	13.3	9.49	14.3	5.88	23.9	33.0	50.5	60.2	43.6	14.8	25.2
1945	9.61	10.5	14.0	11.5	10.5	15.2	20.4	55.2	66.5	111	79.3	27.6	36.2
1946	15.4	15.2	14.1	14.9	14.2	13.9	26.4	57.8	63.8	66.7	44.6	16.7	30.4
1947	18.8	16.4	15.5	14.2	12.7	11.6	20.0	42.7	57.8	47.9	28.6	15.8	25.2
1948	9.62	9.95	10.0	8.74	9.01	3.54	11.1	23.1	50.1	66.4	46.8	19.0	22.3
1949	9.84	7.02	5.57	7.98	10.6	6.70	17.1	43.0	62.6	46.2	29.2	10.3	21.4
1950	7.80	4.41	7.95	8.32	9.16	16.7	23.2	37.6	68.8	67.7	30.6	13.8	22.0
1951	12.9	19.2	48.1	25.7	13.8	12.9	16.6	40.9	75.3	84.1	60.1	17.9	35.6
1952	13.9	8.0	10.4	10.9	9.7	14.6	26.6	54.1	99.8	115	94.6	37.4	41.5
1953	19.1	13.6	13.3	9.6	9.1	7.1	14.5	25.2	48.2	87.6	50.1	26.8	25.3
1954	17.5	13.2	6.5	1.8	3.7	10.6	19.5	52.1	51.4	43.7	20.3	11.3	21.3
1955	7.3	3.6	9.0	6.5	7.3	7.9	9.2	23.6	66.2	63.4	26.9	11.3	20.3
1956	9.6	6.5	10.6	22.6	17.1	16.6	28.7	40.8	107	133	81.9	51.7	44.0
1957	23.2	8.6	12.3	9.1	10.2	11.4	12.2	30.3	76.2	78.4	29.1	15.7	26.2
1958	9.5	9.9	10.6	8.1	6.4	6.7	13.0	57.2	93.8	103	86.6	35.7	37.0
1959	15.9	10.3	9.3	10.7	11.3	11.1	14.4	30.6	61.1	28.3	24.7	10.7	19.9
1960	6.3	8.3	9.9	6.4	8.9	9.7	16.2	39.8	66.1	26.6	15.3	10.0	18.6
1961	7.5	8.8	9.7	9.3	5.6	6.8	12.1	37.3	58.8	25.1	12.3	7.1	16.7
1962	16.9	6.9	4.5	6.6	10.0	8.8	21.6	41.0	80.4	69.3	42.0	26.2	27.9
1963	17.6	9.2	6.2	6.4	17.6	9.4	10.4	38.1	100	103	48.9	32.9	33.4
1964	20.2	13.2	12.5	11.7	9.2	9.2	7.7	19.4	42.2	49.2	30.8	10.6	19.7
1965	7.3	7.1	22.7	14.0	24.9	18.9	11.4	37.8	73.1	102	77.9	51.0	37.5
1966	13.3	11.4	11.5	10.1	9.9	10.0	12.7	29.7	49.0	39.5	24.8	10.9	19.5
1967	7.0	2.9	4.9	5.0	5.4	14.9	17.3	29.4	105	167	67.2	28.8	38.2
1968	24.9	17.0	32.7	10.7	9.0	9.8	21.2	23.7	48.6	40.2	17.9	14.0	22.5
1969	7.5	7.0	10.5	9.9	17.1	5.5	31.8	86.2	161	121	88.4	44.2	49.3

10287070 MILL CREEK BELOW LUNDY LAKE, NEAR MONO LAKE, CALIF.--Continued

NATURAL FLOW MONTHLY AND YEARLY MEAN DISCHARGE, IN CUBIC FEET PER SECOND

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1942	18.8	19.4	22.2	14.7	12.7	12.7	21.6	38.3	95.9	122	52.0	20.5	37.7
1943	17.5	15.3	14.2	13.8	13.6	17.6	31.5	67.4	97.0	106	47.3	23.8	38.8
1944	15.3	12.4	12.4	11.4	11.3	11.2	14.1	40.9	60.2	68.3	29.0	15.5	25.2
1945	9.75	11.1	11.2	9.76	11.5	11.2	20.8	59.2	99.6	118	50.0	21.6	36.3
1946	17.7	16.7	12.9	12.7	10.9	13.4	26.5	60.5	78.7	64.0	29.7	17.6	30.2
1947	17.4	15.7	15.8	12.3	12.1	14.2	19.9	65.1	58.0	35.8	18.1	11.5	24.7
1948	10.7	12.5	8.91	9.09	7.15	7.17	11.4	28.7	75.2	60.5	24.4	12.4	22.3
1949	10.8	8.22	7.27	6.46	7.98	8.40	18.6	48.6	76.4	38.7	17.3	10.6	21.6
1950	9.46	5.69	7.92	8.59	9.21	12.5	19.1	50.0	82.6	58.4	21.1	14.2	22.2
1951	12.2	38.5	44.1	17.8	12.2	10.6	19.7	50.7	101	74.6	33.2	15.9	35.8
1952	12.9	11.2	10.2	9.6	9.7	11.2	23.2	70.4	116	130	65.6	28.9	41.7
1953	17.7	11.3	12.1	12.9	8.3	7.9	14.1	24.2	61.9	94.8	33.1	18.9	26.4
1954	13.7	11.3	8.4	6.0	8.8	11.9	19.5	55.5	55.1	39.4	17.3	11.0	21.6
1955	7.2	5.9	8.0	7.2	7.0	7.3	9.7	26.8	82.0	48.8	22.1	12.3	20.4
1956	8.9	7.5	23.5	16.9	13.0	12.9	25.1	57.9	134	130	57.1	32.4	43.4
1957	23.3	15.2	12.0	9.3	10.6	10.8	12.3	30.6	98.7	56.6	25.1	15.1	26.7
1958	11.5	8.7	9.6	7.7	6.3	7.8	16.2	71.2	111	105	60.4	27.3	37.1
1959	15.8	9.7	9.0	9.4	11.5	--	15.5	29.7	60.6	29.2	15.8	16.0	28.4
1960	10.9	8.3	8.9	6.8	8.4	10.2	16.5	33.1	72.2	27.0	14.5	10.0	18.9
1961	8.4	9.1	8.8	8.0	6.3	6.7	13.3	29.6	66.3	25.8	15.2	7.8	17.1
1962	8.3	7.8	6.4	6.3	10.0	7.8	28.3	40.6	104	79.7	28.6	13.8	28.5
1963	9.8	7.1	6.2	7.9	16.1	9.2	10.4	48.1	116	110	40.8	21.1	33.6
1964	13.2	11.7	9.6	8.9	7.5	7.6	9.9	29.8	60.2	40.3	17.7	7.6	18.7
1965	6.4	7.8	28.1	13.8	14.0	13.5	17.1	45.5	92.4	109	68.4	27.4	37.1
1966	14.4	12.3	11.2	9.8	7.8	10.5	19.6	48.2	48.8	27.9	15.5	8.6	19.6
1967	6.7	7.0	11.3	5.6	7.9	10.2	10.5	54.2	119	170	63.1	29.4	41.5
1968	17.2	9.7	13.2	9.1	10.2	10.2	13.1	36.2	59.3	30.2	14.2	8.7	19.3
1969	16.0	17.8	19.3	22.7	22.9	19.3	54.3	214	332	281	130	59.4	99.5

ACTUAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	5.7	12	9.0	12	14	11	16	68	82	35	21
2	18	20	12	10	12	15	13	16	67	83	35	29
3	20	20	11	10	13	15	16	16	64	83	28	33
4	20	20	11	9.0	15	14	16	16	65	84	22	31
5	20	20	10	10	16	11	16	16	70	84	22	23
6	20	20	10	11	16	10	16	16	75	84	23	23
7	20	20	9.0	11	16	11	16	16	77	83	23	23
8	19	20	10	11	16	11	16	16	76	84	23	22
9	20	20	10	11	16	11	16	16	77	84	24	22
10	20	20	10	11	16	11	16	16	78	84	24	23
11	20	20	10	11	16	11	16	16	78	83	23	26
12	20	17	10	10	16	11	16	16	77	76	23	26
13	19	15	10	21	16	11	16	18	77	81	25	26
14	19	15	10	20	16	11	16	20	76	85	25	27
15	18	15	10	10	16	11	16	20	76	85	25	26
16	19	15	15	10	16	11	16	20	75	85	25	25
17	19	13	8.5	10	16	11	16	19	73	84	25	25
18	19	12	8.5	10	16	10	16	25	73	84	25	25
19	18	12	9.0	10	16	10	16	36	73	83	25	24
20	18	13	10	10	15	10	16	56	74	83	25	24
21	18	12	10	10	15	10	16	67	74	82	25	23
22	18	12	10	11	15	10	16	67	76	82	23	30
23	18	12	9.0	12	15	10	16	67	77	82	23	31
24	19	12	9.0	12	15	10	16	67	78	82	23	31
25	19	12	9.0	13	15	10	16	67	79	81	22	31
26	19	12	9.0	12	14	10	16	67	81	81	22	31
27	11	12	9.0	12	14	11	16	67	81	66	21	31
28	2.1	12	9.0	12	14	11	16	67	83	46	21	19
29	1.6	12	9.0	12	-----	11	16	67	84	46	21	13
30	1.6	12	9.0	12	-----	11	16	67	84	39	20	8.0
31	1.7	-----	9.0	12	-----	11	-----	67	-----	35	21	-----
TOTAL	513.0	452.7	307.0	355.0	424	345	472	1,143	2,266	2,386	747	752.0
MEAN	16.5	15.1	9.90	11.5	15.1	11.1	15.7	36.9	75.5	77.0	24.1	25.1
MAX	20	20	15	21	16	15	16	67	84	85	35	33
MIN	1.6	5.7	8.5	9.0	12	10	11	16	64	35	20	8.0
AC-FT	1,020	898	609	704	841	684	936	2,270	4,490	4,730	1,480	1,490

WTR YR 1970 TOTAL 10,162.7 MEAN 27.8 MAX 85 MIN 1.6 AC-FT 20,160

## MONO LAKE BASIN

10287070 MILL CREEK BELOW LUNDY LAKE NEAR MONO LAKE, CALIF.--Continued

ACTUAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	9.3	8.2	13	12	13	11	21	39	88	80	24
2	6.0	9.3	20	13	12	13	11	21	39	88	80	24
3	14	9.3	6.2	13	12	13	11	21	38	88	79	24
4	14	9.3	4.2	13	12	13	11	21	39	88	79	24
5	14	5.1	4.2	13	12	13	11	21	39	89	80	24
6	14	5.6	4.4	13	12	13	11	21	39	89	78	24
7	14	9.3	4.7	11	12	13	11	21	39	88	77	24
8	14	9.3	4.9	8.8	12	13	11	21	38	88	77	25
9	12	9.3	4.9	8.8	12	12	11	21	38	88	76	25
10	8.8	9.3	6.6	8.8	12	11	11	21	39	88	76	25
11	8.8	9.3	8.8	9.0	12	11	11	21	60	87	75	25
12	8.8	9.3	8.8	9.3	13	11	4.6	21	70	88	62	24
13	8.8	9.3	8.8	9.3	13	11	0	28	71	87	37	24
14	8.8	9.3	8.8	9.3	13	11	0	38	72	86	36	24
15	8.8	9.3	8.8	9.3	13	11	0	38	73	86	36	24
16	8.8	9.3	8.8	9.3	13	11	0	38	73	86	36	24
17	8.8	9.3	8.8	9.3	13	11	0	38	75	86	36	24
18	8.8	9.3	8.8	9.3	13	11	0	45	77	86	36	24
19	9.0	9.3	8.8	9.3	13	11	11	55	79	86	36	24
20	9.3	9.3	8.8	9.3	13	11	21	55	80	87	36	23
21	9.0	8.8	8.8	8.8	13	11	21	55	81	87	30	23
22	9.3	8.4	10	10	13	11	21	55	81	86	25	23
23	9.3	8.4	11	10	13	11	21	42	81	86	25	23
24	9.3	8.2	11	10	13	11	21	25	82	86	25	22
25	9.3	8.2	11	10	16	10	21	30	83	85	25	22
26	9.3	8.2	11	10	18	10	21	38	83	70	25	21
27	9.3	8.2	11	11	12	11	21	37	84	74	25	21
28	9.3	8.2	11	12	12	11	21	38	85	83	25	21
29	9.3	8.2	11	12	-----	11	21	39	85	83	25	21
30	9.3	8.2	11	12	-----	12	21	39	88	81	25	21
31	9.3	-----	13	12	-----	11	-----	39	-----	81	25	-----
TOTAL	302.8	261.1	276.1	325.9	359	357	367.6	1,024	1,950	2,649	1,488	701
MEAN	9.77	8.70	8.91	10.5	12.8	11.5	12.3	33.0	65.0	85.5	48.0	23.4
MAX	14	9.3	20	13	18	13	21	55	88	89	80	25
MIN	1.3	5.1	4.2	8.8	12	10	0	21	38	70	25	21
AC-FT	601	518	548	646	712	708	729	2,030	3,870	5,250	2,950	1,390
CAL YR 1970	TOTAL	9,730.0	MEAN	26.7	MAX	85	MIN	1.3	AC-FT	19,300		
WTR YR 1971	TOTAL	10,061.5	MEAN	27.6	MAX	89	MIN	0	AC-FT	19,960		

## 10287070 MILL CREEK BELOW LUNDY LAKE NEAR MONO LAKE, CALIF.--Continued

NATURAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	14	10	10	13	12	14	16	88	71	35	19
2	16	16	13	11	13	12	12	14	96	76	35	17
3	20	17	9.0	11	12	12	14	15	103	77	19	18
4	21	16	11	10	14	12	14	16	114	79	30	15
5	21	13	12	11	10	11	15	19	110	87	29	17
6	22	18	11	12	13	11	15	19	100	99	30	16
7	21	14	9.0	10	11	12	16	21	101	97	28	17
8	17	16	11	12	11	10	16	22	104	85	25	13
9	22	15	11	14	12	10	16	25	91	91	26	15
10	16	15	8.0	12	13	12	17	21	75	93	25	14
11	19	16	11	12	11	9.0	19	21	67	87	25	16
12	19	14	10	10	12	13	17	21	61	77	25	16
13	15	14	9.0	12	14	11	17	22	58	82	25	12
14	20	13	10	16	12	11	17	24	53	86	25	18
15	24	13	7.0	13	12	12	18	28	48	85	26	18
16	28	12	11	25	12	13	17	34	48	84	25	17
17	22	11	9.5	13	13	10	18	42	50	79	26	16
18	21	13	8.5	12	11	10	16	56	60	79	24	14
19	17	13	13	13	11	11	14	56	79	77	24	16
20	19	12	17	12	11	11	14	54	97	75	24	15
21	18	14	14	23	11	12	15	53	111	70	25	14
22	18	13	12	21	10	12	15	55	122	68	23	13
23	16	13	11	17	10	12	14	63	119	64	22	15
24	19	13	9.0	18	11	13	14	69	119	54	20	11
25	18	12	15	17	11	13	17	70	114	55	18	13
26	16	10	8.0	15	12	11	12	74	118	54	17	15
27	20	13	11	18	11	15	12	77	145	41	19	13
28	18	13	8.0	16	13	13	13	67	115	40	18	11
29	17	10	10	14	-----	13	13	71	85	47	18	13
30	17	14	10	13	-----	14	13	76	73	25	17	14
31	19	-----	10	13	-----	12	-----	83	-----	40	17	-----
TOTAL	596	410	329.0	436	330	365.0	454	1,304	2,724	2,224	745	451
MEAN	19.2	13.7	10.6	14.1	11.8	11.8	15.1	42.1	90.8	71.7	24.0	15.0
MAX	28	18	17	25	14	15	19	83	145	99	35	19
MIN	15	10	7.0	10	10	9.0	12	14	48	25	17	11
AC-FT	1,180	813	653	865	655	724	901	2,590	5,400	4,410	1,480	895
WTR YR 1970	TOTAL	10,368.0	MEAN	28.4	MAX	145	MIN	7.0	AC-FT	20,560		

## 10287070 MILL CREEK BELOW LUNDY LAKE NEAR MONO LAKE, CALIF.--Continued

NATURAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.0	10	9.0	14	9.0	13	17	35	94	64	16
2	12	9.0	16	7.0	10	11	13	18	34	99	64	15
3	13	9.0	11	10	14	11	15	18	34	101	62	20
4	12	13	11	8.0	10	5.0	15	19	37	97	59	19
5	12	14	10	10	11	9.0	16	19	43	94	60	23
6	8.0	12	9.4	9.0	12	10	15	21	51	90	54	28
7	9.0	9.0	16	8.0	13	10	14	22	71	85	48	29
8	13	11	12	8.8	11	9.0	16	20	92	81	50	28
9	11	9.0	9.9	8.8	11	9.0	16	21	92	80	49	26
10	12	10	11	17	10	9.0	11	23	80	74	47	23
11	11	9.0	11	3.0	12	9.0	15	26	86	64	46	23
12	11	9.0	11	13	11	12	17	33	92	74	44	22
13	12	8.3	11	14	11	9.0	14	31	102	74	38	20
14	11	8.3	11	4.3	13	7.0	13	38	104	79	34	20
15	11	8.3	11	5.3	11	10	14	49	107	81	34	20
16	12	9.3	13	7.3	12	10	15	49	111	90	32	19
17	11	8.3	12	12	12	9.0	13	38	115	97	30	20
18	11	8.3	9.8	11	11	10	12	43	112	96	27	19
19	10	8.3	12	10	10	10	16	40	99	98	28	20
20	9.0	8.3	11	10	12	9.0	15	41	108	96	28	16
21	8.0	7.8	11	12	11	11	13	40	117	94	25	19
22	9.0	8.4	10	12	10	10	14	40	122	83	23	18
23	12	9.4	9.0	12	11	12	14	39	118	75	23	18
24	9.0	9.2	10	11	12	10	13	41	115	73	24	17
25	9.0	21	10	12	7.0	15	15	45	111	71	22	15
26	8.0	9.2	10	13	11	15	16	51	114	68	23	11
27	9.0	9.2	10	12	9.0	12	15	51	141	66	23	16
28	10	11	11	13	9.0	12	16	46	115	65	25	16
29	11	14	7.0	12	-----	12	14	43	92	62	24	15
30	10	10	10	11	-----	14	15	44	95	63	24	14
31	11	-----	9.0	11	-----	12	-----	31	-----	61	24	-----
TOTAL	330.0	299.6	336.1	316.5	311.0	322.0	433	1,057	2,745	2,525	1,158	585
MEAN	10.6	9.99	10.8	10.2	11.1	10.4	14.4	34.1	91.5	81.5	37.4	19.5
MAX	13	21	16	17	14	15	17	51	141	101	64	29
MIN	8.0	7.8	7.0	3.0	7.0	5.0	11	17	34	61	22	11
AC-FT	655	594	667	628	617	639	859	2,100	5,440	5,010	2,300	1,160

CAL YR 1970 TOTAL 9,998.7 MEAN 27.4 MAX 145 MIN 7.0 AC-FT 19,830  
WTR YR 1971 TOTAL 10,418.2 MEAN 28.5 MAX 141 MIN 3.0 AC-FT 20,660

## 10287290 RUSH CREEK BELOW AGNEW LAKE, NEAR JUNE LAKE, CALIF.

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

DRAINAGE AREA.--23.3 sq mi (Natural flow).

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder and Parshall flume on creek. Altitude of gage is 8,480 ft (from topographic map).

AVERAGE DISCHARGE (Actual flow).--20 years, 55.5 cfs (40,210 acre-ft per year).

(Natural flow).--20 years, 61.1 cfs (44,270 acre-ft per year).

EXTREMES (Actual flow).--Water year 1970: Maximum daily discharge, 97 cfs June 4, 6, 7; minimum daily, 23 cfs Jan. 12.

Water year 1971: Maximum daily discharge, 104 cfs June 17; minimum daily, 24 cfs Oct. 28.

(Natural flow).--Water year 1970: Maximum daily discharge, 359 cfs May 27; no flow for many days.

Water year 1971: Maximum daily discharge, 388 cfs June 7; no flow for many days.

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

COOPERATION.--Records furnished by Southern California Edison Co. and reviewed by Geological Survey, in connection with a Federal Power Commission project.

## ACTUAL FLOW MONTHLY AND YEARLY MEAN DISCHARGE, IN CUBIC FEET PER SECOND

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1952	75.2	18.9	12.1	20.6	53.0	50.0	52.4	91.5	89.0	239	100	76.2	73.6
1953	83.2	79.4	42.4	43.2	41.8	13.8	9.5	21.9	54.6	85.7	70.1	36.6	48.5
1954	46.1	37.6	21.1	31.3	39.2	37.2	51.8	90.0	68.4	18.4	6.7	5.6	37.8
1955	63.2	39.9	14.7	18.5	40.8	53.6	42.8	46.8	63.7	2.3	38.1	84.5	42.3
1956	81.4	28.0	13.8	43.9	67.1	54.6	28.9	83.5	113	229	84.6	82.2	76.0
1957	87.7	67.2	37.0	31.9	28.8	43.0	31.4	45.8	84.6	54.2	83.3	85.5	56.6
1958	26.7	30.1	27.2	26.4	8.3	6.8	52.5	79.4	108	170	105	86.2	60.6
1959	86.1	62.7	14.9	12.7	41.3	58.6	58.3	50.6	47.4	37.0	25.9	46.5	45.1
1960	50.2	16.7	25.2	23.5	13.9	10.8	9.5	52.0	82.6	43.8	24.2	54.9	34.0
1961	58.4	57.0	57.8	25.2	11.4	10.3	10.6	21.6	76.2	18.6	12.4	49.7	34.1
1962	42.6	54.7	28.6	35.5	32.0	51.7	56.3	82.1	90.0	91.4	83.8	83.8	61.2
1963	81.2	43.4	35.5	42.0	43.7	4.3	18.8	56.6	91.1	128	88.2	85.8	60.1
1964	50.1	77.5	46.7	18.9	28.5	28.4	28.2	44.9	56.4	65.9	26.4	57.0	44.0
1965	32.0	32.2	31.9	55.2	45.8	34.2	42.0	83.7	88.8	99.7	115	83.1	62.1
1966	69.4	68.8	34.8	40.1	41.3	40.7	77.3	75.9	87.4	87.2	55.0	33.4	59.3
1967	17.0	22.3	18.8	18.4	26.6	34.5	13.9	46.4	107	469	109	68.7	80.0
1968	70.5	74.4	81.6	45.1	28.6	28.9	29.7	43.3	62.3	62.0	47.9	38.8	51.2
1969	27.6	23.4	22.5	20.4	39.9	41.6	51.5	130	264	247	95.0	84.9	87.5

## NATURAL FLOW MONTHLY AND YEARLY MEAN DISCHARGE, IN CUBIC FEET PER SECOND

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANNUAL
1952	1.2	6.0	11.8	14.3	5.8	5.5	28.1	219	281	271	74.8	24.5	79.4
1953	9.6	1.0	6.2	5.7	.7	8.7	48.7	69.8	189	145	16.7	8.1	42.4
1954	1.0	1.9	3.7	3.1	6.0	7.5	55.5	202	129	54.1	13.0	6.0	40.4
1955	.8	4.2	7.4	7.8	1.4	1.1	14.2	121	269	70.3	15.3	6.1	43.3
1956	.5	.5	19.7	11.6	1.6	6.1	25.9	166	380	236	54.3	18.6	76.8
1957	10.6	5.9	3.0	3.6	6.6	8.2	28.4	100	281	70.7	15.4	3.5	44.7
1958	3.0	2.8	6.6	4.5	5.2	17.0	16.4	206	307	199	84.0	20.8	73.3
1959	3.5	7.2	8.5	13.5	17.5	13.0	66.2	113	137	34.5	17.2	21.4	37.6
1960	13.9	8.2	4.1	7.6	10.3	12.7	55.1	121	142	39.8	18.6	6.3	36.6
1961	8.9	9.1	9.1	4.8	10.8	13.9	59.4	106	109	26.2	27.5	10.6	33.0
1962	4.9	7.1	11.1	8.3	21.1	12.6	59.0	113	311	162	33.2	5.1	62.4
1963	6.8	2.1	6.1	4.7	1.4	3.0	26.9	132	295	209	51.8	16.5	63.2
1964	16.4	3.9	9.0	8.7	5.6	7.2	34.5	129	150	49.9	24.5	1.8	36.7
1965	3.0	5.1	32.9	22.2	7.9	12.4	37.8	136	273	207	94.7	7.6	70.3
1966	1.1	14.4	10.3	5.9	5.8	8.7	91.4	216	103	30.7	25.3	11.7	43.9
1967	0	6.8	17.1	14.2	9.7	8.1	20.6	136	369	481	104	29.2	100
1968	1.4	2.5	3.5	6.0	6.7	11.4	52.0	149	125	43.0	15.4	4.6	35.0
1969	10.7	27.1	23.1	40.9	32.5	23.8	41.8	646	780	589	144	31.2	200

## MONO LAKE BASIN

10287290 RUSH CREEK BELOW AGNEW LAKE, NEAR JUNE LAKE, CALIF.--Continued

ACTUAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	85	30	31	29	40	27	39	78	65	62	67
2	85	85	30	31	29	38	31	39	84	61	62	47
3	85	85	30	35	30	38	37	39	95	56	62	36
4	85	87	30	32	31	38	38	39	97	56	61	39
5	85	87	30	32	31	40	38	37	96	56	60	37
6	85	87	31	30	31	35	38	38	97	56	62	37
7	85	87	31	32	31	31	40	37	97	52	64	37
8	90	86	31	31	31	31	38	39	94	54	64	37
9	87	85	31	32	31	31	38	36	94	53	64	37
10	87	87	31	32	31	31	38	40	91	54	64	37
11	87	87	31	32	31	30	38	40	90	53	65	33
12	87	87	31	23	31	30	38	39	93	53	65	33
13	87	87	31	37	32	30	40	40	91	53	65	32
14	87	87	31	47	32	30	38	40	90	53	65	32
15	87	87	32	30	32	30	38	40	84	52	65	34
16	87	87	31	30	48	30	39	65	66	52	65	48
17	87	87	30	30	41	30	39	73	67	52	65	36
18	86	87	30	30	41	30	39	73	68	52	66	38
19	86	67	30	30	41	32	39	72	70	52	68	40
20	87	38	30	30	40	31	39	72	70	52	69	37
21	87	32	31	30	41	32	39	72	70	53	69	37
22	85	32	31	31	41	29	39	72	68	52	68	36
23	86	31	31	36	41	30	39	72	67	58	68	38
24	85	30	31	32	41	30	39	72	67	61	68	38
25	85	30	32	32	41	28	39	72	66	61	67	37
26	89	29	32	32	40	29	39	72	67	61	68	37
27	85	30	28	31	40	30	39	72	64	61	68	37
28	85	30	29	26	40	30	39	73	71	61	67	36
29	85	30	33	29	-----	30	40	73	64	61	67	43
30	85	30	28	29	-----	28	39	73	64	63	66	52
31	85	-----	32	29	-----	28	-----	73	-----	62	67	-----
TOTAL	2,670	1,966	950	974	999	980	1,141	1,733	2,380	1,741	2,026	1,165
MEAN	86.1	65.5	30.6	31.4	35.7	31.6	38.0	55.9	79.3	56.2	65.4	38.8
MAX	90	87	33	47	48	40	40	73	97	65	69	67
MIN	85	29	28	23	29	28	27	36	64	52	60	32
AC-FT	5,300	3,900	1,880	1,930	1,980	1,940	2,260	3,440	4,720	3,450	4,020	2,310

WTR YR 1970 TOTAL 18,725 MEAN 51.3 MAX 97 MIN 23 AC-FT 37,140

10287290 RUSH CREEK BELOW AGNEW LAKE, NEAR JUNE LAKE, CALIF.--Continued

ACTUAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	35	29	29	30	30	29	34	40	96	87	40
2	52	29	53	29	30	30	29	35	42	96	87	40
3	52	27	38	33	30	35	29	35	42	94	90	40
4	51	26	29	31	30	66	29	35	42	94	89	40
5	47	29	28	30	29	29	29	35	42	94	89	40
6	50	29	28	30	30	30	29	35	42	93	89	41
7	42	29	30	30	30	30	29	35	41	92	88	40
8	40	29	30	47	29	30	29	35	43	92	88	41
9	37	25	29	30	29	30	29	35	42	91	88	41
10	38	29	30	30	30	30	39	35	42	92	88	41
11	38	29	30	39	40	29	38	35	42	89	88	41
12	37	29	30	29	30	30	32	35	42	88	89	41
13	36	26	29	29	30	30	45	35	42	90	88	46
14	36	30	29	29	31	30	43	35	42	90	89	42
15	36	29	30	29	30	57	32	35	60	90	89	42
16	36	28	33	29	30	71	31	35	97	90	60	44
17	35	28	30	30	30	70	31	35	104	90	41	45
18	35	40	30	30	31	68	31	35	103	90	41	45
19	35	42	30	50	31	61	31	35	101	90	41	44
20	35	37	30	29	45	31	30	35	101	90	41	43
21	35	30	29	30	29	31	29	35	103	90	40	42
22	35	30	30	31	31	30	29	35	103	90	40	43
23	35	30	28	31	31	30	29	36	101	89	40	43
24	35	31	29	30	30	48	29	36	102	88	40	59
25	35	31	31	29	40	57	29	35	99	89	40	80
26	35	31	28	37	45	54	30	35	101	88	40	79
27	35	30	32	30	30	30	31	35	99	88	40	78
28	24	30	29	30	30	30	31	35	97	90	40	78
29	25	30	29	30	-----	50	31	35	97	89	41	79
30	36	29	29	30	-----	30	31	35	96	87	40	79
31	35	-----	29	30	-----	29	-----	35	-----	87	40	-----
TOTAL	1,183	907	948	980	891	1,236	943	1,086	2,150	2,806	1,991	1,497
MEAN	38.2	30.2	30.6	31.6	31.8	39.9	31.4	35.0	71.7	90.5	64.2	49.9
MAX	52	42	53	50	45	71	45	36	104	96	90	80
MIN	24	25	28	29	29	29	29	34	40	87	40	40
AC-FT	2,350	1,800	1,880	1,940	1,770	2,450	1,870	2,150	4,260	5,570	3,950	2,970

CAL YR 1970 TOTAL 16,177 MEAN 44.3 MAX 97 MIN 23 AC-FT 32,090  
WTR YR 1971 TOTAL 16,618 MEAN 45.5 MAX 104 MIN 24 AC-FT 32,960



## 10287290 RUSH CREEK BELOW AGNEW LAKE, NEAR JUNE LAKE, CALIF.--Continued

NATURAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	7.0	4.0	8.0	0	14	27	12	304	74	22	17
2	0	7.0	1.0	10	15	5.0	14	8.0	313	95	28	0
3	0	8.0	4.0	13	6.0	6.0	19	29	315	101	25	12
4	0	39	1.0	10	4.0	9.0	15	56	294	103	22	0
5	0	2.0	3.0	8.0	3.0	12	16	145	293	117	24	6.0
6	1.0	11	3.0	11	4.0	9.0	24	142	290	126	27	15
7	0	6.0	4.0	4.0	5.0	11	29	103	290	123	29	10
8	10	6.0	5.0	10	4.0	5.0	31	74	259	113	26	3.0
9	48	7.0	6.0	30	7.0	12	41	102	196	115	22	10
10	8.0	10	5.0	4.0	7.0	7.0	49	115	135	116	30	13
11	4.0	10	5.0	15	7.0	6.0	55	75	141	95	25	8.0
12	6.0	10	4.0	2.0	22	6.0	56	77	121	98	25	8.0
13	0	4.0	4.0	15	13	5.0	47	94	96	92	32	0
14	7.0	11	2.0	13	5.0	8.0	40	126	79	94	32	2.0
15	21	2.0	5.0	30	6.0	3.0	34	235	83	97	26	10
16	19	6.0	3.0	17	11	7.0	30	228	97	61	30	2.0
17	18	2.0	5.0	17	5.0	0	21	245	143	91	20	24
18	10	3.0	5.0	5.0	0	14	21	250	179	90	26	38
19	12	13	6.0	6.0	17	10	17	257	212	91	25	6.0
20	11	9.0	8.0	11	8.0	8.0	17	251	231	89	23	6.0
21	15	0	8.0	13	9.0	5.0	17	264	247	73	27	5.0
22	9.0	4.0	10	5.0	6.0	8.0	18	256	241	73	19	7.0
23	6.0	6.0	10	14	2.0	2.0	15	262	220	63	13	7.0
24	4.0	4.0	5.0	0	1.0	13	15	267	221	50	17	4.0
25	9.0	4.0	7.0	26	5.0	11	17	288	202	51	13	6.0
26	12	1.0	10	8.0	2.0	0	15	273	223	51	14	3.0
27	10	2.0	7.0	0	3.0	40	17	359	248	51	17	7.0
28	4.0	2.0	7.0	14	17	5.0	18	278	145	48	16	2.0
29	5.0	2.0	10	15	-----	23	16	289	114	36	21	3.0
30	3.0	2.0	7.0	7.0	-----	4.0	13	299	92	30	9.0	3.0
31	8.0	-----	9.0	7.0	-----	9.0	-----	301	-----	33	11	-----
TOTAL	264.0	200.0	173.0	348.0	194.0	277.0	764	5,760.0	6,024	2,540	696.0	237.0
MEAN	8.52	6.67	5.58	11.2	6.93	8.94	25.5	186	201	81.9	22.5	7.90
MAX	48	39	10	30	22	40	56	359	315	126	32	38
MIN	0	0	1.0	0	0	0	13	8.0	79	30	9.0	0
AC-FT	524	397	343	690	385	549	1,520	11,420	11,950	5,040	1,380	470

WTR YR 1970 TOTAL 17,477.0 MEAN 47.9 MAX 359 MIN 0 AC-FT 34,670

10287290 RUSH CREEK BELOW AGNEW LAKE, NEAR JUNE LAKE, CALIF.--Continued

NATURAL FLOW DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	5.0	32	7.0	16	0	23	75	72	212	108	3.0
2	6.0	3.0	42	8.0	11	8.0	18	71	101	197	78	11
3	6.0	0	20	8.0	14	8.0	25	55	148	183	84	7.0
4	2.0	0	23	9.0	12	6.0	26	49	191	160	69	21
5	4.0	0	18	11	14	4.0	32	55	236	164	85	10
6	2.0	0	12	9.0	10	7.0	31	52	304	140	64	59
7	0	7.0	19	9.0	10	8.0	27	50	388	132	37	35
8	9.0	11	17	9.0	8.0	5.0	26	48	375	125	42	26
9	11	6.0	10	9.0	10	4.0	27	44	303	123	45	25
10	3.0	6.0	13	12	9.0	6.0	24	70	303	101	41	17
11	5.0	4.0	9.0	3.0	11	7.0	34	100	342	111	31	18
12	3.0	1.0	10	17	12	5.0	34	115	337	104	34	16
13	5.0	5.0	7.0	17	14	5.0	50	142	336	108	87	15
14	4.0	9.0	5.0	10	15	0	35	181	335	122	83	24
15	2.0	2.0	11	0	15	0	33	211	341	134	55	17
16	7.0	3.0	23	10	13	3.0	39	185	386	138	39	16
17	3.0	5.0	15	10	13	4.0	36	129	344	115	40	7.0
18	2.0	0	12	11	13	1.0	28	122	293	126	36	9.0
19	0	3.0	20	14	13	7.0	33	128	288	54	30	12
20	2.0	2.0	15	16	11	10	30	166	314	66	25	8.0
21	0	4.0	16	18	2.0	12	17	142	319	78	27	27
22	5.0	5.0	12	19	9.0	13	30	86	288	61	20	23
23	6.0	4.0	9.0	15	14	14	24	151	282	88	22	17
24	1.0	8.0	10	9.0	6.0	14	17	203	265	90	21	0
25	5.0	22	9.0	7.0	9.0	26	26	216	252	95	24	8.0
26	0	7.0	14	13	8.0	32	21	206	275	98	21	0
27	9.0	6.0	14	11	9.0	13	21	151	284	101	26	8.0
28	5.0	34	6.0	10	10	12	31	92	189	115	24	4.0
29	5.0	35	10	17	-----	25	39	95	177	113	12	2.0
30	0	14	9.0	9.0	-----	22	56	102	173	108	17	0
31	2.0	-----	5.0	9.0	-----	20	-----	69	-----	93	18	-----
TOTAL	114.0	211.0	447.0	336.0	311.0	301.0	893	3,561	8,241	3,655	1,345	445.0
MEAN	3.68	7.03	14.4	10.8	11.1	9.71	29.8	115	275	118	43.4	14.8
MAX	11	35	42	19	16	32	56	216	388	212	108	59
MIN	0	0	5.0	0	2.0	0	17	44	72	54	12	0
AC-FT	226	419	887	666	617	597	1,770	7,060	16,350	7,250	2,670	883

CAL YR 1970 TOTAL 17,612.0 MEAN 48.3 MAX 359 MIN 0 AC-FT 34,930  
WTR YR 1971 TOTAL 19,860.0 MEAN 54.4 MAX 388 MIN 0 AC-FT 39,390

## MONO LAKE BASIN

## 10287400 RUSH CREEK ABOVE GRANT LAKE, NEAR JUNE LAKE, CALIF.

LOCATION.--Lat 37°48'23", long 119°06'29", in NE $\frac{1}{4}$  sec.4, T.2 S., R.26 E., Mono County, on left bank in narrows, 0.6 mile upstream from Grant Lake, and 2.7 miles northwest of town of June Lake.

DRAINAGE AREA.--51.3 sq mi (revised).

PERIOD OF RECORD.--December 1936 to current year. Prior to October 1959 monthly discharge only, published in WSP 1314 and 1734.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 7,200 ft (from topographic map).

AVERAGE DISCHARGE.--34 years (1937-71), 82.2 cfs (59,550 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 204 cfs June 17 (gage height, 2.20 ft); minimum daily, 30 cfs Jan. 10.

Period of record: Maximum discharge, 1,070 cfs July 14, 1967 (gage height, 6.20 ft); minimum daily, 5.5 cfs Sept. 6-8, 14, 1954.

REMARKS.--Flow regulated by Gem Lake, Lake Agnew, Waugh Lake (combined capacity, 23,400 acre-ft), and by many natural lakes. No diversion above station.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	40	45	40	43	51	50	55	74	152	109	49
2	55	39	60	40	42	46	50	59	78	150	108	48
3	56	34	57	40	42	45	49	63	81	149	109	47
4	56	35	48	39	40	51	50	63	86	145	109	47
5	54	69	44	39	40	64	50	63	90	144	108	47
6	52	71	42	38	40	45	51	67	100	143	107	52
7	49	50	43	38	40	43	51	70	114	140	106	52
8	46	40	44	50	40	44	50	65	133	138	105	56
9	46	34	45	40	40	45	51	65	135	134	105	51
10	45	38	43	30	41	45	51	65	130	133	104	49
11	45	39	43	44	43	44	60	67	133	128	102	48
12	42	38	43	42	46	45	55	69	133	126	104	49
13	42	38	43	42	43	48	63	73	135	126	105	51
14	42	40	41	38	43	45	65	81	136	126	105	51
15	42	42	41	37	43	50	60	89	144	126	104	48
16	41	41	41	37	43	79	56	88	189	128	91	49
17	41	40	41	41	43	87	56	85	201	129	62	51
18	40	45	41	44	45	85	53	82	195	128	54	50
19	40	52	41	46	45	81	52	79	184	126	53	50
20	41	51	41	55	45	57	51	82	182	125	52	51
21	40	45	41	51	45	48	49	82	185	125	51	48
22	40	41	40	45	45	47	49	78	187	125	51	48
23	41	41	40	45	45	48	50	77	182	120	51	49
24	41	41	40	44	45	56	49	82	178	119	50	52
25	40	50	40	44	49	69	51	84	172	118	50	78
26	40	53	40	44	51	85	51	89	171	114	51	83
27	40	45	40	44	52	67	51	90	171	113	51	82
28	36	45	40	45	53	51	51	86	164	113	51	84
29	32	51	39	43	-----	61	51	79	157	111	51	83
30	37	46	40	43	-----	60	52	77	153	109	52	85
31	40	-----	40	43	-----	51	-----	74	-----	109	50	-----
TOTAL	1,357	1,334	1,327	1,311	1,232	1,743	1,578	2,328	4,373	3,972	2,461	1,688
MEAN	43.8	44.5	42.8	42.3	44.0	56.2	52.6	75.1	146	128	79.4	56.3
MAX	56	71	60	55	53	87	65	90	201	152	109	85
MIN	32	34	39	30	40	43	49	55	74	109	50	47
AC-FT	2,690	2,650	2,630	2,600	2,440	3,460	3,130	4,620	8,670	7,880	4,880	3,350
CAL YR 1970	TOTAL 24,433		MEAN 66.9		MAX 179		MIN 32		AC-FT 48,460			
WTR YR 1971	TOTAL 24,704		MEAN 67.7		MAX 201		MIN 30		AC-FT 49,000			

LOCATION.--Lat 37°55'46", long 119°10'10", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.24, T.1 N., R.25 E., Mono County, on right bank 0.8 mile upstream from Gibbs Canyon and 3.3 miles southwest of Lee Vining.

PERIOD OF RECORD.--April 1934 to current year. Prior to October 1959 monthly discharge only, published in WSP 1314 and 1734.

AVERAGE DISCHARGE.--37 years, 67.2 cfs (48,690 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 349 cfs June 27 (gage height, 3.67 ft); minimum daily, 11 cfs Nov. 29.

Period of record: Maximum discharge, 590 cfs July 4, 1967 (gage height, 4.42 ft); no flow Nov. 29, 1935.

REMARKS.--Flow regulated for power development by Ellery, Saddlebag, Tioga Lakes (combined capacity, 13,269 acre-ft), and by several small natural lakes. No diversion above station.

COOPERATION.--Records furnished by city of Los Angeles, Department of Water and Power and reviewed by Geological Survey.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	42	13	17	34	22	29	58	91	176	181	44
2	53	42	18	77	34	23	42	60	54	171	165	34
3	52	50	21	94	33	22	35	43	80	173	123	33
4	51	52	20	80	28	31	34	44	123	170	123	37
5	71	41	20	45	28	22	35	49	108	168	133	55
6	63	29	20	29	27	23	35	50	152	168	106	74
7	50	43	18	27	27	23	35	51	180	168	80	85
8	44	40	16	33	27	24	34	39	194	167	71	65
9	68	34	15	46	26	24	34	33	194	164	88	64
10	62	36	15	46	26	25	35	53	190	131	87	58
11	62	30	15	27	30	25	35	81	202	119	87	52
12	63	27	19	26	27	25	35	81	228	114	84	52
13	63	36	25	29	30	25	45	79	221	106	73	60
14	75	29	26	32	37	25	47	102	221	105	65	60
15	76	29	24	28	28	28	37	153	223	117	64	60
16	62	29	22	29	27	26	49	136	228	161	63	60
17	63	49	24	29	38	26	50	141	245	147	63	50
18	64	29	24	29	43	34	42	104	243	140	61	33
19	64	29	27	43	37	33	38	104	218	164	61	31
20	64	34	24	44	37	34	37	117	190	176	60	42
21	64	42	20	36	34	34	37	141	190	147	53	50
22	64	37	15	36	20	35	37	77	209	113	48	37
23	64	23	15	36	13	36	36	99	225	133	48	37
24	64	12	16	35	12	40	36	155	238	137	48	36
25	54	20	23	34	16	40	37	144	223	96	48	36
26	53	15	23	38	24	40	37	134	195	108	47	82
27	53	12	23	30	23	30	37	157	264	102	47	32
28	46	12	18	29	22	36	32	117	213	100	58	18
29	42	11	14	33	-----	37	26	88	183	97	58	17
30	42	12	14	34	-----	44	42	79	176	113	56	18
31	42	-----	14	34	-----	37	-----	80	-----	131	45	-----
TOTAL	1,812	926	601	1,185	788	929	1,120	2,849	5,701	4,282	2,394	1,412
MEAN	58.5	30.9	19.4	38.2	28.1	30.0	37.3	91.9	190	138	77.2	47.1
MAX	76	52	27	94	43	44	50	157	264	176	181	85
MIN	42	11	13	17	12	22	26	33	54	96	45	17
AC-FT	3,590	1,840	1,190	2,350	1,560	1,840	2,220	5,650	11,310	8,490	4,750	2,800
CAL YR 1970	TOTAL 24,697		MEAN 67.7	MAX 287	MIN 11	AC-FT 48,990						
WTR YR 1971	TOTAL 23,999		MEAN 65.8	MAX 264	MIN 11	AC-FT 47,600						

## TIJUANA RIVER BASIN

11010900 WILSON CREEK TRIBUTARY NEAR DULZURA, CALIF.

LOCATION.--Lat 32°43'22", long 116°42'06", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.5, T.17 S., R.3 E., San Diego County, on right bank on Japatul Lyons Valley Road, 6.6 miles northeast of Dulzura.

DRAINAGE AREA.--0.61 sq mi.

PERIOD OF RECORD.--Water years 1962-67 (annual maximum), October 1967 to current year.

GAGE.--Water-stage recorder with rain-gage attachment and culvert control. Altitude of gage is 2,200 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 72 cfs Dec. 21 (gage height, 11.07 ft); no flow most of year.  
Period of record: Maximum discharge, 98 cfs Dec. 6, 1966 (gage height, 12.22 ft, from crest-stage gage), from rating curve extended above 1.6 cfs on basis of computation of flow through culvert at gage heights 8.0, 10.67, and 12.22 ft; no flow all or most of each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	0	0	0	0				
2		0	0	2.9	0	0	0	0				
3		0	0	0	0	0	0	0				
4		0	0	0	0	0	0	0				
5		0	0	0	0	0	0	0				
6		0	0	0	0	0	0	0				
7		0	0	0	0	0	0	0				
8		0	0	0	0	0	0	.05				
9		0	0	0	0	0	0	0				
10		0	0	0	0	0	0	0				
11		0	0	0	0	0	0	0				
12		0	0	0	0	0	0	0				
13		0	0	0	0	.76	0	0				
14		0	0	0	0	0	0	0				
15		0	0	0	0	0	0	0				
16		0	0	0	0	0	0	0				
17		0	.08	0	.52	0	.28	0				
18		0	0	0	.17	0	.09	0				
19		0	.83	0	0	0	0	0				
20		0	.22	0	0	0	0	0				
21		0	6.0	0	0	0	0	0				
22		0	.29	0	0	0	0	0				
23		0	0	0	.93	0	0	0				
24		0	0	0	.02	0	0	0				
25		0	0	0	0	0	0	0				
26		0	0	0	0	0	0	0				
27		0	0	0	0	0	0	0				
28		0	0	0	0	0	0	0				
29		.28	0	0	-----	0	0	0				
30		0	0	0	-----	0	0	0				
31		-----	0	0	-----	0	-----	0	-----			
TOTAL	0	.28	7.42	2.9	1.64	.76	.37	.05	0	0	0	0
MEAN	0	.009	.24	.094	.059	.025	.012	.002	0	0	0	0
MAX	0	.28	6.0	2.9	.93	.76	.28	.05	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	.6	15	5.8	3.3	1.5	.7	.1	0	0	0	0
(a)	0	1.4	2.0	.5	1.5	.2	1.1	.2	0	0	0	0
CAL YR 1970 TOTAL	7.85											
WTR YR 1971 TOTAL	13.42											
MEAN	.022											
MAX	6.0											
MIN	0											
AC-FT	16											
AC-FT	27											

a Precipitation, in inches.

## 11012000 COTTONWOOD CREEK ABOVE TECATE CREEK, NEAR DULZURA, CALIF.

LOCATION.--Lat 32°34'30", long 116°45'11", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.26, T.18 S., R.2 E., San Diego County, on right bank 0.8 mile upstream from confluence with Tecate Creek and 5.1 miles south of Dulzura.

DRAINAGE AREA.--310 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 569.40 ft above mean sea level (levels by International Boundary and Water Commission).

AVERAGE DISCHARGE.--35 years, 6.62 cfs (4,800 acre-ft per year); median of yearly mean discharges, 0.5 cfs (360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4.6 cfs Jan. 2 (gage height, 1.72 ft); no flow most of year.  
Period of record: Maximum discharge, 4,340 cfs Feb. 7, 1937 (gage height, 9.65 ft); from rating curve extended above 1,500 cfs; no flow for part of each year.

REMARKS.--Records good. Flow regulated by Morena Reservoir (capacity, 50,210 acre-ft) and Barrett Reservoir (capacity, 44,760 acre-ft). Water released from Barrett Reservoir through Dulzura conduit is diverted to Lower Otay Reservoir.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.06	.08	.22	.03	.04				
2			0	2.0	.07	.13	.01	.03				
3			0	.77	.07	.10	0	.02				
4			0	.27	.06	.12	0	.01				
5			0	.21	.07	.11	0	.01				
6			0	.19	.07	.07	0	.01				
7			0	.17	.08	.04	0	.07				
8			0	.19	.08	.03	0	.25				
9			0	.19	.07	.04	0	.14				
10			0	.19	.06	.06	0	.09				
11			0	.19	.05	.09	0	.05				
12			0	.19	.05	.09	0	.04				
13			0	.32	.05	.47	0	.03				
14			0	.20	.05	.47	0	.02				
15			0	.14	.06	.37	0	.01				
16			0	.12	.12	.25	0	0				
17			0	.10	.96	.22	0	0				
18			0	.09	.61	.17	.12	0				
19			0	.06	.37	.10	.12	0				
20			0	.06	.45	.10	.07	0				
21			.80	.07	.24	.09	.07	0				
22			1.0	.10	.22	.07	.06	0				
23			.09	.09	.71	.09	.04	0				
24			.05	.08	.58	.10	.03	0				
25			.04	.09	.37	.10	.04	0				
26			.04	.08	.23	.10	.07	0				
27			.04	.07	.18	.09	.09	0				
28			.04	.06	.17	.07	.07	0				
29			.04	.06	-----	.06	.07	0				
30			.05	.06	-----	.05	.05	0				
31		-----	.05	.06	-----	.04	-----	0	-----			-----
TOTAL	0	0	2.24	6.53	6.18	4.11	.94	.82	0	0	0	0
MEAN	0	0	.072	.21	.22	.13	.031	.027	0	0	0	0
MAX	0	0	1.0	2.0	.96	.47	.12	.25	0	0	0	0
MIN	0	0	0	.06	.05	.03	0	0	0	0	0	0
AC-FT	0	0	4.4	13	12	8.2	1.9	1.6	0	0	0	0
CAL YR 1970	TOTAL	28.63	MEAN .078	MAX 6.0	MIN 0	AC-FT 57						
WTR YR 1971	TOTAL	20.82	MEAN .057	MAX 2.0	MIN 0	AC-FT 41						

## TIJUANA RIVER BASIN

11012500 CAMPO CREEK NEAR CAMPO, CALIF.

LOCATION.--Lat 32°35'28", long 116°31'29", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.24, T.18 S., R.4 E., San Diego County, on left bank just upstream from bridge on State Highway 94, 3.5 miles southwest of Campo.

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

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

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 2,178.92 ft above mean sea level. Prior to Dec. 1, 1954, at datum 1 ft higher.

AVERAGE DISCHARGE.--35 years, 1.81 cfs (1,310 acre-ft per year); median of yearly mean discharges, 0.1 cfs (72 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12 cfs Aug. 10 (gage height, 1.82 ft); minimum daily, 0.01 cfs Aug. 3, 6-9, 15, Sept. 11-15, 18, 19.

Period of record: Maximum discharge, 880 cfs Feb. 6, 1937 (gage height, 4.80 ft, present datum), from rating curve extended above 110 cfs on basis of velocity mean-depth relation and cross-sectional area at control; no flow for part of most years.

REMARKS.--Records good. Flow partly regulated since August 1956 by small conservation reservoir. No diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.03	.11	.09	.09	.11	.08	.06	.06	.09	.03	.02
2	.04	.03	.09	.20	.09	.10	.09	.06	.07	.08	.02	.02
3	.05	.04	.09	.09	.10	.09	.09	.06	.07	.08	.01	.02
4	.05	.04	.06	.09	.08	.08	.08	.06	.07	.08	.02	.02
5	.05	.05	.05	.09	.09	.08	.08	.07	.07	.05	.02	.02
6	.05	.05	.05	.09	.09	.06	.07	.07	.06	.05	.01	.02
7	.05	.05	.05	.09	.07	.07	.09	.06	.05	.04	.01	.02
8	.05	.05	.06	.09	.07	.06	.09	.07	.05	.04	.01	.02
9	.05	.05	.06	.09	.07	.06	.10	.05	.06	.04	.01	.02
10	.05	.05	.06	.09	.06	.06	.09	.05	.06	.04	.20	.02
11	.05	.05	.06	.09	.06	.06	.09	.05	.05	.04	.04	.01
12	.05	.05	.07	.09	.06	.06	.08	.05	.05	.04	.03	.01
13	.05	.05	.08	.10	.06	.10	.09	.05	.04	.03	.02	.01
14	.05	.05	.09	.09	.06	.10	.15	.05	.04	.04	.02	.01
15	.05	.05	.14	.09	.06	.09	.15	.05	.04	.04	.01	.01
16	.05	.05	.09	.09	.09	.08	.10	.06	.05	.06	.02	.02
17	.05	.05	.10	.09	.15	.09	.09	.06	.06	.05	.02	.02
18	.05	.05	.10	.09	.13	.07	.15	.05	.06	.05	.03	.01
19	.05	.05	.11	.08	.11	.08	.09	.05	.06	.05	.04	.01
20	.05	.05	.11	.09	.12	.09	.07	.06	.06	.05	.04	.03
21	.05	.05	.50	.09	.11	.09	.06	.08	.06	.05	.04	.03
22	.05	.05	.10	.09	.11	.08	.08	.08	.06	.05	.04	.02
23	.05	.05	.09	.09	.15	.08	.11	.06	.07	.04	.03	.02
24	.05	.05	.09	.09	.12	.09	.11	.05	.08	.04	.03	.02
25	.05	.05	.09	.09	.11	.08	.13	.05	.09	.04	.02	.03
26	.05	.06	.09	.06	.10	.08	.10	.05	.09	.04	.02	.03
27	.03	.06	.09	.06	.10	.08	.10	.06	.09	.04	.02	.04
28	.03	.06	.09	.06	.11	.10	.10	.10	.07	.03	.02	.03
29	.03	.27	.09	.05	-----	.10	.07	.10	.07	.04	.02	.03
30	.03	.14	.09	.06	-----	.10	.05	.07	.09	.03	.02	.02
31	.03	-----	.09	.09	-----	.10	-----	.07	-----	.03	.02	-----
TOTAL	1.43	1.78	3.04	2.74	2.62	2.57	2.83	1.91	1.90	1.47	.89	.61
MEAN	.046	.059	.098	.088	.094	.083	.094	.062	.063	.047	.029	.020
MAX	.05	.27	.50	.20	.15	.11	.15	.10	.09	.09	.20	.04
MIN	.03	.03	.05	.05	.06	.06	.05	.05	.04	.03	.01	.01
AC-FT	2.8	3.5	6.0	5.4	5.2	5.1	5.6	3.8	3.8	2.9	1.8	1.2
CAL YR 1970	TOTAL 36.04		MEAN .099	MAX .56	MIN .03	AC-FT 71						
WTR YR 1971	TOTAL 23.79		MEAN .065	MAX .50	MIN .01	AC-FT 47						

PEAK DISCHARGE (BASE, 20 CFS).--No peak above base.

NOTE.--No gage-height record Dec. 15 to Jan. 7.

## 11013000 TIJUANA RIVER NEAR DULZURA, CALIF.

LOCATION.--Lat 32°33'56", long 116°46'27", in E $\frac{1}{2}$  sec.33, T.18 S., R.2 E., San Diego County, on left bank 0.5 mile downstream from confluence of Cottonwood and Tecate Creeks and 5.5 miles south of Dulzura.

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

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

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

AVERAGE DISCHARGE.--35 years, 10.6 cfs (7,680 acre-ft per year); median of yearly mean discharges, 1.7 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 49 cfs Dec. 21 (gage height, 2.85 ft); minimum daily, 0.01 cfs Sept. 13-15.

Period of record: Maximum discharge, 4,700 cfs Feb. 7, 1937 (gage height, 8.50 ft, present datum), from rating curve extended above 300 cfs on basis of velocity, mean-depth, and area studies; no flow for part of most years.

REMARKS.--Records good. Flow regulated by Morena Reservoir (capacity, 50,210 acre-ft) and Barrett Reservoir (capacity, 44,760 acre-ft). Water diverted from Cottonwood Creek at Barrett Dam by Dulzura conduit to Jamul Creek.

COOPERATION.--Three discharge measurements furnished by International Boundary and Water Commission.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.14	.16	.28	.32	.35	.19	.23	.13	.16	.07	.05
2	.07	.14	.16	6.1	.33	.34	.18	.23	.15	.15	.06	.05
3	.07	.14	.14	3.7	.30	.32	.17	.21	.15	.15	.07	.05
4	.08	.14	.16	.75	.30	.32	.17	.22	.14	.17	.06	.05
5	.11	.11	.19	.57	.34	.29	.16	.21	.14	.18	.06	.04
6	.11	.08	.24	.46	.32	.24	.15	.21	.12	.17	.06	.04
7	.11	.08	.25	.38	.30	.24	.16	.23	.12	.17	.05	.05
8	.11	.08	.24	.40	.31	.25	.15	.21	.13	.16	.05	.04
9	.11	.08	.26	.45	.33	.21	.16	.17	.11	.18	.04	.04
10	.11	.08	.25	.47	.35	.19	.19	.13	.12	.16	.04	.03
11	.11	.08	.25	.48	.29	.17	.18	.14	.11	.14	.04	.02
12	.11	.08	.25	.52	.30	.15	.17	.13	.10	.12	.03	.02
13	.14	.11	.25	.70	.30	.26	.21	.13	.13	.13	.04	.01
14	.14	.11	.29	.75	.23	.55	.20	.13	.12	.15	.04	.01
15	.14	.11	.28	.52	.23	.40	.17	.13	.11	.14	.05	.01
16	.14	.14	.28	.37	.23	.28	.19	.15	.10	.19	.05	.03
17	.14	.14	.35	.37	1.3	.24	.22	.13	.11	.15	.04	.04
18	.14	.14	.33	.37	1.9	.19	.24	.14	.10	.12	.05	.04
19	.14	.14	.41	.37	1.0	.16	.24	.15	.10	.11	.05	.04
20	.14	.16	.32	.37	1.3	.17	.24	.14	.11	.11	.05	.04
21	.14	.16	14	.36	.82	.15	.25	.14	.11	.10	.04	.05
22	.14	.16	4.2	.36	.54	.15	.23	.13	.11	.09	.05	.05
23	.14	.16	.58	.32	1.2	.13	.20	.13	.11	.10	.05	.05
24	.14	.19	.32	.29	1.6	.11	.20	.14	.11	.10	.04	.04
25	.14	.25	.32	.28	.93	.13	.23	.14	.12	.09	.05	.06
26	.14	.28	.32	.28	.62	.19	.21	.15	.12	.08	.05	.06
27	.14	.19	.32	.32	.48	.21	.22	.14	.15	.10	.05	.06
28	.14	.19	.32	.32	.37	.22	.21	.15	.15	.09	.04	.06
29	.14	.22	.32	.34	-----	.23	.21	.15	.15	.09	.04	.07
30	.14	.19	.32	.33	-----	.20	.23	.14	.15	.09	.05	.09
31	.14	-----	.32	.32	-----	.22	-----	.13	-----	.07	.05	-----
TOTAL	3.83	4.27	26.40	21.90	16.84	7.26	5.93	4.96	3.68	4.01	1.51	1.29
MEAN	.12	.14	.85	.71	.60	.23	.20	.16	.12	.13	.049	.043
MAX	.14	.28	14	6.1	1.9	.55	.25	.23	.15	.19	.07	.09
MIN	.07	.08	.14	.28	.23	.11	.15	.13	.10	.07	.03	.01
AC-FT	7.6	8.5	52	43	33	14	12	9.8	7.3	8.0	3.0	2.6

CAL YR 1970 TOTAL 118.73 MEAN .33 MAX 14 MIN .06 AC-FT 236  
WTR YR 1971 TOTAL 101.88 MEAN .28 MAX 14 MIN .01 AC-FT 202



## TIJUANA RIVER BASIN

11013200 RODRIGUEZ RESERVOIR AT RODRIGUEZ DAM, BAJA CALIFORNIA, MEXICO

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

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

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

GAGE.--Nonrecording gage read once a day. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 2,190 acre-ft Oct. 1; minimum contents, 146 acre-ft Sept. 30. Period of record: Reservoir spilled during March 1938, September 1940, February to May 1941, March 1942, and February, March 1944; reservoir dry Apr. 2, 1964, to Apr. 9, 1965, Aug. 21 to Nov. 22, 1965.

REMARKS.--Reservoir is formed by thin-shell concrete arch dam completed in 1936; storage began in 1937. Capacity table is based on surveys made in 1927. Maximum storage at crest of spillway gates (elevation, 410.10 ft), 111,070 acre-ft; at spillway lip (elevation, 380.08 ft), 74,580 acre-ft; dead storage below outlet (elevation, 267.39 ft), 1,650 acre-ft included in contents. Reservoir stores water for irrigation of 3,000 acres on both banks 0.5 to 5.5 miles downstream and municipal supply for city of Tijuana.

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

## MONTHEND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Contents (acre- feet)	Change in contents (acre- feet)
Sept. 30.....	2,190	-
Oct. 31.....	1,800	-390
Nov. 30.....	1,660	-140
Dec. 31.....	1,580	-80
CAL YR 1970.....	-	-3,280
Jan. 31.....	1,420	-160
Feb. 28.....	1,300	-120
Mar. 31.....	1,120	-180
Apr. 30.....	985	-135
May 31.....	800	-185
June 30.....	602	-198
July 31.....	427	-175
Aug. 31.....	233	-194
Sept. 30.....	146	-87
WTR YR 1971.....	-	-2,044

## 11013500 TIJUANA RIVER NEAR NESTOR, CALIF.

LOCATION.--Lat 32°33'06", long 117°05'00", on line between secs. 3 and 4, T.19 S., R.2 W., San Diego County, on downstream side of county highway bridge, 1.7 miles south of Nestor, and 2.9 miles upstream from mouth.

DRAINAGE AREA.--1,690 sq mi, of which 1,236 sq mi are in Mexico.

PERIOD OF RECORD.--October 1914 to September 1915, October 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 15.14 ft above mean sea level. See WSP 1735 for history of changes prior to Aug. 5, 1958.

AVERAGE DISCHARGE.--36 years, 31.2 cfs (22,600 acre-ft per year); median of yearly mean discharges, 2.7 cfs (2,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9.3 cfs Dec. 21 (gage height, 2.72 ft); no flow except Dec. 21, 22, 1936 to current year: Maximum discharge, 17,700 cfs Feb. 7, 1937 (gage height, 8.20 ft, datum then in use), from rating curve extended above 2,000 cfs on basis of velocity-depth relation and cross section after peak; no flow in parts of each year.

REMARKS.--Records good. Flow regulated by Morena Reservoir (capacity, 50,210 acre-ft) and Barrett Reservoir (capacity, 44,760 acre-ft) in the United States, and Rodriguez Reservoir (see sta 11013200) in Mexico. Water diverted from Cottonwood Creek at Barrett Dam by Dulzura conduit to Jamul Creek. AVERAGE DISCHARGE represents flow to the ocean regardless of upstream development. Records of suspended-sediment loads for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0									
2			0									
3			0									
4			0									
5			0									
6			0									
7			0									
8			0									
9			0									
10			0									
11			0									
12			0									
13			0									
14			0									
15			0									
16			0									
17			0									
18			0									
19			0									
20			0									
21			2.9									
22			3.0									
23			0									
24			0									
25			0									
26			0									
27			0									
28			0									
29			0									
30			0									
31		-----	0		-----		-----		-----			-----
TOTAL	0	0	5.9	0	0	0	0	0	0	0	0	0
MEAN	0	0	.19	0	0	0	0	0	0	0	0	0
MAX	0	0	3.0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	12	0	0	0	0	0	0	0	0	0
CAL YR 1970	TOTAL	23.50	MEAN .064	MAX 6.3	MIN 0	AC-FT 47						
WTR YR 1971	TOTAL	5.90	MEAN .016	MAX 3.0	MIN 0	AC-FT 12						

## OTAY RIVER BASIN

11014000 JAMUL CREEK NEAR JAMUL, CALIF.

LOCATION.--Lat 32°38'15", long 116°53'00", in NE¼ sec.4, T.18 S., R.1 E., San Diego County, on right bank 300 ft upstream from county road crossing at upper end of Lower Otay Reservoir, 1.4 miles downstream from Dulzura Creek, and 5.5 miles south of Jamul.

DRAINAGE AREA.--70.3 sq mi.

PERIOD OF RECORD.--April 1940 to current year.

GAGE.--Water-stage recorder and broad-crested weir control with low-water Parshall flume. Datum of gage is 511.64 ft above mean sea level. Prior to Oct. 1, 1951, at datum 1.00 ft higher.

EXTREMES.--Current year: Maximum discharge, 810 cfs Dec. 21 (gage height, 3.75 ft); no flow much of year. Period of record: Maximum discharge, 4,000 cfs Dec. 1, 1947 (gage height, 6.42 ft, present datum), from rating curve extended above 1,200 cfs; no flow at times in some years.

REMARKS.--Records good. No regulation above station. Water diverted from Cottonwood Creek by Dulzura conduit discharges into Jamul Creek via Dulzura Creek and is included in discharge for this station (see sta 11012000).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.6	1.8	.10	.18		0				
2		0	1.3	4.5	.10	.16		0				
3		0	.99	2.4	.10	.16		0				
4		0	.72	2.2	.07	.10		0				
5		0	.61	2.1	.04	.10		0				
6		0	.41	2.1	.04	.06		0				
7		0	.41	1.9	.04	.04		2.4				
8		0	.27	1.8	.04	.04		10				
9		0	.47	1.7	.04	.04		.47				
10		0	.17	1.4	.04	.04		.25				
11		0	.08	1.3	.04	.04		.13				
12		0	.06	1.2	.05	.03		.10				
13		0	.04	1.0	.04	0		.10				
14		0	.02	.93	.04	0		.10				
15		0	.02	.82	.04	0		.04				
16		0	.03	.71	.04	0		.04				
17		0	.24	.54	1.0	0		.04				
18		0	.20	.41	3.8	0		0				
19		0	16	.32	.64	0		0				
20		0	1.6	.32	.45	0		0				
21		0	91	.32	.32	0		0				
22		0	11	.32	.28	0		0				
23		0	2.3	.32	.45	0		0				
24		0	2.1	.32	.36	0		0				
25		0	1.9	.24	.26	0		0				
26		0	1.9	.24	.24	0		0				
27		0	1.9	.18	.24	0		0				
28		0	1.8	.16	.24	0		0				
29		20	1.8	.14	-----	0		0				
30		3.6	1.8	.10	-----	0		0				
31		-----	1.8	.10	-----	0	-----	0	-----			-----
TOTAL	0	23.6	144.54	31.89	9.14	.99	0	13.67	0	0	0	0
MEAN	0	.79	4.66	1.03	.33	.032	0	.44	0	0	0	0
MAX	0	20	.91	4.5	3.8	.18	0	10	0	0	0	0
MIN	0	0	.02	.10	.04	0	0	0	0	0	0	0
AC-FT	0	47	287	63	18	2.0	0	27	0	0	0	0
CAL YR 1970	TOTAL	3,377.78	MEAN	9.25	MAX	91	MIN	0	AC-FT	6,700		
WTR YR 1971	TOTAL	223.83	MEAN	.61	MAX	91	MIN	0	AC-FT	444		

## SWEETWATER RIVER BASIN

127

11015000 SWEETWATER RIVER NEAR DESCANSO, CALIF.

LOCATION.--Lat 32°50'05", long 116°37'20", in NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.25, T.15 S., R.3 E., San Diego County, on right bank at county road bridge, 0.7 mile downstream from unnamed tributary, and 1.3 miles south of Descanso.

DRAINAGE AREA.--45.5 sq mi.

PERIOD OF RECORD.--October 1905 to September 1927, October 1956 to current year. Monthly discharge only for October to December 1905, January to February 1916, February, March, June to September 1927, published in WSP 1315-B. Combined records of river and diversion, October 1956 to current year.

GAGE.--Water-stage recorder on river; water-stage recorder on concrete diversion. Datum of gage is 3,269.24 ft above mean sea level. Prior to June 25, 1927, nonrecording gages at several sites within 0.1 mile upstream at various datums.

AVERAGE DISCHARGE (Creek only).--37 years, 10.8 cfs (7,820 acre-ft per year); median of yearly mean discharges, 6.8 cfs (4,900 acre-ft per year).  
(Combined).--15 years, 3.88 cfs (2,810 acre-ft per year); median of yearly mean discharges, 0.9 cfs (650 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 42 cfs Nov. 30 (gage height, 3.96 ft); no flow Oct. 1 to Nov. 25, July 8 to Sept. 30.

Period of record: Maximum discharge, 11,200 cfs Feb. 16, 1927 (gage height, 13.2 ft, from floodmarks, site and datum then in use), on basis of slope-area measurement of maximum flow; no flow many days in most years.

(Combined).--Current year: Maximum discharge, 43 cfs Nov. 30; no flow many days.

Period of record: Maximum discharge, 3,890 cfs Dec. 6, 1966; no flow many days in each year.

REMARKS.--Records good. No regulation above station. Sweetwater River diversion diverts 0.3 mile above station for irrigation below. For records of combined discharge of river and diversion, see following page.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.23	.23	.20	.67	.20	.81	.55	.12		
2		0	.17	3.2	.20	.44	.20	.74	.49	.12		
3		0	.15	.89	.20	.34	.20	.74	.44	.12		
4		0	.15	.55	.20	.34	.17	.74	.34	.08		
5		0	.12	.39	.23	.34	.15	1.0	.30	.05		
6		0	.12	.30	.23	.30	.15	1.8	.27	.04		
7		0	.15	.27	.20	.30	.17	1.8	.27	.02		
8		0	.15	.23	.20	.34	.20	2.8	.27	0		
9		0	.23	.20	.20	.34	.20	2.1	.27	0		
10		0	.17	.20	.17	.30	.17	1.7	.30	0		
11		0	.15	.20	.15	.30	.17	1.4	.30	0		
12		0	.15	.23	.15	.23	.15	1.2	.23	0		
13		0	.15	.44	.15	1.2	.15	.97	.23	0		
14		0	.20	.23	.17	1.2	.27	.81	.20	0		
15		0	.17	.20	.20	.81	.67	.81	.17	0		
16		0	.17	.17	.20	.74	.39	.67	.17	0		
17		0	.34	.20	.61	.67	.44	.61	.15	0		
18		0	.27	.23	.55	.49	.89	.55	.12	0		
19		0	.49	.23	.55	.34	.89	.49	.10	0		
20		0	.34	.23	.97	.34	.74	.44	.10	0		
21		0	13	.23	.67	.34	.81	.49	.08	0		
22		0	4.2	.23	.49	.39	.67	.49	.08	0		
23		0	1.4	.23	1.5	.39	.55	.44	.08	0		
24		0	1.0	.20	.97	.39	.49	.39	.07	0		
25		0	.74	.17	.67	.30	.74	.34	.07	0		
26		.86	.55	.17	.61	.30	1.2	.34	.07	0		
27		.44	.39	.17	.49	.27	.89	.34	.08	0		
28		.34	.30	.20	.55	.27	.81	.67	.08	0		
29		2.5	.27	.20	-----	.23	.81	.89	.10	0		
30		4.8	.23	.20	-----	.23	.81	.89	.12	0		
31		-----	.23	.20	-----	.20	-----	.67	-----	0		-----
TOTAL	0	8.94	26.38	11.02	11.68	13.34	14.35	28.13	6.10	.55	0	0
MEAN	0	.30	.85	.36	.42	.43	.48	.91	.20	.018	0	0
MAX	0	4.8	13	3.2	1.5	1.2	1.2	2.8	.55	.12	0	0
MIN	0	0	.12	.17	.15	.20	.15	.34	.07	0	0	0
AC-FT	0	18	52	22	23	26	28	56	12	1.1	0	0

CAL YR 1970 TOTAL 279.20 MEAN .76 MAX 26 MIN 0 AC-FT 554  
WTR YR 1971 TOTAL 120.49 MEAN .33 MAX 13 MIN 0 AC-FT 239

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

## SWEETWATER RIVER BASIN

11015000 SWEETWATER RIVER NEAR DESCANSO, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SWEETWATER RIVER AND  
SWEETWATER DIVERSION NEAR DESCANSO, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.06	1.2	.96	.78	2.1	1.0	1.8	1.4	.28	.03	
2	0	.07	.87	4.1	.78	1.8	.96	1.7	1.3	.27	.03	
3	0	.07	.70	1.8	.78	1.7	.93	1.7	1.2	.26	.03	
4	0	.08	.60	1.4	.68	1.7	.90	1.7	1.1	.22	.03	
5	.02	.10	.50	1.2	.59	1.6	.83	2.0	1.0	.17	.02	
6	.01	.12	.46	1.2	.61	1.6	.83	2.8	.92	.16	.01	
7	.02	.15	.45	1.1	.58	1.6	.85	2.8	.90	.14	0	
8	.01	.14	.41	1.0	.58	1.5	.88	3.9	.85	.11	0	
9	0	.14	.75	.98	.56	1.5	.88	3.3	.82	.10	0	
10	0	.14	.55	.96	.53	1.6	.77	2.8	.85	.10	0	
11	.01	.14	.41	.90	.58	1.6	.77	2.5	.88	.10	.01	
12	.01	.16	.37	.93	.60	1.5	.73	2.2	.78	.09	0	
13	.01	.14	.35	1.2	.63	2.6	.73	2.0	.73	.08	0	
14	.01	.11	.60	.99	.65	2.6	.97	1.8	.65	.08	0	
15	.02	.11	.53	.90	.68	2.2	1.6	1.8	.57	.08	0	
16	.02	.12	.47	.82	.75	2.0	1.2	1.6	.55	.07	0	
17	.01	.15	1.2	.83	1.7	2.0	1.3	1.5	.51	.07	0	
18	.01	.18	1.3	.86	1.6	1.8	1.8	1.4	.46	.06	0	
19	.02	.18	1.8	.83	1.8	1.5	1.9	1.3	.42	.06	0	
20	.02	.18	1.4	.83	2.3	1.5	1.7	1.2	.40	.06	0	
21	.03	.22	1.4	.83	2.0	1.4	1.8	1.3	.36	.05	0	
22	.03	.22	5.3	.83	1.8	1.4	1.6	1.3	.34	.04	0	
23	.03	.20	2.5	.81	2.9	1.4	1.5	1.2	.32	.04	0	
24	.04	.20	2.0	.78	2.4	1.4	1.4	1.2	.29	.04	0	
25	.06	.24	1.7	.75	2.1	1.3	1.7	1.0	.27	.04	0	
26	.06	2.2	1.6	.72	2.0	1.3	2.2	.99	.29	.04	0	
27	.05	.87	1.4	.69	1.9	1.2	1.9	.99	.28	.03	0	
28	.04	.70	1.3	.72	2.0	1.2	1.8	1.4	.28	.03	0	
29	.04	3.2	1.2	.70	-----	1.2	1.8	1.7	.28	.03	0	
30	.04	6.2	1.0	.70	-----	1.1	1.8	1.7	.28	.03	0	
31	.06	-----	1.0	.70	-----	1.1	-----	1.5	-----	.03	0	-----
TOTAL	.68	16.79	47.92	32.02	34.86	50.0	39.03	56.08	19.28	2.96	.16	0
MEAN	.022	.56	1.55	1.03	1.25	1.61	1.30	1.81	.64	.096	.005	0
MAX	.06	6.2	1.4	4.1	2.9	2.6	2.2	3.9	1.4	.28	.03	0
MIN	0	.06	.35	.69	.53	1.1	.73	.99	.27	.03	0	0
AC-FT	1.4	33	95	64	69	99	77	111	38	5.9	.3	0

CAL YR 1970 TOTAL 347.00 MEAN .95 MAX 26 MIN 0 AC-FT 688  
WTR YR 1971 TOTAL 299.78 MEAN .82 MAX 14 MIN 0 AC-FT 595

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

CAL YR 1970	TOTAL 2,007.42	MEAN 5.50	MAX 212	MIN .01	AC-FT 3,980
WTR YR 1971	TOTAL 2,025.18	MEAN 5.55	MAX 175	MIN .05	AC-FT 4,020

## LOS PENASQUITOS CREEK BASIN

11023320 POMERADO CREEK AT POWAY ROAD, NEAR POWAY, CALIF.

LOCATION.--Lat 32°57'07", long 117°03'48", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.14, T.14 S., R.2 W., San Diego County, on right bank at Poway Road, 0.2 mile upstream from mouth, and 2.0 miles southwest of Poway.

DRAINAGE AREA.--4.14 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 440 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 39 cfs Dec. 21 (gage height, 3.11 ft); no flow many days.

REMARKS.--Records good. No regulation or diversion.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	.08	.06	.01	.01	.01	.01			
2		0	0	1.9	.06	.01	.01	.01	.01			
3		0	0	.08	.05	.01	.01	.01	.01			
4		0	0	.05	.06	.03	.01	.01	.01			
5		0	0	.05	.06	.02	.01	.01	.01			
6		0	0	.04	.07	.02	.01	.20	.01			
7		0	0	.04	.06	.03	.01	2.5	.01			
8		0	0	.05	.06	.03	.01	1.7	.01			
9		0	.71	.05	.03	.02	.01	.04	.01			
10		0	0	.05	.03	.01	.01	.03	.01			
11		0	0	.05	.03	.01	.01	.02	.01			
12		0	0	.69	.04	.02	.01	.01	.01			
13		0	0	.17	.04	1.1	.01	.04	.01			
14		0	.65	.04	.05	.03	2.6	.03	.01			
15		0	0	.04	.05	.03	1.0	.01	.01			
16		0	.08	.05	.60	.02	.50	.02	.01			
17		0	.42	.05	1.5	.03	.25	.02	.01			
18		0	1.3	.05	.11	.01	1.8	.01	0			
19		0	2.8	.06	.52	.01	.46	.01	0			
20		0	1.0	.06	.12	.01	.23	.01	0			
21		0	8.1	.05	.06	.02	.05	.01	0			
22		0	.64	.05	.06	.02	.03	.01	0			
23		0	.21	.07	.91	.02	.38	.03	0			
24		0	.17	.06	.02	.01	.09	.05	0			
25		0	.16	.05	.02	.01	.92	.02	0			
26		3.0	.14	.05	.01	.01	.05	.01	0			
27		.02	.11	.04	.05	.01	.03	.05	0			
28		.39	.11	.05	.04	.01	.48	3.7	0			
29		4.7	.09	.05	-----	.02	.01	.05	0			
30		.90	.12	.05	-----	.01	.01	.01	0			
31		-----	.08	.07	-----	.01	-----	.01	-----			-----
TOTAL	0	9.01	16.89	4.24	4.77	1.61	9.02	8.65	.17	0	0	0
MEAN	0	.30	.54	.14	.17	.052	.30	.28	.006	0	0	0
MAX	0	4.7	8.1	1.9	1.5	1.1	2.6	3.7	.01	0	0	0
MIN	0	0	0	.04	.01	.01	.01	.01	0	0	0	0
AC-FT	0	18	34	8.4	9.5	3.2	18	17	.3	0	0	0

CAL YR 1970 TOTAL 25.90 MEAN .071 MAX 8.1 MIN 0 AC-FT 51  
 WTR YR 1971 TOTAL 54.36 MEAN .15 MAX 8.1 MIN 0 AC-FT 108

## 11023330 LOS PENASQUITOS CREEK BELOW POWAY CREEK, NEAR POWAY, CALIF.

LOCATION.--Lat 32°56'58", long 117°04'08", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.22, T.14 S., R.2 W., San Diego County, on right bank at Cobblestone Creek Road, 0.2 mile downstream from confluence of Poway and Pomerado Creeks, and 2.0 miles southwest of Poway.

DRAINAGE AREA.--31.2 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 415 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 102 cfs Dec. 21 (gage height, 6.08 ft); no flow many days.

REMARKS.--Records good. Flow partly regulated by small conservation reservoirs. Rainfall data collected at this site.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	0	.24	.21	.14	.09	.05	.01	.04	.01	.01	0
2	.01	0	.04	8.7	.14	.05	.05	.01	.04	.01	0	.02
3	.01	0	.03	.99	.11	.04	.06	.01	.03	.01	0	.02
4	.01	0	.02	.31	.10	.08	.05	.01	.03	.01	0	.03
5	.01	0	.02	.24	.10	.08	.05	.01	.03	.01	0	.02
6	.01	0	.02	.19	.11	.04	.05	.19	.02	.01	0	.02
7	.01	0	.02	.16	.11	.03	.05	2.6	.02	.01	.01	.02
8	.01	0	.02	.21	.11	.03	.06	6.7	.03	.02	0	.02
9	.01	0	1.2	.23	.09	.03	.06	.32	.04	.01	0	.02
10	.01	.01	.17	.20	.08	.03	.06	.11	.04	.02	0	.02
11	.01	.01	.05	.19	.07	.03	.06	.07	.03	.02	0	.01
12	.01	.01	.05	1.0	.06	.03	.06	.06	.03	.02	0	0
13	.01	.01	.04	1.1	.06	3.3	.06	.05	.02	.02	0	0
14	.01	.01	2.1	.22	.05	.38	4.8	.04	.02	.02	0	0
15	.01	.01	.25	.15	.05	.13	1.2	.04	.02	.03	0	0
16	.01	.01	.07	.14	.47	.13	.39	.04	.01	.03	0	0
17	.01	.01	.91	.17	5.2	.11	.39	.04	.01	.03	0	0
18	.01	.01	.68	.16	.90	.07	2.7	.02	.01	.04	0	0
19	.01	.01	21	.14	1.3	.06	.41	.02	.01	.04	0	0
20	.01	.01	3.8	.15	.95	.05	.52	.02	.01	.03	0	0
21	.01	.01	40	.15	.32	.05	.13	.03	.01	.04	0	0
22	.01	.01	4.2	.15	.32	.05	.07	.03	.01	.04	0	0
23	.01	.01	1.3	.15	2.9	.05	.13	.03	.01	.03	0	0
24	.01	.01	.74	.13	.47	.05	.09	.03	.01	.03	0	0
25	.01	.01	.53	.15	.25	.06	.25	.02	.01	.02	0	0
26	.01	2.2	.41	.12	.19	.05	.05	.02	.01	.02	0	0
27	0	.03	.31	.12	.18	.05	.03	.03	.01	.01	0	0
28	0	.17	.26	.12	.14	.06	.11	3.9	.01	.01	0	0
29	0	15	.22	.13	-----	.05	.03	.29	.01	.01	0	0
30	0	7.6	.24	.12	-----	.06	.02	.07	.01	.01	0	0
31	0	-----	.22	.11	-----	.05	-----	.05	-----	.01	0	-----
TOTAL	.26	25.16	79.16	16.31	14.97	5.37	12.04	14.87	.59	.63	.02	.20
MEAN	.008	.84	2.55	.53	.53	.17	.40	.48	.020	.020	.0006	.007
MAX	.01	15	40	8.7	5.2	3.3	4.8	6.7	.04	.04	.01	.03
MIN	0	0	.02	.11	.05	.03	.02	.01	.01	.01	0	0
AC-FT	.5	50	157	32	30	11	24	29	1.2	1.3	.04	.4
(a)	.08	1.91	2.46	.72	1.02	.35	.85	1.48	0	0	0	0

CAL YR 1970 TOTAL 104.58 MEAN .29 MAX 40 MIN 0 AC-FT 207

WTR YR 1971 TOTAL 169.58 MEAN .46 MAX 40 MIN 0 AC-FT 336

a Precipitation, in inches.



## LOS PENASQUITOS CREEK BASIN

11023340 LOS PENASQUITOS CREEK NEAR POWAY, CALIF.

LOCATION.--Lat 32°56'35", long 117°07'15", in Los Penasquitos Grant, San Diego County, on left bank 1.0 mile downstream from Cypress Creek and 5.5 miles southwest of Poway.

DRAINAGE AREA.--42.1 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 260 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 4.06 cfs (2,940 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 124 cfs Dec. 21 (gage height, 2.83 ft); minimum daily, 1.1 cfs Nov. 14.

Period of record: Maximum discharge, 2,100 cfs Dec. 6, 1966 (gage height, 6.90 ft, in gage well, 7.70 ft, from profile of floodmarks), from rating curve extended above 400 cfs on basis of slope-area measurement at gage height 6.23 ft in gage well, 7.40 ft, from outside gage; no flow May 16, 17, 1968.

REMARKS.--Records good. Flow partly regulated by several conservation reservoirs above station. Pumping from wells along stream for irrigation. Flow augmented by reclaimed water from Poway area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.4	2.0	1.9	1.8	1.7	2.0	1.3	2.5	1.5	1.7	1.9
2	1.3	1.4	1.8	11	1.7	1.6	2.1	1.5	2.1	1.5	1.8	2.1
3	1.6	1.4	1.5	5.4	1.7	1.5	2.0	1.6	1.7	1.5	1.8	2.1
4	1.5	1.3	1.5	2.4	1.7	1.6	1.9	1.8	1.6	1.5	1.7	1.9
5	1.5	1.3	1.6	2.0	1.8	1.7	1.9	2.0	1.6	1.4	1.7	2.0
6	1.4	1.4	1.6	1.9	1.8	1.8	1.9	2.4	1.7	1.5	1.7	1.9
7	1.4	1.4	1.7	1.8	1.8	1.8	1.9	2.7	1.9	1.5	1.7	2.0
8	1.4	1.3	1.6	1.8	1.8	1.8	1.9	4.7	1.9	1.5	1.7	1.8
9	1.4	1.3	3.0	1.9	1.8	1.8	1.9	3.3	1.9	1.5	1.8	1.7
10	1.4	1.3	2.3	1.9	1.8	1.8	1.9	3.1	1.8	1.5	1.7	1.8
11	1.5	1.2	1.8	1.9	1.8	1.9	1.9	2.9	1.8	1.6	1.7	1.7
12	1.6	1.3	1.6	2.0	1.8	1.9	4.0	2.6	1.8	1.7	1.7	1.6
13	1.5	1.2	1.7	3.6	1.8	4.5	3.2	2.4	1.8	1.7	1.8	1.7
14	1.5	1.1	2.5	2.3	1.8	3.0	6.6	2.1	1.8	1.7	1.8	1.6
15	1.4	1.2	2.6	2.0	1.8	2.3	3.3	1.9	1.8	1.7	1.8	1.6
16	1.4	1.5	1.9	2.0	2.8	2.0	2.3	1.6	1.8	1.8	1.9	1.7
17	1.4	1.4	2.2	2.0	9.6	2.0	2.0	1.5	1.7	1.8	2.0	1.8
18	1.5	1.4	2.7	2.1	3.4	2.0	5.6	1.5	1.7	1.8	1.8	1.7
19	1.6	1.4	31	2.1	4.0	2.0	2.1	1.4	1.6	1.8	2.0	1.7
20	1.5	1.4	10	2.0	3.5	2.0	1.7	1.3	1.6	1.8	2.0	1.8
21	1.4	1.4	60	1.9	2.9	2.0	1.5	1.3	1.7	1.8	1.9	1.7
22	1.4	1.4	14	1.7	2.4	2.1	1.4	1.4	1.6	1.8	1.9	1.8
23	1.4	1.4	5.1	1.7	6.5	2.2	1.3	1.4	1.6	1.8	2.0	1.8
24	1.4	1.4	3.3	1.7	3.0	2.2	1.2	1.4	1.6	1.8	1.7	1.8
25	1.4	1.4	2.7	1.7	2.3	2.2	1.4	1.5	1.6	1.8	2.0	1.8
26	1.4	3.3	2.5	1.7	2.1	2.2	1.6	1.5	1.6	1.8	2.0	1.9
27	1.4	2.0	2.2	1.7	2.0	2.0	1.4	1.5	1.6	1.8	2.0	2.0
28	1.4	1.8	2.1	1.7	1.8	2.0	1.3	3.3	1.6	1.8	2.0	2.0
29	1.4	22	1.9	1.7	-----	2.1	1.3	2.4	1.5	1.8	2.0	2.0
30	1.4	10	1.9	1.7	-----	2.0	1.3	1.9	1.5	1.8	2.0	2.0
31	1.4	-----	1.9	1.7	-----	2.0	-----	1.6	-----	1.7	2.0	-----
TOTAL	44.5	72.7	174.2	72.9	73.0	63.7	65.8	62.8	52.0	52.0	57.3	54.9
MEAN	1.44	2.42	5.62	2.35	2.61	2.05	2.19	2.03	1.73	1.68	1.85	1.83
MAX	1.6	22	60	11	9.6	4.5	6.6	4.7	2.5	1.8	2.0	2.1
MIN	1.3	1.1	1.5	1.7	1.7	1.5	1.2	1.3	1.5	1.4	1.7	1.6
AC-FT	88	144	346	145	145	126	131	125	103	103	114	109

CAL YR 1970 TOTAL 934.02 MEAN 2.56 MAX 60 MIN .28 AC-FT 1,850  
WTR YR 1971 TOTAL 845.80 MEAN 2.32 MAX 60 MIN 1.1 AC-FT 1,680

PEAK DISCHARGE (BASE, 60 CFS).--Dec. 21 (1115) 124 cfs (2.83 ft).

NOTE.--No gage-height record Nov. 16 to Dec. 4.

## SAN DIEGUITO RIVER BASIN

133

## 11025500 SANTA YSABEL CREEK NEAR RAMONA, CALIF.

LOCATION.--Lat 33°06'25", long 116°51'55", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.27, T.12 S., R.1 E., San Diego County, on left bank 1.6 miles downstream from Temescal Creek and 4.5 miles north of Ramona.

DRAINAGE AREA.--112 sq mi.

PERIOD OF RECORD.--February 1912 to February 1923, October 1943 to current year. Monthly discharge only for February 1912, published in WSP 1315-B.

GAGE.--Water-stage recorder and concrete cutoff wall, repaired at times. Datum of gage is 847.88 ft above mean sea level (levels by city of San Diego Water Department). See WSP 1315-A for history of changes prior to Feb. 3, 1923.

EXTREMES.--Current year: Maximum discharge, 20 cfs Jan. 3 (gage height, 2.46 ft); no flow many days.

Period of record: Maximum discharge, 28,400 cfs Jan. 27, 1916 (gage height, 14.0 ft, datum then in use), from rating curve extended above 1,500 cfs based on slope-conveyance computation of maximum flow; no flow at times in some years.

REMARKS.--Records good. Flow regulated since July 1954 by Sutherland Reservoir (see sta 11024000). Some small diversions above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.01	.02	.04	.26	.87	.01	.37	.55	.01	.01	0
2	0	.01	.02	5.0	.34	.63	.01	.29	.47	.01	.01	0
3	0	.01	.01	12	.33	.66	.01	.25	.41	.01	.01	0
4	0	.01	.01	4.2	.30	.66	.01	.25	.31	.02	.01	0
5	0	.01	.01	2.5	.32	.66	.01	.43	.21	.02	.01	0
6	0	.01	.01	1.8	.34	.54	.01	.85	.11	.04	0	0
7	0	.01	.02	1.4	.31	.53	.01	2.4	.07	.01	.01	0
8	0	.01	.02	1.3	.28	.52	.01	5.7	.07	.02	.01	0
9	0	.01	.02	1.3	.26	.53	.01	3.6	.18	.01	.01	0
10	0	.01	.02	1.3	.25	.57	.01	2.1	.33	.01	.01	0
11	0	.02	.02	1.3	.26	.61	.01	1.6	.32	.01	0	0
12	0	.02	.02	1.4	.25	.43	.01	1.2	.15	.02	0	0
13	0	.02	.04	2.8	.23	1.0	.10	.95	.06	.02	0	0
14	0	.02	.04	3.1	.22	1.9	.90	.71	.03	.02	0	0
15	0	.02	.04	2.1	.25	2.3	.64	.51	.01	.01	0	0
16	0	.01	.04	1.6	.38	1.5	.38	.41	0	.02	0	0
17	0	.01	.05	1.4	1.4	1.1	.53	.31	0	.03	0	.01
18	0	.01	.04	1.1	1.7	.81	2.8	.11	0	.02	0	0
19	0	.01	.05	1.0	1.6	.59	3.9	.04	0	.02	0	0
20	0	.01	.04	.87	1.8	.62	2.3	.01	0	.02	.01	0
21	.01	.01	.69	.87	1.5	.53	1.5	.01	0	.02	.01	0
22	.01	.01	3.2	.76	1.3	.46	1.1	.04	0	.01	.01	0
23	.01	.01	4.0	.77	2.2	.46	.89	.04	0	.01	.01	0
24	.01	.02	1.8	.62	1.9	.36	.67	.02	0	.01	.01	0
25	.01	.02	.37	.57	1.5	.25	.88	.01	.01	.01	0	0
26	.01	.04	.08	.50	1.1	.22	1.2	0	.01	.01	0	0
27	0	.02	.03	.33	.94	.18	1.1	.10	.01	.01	0	.01
28	0	.03	.02	.29	.92	.09	.89	.76	.01	.01	0	.01
29	0	.05	.02	.28	-----	.08	.71	.82	.01	.01	0	.01
30	0	.03	.02	.24	-----	.06	.55	.84	.01	.01	0	.01
31	0	-----	.02	.26	-----	.02	-----	.75	-----	.01	0	-----
TOTAL	.06	.49	10.79	53.00	22.44	19.74	21.16	25.48	3.34	.47	.14	.05
MEAN	.002	.016	.35	1.71	.80	.64	.71	.82	.11	.015	.005	.002
MAX	.01	.05	4.0	12	2.2	2.3	3.9	5.7	.55	.04	.01	.01
MIN	0	.01	.01	.04	.22	.02	.01	0	0	.01	0	0
AC-FT	.1	1.0	21	105	45	39	42	51	6.6	.9	.3	.1

CAL YR 1970 TOTAL 415.65 MEAN 1.14 MAX 48 MIN 0 AC-FT 824  
WTR YR 1971 TOTAL 157.16 MEAN .43 MAX 12 MIN 0 AC-FT 312

## SAN DIEGUITO RIVER BASIN

11026000 SANTA YSABEL CREEK NEAR SAN PASQUAL, CALIF.

LOCATION.--Lat 33°05'10", long 116°54'56", in NE¼NW¼SE¼ sec.31, T.12 S., R.1 E., San Diego County, on left bank 1.1 miles downstream from Clevenger Canyon and 2 miles east of San Pasqual.

DRAINAGE AREA.--128 sq mi.

PERIOD OF RECORD.--December 1905 to September 1910 and May 1911 to September 1912 (published as "near Escondido"), April 1947 to November 1955 (irrigation seasons only), April 1956 to current year. Records for October to December 1910, published in WSP 447, have been found to be in error and should not be used.

GAGE.--Water-stage recorder. Concrete control since April 1947. Altitude of gage is 510 ft (from topographic map). Dec. 17, 1905, to Sept. 30, 1912, nonrecording gage at site 0.2 mile downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 18 cfs Jan. 3 (gage height, 1.69 ft); no flow Oct. 1 to Dec. 16, July 3 to Sept. 30.  
1905-12, 1947 to current year: Maximum discharge observed, 8,000 cfs Mar. 24, 1906 (gage height, 6.3 ft, site and datum then in use); no flow at times in most years.

REMARKS.--Records good. Flow regulated since July 1954 by Sutherland Reservoir (see sta 11024000). Small diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.05	.78	1.0	.28	.58	.53	.01		
2			0	2.0	.79	.80	.21	.50	.43	.01		
3			0	12	.76	.78	.19	.44	.37	0		
4			0	4.4	.72	.85	.15	.44	.28	0		
5			0	2.6	.75	.80	.09	.54	.22	0		
6			0	1.9	.76	.65	.06	1.0	.17	0		
7			0	1.5	.75	.60	.05	1.8	.13	0		
8			0	1.3	.72	.59	.05	5.3	.12	0		
9			0	1.2	.68	.59	.05	3.9	.13	0		
10			0	1.1	.64	.56	.05	2.6	.20	0		
11			0	1.2	.65	.58	.04	1.9	.25	0		
12			0	1.3	.63	.58	.04	1.6	.17	0		
13			0	2.2	.61	1.3	.03	1.2	.10	0		
14			0	2.8	.60	1.4	.36	.91	.07	0		
15			0	2.1	.63	2.0	.94	.73	.05	0		
16			0	1.7	.79	1.5	.60	.62	.04	0		
17			.02	1.5	2.0	1.1	.62	.56	.04	0		
18			.04	1.3	2.0	.87	1.9	.38	.04	0		
19			.09	1.2	2.1	.64	3.0	.25	.03	0		
20			.06	1.1	2.2	.58	2.3	.21	.03	0		
21			.65	1.0	1.6	.58	1.7	.18	.03	0		
22			1.4	1.1	1.6	.55	1.2	.20	.03	0		
23			.25	1.0	2.5	.54	.92	.26	.02	0		
24			.65	.95	2.1	.56	.81	.21	.02	0		
25			.34	.94	1.7	.55	.95	.18	.02	0		
26			.09	.92	1.4	.51	1.3	.15	.02	0		
27			.06	.87	1.1	.48	1.1	.17	.02	0		
28			.06	.83	1.1	.45	1.0	.78	.01	0		
29			.05	.79	-----	.43	.83	1.2	.01	0		
30			.05	.73	-----	.37	.69	.78	.01	0		
31		-----	.05	.75	-----	.35	-----	.78	-----	0		-----
TOTAL	0	0	3.86	54.33	32.66	23.14	21.51	30.35	3.59	.02	0	0
MEAN	0	0	.12	1.75	1.17	.75	.72	.98	.12	.0006	0	0
MAX	0	0	1.4	12	2.5	2.0	3.0	5.3	.53	.01	0	0
MIN	0	0	0	.05	.60	.35	.03	.15	.01	0	0	0
AC-FT	0	0	7.7	108	65	46	43	60	7.1	.04	0	0

CAL YR 1970 TOTAL 484.58 MEAN 1.33 MAX 60 MIN 0 AC-FT 961  
WTR YR 1971 TOTAL 169.46 MEAN .46 MAX 12 MIN 0 AC-FT 336

## 11027000 GUEJITO CREEK NEAR SAN PASQUAL, CALIF.

LOCATION.--Lat 33°06'57", long 116°57'08", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.23, T.12 S., R.1 W., San Diego County, on left bank 0.3 mile upstream from Rockwood Canyon Creek and 1.8 miles north of San Pasqual.

DRAINAGE AREA.--22.5 sq mi.

PERIOD OF RECORD.--December 1946 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 560 ft (from topographic map).

AVERAGE DISCHARGE.--24 years (1947-71), 1.55 cfs (1,120 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 31 cfs Jan. 2 (gage height, 2.39 ft); minimum daily, 0.01 cfs for long periods.

Period of record: Maximum discharge, 2,920 cfs Dec. 6, 1966 (gage height, 6.78 ft), from rating curve extended above 440 cfs on basis of slope-area measurements at gage heights 5.83 and 6.30 ft; no flow at times in most years.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation above station. Diversion for irrigation 0.2 mile upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.58	.58	.64	.55	.28	.34	.32	.04	.02	.01
2	.01	.01	.15	10	.65	.46	.24	.32	.27	.04	.01	.01
3	.01	.01	.10	3.2	.63	.47	.23	.31	.26	.04	.01	.01
4	.01	.01	.09	1.3	.57	.53	.20	.34	.23	.03	.01	.01
5	.01	.01	.08	1.0	.58	.54	.17	.42	.21	.03	.01	.01
6	.01	.01	.07	.81	.60	.48	.15	1.0	.18	.03	.01	.01
7	.01	.01	.06	.74	.59	.44	.15	1.2	.17	.03	.01	.01
8	.01	.01	.05	.78	.59	.46	.18	1.9	.18	.03	.01	.01
9	.01	.01	.04	.84	.54	.47	.20	.92	.22	.03	.01	.01
10	.01	.01	.03	.80	.48	.49	.20	.63	.36	.03	.01	.01
11	.01	.01	.02	.77	.51	.52	.19	.52	.34	.02	.01	.01
12	.01	.01	.01	.95	.50	.52	.17	.48	.24	.02	.01	.01
13	.01	.01	.01	1.9	.48	1.3	.15	.43	.18	.02	.01	.01
14	.01	.01	.01	1.2	.50	.99	.73	.37	.12	.02	.01	.01
15	.01	.01	.01	.94	.54	.68	1.1	.33	.10	.02	.01	.01
16	.01	.01	.01	.84	.66	.57	.61	.32	.09	.02	.01	.01
17	.01	.01	.50	.80	1.4	.54	.74	.30	.08	.02	.01	.01
18	.01	.01	.40	.77	1.0	.47	1.6	.22	.08	.02	.01	.01
19	.01	.01	1.0	.76	.88	.39	.83	.17	.07	.02	.01	.01
20	.01	.01	.80	.72	1.1	.38	.61	.16	.06	.03	.01	.01
21	.01	.01	5.0	.74	.73	.40	.60	.18	.06	.03	.01	.01
22	.01	.01	1.5	.76	.62	.41	.51	.22	.05	.03	.01	.01
23	.01	.01	1.2	.80	.98	.42	.42	.23	.05	.03	.01	.01
24	.01	.01	1.0	.68	.77	.44	.39	.20	.05	.02	.01	.01
25	.01	.01	.97	.68	.65	.45	.54	.15	.05	.02	.01	.01
26	.01	.01	.87	.64	.61	.43	.63	.14	.05	.02	.01	.01
27	.01	.01	.78	.58	.55	.41	.48	.22	.04	.02	.01	.01
28	.01	.01	.67	.58	.55	.39	.42	.59	.04	.02	.01	.01
29	.01	.81	.61	.57	-----	.35	.40	.74	.04	.02	.01	.01
30	.01	1.9	.59	.56	-----	.32	.36	.48	.04	.02	.01	.01
31	.01	-----	.59	.59	-----	.31	-----	.42	-----	.02	.01	-----
TOTAL	.31	2.99	17.80	36.88	18.90	15.58	13.48	14.25	4.23	.79	.32	.30
MEAN	.010	.10	.57	1.19	.68	.50	.45	.46	.14	.026	.010	.010
MAX	.01	1.9	5.0	10	1.4	1.3	1.6	1.9	.36	.04	.02	.01
MIN	.01	.01	.01	.56	.48	.31	.15	.14	.04	.02	.01	.01
AC-FT	.6	5.9	35	73	37	31	27	28	8.4	1.6	.6	.6

CAL YR 1970 TOTAL 239.71 MEAN .66 MAX 26 MIN 0 AC-FT 475  
WTR YR 1971 TOTAL 125.83 MEAN .34 MAX 10 MIN .01 AC-FT 250

PEAK DISCHARGE (BASE, 30 CFS).--Jan. 2 (1300) 31 cfs (2.39 ft).

NOTE.--No gage-height record Nov. 25 to Dec. 24.

## SAN DIEGUITO RIVER BASIN

11028500 SANTA MARIA CREEK NEAR RAMONA, CALIF.

LOCATION.--Lat 33°03'08", long 116°56'41", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.11, T.13 S., R.1 W., San Diego County, on left bank 3.8 miles northwest of Ramona and 4.6 miles upstream from mouth.

DRAINAGE AREA.--57.6 sq mi.

PERIOD OF RECORD.--November 1912 to September 1920, October 1946 to current year.

GAGE.--Water-stage recorder. Concrete control since October 1946. Datum of gage is 1,294.44 ft above mean sea level. Prior to Oct. 1, 1946, at datum 1.78 ft lower.

AVERAGE DISCHARGE.--32 years (1913-20, 1946-71), 3.65 cfs (2,640 acre-ft per year); median of yearly mean discharges, 0.07 cfs (50 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 43 cfs Dec. 21 (gage height, 1.90 ft); no flow Oct. 1 to Dec. 20, June 21 to Sept. 30.

Period of record: Maximum discharge, 7,140 cfs Jan. 27, 1916 (gage height, 14.1 ft, from floodmarks, present datum), from rating curve extended above 600 cfs on basis of slope-area measurement of maximum flow; no flow for several months in each year.

REMARKS.--Records good. No regulation above station. City of Ramona pumps water from stream above station for municipal supply.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.01	.04	.03	.05	.01	.01			
2			0	.55	.04	.02	.04	.01	.01			
3			0	1.8	.03	.02	.04	.01	.01			
4			0	.25	.03	.03	.04	.01	.01			
5			0	.05	.02	.04	.03	.01	.01			
6			0	.01	.03	.02	.03	.01	.01			
7			0	.01	.03	.02	.06	.02	.01			
8			0	.01	.03	.03	.08	.08	.01			
9			0	.01	.01	.04	.09	.02	.01			
10			0	.01	.02	.04	.11	.02	.01			
11			0	.01	.02	.04	.09	.02	.02			
12			0	.01	.02	.04	.08	.02	.01			
13			0	.01	.02	.05	.06	.02	.01			
14			0	.01	.02	.04	.05	.02	.01			
15			0	.01	.04	.04	.02	.02	.01			
16			0	.01	.04	.04	.02	.02	.01			
17			0	.01	.12	.04	.04	.02	.02			
18			0	.01	.07	.03	.07	.01	.01			
19			0	.01	.06	.03	.04	.01	.01			
20			0	.01	.06	.05	.02	.01	.01			
21			13	.02	.03	.04	.02	.01	0			
22			13	.01	.03	.04	.03	.02	0			
23			1.4	.02	.08	.04	.03	.02	0			
24			.29	.02	.05	.04	.03	.01	0			
25			.08	.01	.04	.03	.03	.01	0			
26			.01	.01	.03	.03	.02	.01	0			
27			.01	.03	.02	.03	.01	.01	0			
28			.01	.04	.03	.03	.01	.03	0			
29			.01	.05	-----	.03	.01	.02	0			
30			.01	.03	-----	.04	.01	.02	0			
31		-----	.01	.04	-----	.06	-----	.02	-----			-----
TOTAL	0	0	27.83	3.09	1.06	1.10	1.26	.55	.22	0	0	0
MEAN	0	0	.90	.10	.038	.036	.042	.018	.007	0	0	0
MAX	0	0	13	1.8	.12	.06	.11	.08	.02	0	0	0
MIN	0	0	0	.01	.01	.02	.01	.01	0	0	0	0
AC-FT	0	0	55	6.1	2.1	2.2	2.5	1.1	.4	0	0	0

CAL YR 1970 TOTAL 293.17 MEAN .80 MAX 101 MIN 0 AC-FT 582  
WTR YR 1971 TOTAL 35.11 MEAN .096 MAX 13 MIN 0 AC-FT 70

PEAK DISCHARGE (BASE, 20 CFS).--Dec. 21 (1800) 43 cfs (1.90 ft).

11031500 AGUA CALIENTE CREEK NEAR WARNER SPRINGS, CALIF.

LOCATION.--Lat 33°17'19", long 116°39'11", in San Jose del Valle Grant, San Diego County, on downstream end of right pier of bridge on State Highway 79, 1.2 miles upstream from Canada Verde Creek, and 1.2 miles northwest of Warner Springs.

DRAINAGE AREA.--19.0 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 2,950 ft (from topographic map). Prior to Jan. 29, 1966, at site 120 ft upstream at same datum, used as supplementary gage since Dec. 12, 1968.

AVERAGE DISCHARGE.--10 years, 1.31 cfs (949 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11 cfs Dec. 21 (gage height, 2.62 ft); no flow Oct. 1 to Dec. 20, May 12 to Sept. 30.

Period of record: Maximum discharge, 1,200 cfs Dec. 6, 1966 (gage height, 5.18 ft), from rating curve extended above 240 cfs; no flow for much of each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.68	.11	.11	.04	.01				
2			0	2.8	.11	.08	.04	.01				
3			0	2.6	.11	.08	.04	.01				
4			0	.92	.11	.11	.04	.01				
5			0	.42	.11	.08	.04	.02				
6			0	.16	.08	.08	.04	.03				
7			0	.06	.08	.08	.05	.03				
8			0	.06	.08	.08	.06	.03				
9			0	.06	.08	.08	.06	.03				
10			0	.06	.08	.08	.05	.03				
11			0	.06	.08	.08	.05	.02				
12			0	.08	.08	.08	.04	0				
13			0	.32	.08	.13	.04	0				
14			0	.68	.08	.08	.05	0				
15			0	.54	.08	.08	.05	0				
16			0	.60	.08	.06	.04	0				
17			0	.68	.11	.06	.04	0				
18			0	1.2	.08	.06	.05	0				
19			0	2.0	.08	.06	.04	0				
20			0	2.0	.08	.06	.03	0				
21			4.3	1.4	.08	.06	.03	0				
22			1.2	1.1	.08	.06	.03	0				
23			.92	.76	.11	.06	.03	0				
24			.68	.54	.11	.06	.03	0				
25			.54	.42	.11	.06	.03	0				
26			.42	.32	.11	.06	.03	0				
27			.37	.23	.11	.06	.03	0				
28			.68	.16	.11	.05	.03	0				
29			.68	.16	-----	.05	.02	0				
30			.60	.13	-----	.05	.02	0				
31		-----	.68	.11	-----	.04	-----	0	-----			-----
TOTAL	0	0	11.07	21.31	2.60	2.22	1.17	.23	0	0	0	0
MEAN	0	0	.36	.69	.093	.072	.039	.007	0	0	0	0
MAX	0	0	4.3	2.8	.11	.13	.06	.03	0	0	0	0
MIN	0	0	0	.06	.08	.04	.02	0	0	0	0	0
AC-FT	0	0	22	42	5.2	4.4	2.3	.5	0	0	0	0

CAL YR 1970 TOTAL 126.00 MEAN .35 MAX 34 MIN 0 AC-FT 250  
WTR YR 1971 TOTAL 38.60 MEAN .11 MAX 4.3 MIN 0 AC-FT 77

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

## 11033000 WEST FORK SAN LUIS REY RIVER NEAR WARNER SPRINGS, CALIF.

LOCATION.--Lat 33°17'50", long 116°45'30", in San Jose del Valle Grant, San Diego County, on left bank 0.1 mile downstream from small unnamed tributary, 2.5 miles upstream from mouth, and 7.5 miles west of Warner Springs.

DRAINAGE AREA.--25.5 sq mi.

PERIOD OF RECORD.--January 1913 to November 1915, October 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map). Prior to Oct. 1, 1956, at different datum.

AVERAGE DISCHARGE.--16 years (1913-15, 1957-71), 7.85 cfs (5,690 acre-ft per year); median of yearly mean discharges, 2.4 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 40 cfs Jan. 2 (gage height, 3.71 ft); minimum daily, 0.05 cfs Sept. 16.

Period of record: Maximum discharge, 4,200 cfs Dec. 6, 1966 (gage height, 11.87 ft), from rating curve extended above 250 cfs on basis of slope-area measurement of maximum flow; no flow at times in most years.

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.08	.12	1.2	3.3	2.0	.71	1.4	.62	.26	.13	.12
2	.23	.08	.12	19	3.1	1.8	.62	1.4	.62	.30	.13	.12
3	.22	.08	.11	14	3.0	1.7	.62	1.1	.71	.26	.12	.11
4	.20	.08	.09	5.5	2.6	1.8	.62	1.0	.71	.27	.09	.11
5	.18	.10	.11	3.4	2.4	1.7	.62	.85	.67	.22	.14	.15
6	.18	.11	.11	2.6	2.2	1.6	.62	1.6	.45	.21	.17	.16
7	.15	.11	.11	1.8	2.1	1.6	.58	4.2	.44	.20	.18	.14
8	.13	.11	.10	1.8	1.9	1.6	.62	6.6	.39	.17	.18	.10
9	.11	.11	.10	2.1	1.8	1.4	.62	4.5	.40	.20	.17	.09
10	.11	.11	.10	2.1	1.7	1.4	.62	2.9	.51	.18	.17	.11
11	.11	.11	.10	2.8	1.7	1.4	.62	2.2	.51	.15	.16	.09
12	.11	.11	.10	7.4	1.7	1.4	.62	1.7	.52	.10	.16	.08
13	.10	.11	.10	18	1.7	6.8	.62	1.4	.44	.09	.16	.06
14	.08	.10	.11	9.2	1.7	7.6	.71	1.1	.49	.09	.16	.08
15	.08	.11	.11	6.5	3.0	3.8	.80	.80	.57	.13	.16	.06
16	.08	.11	.11	5.7	2.1	3.0	1.0	.63	.40	.14	.15	.05
17	.08	.11	.11	5.6	6.0	2.6	1.1	.54	.36	.17	.15	.06
18	.08	.11	.11	7.0	5.8	2.2	3.0	.50	.36	.15	.15	.07
19	.08	.10	.12	8.7	3.5	1.9	3.8	.46	.43	.15	.15	.06
20	.08	.11	.07	9.8	5.3	1.9	3.2	.51	.42	.20	.15	.07
21	.08	.11	14	11	3.9	1.8	2.8	.46	.43	.21	.14	.07
22	.08	.11	13	9.1	2.5	1.6	2.6	.46	.39	.23	.14	.08
23	.10	.11	4.8	7.1	2.1	1.5	2.3	.46	.36	.22	.14	.07
24	.11	.11	2.3	5.6	2.8	1.4	2.0	.43	.35	.16	.14	.07
25	.13	.08	1.3	4.5	2.5	1.3	1.7	.39	.30	.14	.14	.07
26	.14	.10	.96	4.0	2.0	1.2	2.5	.39	.36	.14	.13	.08
27	.14	.08	.80	3.9	1.9	1.1	2.6	.39	.30	.13	.13	.07
28	.14	.11	.98	3.8	1.9	1.1	1.7	.47	.33	.10	.13	.08
29	.08	.27	1.0	3.5	-----	.91	1.8	.58	.40	.08	.13	.10
30	.08	.24	.78	3.5	-----	.80	1.7	.62	.27	.07	.13	.07
31	.08	-----	.89	3.5	-----	.80	-----	.62	-----	.07	.13	-----
TOTAL	3.69	3.37	42.92	193.7	76.2	62.71	43.42	40.66	13.51	5.19	4.51	2.65
MEAN	.12	.11	1.38	6.25	2.72	2.02	1.45	1.31	.45	.17	.15	.088
MAX	.23	.27	14	19	6.0	7.6	3.8	6.6	.71	.30	.18	.16
MIN	.08	.08	.07	1.2	1.7	.80	.58	.39	.27	.07	.09	.05
AC-FT	7.3	6.7	85	384	151	124	86	81	27	10	9.0	5.3

CAL YR 1970 TOTAL 626.30 MEAN 1.72 MAX 110 MIN .03 AC-FT 1,240  
WTR YR 1971 TOTAL 492.53 MEAN 1.35 MAX 19 MIN .05 AC-FT 977

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

## 11037700 PAUMA CREEK NEAR PAUMA VALLEY, CALIF.

LOCATION.--Lat 33°20'10", long 116°58'25", in Pauma Grant, San Diego County, on right bank 0.3 mile downstream from unnamed tributary and 2.2 miles north of Pauma Valley.

DRAINAGE AREA.--11.0 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder; water-stage recorder and Parshall flume on diversion. Altitude of gage is 1,240 ft (from topographic map).

AVERAGE DISCHARGE (Creek only).--7 years, 4.18 cfs (3,030 acre-ft per year).  
(Combined creek and diversion).--7 years, 4.98 cfs (3,610 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 16 cfs Nov. 29 (gage height, 2.62 ft); no flow many days.

Period of record: Maximum discharge, 2,100 cfs Dec. 6, 1966 (gage height, 8.60 ft), from rating curve extended above 110 cfs on basis of slope-area measurement at gage height 7.26 ft; no flow much of each year.

(Combined flow).--Current year: Maximum discharge, 16 cfs Nov. 29; minimum daily, 0.08 cfs Sept. 13, 14.  
Period of record: Maximum discharge, 2,100 cfs Dec. 6, 1966; minimum daily, 0.08 cfs Sept. 13, 14, 1971.

REMARKS.--Records good. No regulation above station. Pauma Valley Water Co. diverts from a site 0.2 mile upstream. For records of combined discharge of Pauma Creek and Pauma Valley Water Co.'s diversion, see following page.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.06	2.1	1.6	1.8	.68	.06	.43	.36	.02	.03	.01
2	0	.07	1.4	6.3	1.8	.64	.05	.21	.28	.02	.02	.01
3	0	.07	.94	4.0	1.8	.52	.05	.19	.26	.02	.02	.02
4	0	.08	.68	2.8	1.7	.49	.05	.17	.19	.02	.03	.02
5	0	.07	.68	2.3	1.6	.46	.05	.17	.13	.02	.02	.02
6	0	.07	.49	2.0	1.6	.42	.04	3.7	.10	.01	.01	.02
7	0	.07	.13	2.0	1.6	.39	.04	4.7	.08	.01	.01	.01
8	0	.06	.10	1.9	1.4	.36	.06	7.2	.08	.01	.01	0
9	0	.07	.31	1.5	1.3	.36	.07	4.5	.08	.01	0	0
10	0	.08	.64	1.2	1.2	.36	.07	2.9	.27	.01	.01	0
11	0	.08	.23	1.2	1.0	.36	.07	1.6	.21	.01	.01	0
12	.12	.10	.13	1.4	.94	.36	.07	1.2	.15	.01	.01	0
13	.40	.10	.10	3.7	.89	1.9	.06	.89	.11	.01	0	0
14	.05	.10	.08	2.2	.85	1.5	.29	.76	.07	.02	0	0
15	.05	.10	.08	1.7	.80	.85	.56	.64	.05	.03	0	0
16	.04	.10	.28	1.5	.80	.64	.31	.60	.05	.03	.01	0
17	.03	.10	1.0	1.5	1.5	.56	.46	.42	.04	.03	.01	0
18	.03	.10	2.0	1.8	1.8	.46	2.0	.23	.02	.03	.03	0
19	.03	.08	3.1	2.3	1.3	.31	2.5	.17	.01	.03	.03	0
20	.03	.10	2.5	2.4	1.6	.28	2.1	.13	.01	.04	.03	0
21	.04	.10	6.3	2.5	1.1	.28	2.1	.15	.01	.03	.03	0
22	.04	.10	6.2	2.5	.89	.28	2.0	.21	0	.02	.03	0
23	.05	.10	3.6	2.4	1.3	.28	1.0	.19	0	.02	.03	0
24	.05	.10	2.8	2.2	1.1	.26	.34	.11	0	.02	.03	0
25	.05	.11	2.4	2.0	.80	.26	.52	.08	.01	.02	.03	0
26	.05	1.1	2.1	1.9	.76	.23	.68	.07	.01	.02	.04	.01
27	.05	.72	2.0	1.8	.64	.21	.68	.17	.01	.02	.03	.01
28	.05	.46	1.9	1.9	.64	.19	.56	1.0	.02	.02	.03	.01
29	.06	5.1	1.8	1.9	-----	.13	.39	.89	.02	.02	.02	.01
30	.06	6.0	1.8	1.9	-----	.08	.31	.85	.02	.02	.01	.02
31	.06	-----	1.7	1.8	-----	.07	-----	.60	-----	.02	.01	-----
TOTAL	1.34	15.55	49.57	68.1	34.51	14.17	17.54	35.13	2.65	.62	.58	.17
MEAN	.043	.52	1.60	2.20	1.23	.46	.58	1.13	.088	.020	.019	.006
MAX	.40	6.0	6.3	6.3	1.8	1.9	2.5	7.2	.36	.04	.04	.02
MIN	0	.06	.08	1.2	.64	.07	.04	.07	0	.01	0	0
AC-FT	2.7	31	98	135	68	28	35	70	5.3	1.2	1.2	.3

CAL YR 1970 TOTAL 283.32 MEAN .78 MAX 15 MIN 0 AC-FT 562  
WTR YR 1971 TOTAL 239.93 MEAN .66 MAX 7.2 MIN 0 AC-FT 476

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.



## SAN LUIS REY RIVER BASIN

11037700 PAUMA CREEK NEAR PAUMA VALLEY, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF PAUMA CREEK AND PAUMA VALLEY  
WATER CO.'S DIVERSION NEAR PAUMA VALLEY, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.38	2.5	1.9	2.6	2.1	1.3	1.7	2.1	.60	.18	.12
2	.18	.40	1.8	6.6	2.6	2.0	1.2	1.6	2.0	.57	.16	.13
3	.20	.41	1.3	4.3	2.6	2.0	1.2	1.5	2.0	.54	.14	.15
4	.24	.46	1.1	3.1	2.6	2.0	1.0	1.7	1.9	.52	.15	.15
5	.26	.46	1.1	2.6	2.5	2.0	1.0	1.9	1.7	.47	.15	.14
6	.31	.48	1.0	2.3	2.4	1.9	1.0	5.5	1.7	.44	.13	.14
7	.36	.51	1.0	2.2	2.5	1.8	1.0	6.5	1.7	.41	.11	.13
8	.33	.51	.90	2.2	2.4	1.8	1.2	8.0	1.7	.39	.12	.12
9	.28	.49	1.3	2.2	2.5	1.8	1.2	4.6	1.7	.35	.10	.11
10	.27	.49	1.7	2.2	2.7	1.8	1.0	3.7	1.7	.32	.13	.09
11	.70	.50	1.2	2.2	2.7	1.8	.97	3.1	1.6	.29	.13	.09
12	1.1	.54	1.1	2.4	2.6	1.8	.97	2.7	1.4	.27	.13	.09
13	1.6	.54	1.0	4.7	2.6	3.4	.96	2.5	1.4	.26	.12	.08
14	.77	.50	1.0	3.2	2.6	3.1	1.6	2.4	1.3	.26	.12	.08
15	.63	.48	1.1	2.7	2.5	2.4	2.2	2.2	1.2	.28	.14	.09
16	.53	.50	1.0	2.5	2.5	2.1	1.7	2.2	1.0	.28	.15	.10
17	.42	.52	1.5	2.5	3.3	2.1	2.1	2.1	1.0	.31	.15	.13
18	.35	.53	2.5	2.8	3.6	2.0	3.0	2.0	1.0	.30	.17	.15
19	.35	.53	3.5	3.3	3.0	1.7	2.7	1.9	.93	.28	.18	.12
20	.38	.57	2.9	3.4	3.4	1.7	2.5	1.8	.81	.30	.18	.10
21	.40	.63	6.7	3.5	2.8	1.7	2.3	1.8	.72	.30	.19	.13
22	.42	.65	6.6	3.4	2.6	1.7	2.2	1.8	.69	.26	.18	.15
23	.46	.61	3.9	3.3	2.5	1.7	2.0	1.8	.67	.24	.18	.13
24	.52	.57	3.1	3.1	2.4	1.7	1.8	1.7	.66	.23	.17	.10
25	.54	.61	2.8	2.9	2.3	1.7	2.0	1.7	.65	.23	.17	.11
26	.53	1.8	2.4	2.8	2.2	1.6	2.2	1.7	.64	.21	.17	.13
27	.43	1.4	2.3	2.7	2.0	1.5	2.2	1.9	.63	.21	.14	.15
28	.41	1.1	2.2	2.8	2.0	1.5	2.1	2.7	.63	.20	.14	.15
29	.40	5.6	2.1	2.7	-----	1.5	1.9	2.6	.61	.19	.12	.15
30	.38	6.4	2.1	2.7	-----	1.3	1.8	2.6	.59	.18	.11	.17
31	.38	-----	2.0	2.6	-----	1.3	-----	2.3	-----	.18	.12	-----
TOTAL	14.30	29.17	66.70	91.8	73.0	58.5	50.30	82.2	36.33	9.87	4.53	3.68
MEAN	.46	.97	2.15	2.96	2.61	1.89	1.68	2.65	1.21	.32	.15	.12
MAX	1.6	6.4	6.7	6.6	3.6	3.4	3.0	8.0	2.1	.60	.19	.17
MIN	.17	.38	.90	1.9	2.0	1.3	.96	1.5	.59	.18	.10	.08
AC-FT	28	58	132	182	145	116	100	163	72	20	9.0	7.3

CAL YR 1970 TOTAL 528.23 MEAN 1.45 MAX 15 MIN .10 AC-FT 1,050  
WTR YR 1971 TOTAL 520.38 MEAN 1.43 MAX 8.0 MIN .08 AC-FT 1,030

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

## 11039100 SAN LUIS REY RIVER TRIBUTARY NEAR PALA, CALIF.

LOCATION (revised).--Lat 33°21'45", long 117°02'55", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.25, T.9 S., R.2 W., San Diego County, on upstream right bank at culvert on State Highway 76, 1.5 miles east of Pala.

DRAINAGE AREA.--1.01 sq mi.

PERIOD OF RECORD.--Water years 1962-65 (annual maximum), September 1965 to current year.

GAGE.--Water-stage recorder with rain-gage attachment and corrugated-pipe control. Altitude of gage is 520 ft (from topographic map). Dec. 8, 1961, to Sept. 20, 1965, crest-stage gage only at same site and datum.

AVERAGE DISCHARGE.--6 years (1965-71), 0.007 cfs (5.1 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1.3 cfs Dec. 19 (gage height, 15.42 ft), from rating curve as explained below; no flow except Dec. 19, 21.

Period of record: Maximum discharge, 25 cfs Nov. 22, 1965 (gage height, 16.77 ft), from rating curve defined by computation of flow through culvert at gage heights 15.12, 15.58, 15.70, and 16.38 ft; no flow most of each year.

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0									
2			0									
3			0									
4			0									
5			0									
6			0									
7			0									
8			0									
9			0									
10			0									
11			0									
12			0									
13			0									
14			0									
15			0									
16			0									
17			0									
18			0									
19			.03									
20			0									
21			.03									
22			0									
23			0									
24			0									
25			0									
26			0									
27			0									
28			0									
29			0									
30			0									
31		-----	0		-----		-----		-----			-----
TOTAL	0	0	.06	0	0	0	0	0	0	0	0	0
MEAN	0	0	.002	0	0	0	0	0	0	0	0	0
MAX	0	0	.03	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	.1	0	0	0	0	0	0	0	0	0
(a)	0	2.2	4.0	1.1	.2	.3	.8	1.3	0	0	0	0
CAL YR 1970	TOTAL 0.22	MEAN .0006	MAX .08	MIN 0	AC-FT .4							
WTR YR 1971	TOTAL 0.06	MEAN .0002	MAX .03	MIN 0	AC-FT .1							

a Precipitation, in inches.

## SAN LUIS REY RIVER BASIN

11040000 SAN LUIS REY RIVER AT MONSERATE NARROWS, NEAR PALA, CALIF.

LOCATION.--Lat 33°20'14", long 117°08'07", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.6, T.10 S., R.2 W., San Diego County, on left bank 4 miles southwest of Pala and 6 miles northeast of Bonsall.

DRAINAGE AREA.--373 sq mi.

PERIOD OF RECORD.--December 1935 to March 1938 (fragmentary), April 1938 to November 1941, October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 270.82 ft above mean sea level (levels by State of California). Prior to October 1946, at same site at different datum. Oct. 22, 1946, to Nov. 30, 1954, at datum 1.0 ft higher.

AVERAGE DISCHARGE.--28 years (1938-41, 1946-71), 7.22 cfs (5,230 acre-ft per year); median of yearly mean discharges, 1.7 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum gage height, 8.7 ft Feb. 7, 1937, datum then in use (discharge not determined); maximum discharge known, 7,000 cfs Dec. 6, 1966 (gage height, 6.70 ft); no flow at times in most years.

REMARKS.--No flow since May 21, 1970. Flow regulated by Lake Henshaw (see sta 11035000). Several diversions above station. Discharge for the calendar year 1970 is as follows: Maximum daily, 53 cfs; minimum, zero; mean, 0.66 cfs; total, 477 acre-ft.

## SAN LUIS REY RIVER BASIN

143

## 11040200 KEYS CREEK TRIBUTARY AT VALLEY CENTER, CALIF.

LOCATION.--Lat 33°13'45", long 117°02'09", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.12, T.11 S., R.2 W., San Diego County, on left bank 140 ft upstream from bridge on Valley Center Road, 0.3 mile downstream from unnamed tributary, 0.8 mile north of Valley Center.

DRAINAGE AREA.--7.65 sq mi.

PERIOD OF RECORD.--April 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 1,279.99 ft above mean sea level (San Diego County Special District Services bench mark).

EXTREMES.--April to September 1970: Maximum daily discharge, 0.04 cfs Apr. 23-28, May 5, 6, 26-28; no flow June 6 to Sept. 30.

Water year 1971: Maximum discharge, 67 cfs Dec. 21 (gage height, 2.58 ft); no flow much of year.

Flood of Jan. 25, 1969, 990 cfs, by San Diego County Special District Services.

REMARKS.--Records good. No regulation above station. Some pumping for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, APRIL 1970 to SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							-	.02	.02			
2							-	.02	.01			
3							-	.03	.01			
4							-	.03	.01			
5							-	.03	.01			
6							-	.04	0			
7							-	.04	0			
8							-	.03	0			
9							-	.03	0			
10							-	.03	0			
11							-	.03	0			
12							-	.03	0			
13							-	.03	0			
14							-	.03	0			
15							-	.03	0			
16							-	.03	0			
17							-	.03	0			
18							-	.03	0			
19							-	.02	0			
20							-	.02	0			
21							-	.02	0			
22							-	.02	0			
23							.04	.02	0			
24							.04	.02	0			
25							.04	.03	0			
26							.04	.04	0			
27							.04	.04	0			
28							.04	.04	0			
29					-----		.03	.03	0			
30					-----		.03	.03	0			
31		-----			-----		-----	.02	-----			-----
TOTAL							-	.89	.06	0	0	0
MEAN							-	.029	.002	0	0	0
MAX							-	.04	.02	0	0	0
MIN							-	.02	0	0	0	0
AC-FT							-	1.8	.1	0	0	0

## SAN LUIS REY RIVER BASIN

11040200 KEYS CREEK TRIBUTARY AT VALLEY CENTER, CALIF.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.05	.08	.08	.07	.07	.06	.07	0		
2		0	.05	.47	.08	.07	.06	.05	.05	0		
3		0	.04	.17	.07	.07	.07	.05	.04	0		
4		0	.04	.10	.07	.07	.06	.05	.04	0		
5		0	.04	.11	.07	.07	.06	.06	.04	0		
6		0	.04	.11	.07	.07	.06	.06	.03	0		
7		0	.04	.10	.07	.07	.06	.09	.03	0		
8		0	.04	.10	.07	.07	.06	.11	.03	0		
9		0	.04	.10	.07	.07	.06	.06	.04	0		
10		0	.04	.10	.07	.07	.06	.06	.04	0		
11		0	.04	.10	.08	.07	.06	.06	.04	0		
12		0	.04	.09	.08	.07	.06	.06	.04	0		
13		0	.04	.10	.08	.07	.06	.06	.03	0		
14		0	.04	.08	.08	.07	.09	.06	.04	0		
15		0	.04	.08	.08	.07	.08	.06	.04	0		
16		0	.05	.08	.08	.07	.08	.06	.04	0		
17		0	.05	.08	.09	.07	.07	.06	.04	0		
18		0	.05	.08	.08	.07	.07	.05	.04	0		
19		0	.44	.08	.09	.07	.07	.05	.04	0		
20		.01	.08	.08	.08	.07	.07	.05	.03	0		
21		.03	19	.08	.08	.07	.07	.05	.03	0		
22		.03	6.1	.08	.08	.07	.07	.05	.03	0		
23		.04	.20	.08	.08	.07	.07	.05	.02	0		
24		.04	.14	.08	.08	.07	.07	.05	.02	0		
25		.05	.12	.08	.07	.07	.08	.05	.01	0		
26		.07	.11	.08	.07	.07	.07	.06	.01	0		
27		.06	.10	.08	.07	.07	.07	.06	0	0		
28		.06	.10	.08	.07	.07	.07	.07	0	0		
29		.11	.08	.08	-----	.07	.07	.07	0	0		
30		.21	.08	.07	-----	.07	.07	.07	0	.08		
31		-----	.08	.08	-----	.07	-----	.07	-----	.01		-----
TOTAL	0	.71	27.40	3.16	2.14	2.17	2.04	1.87	.91	.09	0	0
MEAN	0	.024	.88	.10	.076	.070	.068	.060	.030	.003	0	0
MAX	0	.21	19	.47	.09	.07	.09	.11	.07	.08	0	0
MIN	0	0	.04	.07	.07	.07	.06	.05	0	0	0	0
AC-FT	0	1.4	54	6.3	4.2	4.3	4.1	3.7	1.8	.2	0	0
CAL YR 1970	TOTAL	28.11	MEAN .077	MAX 19	MIN 0	AC-FT 56						
WTR YR 1971	TOTAL	40.49	MEAN .11	MAX 19	MIN 0	AC-FT 80						

## 11041000 SAN LUIS REY RIVER NEAR BONSTALL, CALIF.

LOCATION.--Lat 33°15'13", long 117°14'48", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.1, T.11 S., R.4 W., San Diego County, on left bank 0.7 mile downstream from bridge on State Highway 76 and 2.8 miles southwest of Bonsall.

DRAINAGE AREA.--513 sq mi (revised).

PERIOD OF RECORD.--July 1916 to September 1918 (gage heights and discharge measurements only), October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 108.10 ft above mean sea level. See WSP 1315-B, 1735 for history of changes prior to Sept. 16, 1946.

AVERAGE DISCHARGE.--42 years (1929-71), 18.2 cfs (13,190 acre-ft per year); median of yearly mean discharges, 4.6 cfs (3,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 210 cfs Dec. 21 (gage height, 8.39 ft); no flow Oct. 1, Aug. 17 to Sept. 30.

Period of record: Maximum discharge, 18,100 cfs Mar. 3, 1938 (gage height, 16.04 ft, present datum), from rating curve extended above 2,400 cfs; no flow for part of each year.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Lake Henshaw (capacity, 194,300 acre-ft). Several diversions above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.31	16	13	10	8.7	4.3	2.2	4.4	.50	.16	
2	.05	.52	12	26	10	6.2	3.5	2.1	3.5	.49	.14	
3	.15	.75	9.6	26	9.8	6.3	3.4	2.0	2.7	.46	.13	
4	.20	.97	7.8	14	8.9	7.5	3.2	1.8	2.4	.49	.14	
5	.20	1.1	7.1	12	9.9	6.5	3.2	2.4	2.3	.52	.15	
6	.20	1.5	6.7	12	11	5.7	3.0	3.0	2.2	.58	.12	
7	.20	1.9	6.4	11	10	7.2	2.9	3.5	2.2	.55	.11	
8	.22	2.1	6.4	11	9.5	8.2	2.8	4.0	2.0	.50	.10	
9	.23	2.6	7.1	12	9.4	6.9	3.0	7.0	1.8	.43	.09	
10	.24	2.9	8.8	11	7.4	5.8	2.3	6.4	2.3	.40	.08	
11	.25	3.0	7.6	11	7.0	5.7	2.6	6.0	2.8	.36	.07	
12	.26	3.0	7.0	12	6.5	6.1	3.0	5.4	2.9	.29	.06	
13	.27	3.0	6.3	17	6.3	9.6	2.2	4.5	2.3	.30	.04	
14	.30	2.8	6.0	16	6.3	15	2.6	4.6	2.0	.28	.03	
15	.29	2.6	5.8	14	6.8	11	6.0	3.3	1.4	.29	.02	
16	.31	2.6	5.9	13	7.4	10	5.8	3.1	1.1	.28	.01	
17	.34	2.7	8.6	13	18	10	4.5	3.4	.91	.28	0	
18	.34	2.8	7.9	13	18	8.1	3.3	2.2	.83	.22	0	
19	.40	3.1	27	13	13	7.0	2.8	1.6	.78	.22	0	
20	.36	3.0	24	12	19	6.8	4.5	3.6	.79	.25	0	
21	.34	2.4	80	11	13	7.0	4.2	3.5	.77	.28	0	
22	.37	2.4	63	11	12	6.9	3.1	2.6	.75	.24	0	
23	.35	2.9	27	12	13	6.5	2.5	2.2	.65	.24	0	
24	.35	3.3	20	11	11	6.3	2.3	2.1	.55	.26	0	
25	.37	3.4	17	11	9.9	6.3	2.2	2.1	.51	.24	0	
26	.35	5.1	16	11	9.7	6.0	2.1	1.7	.52	.24	0	
27	.32	6.4	14	11	8.7	5.7	2.1	1.6	.54	.28	0	
28	.23	6.8	13	11	8.8	6.3	2.1	2.2	.60	.28	0	
29	.25	20	13	11	-----	6.3	2.1	4.2	.53	.23	0	
30	.30	41	12	9.6	-----	5.9	2.1	5.3	.48	.20	0	
31	.29	-----	12	9.2	-----	5.4	-----	5.0	-----	.18	0	-----
TOTAL	8.33	136.95	481.0	400.8	290.3	226.9	93.7	104.6	47.51	10.36	1.45	0
MEAN	.27	4.57	15.5	12.9	10.4	7.32	3.12	3.37	1.58	.33	.047	0
MAX	.40	41	80	26	19	15	6.0	7.0	4.4	.58	.16	0
MIN	0	.31	5.8	9.2	6.3	5.4	2.1	1.6	.48	.18	0	0
AC-FT	17	272	954	795	576	450	186	207	94	21	2.9	0

CAL YR 1970 TOTAL 1,875.86 MEAN 5.14 MAX 200 MIN 0 AC-FT 3,720  
WTR YR 1971 TOTAL 1,801.90 MEAN 4.94 MAX 80 MIN 0 AC-FT 3,570

NOTE.--No gage-height record Apr. 4 to May 12.

## SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CALIF.

LOCATION.--Lat 33°12'48", long 117°22'33", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.14, T.11 S., R.5 W., San Diego County, on right bank 0.7 mile upstream from bridge on U.S. Highway 101, 1.1 miles upstream from mouth, and 1.2 miles north of Oceanside.

DRAINAGE AREA.--558 sq mi.

PERIOD OF RECORD.--April 1912 to September 1914 (published as "near Oceanside"), January 1916, October 1929 to January 1942, October 1946 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (from topographic map). April 1912 to September 1914, nonrecording gage at site 0.8 mile upstream at different datum. January 1916, nonrecording gage 0.2 mile downstream at different datum.

AVERAGE DISCHARGE.--39 years (1912-14, 1929-41, 1946-71), 15.1 cfs (10,940 acre-ft per year); median of yearly mean discharges, 1.1 cfs (800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 29 cfs Dec. 19 (gage height, 4.37 ft); minimum daily, 2.9 cfs Sept. 5-8.

Period of record: Maximum discharge, 95,600 cfs Jan. 27, 1916, from hydrograph based on discharge measurements; no flow for several months in most years.

REMARKS.--Records good. Flow regulated by Lake Henshaw (capacity, 194,300 acre-ft). Several diversions for irrigation and domestic use above station. AVERAGE DISCHARGE represents flow to ocean during period of record regardless of upstream development.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	4.2	10	7.5	7.0	6.2	4.7	5.3	4.9	4.4	4.2	3.3
2	3.3	4.2	9.0	7.5	7.0	5.5	4.7	5.1	4.7	4.4	4.2	3.3
3	3.3	4.2	8.0	7.7	6.8	5.5	4.9	4.9	4.4	4.4	4.2	3.3
4	3.3	3.5	7.2	7.7	6.8	5.9	4.6	4.9	4.2	4.4	4.2	3.3
5	3.3	3.7	6.4	6.6	6.8	5.7	4.6	5.3	4.2	4.4	4.4	2.9
6	3.3	4.0	5.7	6.2	6.7	5.7	4.6	5.7	4.4	4.0	4.6	2.9
7	3.3	3.8	5.5	5.9	6.6	5.7	4.6	5.9	4.4	3.8	3.8	2.9
8	3.3	3.7	5.3	6.4	6.6	5.7	4.6	6.2	4.6	3.8	3.5	2.9
9	3.3	3.5	5.5	6.6	5.9	5.5	4.7	7.2	4.9	3.8	3.3	3.0
10	3.3	4.0	5.5	6.4	6.2	5.1	4.4	6.6	5.3	3.8	3.5	3.3
11	3.2	4.4	5.7	6.2	6.6	4.9	4.9	6.2	5.3	3.7	3.3	3.5
12	3.3	4.2	5.5	6.6	6.6	4.9	5.1	6.2	5.1	3.5	3.3	3.3
13	3.5	4.6	5.1	6.8	6.4	5.1	4.9	6.4	5.1	3.3	3.3	3.2
14	3.7	3.8	4.9	6.8	6.4	5.5	6.6	6.2	5.1	3.3	3.3	3.2
15	3.7	3.2	4.7	7.0	6.2	5.9	8.0	5.7	4.9	3.7	3.3	3.2
16	3.8	3.5	4.9	7.5	6.4	6.2	8.0	5.7	4.7	3.3	3.3	3.2
17	4.0	3.5	6.6	7.7	9.0	5.9	6.8	5.7	4.9	3.7	3.3	3.5
18	4.2	3.5	7.7	8.0	10	5.9	5.9	4.6	4.9	3.7	3.3	3.5
19	4.4	3.5	17	7.6	9.3	5.7	5.3	4.6	4.9	4.0	3.3	3.3
20	4.4	3.5	20	7.4	8.2	5.5	6.6	5.1	4.9	3.8	3.3	3.2
21	4.4	3.5	19	7.4	7.5	5.1	6.6	5.3	4.9	3.7	3.3	3.3
22	4.6	3.5	20	7.2	7.2	4.7	5.7	5.3	4.9	3.3	3.3	3.7
23	4.6	3.6	24	7.2	8.0	4.9	5.1	5.1	4.7	3.3	3.5	3.7
24	4.4	3.6	18	7.0	7.2	5.5	5.1	5.1	4.4	3.7	3.2	3.7
25	4.2	4.3	13	7.0	7.0	5.9	5.1	5.1	4.6	3.8	3.7	3.7
26	4.2	5.7	10	7.0	6.8	5.7	5.1	5.1	4.6	4.0	3.5	3.5
27	4.0	4.9	9.0	7.0	6.6	5.3	5.1	5.1	4.4	3.7	3.5	3.3
28	4.2	4.3	8.2	7.0	6.2	5.3	5.1	5.1	4.4	3.8	3.3	3.5
29	4.4	8.9	8.0	7.0	-----	5.3	5.1	5.5	4.4	3.7	3.3	3.8
30	4.4	6.9	7.7	7.0	-----	5.3	5.1	5.7	4.4	3.7	3.0	3.8
31	4.0	-----	7.2	7.0	-----	5.1	-----	5.5	-----	4.0	3.3	-----
TOTAL	118.6	125.7	294.3	217.9	198.0	170.1	161.6	171.4	141.5	117.9	109.8	100.1
MEAN	3.83	4.19	9.49	7.03	7.07	5.49	5.39	5.53	4.72	3.80	3.54	3.34
MAX	4.6	8.9	24	8.0	10	6.2	8.0	7.2	5.3	4.4	4.6	3.8
MIN	3.2	3.2	4.7	5.9	5.9	4.7	4.4	4.6	4.2	3.3	3.0	2.9
AC-FT	235	249	584	432	393	337	321	340	281	234	218	199
CAL YR 1970	TOTAL	2,101.4	MEAN	5.76	MAX	264	MIN	1.8	AC-FT	4,170		

## SANTA MARGARITA RIVER BASIN

147

11042400 TEMECULA CREEK NEAR AGUANGA, CALIF.

LOCATION.--Lat 33°27'33", long 116°55'22", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.19, T.8 S., R.1 E., Riverside County, on right bank 1.6 miles downstream from Long Canyon and 3.5 miles northwest of Aguanga.

DRAINAGE AREA.--131 sq mi.

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,590 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 4.77 cfs (3,460 acre-ft per year); median of yearly mean discharges, 1.6 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 80 cfs Dec. 21 (gage height, 2.25 ft); minimum daily, 0.11 cfs Aug. 7.

Period of record: Maximum discharge, 3,540 cfs Apr. 3, 1958 (gage height, 6.57 ft), from rating curve extended above 1,200 cfs; no flow at times in each year.

REMARKS.--Records fair. No regulation above station. Pumping for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.58	1.9	2.5	2.5	1.8	2.1	1.3	1.6	.49	.25	.32
2	.50	.59	1.2	5.0	2.4	2.1	2.0	1.3	1.5	.38	.27	.31
3	.50	.62	.69	3.0	2.3	2.1	1.8	1.3	1.5	.33	.26	.35
4	.50	.66	1.6	2.9	2.2	2.2	1.6	1.2	1.4	.27	.25	.35
5	.50	.71	1.5	2.8	2.1	2.3	1.3	1.5	1.3	.28	.45	.28
6	.55	.77	1.5	2.8	1.6	2.4	.98	1.5	1.1	.32	.22	.27
7	.55	.78	1.5	2.8	1.3	2.3	1.2	1.8	1.2	.37	.11	.31
8	.55	.74	1.6	2.8	1.9	1.9	1.5	2.7	1.2	.35	.12	.31
9	.49	.73	1.7	2.7	1.6	1.7	2.0	2.4	1.4	.31	.15	.27
10	.49	.73	1.8	2.7	1.5	1.8	1.7	2.0	1.6	.27	.38	.23
11	.47	.75	1.7	2.7	1.6	2.3	1.6	1.9	1.6	.14	.32	.23
12	.48	.77	1.6	2.7	1.4	2.2	1.2	1.8	1.4	.15	.31	.16
13	.59	.77	1.5	2.7	1.5	3.2	.87	1.6	.94	.19	.34	.19
14	.66	.69	1.6	2.7	2.1	3.6	1.6	1.2	.97	.22	.32	.20
15	.68	.72	1.7	2.7	2.1	3.0	1.7	1.2	.81	.27	.30	.17
16	.64	.79	1.7	2.6	2.3	2.8	2.6	1.2	.64	.71	.41	.21
17	.58	.83	1.9	2.6	3.3	2.6	2.3	1.1	.56	.61	.44	.26
18	.51	.87	2.5	2.6	3.0	2.6	3.1	.98	.49	.40	.52	.35
19	.59	.90	4.1	2.6	2.7	2.5	2.3	.90	.49	.37	.49	.50
20	.68	.71	3.3	2.6	2.8	2.5	2.0	.77	.36	.46	.61	.50
21	.70	.66	33	2.6	2.6	2.5	2.0	.90	.42	.58	.59	.61
22	.70	.88	25	2.6	2.5	2.7	1.7	.97	.36	.46	.50	.66
23	.71	.96	9.9	2.6	2.7	2.8	2.0	1.0	.36	.45	.68	.57
24	.71	.98	6.0	2.6	2.3	2.8	1.5	1.0	.42	.46	.25	.49
25	.71	.89	4.4	2.6	1.8	2.8	1.6	.95	.42	.37	.21	.49
26	.69	.87	3.7	2.5	1.7	2.8	1.5	.93	.49	.46	.25	.60
27	.64	1.1	3.3	2.5	1.8	2.8	1.6	1.0	.42	.48	.20	.66
28	.58	1.1	3.1	2.5	2.3	2.7	1.6	1.6	.56	.43	.10	.68
29	.58	2.4	2.9	2.5	-----	2.5	1.6	2.0	.56	.46	.23	.68
30	.60	2.6	2.8	2.4	-----	2.5	1.5	1.8	.49	.46	.24	.71
31	.59	-----	2.7	2.4	-----	2.0	-----	1.9	-----	.39	.30	-----
TOTAL	18.22	27.15	133.39	84.3	59.9	76.8	52.05	43.70	26.56	11.89	10.07	11.92
MEAN	.59	.91	4.30	2.72	2.14	2.48	1.74	1.41	.89	.38	.32	.40
MAX	.71	2.6	33	5.0	3.3	3.6	3.1	2.7	1.6	.71	.68	.71
MIN	.47	.58	.69	2.4	1.3	1.7	.87	.77	.36	.14	.10	.16
AC-FT	36	54	265	167	119	152	103	87	53	24	20	24

CAL YR 1970 TOTAL 784.07 MEAN 2.15 MAX 58 MIN .41 AC-FT 1,560

WTR YR 1971 TOTAL 555.95 MEAN 1.52 MAX 33 MIN .10 AC-FT 1,100

PEAK DISCHARGE (BASE, 50 CFS).--Dec. 21 (1430) 80 cfs (2.25 ft).



## SANTA MARGARITA RIVER BASIN

## 11042500 TEMECULA CREEK AT VAIL DAM, CALIF.

LOCATION.--Lat 33°29'44", long 116°58'33", in Pauba Grant, Riverside County, at Vail Dam 0.2 mile downstream from Arroyo Seco and 10 miles east of Temecula.

DRAINAGE AREA.--320 sq mi.

PERIOD OF RECORD.--October 1948 to current year. January 1923 to October 1930 at site 200 ft downstream and October 1930 to September 1948 at site 500 ft downstream, published as "at Nigger Canyon, near Temecula"; records not equivalent owing to change in natural water loss resulting from creation of Vail Lake. October 1948 to September 1951 published as "at Nigger Canyon, near Temecula"; records are for draft and spill only from Vail Lake. October 1951 to September 1955, published as "at Vail Dam, near Temecula."

GAGE.--Water-stage recorder with rain-gage attachment. U.S. Weather Bureau nonrecording rain gage 0.2 mile upstream. Datum of gage is 1,350.0 ft above mean sea level (levels by Bureau of Reclamation). Water-stage recorder at site 500 ft downstream measures release and spill.

AVERAGE DISCHARGE.--25 years (1923-48), 14.5 cfs (10,500 acre-ft per year); median of yearly mean discharges, 8.3 cfs (6,000 acre-ft per year), see PERIOD OF RECORD; 23 years (1948-71), 5.63 cfs (4,080 acre-ft per year); median of yearly mean discharges, 2.5 cfs (1,800 acre-ft per year).

REMARKS.--Records of discharge represent all water reaching Vail Lake, including precipitation on lake surface. Discharge computed on basis of records of storage, release (draft), spill, and evaporation. Monthly evaporation from lake surface computed on basis of evaporation from a class A evaporation pan using coefficient of 0.77, excepting the period June 1964 to September 1965, when a 24-inch diameter sunken screen pan with a coefficient of 0.98 was used. Area-capacity tables for lake are based on a survey made in 1947. Vail Dam completed in June 1949. Capacity of lake at spillway level (elevation, 1,470.00 ft), 49,370 acre-ft. Dead storage, 2.4 acre-ft below lowest outlet at elevation 1,352.5 ft included in these records. There has been no spill since Nov. 13, 1948, date of closure. Water is released as required down Temecula Creek for diversion about 1 mile below dam. Monthly precipitation, in inches, from U.S. Weather Bureau nonrecording rain gage is as follows: November, 3.10; December, 2.94; January, 0.90; February, 0.22; March, 0.30; April, 0.59; May, 0.70; the water year, 8.75.

## MONTHLY DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet) <sup>a</sup>	Contents (acre- feet)	Change in contents (acre- feet)	Draft (acre- feet)	Evapo- ration (acre- feet)	Discharge (acre- feet)
Vail Lake						
Sept. 30.....	1,446.50	27,610	-	-	-	-
Oct. 31.....	1,446.15	27,337	-273	0	309	36
Nov. 30.....	1,445.44	26,789	-548	502	268	222
Dec. 31.....	1,445.44	26,789	0	255	176	431
CAL YR 1970.....	-	-	-3,161	1,597	4,410	2,846
Jan. 31.....	1,445.53	26,858	+69	0	162	231
Feb. 28.....	1,445.46	26,804	-54	0	199	145
Mar. 31.....	1,445.44	26,789	-15	0	282	267
Apr. 30.....	1,444.83	26,320	-469	226	b 288	45
May 31.....	1,444.15	25,804	-516	267	341	92
June 30.....	1,443.40	25,240	-564	280	450	166
July 31.....	1,442.79	24,787	-453	11	562	120
Aug. 31.....	1,442.22	24,371	-416	0	548	132
Sept. 30.....	1,441.60	23,922	-449	0	405	-44
WTR YR 1971.....	-	-	-3,688	1,541	3,990	1,843

a Elevation at 2400.

b Estimated.

NOTE.--For months when inflow to the lake was small and other quantities were large, discordant figures of discharge may appear. This arises primarily from the difficulty of computing discharge as a residual of several larger quantities, which are not susceptible to measurement with a precision necessary to produce a final answer within desirable limits of accuracy.

## 11043000 MURRIETA CREEK AT TEMECULA, CALIF.

LOCATION.--Lat 33°28'47", long 117°08'35", in Temecula Grant, Riverside County, on right bank 0.4 mile upstream from mouth and 1.0 mile south of Temecula.

DRAINAGE AREA.--222 sq mi.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only October 1924 to September 1930, published in WSP 1315-B.

GAGE.--Water-stage recorder. Concrete low-water control since August 1962. Altitude of gage is 970 ft (from topographic map). See WSP 1735 for history of changes prior to Dec. 16, 1938.

AVERAGE DISCHARGE.--47 years, 9.07 cfs (6,570 acre-ft per year); median of yearly mean discharges, 2.1 cfs (1,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 283 cfs Dec. 21 (gage height, 2.81 ft); minimum daily, 0.08 cfs Oct. 7-9, Nov. 1.

Period of record: Maximum discharge, 17,500 cfs Jan. 23, 1943 (gage height, 13.82 ft); minimum daily, 0.02 cfs at times in 1969.

REMARKS.--Records good. No regulation above station. Pumping above station for irrigation of about 2,500 acres.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.08	3.0	.32	.26	1.9	.20	.29	.70	1.1	.55	.65
2	.10	.10	.89	7.8	.23	.23	.20	.29	.76	1.2	.65	.65
3	.10	.10	.26	.82	.26	.20	.20	.17	.82	1.0	.70	.70
4	.10	.10	.16	.32	.20	.20	.20	.29	.98	.89	.70	.70
5	.10	.10	.16	.23	.20	.20	.20	.29	.89	.89	.76	.70
6	.10	.12	.14	.20	.20	.20	.20	.29	.82	.82	.76	.70
7	.08	.12	.16	.14	.20	.20	.20	.35	.76	.82	.76	.89
8	.08	.12	.16	.16	.26	.20	.20	1.3	.76	.89	.76	1.5
9	.08	.12	.16	.16	.12	.26	.20	.38	.82	.89	.76	.96
10	.10	.12	.16	.14	.12	.32	.20	.38	.82	.89	.82	.96
11	.10	.12	.16	.14	.12	.35	.20	.38	.82	.89	.82	.96
12	.10	.12	.16	.23	.14	.41	.20	.46	.82	.89	.76	.89
13	.10	.12	.16	2.2	.14	1.0	.20	.46	.82	.89	.82	.96
14	.10	.12	.16	.46	.14	.46	.20	.46	.82	.89	.82	1.0
15	.10	.12	.16	.32	.14	.26	.20	.65	.82	.89	.82	1.1
16	.10	.12	.16	.29	.20	.20	.18	.41	.82	.82	.76	1.3
17	.10	.10	.55	.29	1.2	.20	.18	.41	.82	.82	.82	1.3
18	.10	.10	1.6	.29	.55	.20	.18	.46	.82	.82	.70	1.0
19	.10	.12	81	.23	.35	.20	.18	.50	.82	.82	.76	1.0
20	.10	.12	10	.18	.35	.20	.18	.41	.82	.82	.82	.96
21	.10	.12	129	.18	.20	.20	.18	.41	.82	.76	.82	1.0
22	.10	.12	21	.18	.18	.20	.18	.46	.82	.76	.82	.89
23	.12	.12	2.4	.18	.51	.20	.20	.46	.82	.76	.82	.96
24	.12	.12	1.2	.18	.44	.20	.23	.50	.82	.70	.82	1.0
25	.12	.12	.89	.16	3.0	.20	.32	.50	.84	.70	.82	1.1
26	.12	.16	.76	.16	1.2	.20	.29	.50	.82	.70	.82	1.0
27	.10	.16	.65	.16	.29	.20	.29	.55	.82	.65	.82	.96
28	.10	.16	.46	.66	.26	.20	.29	.60	.89	.60	.82	1.0
29	.10	2.6	.38	.50	-----	.20	.32	.60	1.0	.60	.76	1.0
30	.10	31	.65	.26	-----	.20	.29	.60	1.0	.60	.76	1.1
31	.10	-----	.41	.26	-----	.20	-----	.89	-----	.55	.70	-----
TOTAL	3.12	36.92	257.16	17.80	11.46	9.59	6.49	14.70	24.98	25.32	23.90	28.89
MEAN	.10	1.23	8.30	.57	.41	.31	.22	.47	.83	.82	.77	.96
MAX	.12	.31	129	7.8	3.0	1.9	.32	1.3	1.0	1.2	.82	1.5
MIN	.08	.08	.14	.14	.12	.20	.18	.17	.70	.55	.55	.65
AC-FT	6.2	73	510	35	23	19	13	29	50	50	47	57

CAL YR 1970 TOTAL 1,664.77 MEAN 4.56 MAX 689 MIN .04 AC-FT 3,300  
WTR YR 1971 TOTAL 460.33 MEAN 1.26 MAX 129 MIN .08 AC-FT 913

PEAK DISCHARGE (BASE, 55 CFS).--Nov. 30 (1715) 200 cfs (2.53 ft); Dec. 21 (1330) 283 cfs (2.81 ft).

## SANTA MARGARITA RIVER BASIN

11044000 SANTA MARGARITA RIVER NEAR TEMECULA, CALIF.

LOCATION.--Lat 33°28'26", long 117°08'29", in Temecula Grant, Riverside County, on left bank at upper end of Temecula Canyon, 0.1 mile downstream from Murrieta Creek, and 1.4 miles south of Temecula.

DRAINAGE AREA.--588 sq mi.

PERIOD OF RECORD.--January 1923 to current year. Prior to October 1952, published as Temecula Creek at Railroad Canyon, near Temecula.

GAGE.--Water-stage recorder. Altitude of gage is 950 ft (from topographic map). Prior to Nov. 3, 1966, at site 100 ft downstream at same datum.

AVERAGE DISCHARGE.--25 years (1923-48), 28.2 cfs (20,420 acre-ft per year); median of yearly mean discharges, 13 cfs (9,400 acre-ft per year); 23 years (1948-71), 10.6 cfs (7,680 acre-ft per year); median of yearly mean discharges, 5.5 cfs (4,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 327 cfs Dec. 21 (gage height, 3.32 ft); minimum daily, 1.6 cfs Aug. 8, 9, 11.

Period of record: Maximum discharge, 25,000 cfs Feb. 16, 1927 (gage height, 14.6 ft, at site 100 ft downstream), from rating curve extended above 10,000 cfs; minimum daily, 0.30 cfs Aug. 18-22, 1965, regulation by construction work above station.

REMARKS.--Records good except those above 25 cfs, which are poor. Flow partly regulated since November 1948 by Vail Lake (see sta 11042500). Pumping above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.6	7.8	4.2	4.0	6.0	2.8	2.6	2.7	3.1	1.9	2.0
2	1.8	2.7	4.8	14	4.0	3.7	2.8	2.6	2.8	2.8	1.8	2.1
3	2.0	2.7	4.0	5.6	4.0	3.6	2.7	2.6	2.9	2.6	1.8	2.2
4	2.1	2.7	3.7	4.7	4.0	3.6	2.7	2.7	2.9	2.6	1.8	2.2
5	2.0	2.7	3.4	4.4	4.0	3.6	2.8	2.8	2.9	2.5	1.8	2.1
6	1.9	2.7	3.6	4.2	4.0	3.5	2.8	3.2	2.8	2.4	1.7	2.2
7	1.9	2.7	3.6	4.0	4.0	3.4	2.8	3.3	2.8	2.3	1.7	2.2
8	1.8	2.9	3.6	4.0	4.0	3.1	2.9	4.3	2.7	2.4	1.6	2.6
9	1.8	2.9	3.6	4.0	4.1	2.9	3.0	2.9	2.8	2.3	1.6	2.6
10	1.8	2.9	3.6	4.0	4.2	2.9	3.1	2.8	2.9	2.3	1.7	2.5
11	1.8	2.9	3.5	4.0	4.2	2.9	3.2	2.9	2.8	2.2	1.6	2.5
12	1.9	2.8	3.4	4.8	4.2	2.9	3.3	2.9	2.7	2.1	1.7	2.4
13	1.9	2.9	3.4	7.3	4.2	3.9	3.5	3.0	2.7	2.2	1.8	2.3
14	1.9	2.9	3.4	4.7	4.1	3.3	4.0	3.0	2.6	2.4	1.9	2.3
15	2.0	2.9	3.4	4.6	4.0	3.0	3.6	3.0	2.6	2.4	1.8	2.4
16	2.0	3.0	3.4	4.4	4.4	3.0	3.4	2.9	2.7	2.3	1.8	2.6
17	2.0	3.0	4.8	4.4	7.1	3.0	3.3	2.9	2.7	2.2	1.9	2.7
18	2.0	3.0	6.2	4.4	5.2	3.0	3.2	2.8	2.8	2.0	2.1	2.6
19	2.0	3.0	97	4.4	4.7	2.9	3.1	2.7	2.8	2.0	2.0	2.5
20	2.1	3.0	22	4.3	4.6	2.9	3.0	2.6	2.6	2.0	2.0	2.5
21	2.1	3.0	157	4.2	4.3	2.9	3.3	2.7	2.6	2.0	2.0	2.7
22	2.3	3.0	36	4.2	4.2	3.0	3.0	2.7	2.7	2.0	2.0	2.6
23	2.3	3.0	8.3	4.2	4.5	3.0	3.1	2.7	2.8	2.0	2.0	2.6
24	2.6	3.0	5.9	4.2	4.6	3.0	3.1	2.6	2.8	2.0	2.0	2.6
25	2.6	3.4	4.8	4.2	7.7	3.0	3.5	2.6	2.8	2.0	2.0	2.7
26	2.7	3.6	4.8	4.2	5.1	2.9	3.3	2.6	2.8	2.0	2.0	2.7
27	2.7	3.6	4.6	4.2	3.9	2.9	3.2	2.7	2.8	2.1	2.0	2.3
28	2.6	5.7	4.3	4.5	4.0	2.9	2.9	3.1	2.8	2.1	1.9	2.1
29	2.6	10	4.3	4.6	-----	2.8	2.7	2.9	2.9	2.0	1.9	2.4
30	2.7	36	4.5	4.0	-----	2.7	2.6	2.7	2.8	2.0	1.9	2.5
31	2.6	-----	4.2	4.0	-----	2.8	-----	2.9	-----	2.0	1.9	-----
TOTAL	66.2	131.2	430.9	146.9	125.3	99.0	92.7	88.7	83.0	69.3	57.6	72.7
MEAN	2.14	4.37	13.9	4.74	4.48	3.19	3.09	2.86	2.77	2.24	1.86	2.42
MAX	2.7	36	157	14	7.7	6.0	4.0	4.3	2.9	3.1	2.1	2.7
MIN	1.7	2.6	3.4	4.0	3.9	2.7	2.6	2.6	2.6	2.0	1.6	2.0
AC-FT	131	260	855	291	249	196	184	176	165	137	114	144

CAL YR 1970 TOTAL 2,741.6 MEAN 7.51 MAX 717 MIN 1.2 AC-FT 5,440  
WTR YR 1971 TOTAL 1,463.5 MEAN 4.01 MAX 157 MIN 1.6 AC-FT 2,900

LOCATION.--Lat 33°23'54", long 117°15'44", in NE<sub>1</sub>SE<sub>1</sub>NE<sub>1</sub> sec.14, T.9 S., R.4 W., San Diego County, on right bank 180 ft upstream from De Luz Road, 1.3 miles northwest of Fallbrook, and 1.9 miles downstream from Sandia Canyon.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for October to November 1924, published in WSP 1315-B.

GAGE.--Water-stage recorder, Concrete-road control since October 1955. Datum of gage is 267.96 ft above mean sea level (levels by Bureau of Reclamation). Prior to Oct. 1, 1955, at site 1.7 miles upstream at different datum. Records equivalent except those for extreme low flows.

AVERAGE DISCHARGE.--24 years (1924-48), 35.4 cfs (25,630 acre-ft per year); median of yearly mean discharges, 17 cfs (12,300 acre-ft per year); 23 years (1948-71), 13.0 cfs (9,420 acre-ft per year); median of yearly mean discharges, 4.9 cfs (3,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 297 cfs Dec. 21 (gage height, 7.01 ft); no flow Oct. 1-6, July 12, July 13, July 22 to Sept. 21.

Period of record: Maximum discharge, 33,100 cfs Feb. 16, 1927 (gage height, 15.6 ft, site and datum then in use), from rating curve extended above 8,800 cfs on basis of slope-area measurement of maximum flow; no flow at times in recent years.

REMARKS.--Records good. Flow partly regulated since November 1948 by Vail Lake (see sta 11042500). Several small diversions above station for irrigation. The Fallbrook Public Utility District reports no water pumped during the current year from a well in the streambed 2.1 miles upstream from the station.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	1.8	33	7.0	4.1	6.7	3.5	3.5	3.0	1.3		0
2	0	1.9	16	9.3	4.1	7.7	3.3	3.4	3.0	1.4		0
3	0	1.9	12	16	3.9	6.2	3.1	3.3	3.0	1.3		0
4	0	1.9	10	8.7	3.7	6.0	2.8	3.2	2.7	1.2		0
5	0	1.9	8.2	7.4	3.8	5.9	2.3	3.4	2.6	1.1		0
6	0	1.9	6.5	6.8	3.8	5.6	1.8	4.4	2.7	1.1		0
7	1.0	2.1	5.5	6.4	3.7	5.1	1.9	4.9	2.6	.97		0
8	1.2	2.0	4.9	6.2	3.7	5.1	2.1	5.6	2.6	.87		0
9	1.1	1.9	4.8	6.0	4.2	5.2	2.1	5.7	2.8	.76		0
10	1.5	2.1	4.5	5.8	4.6	5.1	2.3	4.0	3.1	.44		0
11	1.6	2.2	4.5	5.8	4.8	5.2	2.2	3.8	3.0	.09		0
12	1.6	2.3	4.2	6.5	4.7	5.3	2.1	3.9	2.7	0		0
13	1.5	2.2	4.1	9.8	4.6	6.5	2.1	3.9	2.4	0		0
14	1.6	2.1	4.3	8.8	4.4	6.4	3.0	4.0	1.8	.04		0
15	1.6	2.1	4.1	7.0	4.7	6.9	3.9	3.7	.74	.58		0
16	1.5	2.1	4.1	6.4	4.6	5.6	3.4	3.7	.70	.72		0
17	1.6	2.2	5.3	6.0	8.8	5.2	3.4	3.6	.71	.63		0
18	1.3	2.3	6.2	5.8	9.9	5.0	3.3	3.2	.81	.30		0
19	1.3	2.4	110	5.4	8.3	4.8	3.2	2.8	.98	.05		0
20	1.4	2.6	66	5.3	7.9	4.6	3.4	2.7	2.1	.04		0
21	1.5	2.8	153	5.3	7.3	4.3	3.4	4.1	1.9	.17		0
22	1.6	2.9	101	5.2	6.9	3.7	3.3	3.3	2.0	0		1.0
23	1.7	2.9	35	5.0	6.9	3.9	3.1	3.0	1.8	0		2.6
24	1.8	3.1	20	4.8	9.2	3.9	3.1	2.8	1.6	0		2.7
25	1.8	3.1	15	4.5	7.1	4.0	3.4	2.6	.93	0		2.8
26	1.9	3.8	12	4.4	9.0	3.9	3.9	2.5	.95	0		3.5
27	1.8	3.7	9.9	4.2	7.6	3.9	3.6	2.7	1.1	0		3.8
28	1.6	3.5	8.7	4.1	6.9	3.8	3.5	2.8	1.0	0		4.0
29	1.8	14	7.9	4.5	-----	3.8	3.4	3.5	1.0	0		3.8
30	1.9	44	7.3	4.6	-----	3.7	3.4	3.4	1.1	0		3.4
31	1.8	-----	7.3	4.0	-----	3.7	-----	3.2	-----	0		-----
TOTAL	39.0	125.7	695.3	197.0	163.2	156.7	89.3	110.6	57.42	13.06	0	27.6
MEAN	1.26	4.19	22.4	6.35	5.83	5.05	2.98	3.57	1.91	.42	0	.92
MAX	1.9	44	153	16	9.9	7.7	3.9	5.7	3.1	1.4	0	4.0
MIN	0	1.8	4.1	4.0	3.7	3.7	1.8	2.5	.70	0	0	0
AC-FT	77	249	1,380	391	324	311	177	219	114	26	0	55
CAL YR 1970	TOTAL	3,558.19	MEAN	9.75	MAX	947	MIN	0	AC-FT	7,060		
WTR YR 1971	TOTAL	1,674.88	MEAN	4.59	MAX	153	MIN	0	AC-FT	3,320		

## SANTA MARGARITA RIVER BASIN

11046000 SANTA MARGARITA RIVER AT YSIDORA, CALIF.

LOCATION.--Lat 33°14'13", long 117°23'14", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.10, T.11 S., R.5 W., San Diego County, on Camp Joseph H. Pendleton Naval Reservation, on left bank 1.7 miles upstream from mouth and 2.0 miles southwest of Ysidora.

DRAINAGE AREA.--740 sq mi (revised).

PERIOD OF RECORD.--February 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft below mean sea level (U.S. Navy reference mark). See WSP 1735 for history of changes prior to Nov. 27, 1935. Nov. 27, 1935, to Feb. 25, 1970, at site 0.8 mile upstream at different datum.

AVERAGE DISCHARGE.--48 years, 28.4 cfs (20,580 acre-ft per year); median of yearly mean discharges, 7.5 cfs (5,400 acre-ft per year).

EXTREMES.--No flow during year.

Period of record: Maximum discharge, 33,600 cfs Feb. 16, 1927 (gage height, 18.00 ft, site and datum then in use), on basis of slope-area measurement of maximum flow; no flow for part of most years.

REMARKS.--No flow since Aug. 2, 1970. Flow partly regulated by Vail Lake since November 1948 (see sta 11042500). Diversions for irrigation on Rancho California (formerly Santa Margarita Ranch and Pauba Ranch). Conservation pools, 0.9 mile upstream, detains low flow. Records of suspended-sediment discharge for the current year are published in Part 2 of this report. AVERAGE DISCHARGE represents flow to ocean during period of record, regardless of upstream development. Discharge for calendar year 1970 is as follows: Maximum daily, 886 cfs; minimum, zero; mean, 6.36 cfs; total, 4,600 acre-ft.

## 11046100 LAS FLORES CREEK NEAR OCEANSIDE, CALIF.

LOCATION.--Lat 33°17'32", long 117°27'21", in NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.24, T.10 S., R.6 W., San Diego County, Camp Joseph H. Pendleton Naval Reservation, on upstream side and at center of bridge on Atchison, Topeka, and Santa Fe Railway, 0.5 mile upstream from mouth, and 8.5 miles northwest of Oceanside.

DRAINAGE AREA.--26.6 sq mi.

PERIOD OF RECORD.--May 1951 to September 1967, October 1969 to September 1970.

GAGE.--Water-stage recorder and multiple concrete culvert control. Altitude of gage is 35 ft (from topographic map).

AVERAGE DISCHARGE.--18 years, 0.66 cfs (478 acre-ft per year); median of yearly mean discharges, 0.3 cfs (220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7.5 cfs Dec. 21 (gage height, 0.42 ft); no flow May 19, 20, 23, Aug. 17-29.

Period of record: Maximum discharge, 960 cfs Jan. 16, 1952 (gage height, 4.75 ft), based on critical-depth determination of maximum flow; no flow for long periods in most years.

Flood of Feb. 25, 1969, reached a stage of 7.25 ft, from floodmarks (discharge, 4,200 cfs).

REMARKS.--Records poor. Rising water from area, which bypasses the station 1,000 ft to the northwest, amounted to 730 acre-ft this year. No regulation above station. Some pumping above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.06	.03	.03	.02	.01	.01	.01	.01	.02	.01
2	.02	.02	.04	.04	.03	.01	.01	.01	.01	.01	.02	.01
3	.02	.02	.02	.02	.03	.02	.01	.01	.01	.01	.02	.01
4	.02	.02	.02	.03	.03	.02	.01	.01	.01	.01	.02	.01
5	.03	.02	.02	.03	.03	.02	.01	.01	.01	.01	.02	.01
6	.03	.02	.02	.03	.03	.01	.01	.02	.01	.01	.02	.01
7	.02	.02	.02	.03	.03	.01	.01	.03	.01	.01	.02	.01
8	.02	.02	.02	.03	.03	.02	.01	.03	.01	.01	.02	.01
9	.02	.02	.04	.03	.02	.02	.01	.01	.01	.01	.02	.01
10	.02	.02	.02	.03	.02	.02	.01	.01	.01	.01	.02	.01
11	.02	.02	.02	.03	.02	.02	.01	.01	.01	.01	.02	.01
12	.02	.02	.02	.04	.02	.02	.01	.02	.01	.01	.01	.01
13	.02	.02	.02	.03	.02	.03	.01	.02	.01	.01	.01	.01
14	.02	.02	.02	.03	.02	.01	.09	.02	.01	.01	.01	.01
15	.02	.02	.02	.03	.03	.01	.02	.01	.01	.02	.01	.01
16	.02	.02	.02	.03	.03	.01	.01	.01	.01	.02	.01	.01
17	.02	.02	.04	.03	.03	.02	.02	.01	.01	.02	0	.01
18	.02	.02	.03	.03	.03	.02	.02	.01	.01	.01	0	.01
19	.02	.02	.63	.03	.03	.02	.01	0	.01	.01	0	.01
20	.02	.02	.08	.03	.03	.02	.01	0	.01	.02	0	.01
21	.02	.02	1.4	.03	.03	.01	.02	.01	.01	.02	0	.02
22	.02	.02	.06	.03	.03	.01	.01	.01	.01	.02	0	.02
23	.02	.02	.04	.03	.04	.02	.01	0	.01	.02	0	.02
24	.02	.02	.04	.03	.03	.02	.01	.01	.01	.02	0	.02
25	.02	.02	.03	.03	.03	.01	.01	.01	.01	.02	0	.02
26	.02	.02	.03	.03	.03	.01	.01	.01	.01	.02	0	.02
27	.02	.02	.03	.03	.03	.01	.01	.01	.02	.02	0	.02
28	.02	.02	.03	.03	.02	.01	.01	.02	.02	.02	0	.02
29	.02	.10	.03	.03	-----	.01	.01	.01	.01	.02	0	.02
30	.02	.08	.03	.03	-----	.02	.01	.01	.01	.02	.01	.02
31	.02	-----	.03	.03	-----	.01	-----	.01	-----	.02	.01	-----
TOTAL	.64	.74	2.93	.94	.78	.49	.42	.37	.32	.46	.29	.40
MEAN	.021	.025	.095	.030	.028	.016	.014	.012	.011	.015	.009	.013
MAX	.03	.10	1.4	.04	.04	.03	.09	.03	.02	.02	.02	.02
MIN	.02	.02	.02	.02	.02	.01	.01	0	.01	.01	0	.01
AC-FT	1.3	1.5	5.8	1.9	1.6	1.0	.8	.7	.6	.9	.6	.8

CAL YR 1970 TOTAL 17.86 MEAN .049 MAX 4.8 MIN .01 AC-FT 35  
WTR YR 1971 TOTAL 8.78 MEAN .024 MAX 1.4 MIN 0 AC-FT 17

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

## SAN JUAN CREEK BASIN

11046500 SAN JUAN CREEK NEAR SAN JUAN CAPISTRANO, CALIF.

LOCATION.--Lat 33°29'30", long 117°39'44", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.12, T.8 S., R.8 W., Orange County, on left bank at Camino Capistrano bridge, 0.2 mile upstream from Arroyo Trabuco, and 0.6 mile south of San Juan Capistrano.

DRAINAGE AREA.--117 sq mi (revised).

PERIOD OF RECORD.--October 1928 to current year. Combined records of creek and diversion, October 1954 to current year.

GAGE.--Water-stage recorder on creek; water-stage recorder and Parshall flume on diversion. Datum of gage is 59.21 ft above mean sea level. See WSP 1315-B for history of changes prior to Dec. 17, 1941. Dec. 17, 1941, to Dec. 9, 1969, at site 2.8 miles upstream at different datum.

AVERAGE DISCHARGE (Creek only).--43 years, 13.5 cfs (9,780 acre-ft per year); median of yearly mean discharges, 2.7 cfs (2,000 acre-ft per year).

(Combined).--17 years, 13.9 cfs (10,070 acre-ft per year); median of yearly mean discharges, 3.5 cfs (2,500 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 135 cfs Dec. 19 (gage height, 3.85 ft); no flow at times.

Period of record: Maximum discharge, 22,400 cfs Feb. 25, 1969 (gage height, 5.6 ft, from floodmarks, site and datum then in use), from rating curve extended above 1,200 cfs on basis of slope-area measurement of maximum flow; no flow at times in most years.

(Combined).--Current year: Maximum discharge, 135 cfs Dec. 19; minimum daily, 0.01 cfs Sept. 21.

Period of record: Maximum discharge, 22,400 cfs Feb. 25, 1969; no flow at times in 1961-69.

REMARKS.--Records poor. No regulation above station. See following page for records of combined discharge of creek and Capistrano Water Co.'s canal, which diverts 3.0 miles upstream from station.

COOPERATION.--Eight discharge measurements furnished by Orange County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	.09	.08	5.1	4.2	4.2	1.6	.51	.53	.07	.03	.13
2	.70	.08	.82	15	3.2	3.3	1.6	.47	.87	.09	.07	.12
3	.63	.08	.58	8.1	2.6	3.5	1.9	.06	.82	.12	.12	.12
4	.25	.07	.47	6.3	2.6	3.8	2.1	.06	.97	.15	.07	.11
5	.26	.06	.28	5.3	2.6	3.2	1.6	0	.99	.15	.10	.11
6	.29	.15	.25	4.8	2.8	3.0	1.4	.16	.99	.15	.05	.11
7	.40	.35	.25	4.7	3.0	3.3	.31	.21	1.1	.15	.12	.11
8	.15	.28	.25	4.9	3.0	3.0	.36	.24	.42	.15	.13	.10
9	.15	.22	.35	4.9	2.8	2.8	.56	.20	.65	.19	.18	.10
10	.14	.25	.27	5.1	2.8	1.9	.47	.17	.74	.21	.18	.10
11	.14	.29	.27	5.1	3.0	1.8	.44	.17	.48	.66	.19	.09
12	.13	.59	.27	7.2	3.0	2.1	.50	.57	.48	.31	.19	.09
13	.13	.60	.27	7.3	3.2	5.6	.50	.47	.34	.05	.20	.08
14	.13	.70	.43	5.8	3.2	3.7	.50	.90	.36	.06	.23	.08
15	.13	.54	.38	4.9	3.4	3.7	.50	1.4	.42	.26	.21	.08
16	.13	1.3	1.1	9.7	3.9	3.7	.50	1.4	.40	.10	.21	.07
17	.12	.70	7.6	10	7.0	3.7	.50	1.1	.33	.19	.20	.07
18	.09	.29	5.7	9.9	3.2	3.2	.46	.90	.27	.11	.20	.08
19	.01	.22	44	8.8	3.1	3.0	.44	.56	.25	.12	.19	.09
20	.08	.07	12	7.5	2.6	2.6	.40	.51	.19	.14	.18	.10
21	.19	.12	24	6.4	2.5	2.6	.40	.35	.16	.16	.17	.01
22	.14	.21	38	4.9	3.0	2.6	.50	.33	.13	.08	.17	.19
23	.50	.18	13	3.7	3.4	1.9	.46	.37	.10	.10	.16	.11
24	.41	.15	9.1	3.9	2.7	1.9	.89	.28	.09	.08	.16	.38
25	.09	.13	7.8	4.3	3.0	1.8	.90	.16	.08	.06	.15	.40
26	.10	.54	6.7	4.4	2.8	1.8	.32	.20	.08	.05	.15	.25
27	.05	0	6.5	4.0	3.4	1.6	.29	.26	.07	.03	.14	.26
28	.06	5.2	6.1	4.4	4.0	1.6	.26	.70	.07	.09	.14	.20
29	.14	26	5.4	4.2	-----	1.8	.25	.32	.07	.06	.13	.47
30	.11	1.9	5.1	4.3	-----	1.9	.25	.43	.07	.05	.13	0
31	.10	-----	4.8	4.2	-----	1.9	-----	.41	-----	0	.13	-----
TOTAL	6.55	41.36	202.12	189.1	90.0	86.5	21.16	13.87	12.52	4.19	4.68	4.21
MEAN	.21	1.38	6.52	6.10	3.21	2.79	.71	.45	.42	.14	.15	.14
MAX	.70	26	44	15	7.0	5.6	2.1	1.4	1.1	.66	.23	.47
MIN	.01	0	.08	3.7	2.5	1.6	.25	0	.07	0	.03	0
AC-FT	13	82	401	375	179	172	42	28	25	8.3	9.3	8.4

CAL YR 1970 TOTAL 1,126.07 MEAN 3.09 MAX 62 MIN 0 AC-FT 2,230

WTR YR 1971 TOTAL 676.26 MEAN 1.85 MAX 44 MIN 0 AC-FT 1,340

PEAK DISCHARGE (BASE, 200 CFS).--No peak above base.

NOTE.--Stage-discharge relation indefinite Aug. 11 to Sept. 21.

## 11046500 SAN JUAN CREEK NEAR SAN JUAN CAPISTRANO, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SAN JUAN CREEK AND CAPISTRANO WATER  
CO.'S CANAL NEAR SAN JUAN CAPISTRANO, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	2.6	.08	5.1	4.2	4.2	1.8	.63	.56	.07	.03	.13
2	.82	.40	.82	15	3.2	3.3	1.9	.59	.89	.09	.07	.12
3	.80	.37	.58	8.1	2.6	3.5	1.9	.23	.83	.12	.12	.12
4	.39	.34	.48	6.3	2.6	3.8	2.2	.26	.97	.15	.07	.11
5	.46	.34	.29	5.3	2.6	3.2	1.6	.20	.99	.15	.10	.11
6	.30	.45	.25	4.8	2.8	3.0	1.4	.38	.99	.15	.05	.11
7	.40	.65	.25	4.7	3.0	3.3	.35	.43	1.1	.15	.12	.11
8	.15	.92	.25	4.9	3.0	3.0	.42	.26	.43	.15	.13	.10
9	.20	.50	.35	4.9	2.8	2.8	.56	.22	.67	.19	.18	.10
10	.08	.53	.27	5.1	2.8	1.9	.48	.28	.77	.21	.18	.10
11	.09	.57	.27	5.1	3.0	1.8	.44	1.5	.50	.66	.19	.09
12	.14	.82	.27	7.2	3.0	2.1	1.9	2.8	.50	.31	.19	.09
13	.16	.89	.27	7.3	3.2	5.6	3.4	2.7	.34	.05	.20	.08
14	.21	.96	.43	5.8	3.2	3.7	1.8	2.8	.36	.06	.23	.08
15	.29	.79	.38	4.9	3.4	3.7	.94	3.2	.42	.26	.21	.08
16	.48	1.6	1.1	9.7	3.9	3.7	.50	3.0	.40	.10	.21	.07
17	.46	.92	7.6	10	7.0	3.7	.54	2.9	.33	.19	.20	.07
18	.45	.49	5.7	9.9	3.2	3.2	.63	2.4	.27	.11	.20	.08
19	.43	.41	44	8.8	3.1	3.0	.68	1.7	.25	.12	.19	.09
20	.56	.24	12	7.5	2.6	2.6	.92	1.1	.19	.14	.18	.10
21	.60	.28	24	6.4	2.5	2.6	1.0	.86	.16	.16	.17	.01
22	.54	.38	38	4.9	3.0	2.6	1.5	.64	.13	.08	.17	.19
23	.90	.36	13	3.7	3.4	2.1	1.4	.54	.10	.10	.16	.11
24	.89	.16	9.1	3.9	2.7	2.6	2.0	.36	.09	.08	.16	.38
25	.61	.15	7.8	4.3	3.0	2.6	2.1	.18	.13	.06	.15	.40
26	.56	.75	6.7	4.4	2.8	2.6	1.3	.22	.07	.05	.15	.25
27	.42	.23	6.5	4.0	3.4	2.3	.42	.26	.07	.03	.14	.26
28	.41	5.3	6.1	4.4	4.0	2.1	.41	.71	.07	.09	.14	.20
29	.55	26	5.4	4.2	-----	2.2	.14	.32	.13	.06	.13	.47
30	.51	1.9	5.1	4.3	-----	2.3	.18	.43	.18	.05	.13	.45
31	2.3	-----	4.8	4.2	-----	2.2	-----	.43	-----	.05	.13	-----
TOTAL	15.94	50.30	202.14	189.1	90.0	91.3	34.81	32.53	12.89	4.24	4.68	4.66
MEAN	.51	1.68	6.52	6.10	3.21	2.95	1.16	1.05	.43	.14	.15	.16
MAX	2.3	26	44	15	7.0	5.6	3.4	3.2	1.1	.66	.23	.47
MIN	.08	.15	.08	3.7	2.5	1.8	.14	.18	.07	.03	.03	.01
AC-FT	32	100	401	375	179	181	69	65	26	8.4	9.3	9.2

CAL YR 1970 TOTAL 1,225.67 MEAN 3.36 MAX 125 MIN .08 AC-FT 2,430  
WTR YR 1971 TOTAL 732.59 MEAN 2.01 MAX 44 MIN .01 AC-FT 1,450

PEAK DISCHARGE (BASE, 200 CFS).--No peak above base.



## SAN JUAN CREEK BASIN

11047000 ARROYO TRABUCO NEAR SAN JUAN CAPISTRANO, CALIF.

LOCATION.--Lat 33°31'36", long 117°40'08", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.36, T.7 S., R.8 W., Orange County, on downstream side of right pier of county road bridge (formerly U.S. Highway 101), 1.8 miles north of San Juan Capistrano.

DRAINAGE AREA.--35.7 sq mi.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1956, published as Trabuco Creek near San Juan Capistrano.

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (from topographic map). Since Mar. 20, 1969, supplementary water-stage recorder at site 0.3 mile upstream at different datum.

AVERAGE COMBINED DISCHARGE.--41 years, 5.70 cfs (4,130 acre-ft per year); median of yearly mean discharges, 0.5 cfs (360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 44 cfs Dec. 21 (gage height, 2.76 ft); no flow most of year. Period of record: Maximum discharge, 9,240 cfs Feb. 6, 1937; no flow at times in each year.

REMARKS.--No regulation above station. Diversion to spreading grounds by Orange County Flood Control District, at site 0.8 mile upstream, began in February 1966. No diversion during year.

COOPERATION.--Records furnished by Orange County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.10	0	0	0	0	0	0	0			
2	.10	.10	0	.30	0	0	.10	0	0			
3	.40	.10	0	0	0	0	0	0	0			
4	.40	.10	0	0	0	0	.10	0	0			
5	.10	0	0	0	0	0	.10	.10	0			
6	0	.10	0	0	0	0	0	0	0			
7	0	.10	0	0	0	0	.10	0	0			
8	0	0	0	.10	0	0	.10	0	0			
9	.10	0	0	0	0	.10	.10	0	.10			
10	0	.30	0	0	0	.80	.10	0	0			
11	0	.20	0	0	0	0	.10	0	0			
12	0	.10	0	.10	0	.10	.10	0	0			
13	0	0	0	0	0	0	.10	0	0			
14	0	0	0	0	0	0	.10	0	0			
15	.70	0	0	0	0	0	.10	0	0			
16	.80	0	.10	0	0	0	.10	0	0			
17	0	.10	0	0	0	.10	0	0	0			
18	0	.10	1.3	0	0	.10	0	0	0			
19	0	0	8.7	0	0	.10	0	0	0			
20	0	0	.10	0	0	0	0	.10	0			
21	0	0	16	0	0	0	.10	0	0			
22	0	0	24	0	0	0	0	0	0			
23	0	0	6.0	0	0	0	.10	0	0			
24	0	0	.20	0	0	.10	0	0	0			
25	.10	.10	0	0	0	0	0	0	0			
26	.30	0	0	0	.10	.10	0	0	0			
27	.40	0	0	0	0	0	.10	0	0			
28	.20	0	0	.10	0	0	0	0	0			
29	.20	6.6	0	0	-----	0	0	0	0			
30	.10	0	0	0	-----	0	.10	0	0			
31	0	-----	0	0	-----	0	-----	0	-----			
TOTAL	4.10	8.10	56.40	.60	.10	1.50	1.70	.20	.10	0	0	0
MEAN	.13	.27	1.82	.019	.004	.048	.057	.007	.003	0	0	0
MAX	.80	6.6	24	.30	.10	.80	.10	.10	.10	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	8.1	16	112	1.2	.2	3.0	3.4	.4	.2	0	0	0
CAL YR 1970	TOTAL 457.20			MEAN 1.25	MAX 24	MIN 0	AC-FT 907					
WTR YR 1971	TOTAL 72.80			MEAN .20	MAX 24	MIN 0	AC-FT 144					

## 11047200 OSO CREEK AT CROWN VALLEY PARKWAY, NEAR MISSION VIEJO, CALIF.

LOCATION.--Lat 33°33'29", long 117°40'33", in SE $\frac{1}{4}$  sec.14, T.7 S., R.8 W., Orange County, on right upstream side of Crown Valley Parkway bridge, 2.7 miles south of Mission Viejo, and 4.0 miles north of San Juan Capistrano.

DRAINAGE AREA.--14.0 sq mi.

PERIOD OF RECORD.--December 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 580 cfs Nov. 29 (gage height, 4.64 ft); no flow at times.

Period of record: Maximum discharge, 580 cfs Nov. 29, 1970 (gage height, 4.64 ft); no flow at times in each year.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by Orange County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.30	2.0	.90	.60	.10	.10	.50	2.9	.10	0	0
2	0	.20	1.0	10	.60	0	0	.50	2.9	.20	0	0
3	3.4	.10	.80	.90	.60	0	0	.40	2.7	.20	0	0
4	.70	.20	.80	.80	.50	.10	0	.40	2.9	.20	0	0
5	.20	.20	.70	.80	.60	.10	.10	.50	2.4	.10	0	.10
6	.10	.50	.80	.60	.50	.10	.10	.40	2.2	.20	.10	.10
7	.10	.30	.80	.60	.40	.10	.10	4.3	1.9	.20	.20	.10
8	0	.20	.90	.60	.40	.10	.10	2.7	1.9	.10	.10	.10
9	0	.10	2.0	.70	.30	.10	.10	1.5	1.7	.10	0	0
10	0	.10	.90	.70	.30	.10	.10	1.2	1.7	0	0	0
11	0	.10	1.2	.80	.30	.10	.10	1.5	1.5	0	0	0
12	0	.10	2.2	8.5	.30	.10	.10	1.0	1.0	0	.10	0
13	0	.10	2.7	1.3	.40	4.3	.10	.90	.80	0	.10	0
14	0	.10	3.8	.60	.60	.50	8.9	.90	.60	0	.20	.10
15	0	.10	4.8	.50	.40	.50	1.2	.90	.50	0	.30	.10
16	0	.20	5.7	.50	1.7	.30	.90	.80	.20	.20	.30	.10
17	0	.20	5.2	.50	.40	.30	.90	.70	.10	.20	.40	.10
18	0	.20	12	.40	.30	.30	.90	.60	.10	.20	.40	.10
19	0	.30	60	.50	.30	.30	.90	.30	.10	.10	.40	.10
20	.20	.40	4.3	.50	.20	.30	.90	.30	.10	.10	.50	.10
21	.20	.40	47	.50	.10	.30	.70	.50	.10	0	.50	.10
22	.10	.30	4.8	.60	.20	.30	.60	.50	.20	0	.50	.10
23	0	.40	.80	.60	.10	.30	.60	.60	.20	.10	.40	.10
24	.10	.40	.70	.60	.10	.30	.60	.70	.30	.10	.40	.10
25	.40	.50	.70	.60	.10	.30	.60	.80	.20	.10	.30	0
26	.30	6.6	.70	.60	.10	.60	.70	.80	.20	.10	.30	0
27	.30	2.0	.80	.60	.10	.30	.70	1.5	.20	.10	.20	0
28	.20	13	.90	.70	.10	.10	.60	11	.20	.20	.20	0
29	.10	86	.90	.80	-----	.10	.50	6.6	.10	.10	.10	0
30	.10	12	.90	.70	-----	.10	.40	5.2	.10	.10	.10	0
31	.10	-----	.80	.60	-----	.10	-----	3.4	-----	.10	0	-----
TOTAL	6.60	125.60	171.60	37.60	10.60	10.60	21.60	51.90	30.00	3.20	6.10	1.50
MEAN	.21	4.19	5.54	1.21	.38	.34	.72	1.67	1.00	.10	.20	.050
MAX	3.4	86	60	10	1.7	4.3	8.9	11	2.9	.20	.50	.10
MIN	0	.10	.70	.40	.10	0	0	.30	.10	0	0	0
AC-FT	13	249	340	75	21	21	43	103	60	6.4	12	3.0
CAL YR 1970	TOTAL	586.50	MEAN	1.61	MAX	86	MIN	0	AC-FT	1,160		
WTR YR 1971	TOTAL	476.90	MEAN	1.31	MAX	86	MIN	0	AC-FT	946		



## 11048500 SAN DIEGO CREEK NEAR IRVINE, CALIF.

LOCATION.--Lat 33°40'20", long 117°47'10", in San Joaquin Grant, Orange County, on left bank 200 ft downstream from Jeffrey Road bridge, and 1.5 miles west of Irvine.

DRAINAGE AREA.--40.3 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 102.86 ft above mean sea level (levels by Orange County Flood Control District).

AVERAGE DISCHARGE.--22 years, 3.02 cfs (2,190 acre-ft per year); median of yearly mean discharges, 1.4 cfs (1,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 914 cfs Nov. 29 (gage height, 4.09 ft); no flow Dec. 8-10, Jan. 24, 25.

Period of record: Maximum discharge, 6,700 cfs Feb. 24, 1969 (gage height, 11.46 ft), from rating curve extended above 510 cfs on basis of slope-area measurements at gage heights 9.20 and 11.46 ft; no flow for long periods in most years.

REMARKS.--Records good. Pumping from wells along stream causes low-flow fluctuation in discharge.

COOPERATION.--Four discharge measurements furnished by Orange County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.82	.08	.16	.53	1.5	.94	.44	.70	2.1	2.8	1.3
2	.18	1.5	.01	36	.31	1.8	.84	.40	.62	2.0	2.6	1.3
3	.51	1.5	.02	6.2	.54	1.4	.64	.36	.46	2.6	2.9	1.4
4	.39	1.5	.03	2.0	.72	1.8	.45	.36	.79	2.6	2.6	.70
5	.55	1.3	.02	.87	1.3	1.5	.32	.85	.61	2.6	2.4	.60
6	.28	1.5	.02	.43	.65	1.4	.27	.93	.87	2.7	1.8	.61
7	.49	1.1	.01	.26	.43	1.5	.24	.71	.76	2.9	2.6	.75
8	.79	.78	0	.19	.35	1.3	.39	2.7	.81	2.3	2.6	1.2
9	1.2	1.3	0	.16	.28	1.3	.40	1.3	.89	2.1	2.2	1.3
10	1.5	1.4	0	.24	.26	1.7	.47	1.0	1.4	2.4	2.1	.99
11	1.3	1.5	.15	.54	.21	1.7	.47	1.2	.95	2.2	2.2	1.3
12	.60	1.6	.38	.62	.17	1.1	.35	.68	.61	2.1	2.1	1.2
13	.84	1.8	.07	1.1	.15	2.7	.45	.23	.96	2.0	1.4	1.4
14	.82	1.6	.06	.92	.21	1.1	5.1	.56	.82	1.9	.85	.95
15	.74	1.8	.22	.53	.19	.94	1.3	.49	.88	2.4	1.1	1.3
16	.90	1.3	2.1	.33	1.1	1.0	.36	.25	.76	2.4	1.5	1.7
17	1.2	1.0	5.5	.23	1.6	1.0	.43	.61	.78	2.6	1.6	.93
18	.63	1.6	10	.23	.70	.68	.19	.28	.51	2.9	1.9	.83
19	.61	2.0	111	.24	.73	.89	.24	.72	.62	2.8	1.8	1.1
20	.70	1.6	17	.25	.62	.85	.35	.65	.97	3.0	1.6	.78
21	.70	1.7	109	.41	.54	.83	.35	.44	.96	2.7	1.7	.87
22	.55	1.8	16	.28	.59	1.1	.48	.35	.91	2.8	1.7	1.0
23	.55	1.6	4.1	.05	1.3	1.6	.38	.65	.56	3.8	1.7	.89
24	.80	1.8	1.8	0	1.1	.91	.40	.86	.81	3.8	1.8	.79
25	.43	1.3	.80	0	1.3	.46	.33	.86	.73	4.1	1.9	1.1
26	.97	3.6	.57	.06	1.1	.22	.28	.83	.96	2.6	1.9	.64
27	1.5	.49	.95	.16	1.3	.33	.34	.92	1.1	2.7	1.4	.60
28	1.5	9.1	.53	.68	1.3	.36	.45	3.3	1.2	1.9	1.6	.92
29	1.6	123	1.4	.30	-----	.34	.55	1.7	1.3	1.7	1.0	.85
30	1.3	9.4	.52	.26	-----	.57	.46	.82	1.4	2.4	1.1	.72
31	1.0	-----	.29	.20	-----	.29	-----	.63	-----	2.5	1.1	-----
TOTAL	25.34	182.29	282.63	53.90	19.58	34.17	18.22	26.08	25.70	79.6	57.55	30.02
MEAN	.82	6.08	9.12	1.74	.70	1.10	.61	.84	.86	2.57	1.86	1.00
MAX	1.6	123	111	36	1.6	2.7	5.1	3.3	1.4	4.1	2.9	1.7
MIN	.18	.49	0	0	.15	.22	.19	.23	.46	1.7	.85	.60
AC-FT	50	362	561	107	39	68	36	52	51	158	114	60

CAL YR 1970 TOTAL 954.76 MEAN 2.62 MAX 123 MIN 0 AC-FT 1,890  
WTR YR 1971 TOTAL 835.08 MEAN 2.29 MAX 123 MIN 0 AC-FT 1,660

## PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1345	4.09	914	1- 2	0830	2.30	149
12-19	0130	3.07	418				

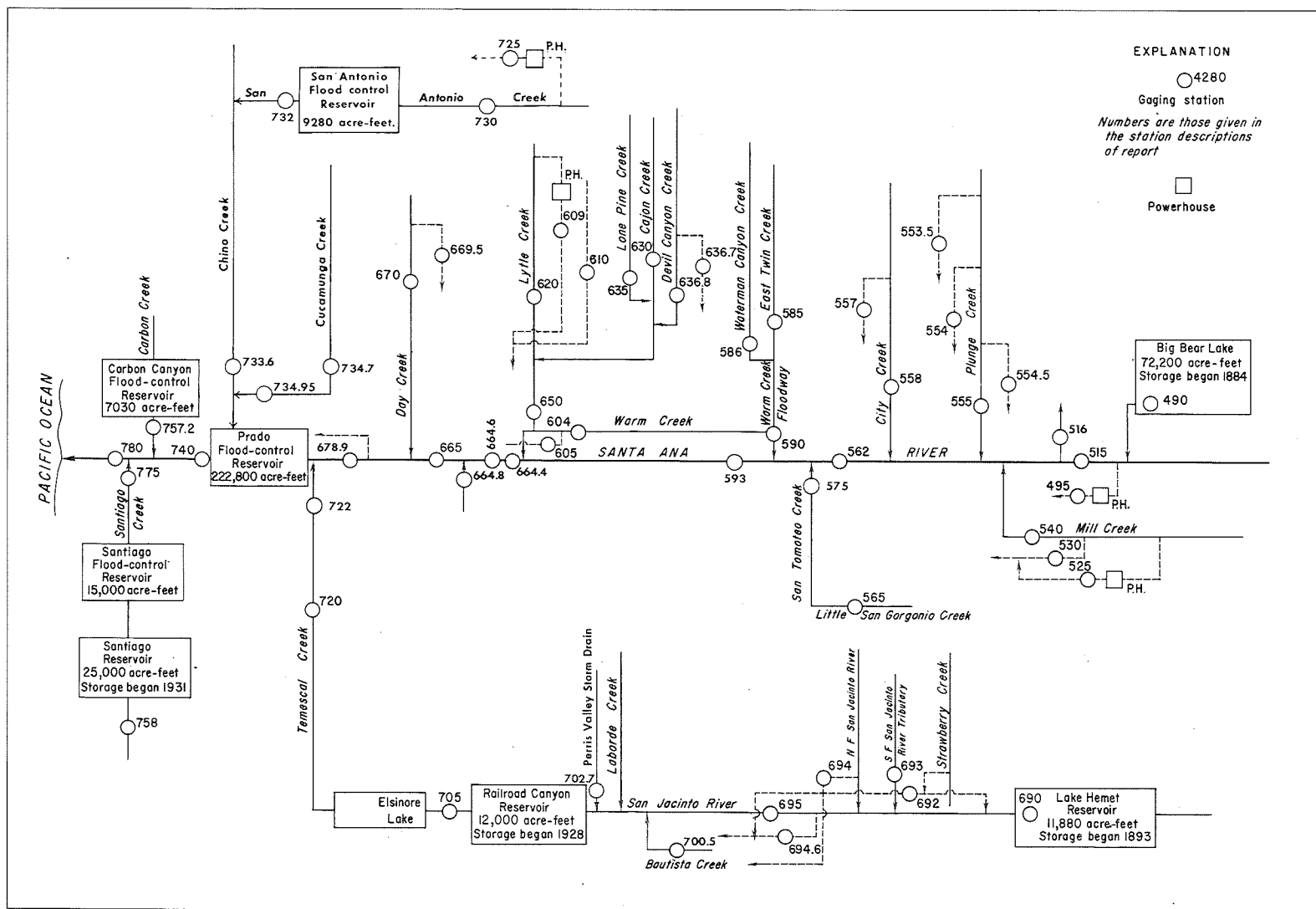


Figure 3-- Schematic diagram showing diversions and storage in Santa Ana River basin.

## 11049000 BIG BEAR LAKE NEAR BIG BEAR LAKE, CALIF.

LOCATION.--Lat 34°14'33", long 116°58'33", in SW $\frac{1}{4}$  sec. 22, T.2 N., R.1 W., San Bernardino County, at Big Bear Lake Dam on Bear Creek, 4 miles west of town of Big Bear Lake, and 7.5 miles upstream from mouth.

DRAINAGE AREA.--71.5 sq mi.

PERIOD OF RECORD.--October 1950 to current year in reports of Geological Survey. February 1884 to September 1950 in files of Bear Valley Mutual Water Co.

GAGE.--Nonrecording gage. Datum of gage is 6,670.9 ft above mean sea level (levels by Bear Valley Mutual Water Co.). Prior to 1912, at old dam 200 ft upstream at same datum (spillway at gage height, 52.4 ft).

EXTREMES.--Current year: Maximum contents observed, 62,330 acre-ft Mar. 31; minimum contents, 56,640 acre-ft Sept. 30.

Period of record: Maximum contents unknown, lake spilled in 1916, 1917, 1922, 1923, 1938, 1939, 1969, 1970; lake dry October, November 1898, August to November 1899, October, November 1904.

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, 72,200 acre-ft at elevation 6,743.2 ft (top of dam). Capacity table based on survey made in 1883. No dead storage. Water used for irrigation only. See schematic diagram of Santa Ana River basin.

COOPERATION.--Record of contents furnished by Bear Valley Mutual Water Co.

## MONTHEND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	60,900	-
Oct. 31.....	59,590	-1,310
Nov. 30.....	60,220	+630
Dec. 31.....	61,480	+1,260
CAL YR 1970.....	-	-1,820
Jan. 31.....	61,910	+430
Feb. 28.....	62,120	+210
Mar. 31.....	62,330	+210
Apr. 30.....	62,120	-210
May 31.....	61,700	-420
June 30.....	60,640	-1,060
July 31.....	59,590	-1,050
Aug. 31.....	58,120	-1,470
Sept. 30.....	56,640	-1,480
WTR YR 1971.....	-	-4,260

## SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CALIF.

LOCATION.--Lat 34°06'30", long 117°05'59", in NE¼SW¼ sec.4, T.1 S., R.2 W., San Bernardino County, on right bank at diversion near mouth of canyon, 1.6 miles upstream from Mill Creek, and 3.2 miles northeast of Mentone.

DRAINAGE AREA.--209 sq mi (including area tributary to Baldwin Lake at head of Bear Valley).

PERIOD OF RECORD.--July 1896 to current year. Prior to October 1914, observed records not equivalent owing to Greenspot pipeline diversion between sites and exclusion of discharge from Warm Springs Canyon. Monthly discharge only for January 1910, January, February 1916, published in WSP 1315-B.

GAGE.--Water-stage recorder on river; water-stag recorder on powerhouse diversion. Altitude of gage is 1,950 ft (from topographic map). Prior to Sept. 2, 1917, nonrecording gages at several sites within 1.5 miles upstream at various datums. Sept. 3, 1917, to May 27, 1969, water-stage recorder at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE (River only).--57 years (1914-71), 33.6 cfs (24,340 acre-ft per year); median of yearly mean discharges, 11 cfs (8,000 acre-ft per year).

(Combined river and canal).--75 years, 82.1 cfs (59,480 acre-ft per year); median of yearly mean discharges, 65 cfs (47,100 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 6,600 cfs Nov. 29 (gage height, 8.2 ft, from floodmark), from slope-conveyance measurement of peak flow; minimum daily, 0.40 cfs Oct. 1 to Nov. 13.

Period of record: Maximum discharge, 52,300 cfs Mar. 2, 1938 (gage height, 14.3 ft, site and datum then in use), on basis of slope-area measurement of maximum flow; no flow at times in some years.

(Combined flow).-- Current year: Maximum discharge, 6,600 cfs Nov. 29; minimum daily, 7.4 cfs Sept. 21. Period of Record: Maximum discharge, 52,300 cfs Mar. 2, 1938; minimum daily, 7.4 cfs Sept. 21, 1971.

(Note.--The 3 cfs previously published for Nov. 21, 22, 1909 was in error and should not be used).

Flood of Feb. 23, 1891, 53,700 cfs, from notes furnished by F. C. Finkle, consulting engineer, Los Angeles.

REMARKS.--Records poor. Flow partly regulated by Big Bear Lake (see sta 11049000). For records of combined discharge of Santa Ana River and Southern California Edison Co.'s canal below powerplant No. 2, which diverts above station, see following page. Bear Valley Mutual Water Company pumped 975 acre-ft into canal below canal gage. Prior to Oct. 1, 1952, pumped water entered canal above gage. See schematic diagram of Santa Ana River basin.

COOPERATION.--Ten discharge measurements on Southern California Edison Co.'s canal below powerplant No. 2 furnished by that agency in connection with a Federal Power Commission project.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.40	62	48	44	34	15	9.5	7.2	3.9	2.6	2.3
2	.40	.40	59	50	44	34	15	9.5	7.2	3.8	2.5	2.3
3	.40	.40	55	50	42	37	15	9.5	7.1	3.7	2.5	2.3
4	.40	.40	53	47	42	37	15	10	7.0	3.6	2.5	2.2
5	.40	.40	50	45	42	35	15	11	6.8	3.5	2.5	2.2
6	.40	.40	48	44	42	37	15	38	6.6	3.3	2.4	2.2
7	.40	.40	46	43	42	37	14	15	6.5	3.2	2.4	2.2
8	.40	.40	43	43	41	37	14	12	6.4	3.1	2.4	2.2
9	.40	.40	99	45	40	36	15	10	6.2	3.0	2.4	2.2
10	.40	.40	71	45	40	36	16	9.5	6.1	2.8	2.3	2.1
11	.40	.40	60	45	40	35	17	9.0	6.0	2.7	2.3	2.1
12	.40	.40	55	48	40	34	19	8.5	5.8	2.6	2.3	2.1
13	.40	.40	53	50	39	76	21	8.0	5.6	2.5	2.2	2.1
14	.40	10	50	50	39	68	22	8.0	5.3	2.4	2.2	2.1
15	.40	15	50	47	39	52	21	7.8	4.8	2.3	2.1	2.1
16	.40	20	60	45	39	41	21	7.8	4.3	2.3	3.4	2.1
17	.40	21	100	59	39	36	21	7.6	3.7	2.2	4.4	2.1
18	.40	22	62	93	38	33	21	7.6	3.7	2.2	4.0	2.1
19	.40	23	60	112	38	31	21	7.6	3.7	2.2	7.6	2.1
20	.40	24	60	100	38	30	21	7.6	3.7	2.2	3.0	2.1
21	.40	25	133	84	38	29	17	7.6	3.7	3.8	2.9	7.0
22	.40	26	124	72	37	28	15	7.6	3.7	4.3	2.8	5.0
23	.40	27	90	62	37	26	13	7.4	3.7	4.1	2.7	3.0
24	.40	28	85	57	37	24	11	7.4	3.8	3.8	2.6	3.0
25	.40	29	80	52	36	23	11	7.4	3.8	3.6	2.5	2.9
26	.40	347	70	50	36	22	10	7.4	3.8	3.3	2.5	2.9
27	.40	40	60	48	35	20	10	7.4	3.8	3.1	2.4	2.9
28	.40	141	55	48	34	19	10	12	3.8	3.0	2.4	2.8
29	.40	1,270	55	48	-----	18	10	10	3.9	2.9	2.3	2.8
30	.40	102	50	46	-----	17	10	7.6	3.9	2.7	2.3	2.8
31	.40	-----	45	45	-----	16	-----	7.2	-----	2.6	2.3	-----
TOTAL	12.40	2,175.20	2,043	1,721	1,098	1,038	471	302.5	151.6	94.7	85.7	78.3
MEAN	.40	72.5	65.9	55.5	39.2	33.5	15.7	9.76	5.05	3.05	2.76	2.61
MAX	.40	1,270	133	112	44	76	22	38	7.2	4.3	7.6	7.0
MIN	.40	.40	43	43	34	16	10	7.2	3.7	2.2	2.1	2.1
AC-FT	25	4,310	4,050	3,410	2,180	2,060	934	600	301	188	170	155
CAL YR 1970	TOTAL 12,908.48											
WTR YR 1971	TOTAL 9,271.40											
PEAK DISCHARGE (BASE, 150 CFS)												
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE					
11-26	1030	5.66	2,670	12-21	0700	-	b 200					
11-29	1400	a8.2	6,600	3-13	1230	2.66	276					
12- 9	1400	3.48	419									

a From floodmark.

b Estimated.

## 11051500 SANTA ANA RIVER NEAR MENTONE, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SANTA ANA RIVER AND SOUTHERN  
CALIFORNIA EDISON CO.'S CANAL NEAR MENTONE, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	29	62	48	44	35	37	40	37	29	28	23
2	28	29	59	50	44	35	45	38	37	28	26	22
3	28	29	55	50	42	38	48	24	37	28	24	22
4	29	29	53	47	42	38	47	26	36	28	24	22
5	29	29	50	45	42	36	47	42	35	28	26	22
6	30	30	48	44	42	38	45	75	35	26	24	22
7	30	30	46	43	44	38	46	51	34	26	23	22
8	30	30	43	43	43	38	47	50	34	25	23	26
9	29	30	99	45	42	37	48	45	35	25	23	26
10	28	30	71	45	42	37	49	44	36	25	22	26
11	28	30	60	45	42	36	49	43	36	24	22	26
12	28	30	55	48	42	34	50	42	34	24	28	25
13	28	27	53	50	40	76	51	40	34	24	33	22
14	28	15	50	50	40	68	55	39	33	23	34	24
15	28	16	50	47	40	52	54	40	33	24	35	22
16	29	21	60	45	40	41	53	39	32	24	40	21
17	28	22	100	59	40	36	56	38	32	25	35	22
18	28	23	62	93	39	33	57	38	31	25	33	23
19	28	25	60	112	39	32	57	37	31	24	19	23
20	29	28	60	100	39	33	56	37	30	24	15	16
21	29	30	133	84	39	32	52	38	30	30	31	7.4
22	29	31	124	72	38	39	49	39	30	33	31	15
23	30	32	90	62	38	45	46	36	29	29	30	30
24	30	33	85	57	38	44	44	35	29	27	27	31
25	30	34	80	52	37	43	46	35	28	26	26	29
26	30	350	70	50	37	42	43	35	28	25	24	28
27	30	42	60	48	36	40	39	38	28	25	24	26
28	30	143	55	48	35	39	40	43	28	24	23	25
29	30	1,270	55	48	-----	39	40	41	28	24	23	25
30	29	102	50	46	-----	38	40	39	29	24	23	25
31	29	-----	45	45	-----	37	-----	37	-----	24	23	-----
TOTAL	897	2,599	2,043	1,721	1,126	1,249	1,436	1,244	969	800	822	698.4
MEAN	28.9	86.6	65.9	55.5	40.2	40.3	47.9	40.1	32.3	25.8	26.5	23.3
MAX	30	1,270	133	112	44	76	57	75	37	33	40	31
MIN	28	15	43	43	35	32	37	24	28	23	15	7.4
AC-FT	1,780	5,160	4,050	3,410	2,230	2,480	2,850	2,470	1,920	1,590	1,630	1,390

CAL YR 1970 TOTAL 19,092.0 MEAN 52.3 MAX 1,270 MIN 15 AC-FT 37,870  
WTR YR 1971 TOTAL 15,604.4 MEAN 42.8 MAX 1,270 MIN 7.4 AC-FT 30,950

PEAK DISCHARGE (BASE, 150 CFS).--(Same as those listed on previous page).



## SANTA ANA RIVER BASIN

11051600 SANTA ANA RIVER SPREADING DIVERSION NEAR MENTONE, CALIF.

LOCATION.--Lat 34°06'12", long 117°06'37", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.8, T.1 S., R.2 W., San Bernardino County, on diversion channel 0.8 mile downstream from Southern California Edison Co.'s powerhouse No. 3, and 2.4 miles northeast of Mentone.

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder and Parshall flume control. Altitude of gage is 840 ft (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 129 cfs Mar. 1, 1970; no flow for long periods in each year.

REMARKS.--Records good. Water is diverted from Santa Ana River at diversion dam 0.8 mile upstream for spreading on debris cone downstream from mouth of Santa Ana River Canyon. Diversion began prior to 1951.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	38	47	41	30					0	
2		0	50	52	41	21					0	
3		0	47	42	39	24					0	
4		0	45	39	39	18					0	
5		0	42	39	37	20					0	
6		0	40	39	38	14					0	
7		0	40	39	36	9.1					0	
8		0	35	40	34	4.2					0	
9		0	33	42	29	.92					0	
10		0	32	43	29	.46					0	
11		0	34	43	29	.30					0	
12		0	33	48	31	.09					0	
13		0	33	50	23	2.5					0	
14		.02	38	18	19	.92					0	
15		0	32	20	24	.46					0	
16		.02	35	43	24	.18					1.4	
17		0	40	46	31	.09					2.2	
18		0	42	24	29	0					0	
19		0	47	6.6	29	0					0	
20		0	41	36	29	0					0	
21		0	16	38	29	0					0	
22		0	0	31	32	0					0	
23		0	0	42	31	0					0	
24		0	0	42	27	0					0	
25		0	0	40	21	0					0	
26		0	0	43	12	0					0	
27		13	0	46	18	0					0	
28		18	0	47	32	0					0	
29		2.6	0	45	-----	0					0	
30		12	22	43	-----	0					0	
31		-----	38	43	-----	0	-----		-----		0	-----
TOTAL	0	45.64	853	1,216.6	833	146.22	0	0	0	0	3.6	0
MEAN	0	1.52	27.5	39.2	29.8	4.72	0	0	0	0	.12	0
MAX	0	18	50	52	41	30	0	0	0	0	2.2	0
MIN	0	0	0	6.6	12	0	0	0	0	0	0	0
AC-FT	0	91	1,690	2,410	1,650	290	0	0	0	0	7.1	0
CAL YR 1970	TOTAL	4,039.94	MEAN	11.1	MAX	129	MIN	0	AC-FT	8,010		
WTR YR 1971	TOTAL	3,098.06	MEAN	8.49	MAX	52	MIN	0	AC-FT	6,150		

## 11054000 MILL CREEK NEAR YUCAIPA, CALIF.

LOCATION.--Lat 34°05'27", long 117°02'12", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.13, T.1 S., R.2 W., San Bernardino County, on left bank 50 ft downstream from bridge on State Highway 190-D, 3.9 miles north of Yucaipa, and 5.3 miles upstream from mouth.

DRAINAGE AREA.--42.4 sq mi.

PERIOD OF RECORD.--January 1919 to September 1938, October 1947 to current year. Monthly figures only for April and May 1923, published in WSP 1315-B. Prior to October 1954, published as "near Craftonville."

GAGE.--Water-stage recorder on creek; water-stage recorder and sharp-crested weir on power canal No. 1; water-stage recorder and Parshall flume on power canals Nos. 2 and 3. Datum of gage is 2,916.36 ft above mean sea level (Southern California Edison Co. bench mark). See WSP 1735 for history of changes prior to Mar. 2, 1938.

AVERAGE DISCHARGE (Creek only).--43 years, 13.9 cfs (10,070 acre-ft per year); median of yearly mean discharges, 1.6 cfs (1,200 acre-ft per year).

(Combined creek and canals).--43 years, 34.8 cfs (25,210 acre-ft per year); median of yearly mean discharges, 22 cfs (15,900 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 1,200 cfs Nov. 29 (gage height, 8.60 ft); no flow for many days.

Period of record: Maximum discharge, 35,400 cfs Jan. 25, 1969 (gage height, 16.8 ft, from floodmark), from rating curve extended above 1,100 cfs on basis of 2 field estimates at gage height 14.5 ft and slope-area measurement of maximum flow; no flow at times in some years.

(Combined flow).--Current year: Maximum discharge, 1,200 cfs Nov. 29; minimum daily, 11 cfs Feb. 1-9. Period of record: Maximum discharge, 35,400 cfs Jan. 25, 1969; minimum daily, 2.7 cfs Feb. 23, 1949.

REMARKS.--Records fair. No regulation above station. Mill Creek power canals Nos. 1, 2, and 3 divert from points 100 ft, 3 miles, and 6 miles above station, respectively. Combined flow of Mill Creek and Mill Creek power canals Nos. 1, 2, and 3 is given on following page. See schematic diagram of Santa Ana River basin.

COOPERATION.--Water-stage recorder graph and fourteen discharge measurements for Mill Creek power canals Nos. 2 and 3 furnished by Southern California Edison Co. in connection with a Federal Power Commission project.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.04	25	7.0	.25	.50	0	.16	.04	.01		
2	.02	.04	23	6.0	.25	.10	0	.20	.04	.02		
3	.02	.04	21	7.0	.25	.09	0	.20	.01	.02		
4	.02	.04	17	7.0	.25	.09	.15	.25	0	0		
5	.02	.04	12	7.0	.25	.09	.38	.20	0	0		
6	.04	.09	11	7.0	.25	.06	0	.43	0	0		
7	.04	.09	7.3	7.3	.25	.06	0	.57	0	0		
8	.04	.16	7.0	7.3	.25	.06	0	.12	.02	0		
9	.04	.25	7.6	7.6	.25	.06	0	.09	.09	0		
10	.02	.25	7.3	6.2	.25	.06	0	.09	.09	0		
11	.02	.25	5.0	5.4	.25	.06	.01	.09	.06	0		
12	.01	.31	4.0	6.2	.31	.06	.02	.09	.04	0		
13	.01	.37	7.0	7.0	.31	.04	.04	.09	.02	0		
14	.01	.50	7.0	5.4	.31	.02	.09	.09	.02	0		
15	.01	.50	8.0	5.2	.31	.02	.06	.09	.02	0		
16	.01	.50	8.0	5.0	.31	.02	.02	.09	.01	0		
17	.01	.57	7.6	6.2	.23	.02	.48	.09	.01	0		
18	.01	.57	8.4	11	.87	.02	.48	.09	.01	0		
19	.01	.57	9.0	12	.20	.02	.12	.31	.01	0		
20	.01	.57	8.4	11	.62	.02	.12	.31	.01	0		
21	.02	.57	15	8.7	.20	.02	.09	.16	.01	0		
22	.02	.57	14	6.8	.16	.02	.09	.12	.01	0		
23	.02	.65	12	2.9	.12	.02	.09	.09	.01	0		
24	.04	.65	10	3.2	.09	.01	.09	.09	0	0		
25	.04	.73	10	2.9	.09	0	.09	.09	0	0		
26	.04	14	10	2.5	.09	0	.09	.06	0	0		
27	.04	14	10	2.6	.09	0	.09	.06	0	0		
28	.04	15	9.0	1.9	.09	0	.09	.06	0	0		
29	.04	153	9.0	2.7	-----	0	.12	.04	.01	0		
30	.04	35	9.0	2.7	-----	0	.16	.04	.01	0		
31	.04	-----	8.0	.80	-----	0	-----	.04	-----	0		-----
TOTAL	.77	239.92	326.6	181.50	9.22	1.54	2.97	4.50	.55	.05	0	0
MEAN	.025	8.00	10.5	5.85	.33	.050	.099	.15	.018	.002	0	0
MAX	.04	153	25	12	2.3	.50	.48	.57	.09	.02	0	0
MIN	.01	.04	4.0	.80	.09	0	0	.04	0	0	0	0
AC-FT	1.5	476	648	360	18	3.1	5.9	8.9	1.1	.1	0	0

CAL YR 1970 TOTAL 1,150.44 MEAN 3.15 MAX 153 MIN .01 AC-FT 2,280  
WTR YR 1971 TOTAL 767.62 MEAN 2.10 MAX 153 MIN 0 AC-FT 1,520

PEAK DISCHARGE (BASE, 100 CFS, REVISED).--Nov. 29 (1600) 1,200 cfs (8.60 ft).

## SANTA ANA RIVER BASIN

## 11054000 MILL CREEK NEAR YUCAIPA, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MILL CREEK AND MILL CREEK POWER  
CANALS NOS. 1, 2, AND 3 NEAR YUCAIPA, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	20	28	20	11	20	20	22	22	21	19	16
2	20	20	26	20	11	20	22	22	24	20	17	16
3	20	20	24	19	11	19	23	23	23	20	17	16
4	20	19	23	19	11	19	23	24	23	20	17	16
5	20	19	22	19	11	21	23	26	23	20	17	16
6	20	18	21	19	11	23	23	26	23	20	17	16
7	20	18	18	19	11	22	23	25	23	20	17	16
8	20	18	19	19	11	22	23	22	23	18	17	16
9	20	19	20	20	11	23	23	18	23	18	17	16
10	20	19	21	19	12	22	23	18	23	18	16	16
11	20	19	21	19	12	21	23	18	23	18	17	15
12	20	19	22	20	12	21	24	17	21	18	17	15
13	20	19	22	21	12	22	24	17	22	18	17	15
14	20	19	22	19	12	20	26	18	22	19	17	15
15	20	19	22	19	12	22	25	18	22	20	17	14
16	20	19	22	20	13	21	24	20	22	19	17	14
17	20	19	22	22	14	21	23	21	22	19	17	14
18	20	19	21	20	12	21	25	26	21	19	17	14
19	20	19	23	18	13	21	25	27	21	19	17	14
20	20	19	22	17	13	21	25	27	21	18	17	16
21	20	19	29	16	14	21	25	26	21	18	16	16
22	20	19	25	16	13	21	25	24	21	17	16	17
23	20	19	24	16	14	21	24	24	21	17	16	16
24	20	19	23	16	14	21	25	25	21	17	16	16
25	20	19	22	15	13	21	27	25	21	17	16	16
26	20	35	22	14	15	21	25	25	21	17	16	16
27	20	28	22	14	20	22	24	25	21	17	16	16
28	20	33	22	13	20	21	22	23	21	17	16	16
29	20	159	21	13	-----	23	20	24	21	17	16	16
30	20	38	21	12	-----	24	21	24	21	17	16	16
31	20	-----	21	12	-----	22	-----	23	-----	17	16	-----
TOTAL	620	768	693	545	359	660	708	703	657	570	517	467
MEAN	20.0	25.6	22.4	17.6	12.8	21.3	23.6	22.7	21.9	18.4	16.7	15.6
MAX	20	159	29	22	20	24	27	27	24	21	19	17
MIN	20	18	18	12	11	19	20	17	21	17	16	14
AC-FT	1,230	1,520	1,370	1,080	712	1,310	1,400	1,390	1,300	1,130	1,030	926

CAL YR 1970 TOTAL 10,374 MEAN 28.4 MAX 159 MIN 11 AC-FT 20,580  
WTR YR 1971 TOTAL 7,267 MEAN 19.9 MAX 159 MIN 11 AC-FT 14,410

PEAK DISCHARGE (BASE, 100 CFS, REVISED).--Same as that on previous page.

## 11055500 PLUNGE CREEK NEAR EAST HIGHLANDS, CALIF.

LOCATION.--Lat 34°07'06", long 117°08'27", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.1, T.1 S., R.3 W., San Bernardino County, on left bank at mouth of canyon at crossing of North Fork ditch siphon, 1.8 miles northeast of East Highlands.

DRAINAGE AREA.--16.9 sq mi.

PERIOD OF RECORD.--January 1919 to current year; combined records of creek and diversions, March 1951 to current year.

GAGE.--Water-stage recorder and since December 1938 broad-crested weir on creek; water-stage recorder and weir on upper diversion; water-stage recorder and concrete-lined canal on middle diversion; water-stage recorder and sharp-crested weir on lower diversion. Altitude of gage is 1,590 ft (from topographic map): Prior to Oct. 1, 1969, at datum 4.00 ft higher.

AVERAGE DISCHARGE (Creek only).--52 years, 6.21 cfs (4,500 acre-ft per year); median of yearly mean discharges, 3.4 cfs (2,500 acre-ft per year).  
(Combined creek and diversions).--20 years, 7.89 cfs (5,720 acre-ft per year); median of yearly mean discharges, 4.0 cfs (2,900 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 3,000 cfs Nov. 29 (gage height, 7.41 ft), on basis of slope-conveyance measurement of peak flow; no flow Oct. 18 to Nov. 21.

Period of record: Maximum discharge, 5,340 cfs Mar. 2, 1938, on basis of slope-area measurement of maximum flow; no flow for part of each year.

(Combined flow).--Current year: Maximum discharge, 3,000 cfs Nov. 29; minimum daily, 0.68 cfs Sept. 9.

Period of record: Maximum discharge, 4,770 cfs Dec. 6, 1966; no flow Nov. 12, 1964, Sept. 29, 1965.

REMARKS.--Records poor. No regulation above station. Diversion from Alder Creek to Upper Plunge Creek area was active 1904-67. Diversions for irrigation are made at sites 0.5, 1.0, and 2.5 miles above station. Water has been diverted above station for irrigation during entire period of record. Combined discharge of Plunge Creek and upper, middle, and lower diversions is given on following page. (No flow in lower diversion since May 29, 1966). See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	0	6.1	5.2	5.3	3.5	.16	1.0	.82	.01	.02	.03
2	.01	0	4.8	7.3	5.2	3.1	.16	.99	.68	.01	.02	.03
3	.01	0	4.2	3.8	5.2	2.8	.16	.93	.56	.01	.02	.03
4	.01	0	3.8	3.1	5.2	2.5	.18	.87	.43	.01	.03	.03
5	.01	0	3.7	2.9	5.0	2.4	.14	.82	.29	.01	.03	.03
6	.01	0	3.5	2.8	4.8	2.4	.04	6.2	.18	.01	.03	.05
7	.01	0	3.4	2.8	4.8	2.3	.04	4.8	.14	.01	.03	.04
8	.01	0	2.7	2.8	4.8	2.3	.04	3.2	.11	.01	.03	.03
9	.01	0	5.5	2.9	4.6	2.4	.02	3.0	.10	.01	.02	.03
10	.01	0	4.6	3.4	4.6	2.8	.01	5.0	.07	.01	.02	.03
11	.01	0	3.5	5.5	4.6	2.5	.01	4.5	.11	.01	.02	.03
12	.01	0	3.7	25	4.6	2.5	.01	4.0	.03	.01	.02	.03
13	.01	0	3.7	15	4.3	6.9	.01	3.5	.03	.01	.02	.03
14	.01	0	7.5	11	3.5	3.5	.52	3.1	.05	.01	.02	.03
15	.01	0	2.6	9.5	2.7	2.8	.49	2.9	.05	.02	.02	.03
16	.01	0	3.7	8.4	2.9	2.4	.46	2.7	.01	.02	.02	.04
17	.01	0	11	7.8	9.8	2.2	1.2	2.5	.01	.01	.02	.04
18	0	0	7.0	7.5	7.6	1.9	1.1	2.4	.01	.01	.02	.03
19	0	0	6.8	7.3	6.6	1.8	1.0	2.3	.01	.02	.02	.02
20	0	0	7.3	7.0	5.7	1.7	.93	2.2	.01	.37	.02	.02
21	0	0	49	6.9	5.9	1.6	.87	2.0	.01	.31	.02	.02
22	0	.01	34	6.8	5.9	1.5	.82	1.8	.02	.29	.02	.02
23	0	.01	28	6.7	5.9	1.3	.77	1.6	.01	.27	.02	.02
24	0	.01	16	6.6	4.8	1.2	.72	1.4	.01	.25	.03	.02
25	0	.01	13	6.5	4.5	.99	5.0	1.2	.01	.23	.03	.03
26	0	6.3	11	6.4	3.8	.82	1.6	1.0	.01	.21	.03	.03
27	0	.93	9.0	6.2	3.7	.60	1.4	1.0	.01	.18	.03	.03
28	0	1.2	7.8	6.0	3.7	.40	1.3	1.0	.01	.14	.01	.03
29	0	230	7.0	5.8	-----	.34	1.2	1.0	.01	.10	.03	.03
30	0	15	6.6	5.6	-----	.26	1.1	1.0	.01	.06	.03	.03
31	0	-----	5.9	5.4	-----	.20	-----	1.0	-----	.04	.03	-----
TOTAL	.17	253.47	286.4	209.9	140.0	63.91	21.46	70.91	3.81	2.67	.73	.89
MEAN	.006	8.45	9.24	6.77	5.00	2.06	.72	2.29	.13	.086	.024	.030
MAX	.01	230	49	25	9.8	6.9	5.0	6.2	.82	.37	.03	.05
MIN.	0	0	2.6	2.8	2.7	.20	.01	.82	.01	.01	.01	.02
AC-FT	.3	503	568	416	278	127	43	141	7.6	5.3	1.5	1.8

CAL YR 1970 TOTAL 1,188.53 MEAN 3.26 MAX 230 MIN 0 AC-FT 2,360  
WTR YR 1971 TOTAL 1,054.32 MEAN 2.89 MAX 230 MIN 0 AC-FT 2,090

## PEAK DISCHARGE (BASE, 130 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-26	1030	3.50	78	12-21	1330	3.06	104
11-29	1430	7.41	3,000				

NOTE.--No gage-height record Jan. 12 to Feb. 1, Apr. 11 to June 7, July 23 to Aug. 22.

## 11055500 PLUNGE CREEK NEAR EAST HIGHLANDS, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF PLUNGE CREEK AND  
DIVERSIONS NEAR EAST HIGHLANDS, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.89	1.1	6.1	5.2	5.3	3.5	3.2	4.3	3.4	2.0	1.4	1.1
2	.89	1.1	4.8	7.3	5.2	3.1	3.2	4.3	3.4	1.9	1.4	1.2
3	.93	1.1	4.2	3.8	5.2	2.8	3.2	4.3	3.1	1.8	1.4	1.2
4	.94	1.2	3.8	3.1	5.2	2.5	3.0	4.4	2.9	1.8	1.3	1.1
5	.96	1.2	3.7	2.9	5.0	2.7	2.9	4.4	3.0	1.7	1.3	1.1
6	.98	1.2	3.5	2.8	4.8	3.5	2.9	8.6	2.9	1.7	1.3	1.2
7	.98	1.2	3.4	2.8	4.8	3.6	3.0	5.0	2.9	1.6	1.3	1.1
8	.96	1.2	2.7	2.8	4.8	3.6	3.0	4.2	3.0	1.6	1.3	.92
9	.95	1.2	5.5	2.9	4.6	3.7	3.0	4.5	2.9	1.7	1.3	.68
10	.95	1.2	4.6	3.4	4.6	4.1	2.9	5.8	2.8	1.6	1.3	1.0
11	.94	1.2	3.5	5.5	4.6	3.8	2.7	4.8	2.7	1.6	1.3	1.0
12	.94	1.1	3.7	25	4.6	3.8	2.7	4.8	2.7	1.7	1.3	1.0
13	.95	1.1	3.7	15	5.0	7.4	2.8	5.2	2.5	1.5	1.3	1.0
14	.92	1.2	7.5	11	5.3	3.5	3.8	5.0	2.6	1.5	1.3	1.1
15	.94	1.1	2.6	9.5	5.0	3.4	3.8	4.8	2.4	1.6	1.3	1.1
16	.97	1.3	3.7	8.4	5.3	3.4	3.6	4.9	2.4	1.7	1.3	1.1
17	1.0	1.4	11	7.8	10	3.2	4.7	4.6	2.4	1.7	1.2	1.1
18	1.0	1.5	7.0	7.5	7.6	2.8	4.2	4.9	2.3	1.6	1.3	1.1
19	1.0	1.5	6.8	7.3	6.6	2.7	4.2	4.7	2.3	1.5	1.2	1.1
20	1.1	1.4	7.3	7.0	5.7	2.7	4.2	4.3	2.2	1.5	1.2	1.1
21	1.2	1.3	49	6.9	5.9	2.6	4.1	4.3	2.2	1.5	1.2	1.1
22	1.2	1.2	34	6.8	5.9	3.2	2.3	3.8	2.0	1.5	1.2	1.1
23	1.2	1.2	28	6.7	5.9	3.7	2.8	3.6	2.0	1.5	1.2	1.1
24	1.2	1.2	16	6.6	4.8	3.7	3.7	3.4	2.0	1.5	1.2	1.1
25	1.2	1.3	13	6.5	4.5	3.6	8.2	3.0	2.0	1.5	1.1	1.1
26	1.2	7.6	11	6.4	3.8	3.3	4.1	3.2	2.0	1.4	1.1	1.1
27	1.2	1.3	9.0	6.2	3.7	3.1	4.7	3.4	2.0	1.4	1.1	1.1
28	1.2	1.2	7.8	6.0	3.7	2.9	4.3	3.4	2.0	1.4	1.1	1.1
29	1.2	230	7.0	5.8	-----	2.9	4.4	3.2	2.0	1.4	1.1	1.2
30	1.2	15	6.6	5.6	-----	3.4	4.4	3.4	2.0	1.4	1.1	1.3
31	1.1	-----	5.9	5.4	-----	3.3	-----	3.5	-----	1.4	1.1	-----
TOTAL	32.29	285.8	286.4	209.9	147.4	105.5	110.0	136.0	75.0	49.2	38.5	32.60
MEAN	1.04	9.53	9.24	6.77	5.26	3.40	3.67	4.39	2.50	1.59	1.24	1.09
MAX	1.2	230	49	25	10	7.4	8.2	8.6	3.4	2.0	1.4	1.3
MIN	.89	1.1	2.6	2.8	3.7	2.5	2.3	3.0	2.0	1.4	1.1	.68
AC-FT	64	567	568	416	292	209	218	270	149	98	76	65

CAL YR 1970 TOTAL 1,688.50 MEAN 4.63 MAX 230 MIN .87 AC-FT 3,350  
WTR YR 1971 TOTAL 1,508.59 MEAN 4.13 MAX 230 MIN .68 AC-FT 2,990

PEAK DISCHARGE (BASE, 130 CFS).--Same as those listed on previous page.

## SANTA ANA RIVER BASIN

169

11055800 CITY CREEK NEAR HIGHLAND, CALIF.

LOCATION.--Lat 34°08'38", long 117°11'16", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.27, T.1 N., R.3 W., San Bernardino County, on right bank 0.6 mile upstream from Highland Avenue and 1.5 miles northeast of Highland.

DRAINAGE AREA.--19.6 sq mi.

PERIOD OF RECORD.--October 1919 to current year; combined records of creek and canal, June 1924 to current year.

GAGE.--Water-stage recorder on creek; water-stage recorder on canal. Altitude of gage is 1,580 ft (from topographic map). Prior to Mar. 1, 1939, at site 0.2 mile downstream at different datum.

AVERAGE DISCHARGE (Creek only).--51 years, 9.03 cfs (6,540 acre-ft per year); median of yearly mean discharges, 5.2 cfs (3,800 acre-ft per year).

(Combined).--47 years, 10.7 cfs (7,750 acre-ft per year); median of yearly mean discharges, 6.6 cfs (4,800 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 100 cfs Dec. 21 (gage height, 4.20 ft); minimum daily, 0.01 cfs Sept. 22-25, 29.

Period of record: Maximum discharge, 7,000 cfs Feb. 25, 1969 (gage height, 9.39 ft), from rating curve extended above 580 cfs on basis of slope-area measurement at gage height 8.83 ft; no flow for several months in some years.

(Combined).--Current year: Maximum discharge, 100 cfs Dec. 21; minimum daily, 0.39 cfs Sept. 19.

Period of record: Maximum discharge, 7,000 cfs Feb. 25, 1969; no flow at times in some years.

REMARKS.--Records good. No regulation above station. City Creek Water Co.'s canal has diverted from point 0.5 mile above station for irrigation throughout period of record. See schematic diagram of Santa Ana River basin. Combined discharge of City Creek and canal is given on following page.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.17	17	17	2.8	5.7	2.5	2.9	3.1	2.7	.13	.02
2	.08	.13	10	15	2.5	5.3	2.7	2.8	.70	1.9	.12	.02
3	.11	.12	6.7	14	2.4	5.2	2.5	3.1	.70	.36	.11	.02
4	.26	.11	7.3	11	2.3	4.8	2.4	3.2	1.2	.19	.11	.02
5	.22	.10	6.9	9.4	4.2	3.1	4.0	3.2	1.7	.11	.12	.02
6	.25	.17	6.6	7.3	5.8	1.7	3.7	19	1.2	.08	.10	.02
7	.34	.22	5.8	6.5	5.7	1.7	2.6	15	1.5	.05	.09	.02
8	.29	.23	5.9	6.1	5.4	3.9	2.4	10	.30	.04	.07	.02
9	.12	.20	9.9	4.1	5.2	5.5	2.5	9.0	1.6	.04	.06	.02
10	.10	.19	8.5	1.7	5.4	4.9	2.5	8.0	1.4	.04	.05	.02
11	.12	.70	7.7	1.5	5.2	4.9	2.6	7.2	.76	.07	.04	.02
12	.14	1.3	8.3	19	5.1	4.9	2.0	6.8	.61	.08	.02	.02
13	.14	1.2	10	31	5.1	10	.67	6.2	1.1	.07	.02	.02
14	.17	.69	21	20	5.2	5.9	2.8	6.0	1.0	.07	.02	.02
15	.20	.27	8.4	14	5.4	4.9	4.3	5.6	.70	.08	.02	.02
16	.20	.26	9.0	13	6.8	4.6	2.7	5.4	.80	.09	.02	.02
17	.19	.25	19	13	12	4.2	3.7	5.1	.60	.09	.02	.03
18	.17	.23	15	13	10	4.2	4.9	4.9	.50	.07	.02	.04
19	.19	.23	17	13	8.6	4.0	4.3	4.5	.50	.06	.02	.12
20	.21	.23	15	13	8.1	4.0	4.2	4.0	.60	.06	.02	.10
21	.25	.24	44	12	7.4	4.2	3.8	4.3	.80	.06	.02	.02
22	.28	.26	33	11	7.1	4.1	2.6	4.4	.70	.06	.02	.01
23	.32	.23	30	10	6.9	4.1	1.1	4.3	.80	.06	.02	.01
24	.37	.22	38	9.6	6.9	3.4	.73	4.2	.90	.07	.02	.01
25	.39	.26	49	9.0	7.5	2.7	3.3	3.2	1.0	.10	.02	.01
26	.30	5.7	54	6.7	6.7	2.6	3.8	2.4	1.4	.11	.02	.02
27	.21	4.5	49	8.0	6.3	3.2	3.4	12	1.2	.11	.02	.02
28	.23	4.6	33	6.4	5.8	4.3	3.2	7.8	1.2	.11	.02	.02
29	.20	25	26	3.4	-----	3.3	3.2	6.4	.90	.11	.02	.01
30	.19	36	22	3.1	-----	2.1	2.9	5.7	2.0	.11	.02	.02
31	.17	-----	19	3.0	-----	2.6	-----	5.4	-----	.12	.02	-----
TOTAL	6.45	84.01	612.0	324.8	167.8	130.0	88.00	192.0	31.47	7.27	1.40	.76
MEAN	.21	2.80	19.7	10.5	5.99	4.19	2.93	6.19	1.05	.23	.045	.025
MAX	.39	36	54	31	12	10	4.9	19	3.1	2.7	.13	.12
MIN	.08	.10	5.8	1.5	2.3	1.7	.67	2.4	.30	.04	.02	.01
AC-FT	13	167	1,210	644	333	258	175	381	62	14	2.8	1.5

CAL YR 1970 TOTAL 1,582.59 MEAN 4.34 MAX 64 MIN .05 AC-FT 3,140  
WTR YR 1971 TOTAL 1,645.96 MEAN 4.51 MAX 54 MIN .01 AC-FT 3,260

PEAK DISCHARGE (BASE, 150 CFS).--No peak above base.

## SANTA ANA RIVER BASIN

11055800 CITY CREEK NEAR HIGHLAND, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF CITY CREEK AND CITY CREEK  
WATER CO.'S CANAL NEAR HIGHLAND, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.9	17	17	6.4	5.7	5.6	4.3	5.1	2.7	.84	1.0
2	1.6	2.7	10	15	6.1	5.3	5.8	4.2	4.9	2.7	.79	1.0
3	1.8	2.7	6.7	14	6.0	8.7	5.7	4.3	4.7	2.8	.82	1.0
4	2.2	2.8	7.3	11	5.8	4.8	4.9	4.7	4.5	2.5	.77	1.0
5	2.1	2.9	6.9	9.4	6.3	5.5	4.3	4.7	4.4	2.3	.79	1.0
6	2.2	3.3	6.6	7.3	5.9	5.4	3.7	20	4.3	2.3	.79	1.0
7	2.3	3.4	5.8	6.5	5.7	5.3	4.6	15	4.2	2.2	.78	1.0
8	2.1	3.3	5.9	6.1	5.7	5.2	4.7	10	3.8	2.0	.76	1.0
9	2.0	3.1	9.9	6.2	5.6	5.5	4.5	9.0	4.1	1.9	.70	1.0
10	2.0	3.0	8.5	6.4	5.4	4.9	4.4	8.0	4.3	1.7	.94	1.0
11	1.9	2.6	7.7	6.2	5.2	4.9	4.3	7.2	4.8	1.5	1.0	1.0
12	1.9	2.4	8.3	22	5.1	4.9	4.7	6.8	4.1	1.4	1.1	1.0
13	1.9	2.2	10	31	5.1	10	5.3	6.2	3.9	1.3	.96	1.0
14	2.2	2.6	21	20	5.2	5.9	5.6	6.0	3.6	1.3	1.1	.97
15	2.4	2.9	8.4	14	5.4	4.9	4.3	5.6	3.5	1.4	1.1	.92
16	2.3	2.9	9.0	13	9.2	4.6	5.5	5.4	3.3	1.4	1.1	.82
17	2.2	3.0	19	13	12	4.2	6.5	5.1	3.2	1.5	1.0	1.0
18	2.2	2.9	15	13	10	4.2	4.9	4.9	3.0	1.5	1.0	.78
19	2.4	2.9	17	13	8.6	4.0	4.3	4.5	3.0	1.4	1.1	.39
20	2.5	3.0	15	13	8.1	4.0	4.2	4.0	2.9	1.3	1.1	.69
21	2.8	3.1	44	12	7.4	4.2	4.8	4.5	2.9	1.3	1.1	1.0
22	3.0	3.2	33	11	7.1	4.1	5.2	4.4	2.8	1.3	1.1	1.1
23	3.1	3.0	30	10	6.9	4.1	5.7	4.3	2.8	1.3	1.1	.95
24	3.3	3.0	38	9.6	6.9	5.8	5.6	4.2	2.8	1.3	1.1	.87
25	3.3	3.3	49	9.0	7.5	6.6	8.3	4.1	2.7	1.1	1.1	.94
26	3.1	7.4	54	6.7	6.7	6.4	5.7	4.0	2.7	1.1	1.1	1.3
27	2.8	4.5	49	8.0	6.3	5.8	5.2	13	2.7	1.1	.97	1.5
28	2.8	4.6	33	7.6	5.8	4.4	4.9	7.8	2.7	.97	1.0	1.5
29	2.8	25	26	7.2	-----	5.0	4.6	6.4	2.7	.82	1.0	1.2
30	2.8	36	22	6.8	-----	5.3	4.3	5.7	2.7	.90	1.0	1.5
31	2.8	-----	19	6.6	-----	5.4	-----	5.4	-----	.89	1.0	-----
TOTAL	74.3	150.6	612.0	351.6	187.4	165.0	152.1	203.7	107.1	49.18	30.11	30.43
MEAN	2.40	5.02	19.7	11.3	6.69	5.32	5.07	6.57	3.57	1.59	.97	1.01
MAX	3.3	36	54	31	12	10	8.3	20	5.1	2.8	1.1	1.5
MIN	1.5	2.2	5.8	6.1	5.1	4.0	3.7	4.0	2.7	.82	.70	.39
AC-FT	147	299	1,210	697	372	327	302	404	212	98	60	60

CAL YR 1970 TOTAL 2,422.70 MEAN 6.64 MAX 66 MIN 1.4 AC-FT 4,810  
WTR YR 1971 TOTAL 2,113.52 MEAN 5.79 MAX 54 MIN .39 AC-FT 4,190

PEAK DISCHARGE (BASE, 150 CFS).--No peak above base.

## 11056500 LITTLE SAN GORGONIO CREEK NEAR BEAUMONT, CALIF.

LOCATION.--Lat 34°01'45", long 116°56'43", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.1, T.2 S., R.1 W., San Bernardino County, on right bank at upstream side of bridge on Oak Glen Road, 3.0 miles upstream from Wallace Creek, and 7 miles north of Beaumont. Prior to July 30, 1970, at site 42 ft downstream.

DRAINAGE AREA.--3.23 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,320 ft (from topographic map). Prior to July 30, 1970, at site 42 ft downstream on left bank at same datum.

AVERAGE DISCHARGE.--23 years, 0.49 cfs (355 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 39 cfs Nov. 29 (gage height, 3.49 ft); no flow July 10 to Sept. 30.

Period of record: Maximum discharge, 11,000 cfs Feb. 25, 1969 (gage height, 8.50 ft, from floodmarks), from rating curve extended above 32 cfs on basis of slope-area measurements at gage heights 2.18, 3.45, and 8.50 ft; no flow for several months in most years.

REMARKS.--Records poor. No regulation above station. Several small diversions above station for irrigation. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.05	.38	.36	.46	.60	.20	.20	.46	.03		
2	.05	.05	.27	.59	.46	.60	.20	.20	.59	.03		
3	.07	.05	.27	.46	.46	.59	.20	.27	.46	.03		
4	.15	.05	.20	.36	.46	.46	.20	.46	.36	.03		
5	.07	.05	.20	.36	.46	.36	.20	.46	.36	.03		
6	.07	.05	.15	.36	.46	.36	.20	1.1	.27	.03		
7	.07	.05	.15	.46	.46	.36	.20	.90	.27	.03		
8	.07	.05	.15	.46	.46	.36	.20	1.1	.27	.03		
9	.07	.05	.20	.46	.46	.36	.20	.73	.36	.01		
10	.07	.05	.20	.46	.46	.36	.20	.59	.27	0		
11	.07	.07	.20	.46	.46	.36	.20	.46	.27	0		
12	.07	.11	.15	.46	.46	.36	.27	.36	.20	0		
13	.07	.21	.15	.46	.46	.73	.27	.27	.15	0		
14	.07	.14	.36	.46	.46	.46	.36	.20	.11	0		
15	.07	.10	.36	.46	.46	.46	.27	.20	.11	0		
16	.07	.06	.27	.46	.46	.36	.20	.15	.11	0		
17	.07	.30	.36	.46	.90	.36	.36	.15	.07	0		
18	.07	.23	.36	.46	.80	.36	.36	.11	.07	0		
19	.07	.12	.36	.46	.75	.36	.36	.11	.05	0		
20	.07	.03	.36	.46	.70	.36	.36	.07	.04	0		
21	.06	.03	.20	.46	.66	.36	.27	.11	.04	0		
22	.06	.02	.27	.46	.65	.36	.36	.11	.04	0		
23	.06	.03	.36	.46	.64	.36	.27	.11	.04	0		
24	.06	.01	.36	.46	.62	.36	.20	.05	.04	0		
25	.06	.03	.27	.46	.62	.27	.59	.05	.04	0		
26	.06	.05	.20	.46	.61	.27	.59	.05	.04	0		
27	.06	.02	.20	.46	.61	.27	.46	.20	.04	0		
28	.06	.01	.20	.46	.60	.27	.36	.20	.04	0		
29	.06	3.4	.20	.46	-----	.27	.27	.46	.04	0		
30	.06	1.3	.20	.46	-----	.20	.20	.46	.03	0		
31	.06	-----	.27	.46	-----	.20	-----	.36	-----	0		-----
TOTAL	2.09	6.77	7.83	13.99	15.52	11.77	8.58	10.25	5.24	.25	0	0
MEAN	.067	.23	.25	.45	.55	.38	.29	.33	.17	.008	0	0
MAX	.15	3.4	.38	.59	.90	.73	.59	1.1	.59	.03	0	0
MIN	.04	.01	.15	.36	.46	.20	.20	.05	.03	0	0	0
AC-FT	4.2	13	16	28	31	23	17	20	10	.5	0	0

CAL YR 1970 TOTAL 171.02 MEAN .47 MAX 3.8 MIN .01 AC-FT 339  
WTR YR 1971 TOTAL 82.29 MEAN .23 MAX 3.4 MIN 0 AC-FT 163

PEAK DISCHARGE (BASE, 10 CFS).--Nov. 29 (1945) 39 cfs (3.49 ft).



## SANTA ANA RIVER BASIN

11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CALIF.

LOCATION.--Lat 34°03'49", long 117°16'19", in San Bernardino Grant, San Bernardino County, on right bank 50 ft downstream from west bound lane of Interstate Highway 10 and 0.8 mile northwest of Loma Linda.

DRAINAGE AREA.--125 sq mi.

PERIOD OF RECORD.--October 1954 to September 1965, February 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,040 ft (from topographic map). Prior to February 1968, at site 0.5 mile downstream at different datum.

AVERAGE DISCHARGE.--14 years (1954-65, 1968-71), 2.87 cfs (2,080 acre-ft per year); median of yearly mean discharges, 1.3 cfs (940 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 503 cfs Dec. 21 (gage height, 3.8 ft, from floodmarks); no flow Jan. 27 to Feb. 7.

Period of record: Maximum discharge, 15,000 cfs Feb. 25, 1969 (gage height, 8.2 ft, from floodmark), from rating curve extended above 2,100 cfs on basis of slope-conveyance measurement of maximum flow; no flow for several days in some years.

REMARKS.--Records fair. No regulation above station. Natural flow affected by pumping and return flow from irrigated areas.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	1.5	.16	.31	0	1.2	1.2	.31	1.2	2.4	.22	.68
2	1.2	2.4	.16	.85	0	1.2	.54	.42	1.2	2.4	.42	2.8
3	.85	1.2	.16	.54	0	1.8	.85	.68	1.2	2.4	.42	2.8
4	.54	.85	.16	.68	0	2.4	.85	.68	1.2	2.8	.42	2.8
5	.85	1.0	.10	.16	0	2.4	.54	.68	1.5	2.8	1.0	1.8
6	1.8	1.0	.16	.03	0	1.5	.42	1.2	1.5	2.8	1.5	2.0
7	2.8	1.2	.16	.06	0	1.5	.54	1.0	1.8	2.8	.31	1.5
8	1.8	.85	.22	.06	1.2	2.4	.54	1.5	1.8	2.4	.16	1.8
9	1.5	.85	.68	.06	1.2	2.4	.54	1.0	1.8	2.0	.54	1.8
10	1.2	1.0	.22	.06	1.2	2.4	.54	1.0	1.8	1.5	.54	1.8
11	1.2	1.0	.16	.06	1.2	2.4	.42	.85	2.0	.54	1.0	1.8
12	1.0	.85	.16	.31	1.2	1.5	.54	.68	1.2	1.0	1.5	1.5
13	.85	1.0	.16	.16	1.2	1.8	.42	.68	1.2	1.5	3.2	1.0
14	.85	1.0	.16	.10	1.2	1.8	.68	1.0	2.8	1.5	3.2	1.2
15	1.0	1.8	.16	.06	1.8	1.8	.54	.68	2.8	1.5	2.4	1.0
16	1.2	2.0	.31	.10	2.8	2.0	.68	1.0	2.0	1.8	3.2	1.5
17	2.0	5.2	.31	.06	3.2	2.8	.85	.54	2.0	1.8	1.8	2.0
18	.85	5.2	.42	.06	1.8	1.8	.85	.42	2.0	.85	1.8	1.2
19	.68	4.2	6.1	.06	1.5	3.2	.85	.42	1.8	.85	3.2	.85
20	1.0	4.2	2.0	.06	1.5	3.2	.85	.42	1.8	.85	2.8	1.0
21	1.2	3.6	130	.06	2.0	2.8	.85	1.2	2.0	.85	2.8	1.0
22	.85	3.2	1.0	.06	2.0	2.0	.54	.85	1.5	.54	2.0	.68
23	1.2	2.8	.42	.06	1.8	2.0	.54	.85	1.8	.31	1.8	.85
24	1.0	2.8	.31	.10	1.8	2.8	.85	.68	1.2	.31	2.8	1.0
25	.68	3.2	.31	.06	1.5	3.2	.68	.85	2.0	.85	1.5	.85
26	.85	4.6	.31	.06	1.5	3.6	.68	1.2	2.0	.85	2.0	.85
27	1.0	18	.31	0	1.5	3.2	.68	1.5	2.4	.85	1.8	.68
28	.68	48	.31	0	1.2	1.2	.68	1.8	2.4	.68	1.0	.68
29	1.2	104	.31	0	-----	.22	.54	1.8	2.4	.68	.68	.42
30	1.0	.68	.31	0	-----	.03	.42	1.5	2.4	.68	1.8	.68
31	1.5	-----	.31	0	-----	.31	-----	1.5	-----	.42	1.2	-----
TOTAL	35.01	229.18	146.02	4.24	34.3	62.86	19.70	28.89	54.7	43.51	49.01	40.52
MEAN	1.13	7.64	4.71	.14	1.23	2.03	.66	.93	1.82	1.40	1.58	1.35
MAX	2.8	104	130	.85	3.2	3.6	1.2	1.8	2.8	2.8	3.2	2.8
MIN	.54	.68	.10	0	0	.03	.42	.31	1.2	.31	.16	.42
AC-FT	69	455	290	8.4	68	125	39	57	109	86	97	80

CAL YR 1970 TOTAL 865.21 MEAN 2.37 MAX 130 MIN 0 AC-FT 1,720  
WTR YR 1971 TOTAL 747.94 MEAN 2.05 MAX 130 MIN 0 AC-FT 1,480

PEAK DISCHARGE (BASE, 150 CFS).--Nov. 29 (about 1400) 407 cfs (3.7 ft, from floodmarks); Dec. 21 (about 0400) 503 cfs (3.83 ft, from floodmark).

## 11058500 EAST TWIN CREEK NEAR ARROWHEAD SPRINGS, CALIF.

LOCATION.--Lat 34°10'45", long 117°15'53", in NW¼NE¼ sec.14, T.1N., R.4 W., San Bernardino County, on right bank 100 ft upstream from Del Rosa Water Co.'s diversion dam, 0.5 mile south of Arrowhead Springs, and 1.0 mile downstream from Strawberry Creek.

DRAINAGE AREA.--8.80 sq mi.

PERIOD OF RECORD.--December 1919 to current year. Prior to October 1952, published as Strawberry Creek near Arrowhead Springs.

GAGE.--Water-stage recorder. Broad-crested weir since September 1938. Altitude of gage is 1,590 ft (from topographic map).

AVERAGE DISCHARGE.--51 years (1920-71), 4.56 cfs (3,300 acre-ft per year); median of yearly mean discharges, 2.8 cfs (2,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 211 cfs Nov. 29 (gage height, 3.46 ft); minimum daily, 0.46 cfs Sept. 11.

Period of record: Maximum discharge, 3,360 cfs Mar. 2, 1938, based on rainfall-runoff studies; practically no flow at times in 1929, 1931-35.

REMARKS.--Records good. No regulation above station. One small diversion for domestic use above station. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	1.2	5.5	4.0	2.9	2.5	1.9	2.2	1.9	1.2	.55	.54
2	.83	1.3	5.0	4.9	2.9	2.1	1.9	2.5	1.9	1.1	.54	.55
3	.96	1.2	2.8	3.9	2.7	2.1	2.1	2.6	1.9	1.1	.56	.54
4	1.0	1.3	1.5	3.4	2.6	2.2	2.1	2.9	1.6	1.2	.55	.52
5	.99	1.4	1.2	3.3	2.9	2.2	1.9	2.8	1.7	1.2	.54	.50
6	1.0	1.4	1.3	3.4	3.4	2.2	1.8	5.3	1.8	1.1	.53	.49
7	1.1	1.2	1.1	3.0	3.5	2.4	1.9	3.6	1.7	1.1	.52	.49
8	.96	1.2	1.1	2.8	3.2	2.6	2.1	2.9	1.6	1.1	.51	.49
9	.95	1.4	1.7	3.0	3.1	2.8	2.1	2.8	1.8	.98	.51	.49
10	.97	1.2	1.2	2.9	2.8	2.9	2.1	2.9	2.0	.92	.51	.47
11	.99	1.1	1.1	3.2	2.8	2.8	2.1	3.0	1.9	.88	.51	.46
12	.99	1.2	1.2	16	2.8	2.9	2.0	2.4	1.7	.86	.53	.47
13	1.1	1.2	1.2	19	2.7	9.7	2.0	2.5	1.5	.86	.53	.48
14	1.1	1.2	1.5	18	2.7	4.2	2.5	2.1	1.4	.83	.54	.48
15	1.1	1.2	1.3	9.7	2.7	2.9	2.5	2.3	1.3	.84	.55	.50
16	1.1	1.2	2.1	6.7	4.3	2.4	2.6	2.3	1.2	.85	.57	.52
17	1.1	1.3	4.4	5.9	5.1	2.1	3.0	2.4	1.1	.89	.57	.56
18	1.3	1.4	2.8	5.3	7.2	1.9	3.0	2.2	1.2	1.0	.57	.54
19	1.2	1.3	4.1	4.8	8.4	1.9	2.7	1.9	1.2	.95	.56	.52
20	1.3	1.3	3.2	4.4	3.7	1.9	2.6	1.9	1.2	.85	.57	.51
21	1.4	1.3	55	4.2	2.9	2.1	2.9	2.3	1.1	.82	.59	.52
22	1.5	1.3	30	3.8	2.8	1.9	2.6	2.3	1.1	.82	.58	.56
23	1.4	1.2	18	3.7	2.7	1.9	2.5	2.2	1.2	.69	.58	.49
24	1.4	1.2	10	3.6	2.5	2.1	2.6	2.0	1.2	.60	.57	.46
25	1.5	1.4	6.5	3.5	2.3	2.1	3.5	1.8	1.1	.55	.57	.50
26	1.5	3.5	6.1	3.1	2.3	2.0	2.9	2.0	1.1	.55	.52	.52
27	1.5	2.4	5.3	2.8	2.4	2.0	2.8	3.0	1.3	.58	.50	.52
28	1.3	3.4	4.8	3.0	2.5	2.2	2.7	2.2	1.3	.65	.52	.56
29	1.4	28	4.3	2.8	-----	1.9	2.7	2.1	1.4	.61	.52	.57
30	1.4	12	4.1	2.9	-----	2.0	2.4	2.1	1.3	.57	.53	.63
31	1.2	-----	4.0	2.9	-----	2.1	-----	2.0	-----	.55	.53	-----
TOTAL	36.50	80.9	193.4	163.9	92.8	79.0	72.5	77.5	43.7	26.80	16.83	15.45
MEAN	1.18	2.70	6.24	5.29	3.31	2.55	2.42	2.50	1.46	.86	.54	.52
MAX	1.5	28	55	19	8.4	9.7	3.5	5.3	2.0	1.2	.59	.63
MIN	.83	1.1	1.1	2.8	2.3	1.9	1.8	1.8	1.1	.55	.50	.46
AC-FT	72	160	384	325	184	157	144	154	87	53	33	31

CAL YR 1970 TOTAL 1,026.76 MEAN 2.81 MAX 55 MIN .81 AC-FT 2,040  
WTR YR 1971 TOTAL 899.28 MEAN 2.46 MAX 55 MIN .46 AC-FT 1,780

## PEAK DISCHARGE (BASE, 40 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1430	3.46	211	1-21	1730	3.07	57
12-21	1300	3.08	97				

## SANTA ANA RIVER BASIN

11058600 WATERMAN CANYON CREEK NEAR ARROWHEAD SPRINGS, CALIF.

LOCATION.--Lat 34°11'36", long 117°16'25", in NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.11, T.1 N., R.4 W., San Bernardino County, on left bank 0.8 mile northwest of Arrowhead Springs and 1.3 miles north of San Bernardino National Forest boundary.

DRAINAGE AREA.--4.65 sq mi.

PERIOD OF RECORD.--November 1911 to October 1914 (published as "near San Bernardino"), December 1919 to current year.

GAGE.--Water-stage recorder. Broad-crested weir since September 1938. Datum of gage is 2,045.46 ft above mean sea level. Prior to December 1919, nonrecording gage at site 300 ft downstream at different datum.

AVERAGE DISCHARGE.--53 years (1912-14, 1920-71), 2.62 cfs (1,900 acre-ft per year); median of yearly mean discharges, 1.6 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 585 cfs Nov. 29 (gage height, 4.50 ft), from rating curve extended above 140 cfs on basis of slope-area measurement at gage height 4.82 ft; minimum daily, 0.09 cfs Sept. 13. 1920 to current year: Maximum discharge, 2,350 cfs Mar. 2, 1938, based on rainfall-runoff studies; no flow at times in most years.

REMARKS.--Records good except for Nov. 30 to Dec. 14, which are poor. No regulation above station. One small diversion for domestic use above station. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	.75	5.2	2.4	1.0	.91	3.1	1.5	1.2	.62	.33	.23
2	.44	.73	3.5	3.2	1.0	.92	3.1	1.4	1.2	.60	.32	.23
3	.58	.75	2.9	2.3	1.1	.83	2.3	1.4	1.2	.60	.32	.24
4	.60	.79	2.5	2.2	1.2	.74	.94	1.5	1.1	.52	.31	.21
5	.62	.82	2.3	2.0	1.5	.71	.95	1.6	1.1	.52	.31	.21
6	.67	.95	2.1	2.0	1.4	.69	1.1	5.2	1.0	.50	.27	.22
7	.68	.93	2.0	1.3	1.4	.64	1.2	2.3	1.0	.50	.27	.22
8	.59	.91	1.9	1.3	1.4	.65	1.1	2.0	.93	.50	.24	.20
9	.57	.80	1.8	1.2	1.4	.65	1.0	1.8	1.0	.44	.23	.19
10	.57	.86	1.7	1.2	1.4	.68	1.1	1.7	1.1	.38	.24	.18
11	.57	.88	1.7	1.2	1.6	.70	1.0	1.6	.92	.36	.25	.15
12	.64	.88	1.6	7.6	1.3	.69	1.0	1.6	.83	.36	.28	.13
13	.70	.70	1.6	3.0	.84	3.6	1.0	1.5	.72	.30	.30	.09
14	.77	.75	1.6	1.9	.83	1.5	1.3	1.5	.69	.26	.28	.11
15	.79	.75	1.6	1.8	.84	1.2	1.2	1.4	.67	.36	.30	.11
16	.72	.76	1.6	1.6	1.7	.98	1.3	1.3	.68	.40	.27	.16
17	.70	.77	1.6	1.6	1.8	.90	1.7	1.3	.65	.40	.25	.26
18	.70	.81	1.6	1.5	1.2	.84	1.5	1.3	.63	.43	.25	.21
19	.74	.83	41	1.5	1.2	.85	1.4	1.3	.64	.43	.26	.15
20	.79	.88	4.1	1.4	1.2	.84	1.3	1.2	.62	.39	.26	.18
21	.83	.93	22	1.4	1.1	.74	1.5	1.2	.59	.39	.27	.25
22	.85	.93	10	1.5	1.1	.71	1.4	1.1	.59	.42	.28	.22
23	.88	.89	7.2	1.4	1.1	.66	1.3	1.1	.59	.44	.30	.16
24	.92	.87	5.0	1.4	1.0	.73	1.4	1.1	.60	.44	.31	.15
25	.87	1.1	4.0	1.3	.99	.78	2.0	1.1	.57	.41	.26	.21
26	.83	1.5	3.5	1.2	.94	.71	1.6	1.1	.60	.39	.21	.24
27	.74	1.7	3.2	1.1	.93	.62	1.6	1.5	.67	.38	.19	.23
28	.72	2.2	3.0	1.1	.93	.56	1.6	1.4	.75	.34	.17	.22
29	.73	55	3.0	1.1	-----	.54	1.5	1.3	.69	.36	.18	.22
30	.72	15	2.8	1.1	-----	.61	1.5	1.3	.62	.36	.19	.28
31	.78	-----	2.5	1.0	-----	.73	-----	1.2	-----	.35	.22	-----
TOTAL	21.73	96.42	150.1	55.8	33.40	26.91	43.99	47.8	24.15	13.15	8.12	5.86
MEAN	.70	3.21	4.84	1.80	1.19	.87	1.47	1.54	.81	.42	.26	.20
MAX	.92	55	41	7.6	1.8	3.6	3.1	5.2	1.2	.62	.33	.28
MIN	.42	.70	1.6	1.0	.83	.54	.94	1.1	.57	.26	.17	.09
AC-FT	43	191	298	111	66	53	87	95	48	26	16	12
CAL YR 1970	TOTAL 683.54	MEAN 1.87	MAX 55	MIN .36	AC-FT 1,360							
WTR YR 1971	TOTAL 527.43	MEAN 1.45	MAX 55	MIN .09	AC-FT 1,050							

## PEAK DISCHARGE (BASE, 35 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1345	4.50	585	1-12	1730	2.84	77
12-21	0715	2.64	61				

NOTE.--Stage-discharge relation indefinite Nov. 30 to Dec. 14.

## 11059000 WARM CREEK FLOODWAY AT SAN BERNARDINO, CALIF.

LOCATION.--Lat 34°05'45", long 117°16'30", in San Bernardino Grant, San Bernardino County, on left bank 0.4 mile upstream from Mill Street and 1.8 miles upstream from mouth.

DRAINAGE AREA.--47.8 sq mi.

PERIOD OF RECORD.--January 1961 to current year. Prior to October 1965, published as "near San Bernardino."

GAGE.--Water-stage recorder. Altitude of gage is 1,000 ft (from topographic map). Prior to Dec. 21, 1967, at site 0.4 mile downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 1,470 cfs Nov. 29 (gage height, 4.40 ft); no flow most of year. Period of record: Maximum discharge, 9,600 cfs Feb. 25, 1969 (gage height, 6.75 ft), from rating curve extended above 3,000 cfs; no flow most of each year.

REMARKS.--Records good except those less than 1 cfs, which are poor. Flow partly regulated by percolation basins above Marshall Boulevard. Del Rosa Water Co. diverts from East Twin Creek for domestic use and irrigation. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	5.5	0	0	0	.01	0	.01	0	.06	
2		0	3.8	13	0	.26	0	0	0	0	.06	
3		0	.19	0	0	0	.06	0	0	0	.06	
4		0	0	0	.05	0	0	0	0	0	.06	
5		0	0	.01	0	0	0	0	0	0	.06	
6		0	0	.02	0	0	0	15	0	.15	.11	
7		0	.08	.01	0	0	0	2.0	0	.10	.07	
8		0	0	.01	0	0	0	.81	0	.10	.06	
9		0	4.2	0	0	0	0	.53	0	.10	.26	
10		0	0	0	0	0	0	14	0	0	.19	
11		0	0	0	0	0	0	.05	.08	0	.16	
12		0	0	61	0	0	.23	.01	0	0	.13	
13		0	0	9.1	0	63	.01	0	0	0	.52	
14		0	25	.03	0	1.4	5.3	0	.10	0	.12	
15		0	0	0	0	.10	.17	0	0	0	.05	
16		0	12	0	28	.01	.14	0	0	0	.11	
17		0	8.9	0	19	0	12	0	.15	.23	.11	
18		0	1.4	2.1	2.6	0	1.2	0	.10	0	.01	
19		0	70	.07	.66	0	.50	0	0	.07	0	
20		0	1.4	0	0	0	.01	0	0	0	0	
21		0	213	0	0	0	.07	0	.05	0	0	
22		0	43	0	0	0	.26	0	.10	0	0	
23		0	3.0	0	9.9	0	0	0	.15	0	0	
24		0	1.2	0	0	0	0	0	.10	0	0	
25		11	.81	0	0	0	29	.15	.10	0	0	
26		60	.25	0	0	0	.07	.19	.10	0	0	
27		1.2	0	0	0	0	0	.32	0	0	0	
28		68	0	0	0	0	0	.32	0	0	0	
29		302	0	0	-----	.12	0	.14	0	0	0	
30		59	0	0	-----	.01	0	.53	0	.10	0	
31		-----	0	0	-----	.01	-----	.07	-----	.06	0	-----
TOTAL	0	501.2	393.73	85.35	60.21	64.91	49.03	34.12	1.04	.91	2.20	0
MEAN	0	16.7	12.7	2.75	2.15	2.09	1.63	1.10	.035	.029	.071	0
MAX	0	302	213	61	28	63	29	15	.15	.23	.52	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	994	781	169	119	129	97	68	2.1	1.8	4.4	0
CAL YR 1970	TOTAL	2,464.74	MEAN	6.75	MAX	327	MIN	0	AC-FT	4,890		
WTR YR 1971	TOTAL	1,192.70	MEAN	3.27	MAX	302	MIN	0	AC-FT	2,370		

## 11059300 SANTA ANA RIVER AT E STREET, NEAR SAN BERNARDINO, CALIF.

LOCATION.--Lat 34°04'05", long 117°17'36", in San Bernardino Grant, San Bernardino County, on downstream side of E Street bridge, 0.8 mile downstream from San Timoteo Creek, 1 mile upstream from Warm Creek, and 3 miles south of San Bernardino.

DRAINAGE AREA.--532 sq mi.

PERIOD OF RECORD.--March 1939 to September 1954, October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 970 ft (from topographic map). Prior to Nov. 10, 1950, water-stage recorder on right bank at datum 10.00 ft higher. Nov. 11, 1950, to Sept. 30, 1954, water-stage recorders on both banks at datum 10.00 ft higher.

AVERAGE DISCHARGE.--15 years (1939-54), 12.5 cfs (9,050 acre-ft per year); median of yearly mean discharges, 6.9 cfs (5,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,440 cfs Nov. 29 (gage height, 8.37 ft); minimum daily, 7.0 cfs Mar. 29.

Period of record: Maximum discharge, 28,000 cfs Feb. 25, 1969; maximum gage height, 16.50 ft (present datum) Jan. 23, 1943, discharge uncertain but was probably less than 8,000 cfs; no flow many days prior to 1967.

REMARKS.--Records fair. Flow partly regulated by Big Bear Lake (see sta 11049000). Natural flow of stream affected by ground-water withdrawals and diversions for domestic use and irrigation above station. Effluent from sewage reclamation plant causes sustained flow since station was last operated. Records of chemical analyses for the current year are published in Part 2 of this report. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	14	20	29	12	11	12	12	14	12	14	13
2	14	14	19	27	11	11	13	12	13	12	13	12
3	14	14	16	27	11	11	12	12	13	12	13	13
4	14	14	14	26	11	11	12	12	14	11	13	11
5	14	13	13	25	11	11	13	12	14	12	13	12
6	14	14	14	24	11	12	12	12	13	13	13	13
7	14	14	14	23	11	11	12	13	14	12	12	13
8	14	14	14	23	12	11	12	29	13	12	13	13
9	14	15	23	22	11	12	13	16	12	13	13	13
10	14	13	15	21	11	11	12	15	12	13	13	13
11	14	12	13	23	11	11	12	14	13	12	13	13
12	14	13	13	39	11	12	13	14	14	13	13	14
13	14	14	15	29	11	62	14	14	12	13	12	13
14	14	13	19	23	10	29	21	14	14	12	12	13
15	14	13	15	19	13	15	18	13	13	13	13	13
16	14	14	13	17	16	13	16	13	13	12	13	13
17	13	14	40	15	31	12	23	14	13	12	12	13
18	13	14	44	16	14	14	17	14	13	12	12	12
19	14	14	77	11	12	14	15	13	13	13	13	13
20	13	14	56	12	14	14	14	13	12	13	12	12
21	14	14	400	14	12	13	13	13	14	13	11	13
22	13	13	144	15	13	14	13	12	13	13	13	12
23	13	15	72	13	12	14	13	12	13	13	13	12
24	14	14	61	12	11	13	13	13	13	13	12	12
25	14	14	50	13	12	14	12	13	13	12	12	12
26	14	76	47	13	12	13	14	13	12	13	12	13
27	14	30	43	13	13	12	13	64	12	13	12	12
28	14	65	40	12	12	12	13	36	13	13	12	12
29	14	418	37	12	-----	7.0	12	23	12	13	13	12
30	14	114	34	12	-----	9.0	12	14	12	13	12	12
31	14	-----	31	11	-----	13	-----	14	-----	13	13	-----
TOTAL	429	1,047	1,426	591	352	442.0	414	508	389	389	390	377
MEAN	13.8	34.9	46.0	19.1	12.6	14.3	13.8	16.4	13.0	12.5	12.6	12.6
MAX	14	418	400	39	31	62	23	64	14	13	14	14
MIN	13	12	13	11	10	7.0	12	12	12	11	11	11
AC-FT	851	2,080	2,830	1,170	698	877	821	1,010	772	772	774	748

CAL YR 1970 TOTAL 9,744.0 MEAN 24.0 MAX 418 MIN 12 AC-FT 17,340

WTR YR 1971 TOTAL 6,754.0 MEAN 18.5 MAX 418 MIN 7.0 AC-FT 13,400

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-26	0830	8.42	528	12-21	1600	-	a 850
11-29	1600	8.37	3,440				

NOTE.--No gage-height record or stage-discharge relation indefinite most of year.

a Estimated.

## SANTA ANA RIVER BASIN

177

11060400 WARM CREEK NEAR SAN BERNARDINO, CALIF.

LOCATION.--Lat 34°04'51", long 117°17'53", in San Bernardino Grant, San Bernardino County, on right bank 265 ft downstream from State Highway 395 bridge, 0.1 mile downstream from Lytle Creek (east channel), and 1.9 miles southeast of San Bernardino.

DRAINAGE AREA.--15.0 sq mi.

PERIOD OF RECORD.--February 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 975 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 1.67 cfs (1,210 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 500 cfs Dec. 19 (gage height, 4.38 ft); no flow most of year.  
Period of record: Maximum discharge, 2,200 cfs Jan. 25, 1969 (gage height, 5.55 ft); no flow most of each year.

REMARKS.--Records good. At times discharge diverted above station to Warm Creek floodway. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	0	0	0	0				
2		0	0	5.2	0	0	0	0				
3		0	0	0	0	0	0	0				
4		0	0	0	0	0	0	0				
5		0	0	0	0	0	0	0				
6		0	0	0	0	0	0	.65				
7		0	0	0	0	0	0	0				
8		0	0	0	0	0	0	0				
9		0	0	0	0	0	0	0				
10		0	0	0	0	0	0	0				
11		0	0	0	0	0	0	0				
12		0	0	4.0	0	0	0	0				
13		0	0	0	0	15	0	0				
14		0	2.4	0	0	0	0	0				
15		0	0	0	0	0	0	0				
16		0	6.1	0	1.0	0	0	0				
17		0	2.9	0	1.0	0	2.9	0				
18		0	0	0	.10	0	0	0				
19		0	47	0	0	0	0	0				
20		0	0	0	0	0	0	0				
21		0	111	0	0	0	0	0				
22		0	7.4	0	0	0	0	0				
23		0	0	0	0	0	0	0				
24		0	0	0	0	0	0	0				
25		0	0	0	0	0	5.8	0				
26		1.1	0	0	0	0	0	0				
27		0	0	0	0	0	0	0				
28		3.6	0	0	0	0	0	0				
29		9.9	0	0	-----	0	0	0				
30		.18	0	0	-----	0	0	0				
31		-----	0	0	-----	0	-----	0	-----			-----
TOTAL	0	14.78	176.8	9.2	2.10	15	8.7	.65	0	0	0	0
MEAN	0	.49	5.70	.30	.075	.48	.29	.021	0	0	0	0
MAX	0	9.9	111	5.2	1.0	15	5.8	.65	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	29	351	18	4.2	30	17	1.3	0	0	0	0
CAL YR 1970	TOTAL	425.48	MEAN	1.17	MAX	111	MIN	0	AC-FT	844		
WTR YR 1971	TOTAL	227.23	MEAN	.62	MAX	111	MIN	0	AC-FT	451		

## SANTA ANA RIVER BASIN

11060500 MEEKS AND DALEY CANAL NEAR COLTON, CALIF.

LOCATION.--Lat 34°04'47", long 117°18'00", in San Bernardino Grant, San Bernardino County, at point of diversion from Warm Creek and 1.5 miles northeast of Colton.

PERIOD OF RECORD.--September 1920 to current year. Published with station Warm Creek near Colton, October 1950 to September 1961.

GAGE.--Water-stage recorder. Altitude of gage is 965 ft (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 25 cfs Mar. 2, 1938; no flow at times most years.

REMARKS.--Records good. Canal diverts water from right bank of Warm Creek 1.6 miles northeast of Colton for irrigation in vicinity of Colton, Riverside, and Corona. All flow passing station this year was pumped from ground-water basin. Pumping began in 1931. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	0	0		0	5.0	5.6	5.9	1.8	5.3	6.6	5.0
2	6.6	.14	0		0	5.0	5.6	5.9	1.8	5.3	5.9	5.0
3	6.6	4.4	0		0	5.0	5.6	5.9	4.0	5.3	6.2	5.0
4	6.2	7.6	0		0	5.0	5.9	5.9	5.6	5.3	5.9	5.0
5	6.2	7.6	0		.22	5.0	5.9	5.9	5.6	5.3	6.6	5.0
6	6.2	7.6	0		.47	5.0	5.6	5.9	5.6	5.3	6.9	5.0
7	6.2	7.6	0		.47	5.0	5.6	5.9	5.3	5.3	6.9	5.0
8	6.2	7.3	0		.27	5.0	5.9	5.9	5.3	5.3	6.9	5.0
9	5.9	7.3	0		.22	5.0	5.9	5.9	5.3	6.6	6.9	5.0
10	5.9	7.3	0		3.8	5.0	4.0	5.9	5.3	7.3	6.9	5.0
11	6.2	7.3	0		5.6	5.0	2.0	5.6	5.3	7.3	6.9	5.0
12	6.2	7.3	0		5.6	3.4	2.0	4.2	5.3	7.3	6.9	5.0
13	6.2	7.3	0		5.6	.03	2.0	2.2	5.3	7.3	6.9	4.6
14	6.2	7.3	0		5.6	.62	2.0	2.0	5.3	7.3	6.9	5.3
15	5.9	7.3	0		5.6	2.0	2.2	2.0	5.3	7.3	6.9	5.3
16	5.9	7.3	0		5.6	2.4	2.0	2.0	5.3	7.3	6.9	5.3
17	5.9	7.3	0		2.1	3.8	2.0	2.0	5.3	7.3	5.9	5.3
18	5.9	7.3	0		0	1.9	4.2	1.8	5.3	6.9	5.0	5.0
19	5.9	7.3	.02		0	1.1	6.2	1.8	5.3	6.9	5.0	5.0
20	5.9	7.3	0		0	3.3	6.2	1.8	5.3	7.3	5.0	5.0
21	5.9	7.3	.03		0	6.9	6.2	1.8	5.3	7.3	5.0	5.3
22	5.9	7.3	0		0	6.9	6.2	1.8	5.3	6.9	5.0	5.3
23	5.9	6.9	0		0	5.9	6.2	1.8	5.3	6.9	5.0	5.0
24	5.9	4.8	0		3.8	5.6	6.2	1.8	5.3	6.9	5.0	5.0
25	5.9	0	0		5.0	5.6	6.2	1.8	5.3	6.9	5.0	5.0
26	5.9	0	0		5.0	5.9	6.2	1.8	5.3	6.9	5.0	5.0
27	5.6	0	0		5.0	5.6	6.2	1.8	5.3	6.9	5.0	5.0
28	5.6	0	0		5.0	5.6	5.9	1.8	5.3	6.9	5.0	5.0
29	5.6	.07	0		-----	5.6	5.9	1.8	5.3	6.9	5.0	5.0
30	4.1	0	0		-----	5.6	5.9	1.8	5.3	6.9	5.0	5.0
31	0	-----	0		-----	5.6	-----	1.8	-----	6.9	5.0	-----
TOTAL	178.7	156.21	.05	0	64.95	138.35	147.5	104.2	151.6	204.8	183.0	151.4
MEAN	5.76	5.21	.002	0	2.32	4.46	4.92	3.36	5.05	6.61	5.90	5.05
MAX	6.6	7.6	.03	0	5.6	6.9	6.2	5.9	5.6	7.3	6.9	5.3
MIN	0	0	0	0	0	.03	2.0	1.8	1.8	5.3	5.0	4.6
AC-FT	354	310	.1	0	129	274	293	207	301	406	363	300

CAL YR 1970 TOTAL 1,326.69 MEAN 3.63 MAX 7.6 MIN 0 AC-FT 2,630  
WTR YR 1971 TOTAL 1,480.76 MEAN 4.06 MAX 7.6 MIN 0 AC-FT 2,940

## 11062000 LYTLE CREEK NEAR FONTANA, CALIF.

LOCATION.--Lat 34°12'44", long 117°27'26", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.36, T.2 N., R.6 W., San Bernardino County, on right bank 75 ft upstream from highway bridge, 0.7 mile upstream from right tributary, and 8 miles north of Fontana.

DRAINAGE AREA.--46.3 sq mi.

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 pipe line near Fontana 1919-31). Monthly discharge only for some periods published in WSP 1315-B.

GAGE.--Water-stage recorder on creek. Dual arch-culvert control since 1964; water-stage recorders and sharp-crested weirs on conduit and infiltration line. Altitude of gage is 2,380 ft (from topographic map). October 1918 to Mar. 21, 1938, at site 1 mile downstream at different datum. Mar. 22, 1938, to Nov. 20, 1963, at site 75 ft downstream at datum 4.58 ft.

AVERAGE DISCHARGE (Creek only).--53 years, 14.3 cfs (10,360 acre-ft per year); median of yearly mean discharges, 2.1 cfs (1,500 acre-ft per year).

(Combined creek and diversions).--68 years, 43.0 cfs (31,150 acre-ft per year); median of yearly mean discharges, 32 cfs (23,200 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 1,100 cfs Nov. 29 (gage height, 7.50 ft), on basis of slope-conveyance measurement of maximum flow; no flow Apr. 16 to May 5, May 7 to Sept. 30.

Period of record: Maximum discharge, 35,900 cfs Jan. 25, 1969 (gage height, 15.0 ft, from floodmark), from rating curve extended above 570 cfs on basis of slope-area measurements at gage heights 10.78 and 15.0 ft; no flow at times in each year.

(Combined flow).--Current year: Maximum discharge, 1,100 cfs Nov. 29; minimum daily, 4.4 cfs Oct. 4-11.

Period of record: Maximum discharge, 35,900 cfs Jan. 25, 1969; minimum daily, 4.4 cfs Oct. 4-11, 1970 (affected by change in diversions due to fire of September 1970).

REMARKS.--Records (creek only), poor; (combined creek and diversions), fair. No regulation above station. Southern California Edison Co.'s Lytle Creek conduit diverts 2.3 miles upstream for power development, and Fontana Union Water Co. collects water from an infiltration line upstream for irrigation. See schematic diagram of Santa Ana River basin. For records of combined discharge of Lytle Creek and diversions, see following page.

COOPERATION.--Records of discharge through infiltration line furnished by Fontana Union Water Co.; water-stage recorder graph for Lytle Creek conduit furnished by Southern California Edison Co. in connection with a Federal Power Commission project.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.4	45	9.2	9.7	3.4	2.1	0				
2	1.2	1.4	42	9.2	9.7	3.4	1.8	0				
3	1.2	1.4	27	9.2	9.7	3.4	1.7	0				
4	1.2	1.4	24	9.2	9.7	3.6	2.0	0				
5	1.2	1.4	21	9.2	9.7	3.6	2.2	0				
6	1.2	1.4	16	9.2	9.4	3.6	1.7	.56				
7	1.2	1.4	16	10	9.0	3.6	1.8	0				
8	1.2	1.4	16	10	9.0	3.6	1.4	0				
9	1.2	1.4	11	10	8.7	3.6	1.2	0				
10	1.2	1.4	7.2	10	8.4	3.6	1.1	0				
11	1.2	1.4	6.9	10	8.4	3.6	.94	0				
12	1.2	1.4	6.4	12	8.4	3.6	.86	0				
13	1.3	1.4	6.4	12	8.4	5.8	.79	0				
14	1.3	1.4	6.9	11	8.4	7.2	.66	0				
15	1.3	1.7	7.2	10	8.7	5.5	.26	0				
16	1.3	1.2	7.5	9.7	9.7	4.8	0	0				
17	1.3	1.2	7.6	9.7	13	4.5	0	0				
18	1.3	1.2	7.5	10	6.6	3.9	0	0				
19	1.3	1.2	9.0	12	4.9	3.6	0	0				
20	1.3	1.2	9.4	14	4.2	3.6	0	0				
21	1.3	1.2	102	16	3.6	3.6	0	0				
22	1.3	1.2	40	17	3.6	3.6	0	0				
23	1.3	1.2	19	14	3.6	3.7	0	0				
24	1.3	1.2	9.8	11	3.6	3.9	0	0				
25	1.4	1.2	9.8	11	3.6	3.9	0	0				
26	1.4	1.2	9.4	11	3.6	4.1	0	0				
27	1.4	1.2	9.4	10	3.4	4.1	0	0				
28	1.4	1.2	9.4	10	3.4	3.6	0	0				
29	1.4	112	9.4	10	-----	3.2	0	0				
30	1.4	46	9.4	9.7	-----	3.7	0	0				
31	1.4	-----	9.4	9.7	-----	2.8	-----	0	-----			-----
TOTAL	39.8	194.9	537.0	335.0	202.1	121.7	20.51	.56	0	0	0	0
MEAN	1.28	6.50	17.3	10.8	7.22	3.93	.68	.018	0	0	0	0
MAX	1.4	112	102	17	13	7.2	2.2	.56	0	0	0	0
MIN	1.2	1.2	6.4	9.2	3.4	2.8	0	0	0	0	0	0
AC-FT	79	387	1,070	664	401	241	41	1.1	0	0	0	0

CAL YR 1970 TOTAL 2,694.82 MEAN 7.38 MAX 112 MIN .05 AC-FT 5,350  
WTR YR 1971 TOTAL 1,451.57 MEAN 3.98 MAX 112 MIN 0 AC-FT 2,880

PEAK DISCHARGE (BASE, 200 CFS).--Nov. 29 (1400) 1,100 cfs (7.50 ft); Dec. 21 (0700) 530 cfs (6.25 ft).

NOTE.--No gage-height record Oct. 1 to Nov. 9.



## SANTA ANA RIVER BASIN

## 11062000 LYTLE CREEK NEAR FONTANA, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF LYTLE CREEK,  
SOUTHERN CALIFORNIA EDISON CO.'S LYTLE CREEK CONDUIT, AND FONTANA UNION  
WATER CO.'S INFILTRATION LINE, NEAR FONTANA, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	23	48	36	35	29	26	23	21	17	15	15
2	10	23	46	37	35	30	26	23	21	18	15	15
3	7.3	23	31	36	35	28	26	23	21	17	16	15
4	4.4	23	27	36	35	27	25	22	20	17	15	15
5	4.4	23	21	37	35	27	26	22	21	17	15	16
6	4.4	23	16	37	35	27	26	25	20	17	15	15
7	4.4	23	16	37	33	26	26	23	20	16	15	14
8	4.4	23	18	37	33	26	25	23	19	16	15	14
9	4.4	23	22	36	32	26	25	23	20	16	15	14
10	4.4	23	29	36	32	25	25	22	20	17	15	14
11	4.4	23	31	35	35	25	25	22	20	16	15	14
12	10	23	32	38	35	25	25	22	20	15	15	14
13	22	23	32	37	35	29	25	22	19	15	15	14
14	24	23	33	34	34	31	26	22	19	16	16	14
15	24	24	33	33	32	30	25	22	19	16	17	14
16	24	23	34	34	36	28	25	22	18	16	14	14
17	24	22	35	35	40	28	25	22	18	17	14	14
18	24	22	35	33	34	27	25	22	18	17	16	14
19	24	22	36	30	33	27	24	21	18	16	16	14
20	24	22	37	26	34	26	24	21	17	16	16	14
21	24	23	116	28	32	25	24	22	18	16	15	15
22	24	23	56	26	31	24	23	22	18	16	15	15
23	24	23	46	30	32	24	23	21	18	16	15	15
24	24	22	37	33	31	26	24	21	17	15	15	15
25	24	23	37	33	31	24	25	20	17	15	15	15
26	24	23	37	33	31	24	25	20	18	16	15	15
27	24	23	37	34	29	24	24	23	18	15	15	15
28	24	22	37	34	30	24	24	23	17	15	15	15
29	24	115	37	34	-----	25	24	22	17	15	15	15
30	24	49	37	34	-----	29	23	22	17	15	15	15
31	24	-----	36	35	-----	28	-----	21	-----	15	14	-----
TOTAL	535.5	803	1,125	1,054	935	824	744	684	564	497	469	437
MEAN	17.3	26.8	36.3	34.0	33.4	26.6	24.8	22.1	18.8	16.0	15.1	14.6
MAX	24	115	116	38	40	31	26	25	21	18	17	16
MIN	4.4	22	16	26	29	24	23	20	17	15	14	14
AC-FT	1,060	1,590	2,230	2,090	1,850	1,630	1,480	1,360	1,120	986	930	867

CAL YR 1970 TOTAL 10,859.5 MEAN 29.8 MAX 116 MIN 4.4 AC-FT 21,540  
WTR YR 1971 TOTAL 8,671.5 MEAN 23.8 MAX 116 MIN 4.4 AC-FT 17,200

PEAK DISCHARGE (BASE, 200 CFS).--Nov. 29 (1400) 1,100 cfs; Dec. 21 (0700) 555 cfs.

## 11063000 CAJON CREEK NEAR KEENBROOK, CALIF.

LOCATION.--Lat 34°16'01", long 117°27'33", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.12, T.2 N., R.6 W., San Bernardino County, on left bank 1,300 ft upstream from Lone Pine Creek and 1.2 miles north of Keenbrook.

DRAINAGE AREA.--40.6 sq mi.

PERIOD OF RECORD.--December 1919 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,630 ft (from topographic map). Prior to Oct. 24, 1935, at site 1,000 ft downstream at different datum. Oct. 24, 1935, to Jan. 26, 1966, at site 300 ft upstream at datum 6.68 ft higher.

AVERAGE DISCHARGE.--51 years (1920-71), 9.06 cfs (6,560 acre-ft per year); median of yearly mean discharges, 5.5 cfs (4,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,300 cfs Nov. 29 (gage height, 7.5 ft, from floodmark), on basis of slope-conveyance measurement of peak flow; minimum daily, 2.4 cfs Sept. 2.  
Period of record: Maximum discharge, 14,500 cfs Mar. 2, 1938 (gage height, 26.0 ft, present datum, at site then in use), by slope-area measurement of maximum flow; minimum, 0.05 cfs June 25, 1920.

REMARKS.--Records fair prior to Feb. 4 and poor thereafter. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	4.6	10	9.5	9.2	8.6	5.2	5.6	5.0	4.1	3.8	2.5
2	3.6	4.6	12	13	8.7	6.7	5.2	5.6	5.0	4.1	3.5	2.4
3	3.8	4.6	11	12	8.3	6.7	5.3	5.6	5.0	4.1	3.3	2.6
4	3.8	4.6	10	11	7.9	6.2	5.0	5.6	5.0	4.1	3.6	2.8
5	3.8	4.6	9.0	11	6.0	6.2	5.1	5.6	5.0	4.1	3.6	3.1
6	3.8	4.6	8.0	10	7.4	6.2	5.1	5.5	4.6	3.9	3.4	3.3
7	3.8	4.6	7.0	9.0	6.3	6.6	5.4	5.5	4.6	3.9	3.2	3.3
8	3.8	4.6	6.5	9.0	5.1	6.2	5.4	5.5	4.6	3.9	2.9	3.3
9	3.8	4.9	7.0	7.0	5.1	6.2	5.4	5.5	4.6	3.9	2.9	3.3
10	3.8	4.9	6.7	6.0	6.5	6.6	5.7	5.5	4.6	3.9	3.2	3.3
11	4.1	4.9	6.5	15	8.2	6.9	5.7	5.4	4.6	3.9	3.2	3.1
12	4.1	4.9	6.3	12	8.9	7.0	5.7	5.4	4.6	3.9	3.2	2.8
13	4.1	4.9	6.0	11	7.8	8.3	5.5	5.4	4.4	3.9	3.2	2.8
14	4.1	4.9	6.5	11	7.1	8.8	5.3	5.4	4.4	3.7	3.4	2.8
15	4.1	4.9	6.3	9.7	4.2	8.9	5.1	5.4	4.4	3.7	3.4	2.8
16	4.1	4.9	6.0	8.3	4.0	7.9	5.1	5.3	4.4	3.4	3.4	2.8
17	4.1	4.9	15	7.9	9.8	7.8	5.0	5.3	4.1	3.2	3.4	3.1
18	4.4	4.9	10	7.9	10	7.8	5.0	5.3	4.1	3.2	3.4	2.8
19	4.4	4.9	22	7.9	9.3	7.6	5.0	5.3	4.4	3.4	3.4	2.8
20	4.4	4.9	32	7.9	8.2	7.9	4.9	5.3	4.4	3.9	3.6	3.1
21	4.4	4.9	275	7.9	8.2	7.7	4.9	5.2	4.4	4.1	3.6	3.2
22	4.4	4.9	45	7.9	6.7	7.4	4.9	5.2	4.4	4.1	3.4	3.2
23	4.4	4.9	44	10	6.7	6.8	4.9	5.2	4.1	3.8	3.4	2.9
24	4.4	4.9	39	12	6.8	6.3	7.5	5.2	4.4	3.3	3.2	2.9
25	4.6	5.2	35	12	6.7	6.0	7.0	5.2	4.1	3.5	3.2	2.9
26	4.6	6.4	30	12	8.6	6.0	6.7	5.1	4.4	3.5	2.9	2.9
27	4.6	5.5	25	11	6.9	6.0	6.4	5.1	4.4	3.5	2.9	2.9
28	4.6	12	20	11	6.9	5.6	6.1	5.1	4.1	3.3	2.7	2.9
29	4.6	222	15	9.7	-----	5.2	5.8	5.1	4.1	3.1	2.5	3.0
30	4.6	35	12	9.2	-----	5.2	5.7	5.1	4.1	3.5	2.5	3.0
31	4.6	-----	10	9.2	-----	5.1	-----	5.1	-----	3.5	2.5	-----
TOTAL	129.3	401.3	753.8	308.0	205.5	212.4	165.0	165.6	134.3	115.4	99.8	88.6
MEAN	4.17	13.4	24.3	9.94	7.34	6.85	5.50	5.34	4.48	3.72	3.22	2.95
MAX	4.6	222	275	15	10	8.9	7.5	5.6	5.0	4.1	3.8	3.3
MIN	3.6	4.6	6.0	6.0	4.0	5.1	4.9	5.1	4.1	3.1	2.5	2.4
AC-FT	256	796	1,500	611	408	421	327	328	266	229	198	176

CAL YR 1970 TOTAL 2,984.1 MEAN 8.18 MAX 275 MIN 3.6 AC-FT 5,920  
WTR YR 1971 TOTAL 2,779.0 MEAN 7.61 MAX 275 MIN 2.4 AC-FT 5,510

PEAK DISCHARGE (BASE, 140 CFS).--Nov. 29 (1400) 1,300 cfs (7.5 ft); Dec. 21 (0700) 880 cfs (6.85 ft).

## SANTA ANA RIVER BASIN

11063500 LONE PINE CREEK NEAR KEENBROOK, CALIF.

LOCATION.--Lat 34°15'59", long 117°27'47", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.12, T.2 N., R.6 W., San Bernardino County, on right bank 50 ft upstream from The Atchison, Topeka and Santa Fe Railway Co. bridge, 150 ft upstream from mouth, and 1.1 miles north of Keenbrook.

DRAINAGE AREA.--15.1 sq mi.

PERIOD OF RECORD.--December 1919 to September 1938, June 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,605.92 ft above mean sea level. 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.

AVERAGE DISCHARGE.--40 years (1920-38, 1949-71), 1.44 cfs (1,040 acre-ft per year); median of yearly mean discharges, 0.6 cfs (430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 665 cfs Nov. 29 (gage height, 5.75 ft); minimum daily, 1.3 cfs Sept. 29, 30.

Period of record: Maximum discharge, 6,180 cfs Mar. 2, 1938, on basis of slope-area measurement of maximum flow; no flow Aug. 6-8, Sept. 29-30, 1965.

REMARKS.--Records good prior to Apr. 5 and poor thereafter. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.4	4.8	3.0	2.4	2.4	2.4	2.3	1.9	1.7	1.5	1.4
2	2.4	2.4	3.4	3.0	2.4	2.3	2.4	2.3	1.9	1.7	1.5	1.5
3	2.4	2.4	2.8	3.0	2.4	2.3	2.3	2.3	1.9	1.7	1.5	1.5
4	2.4	2.4	2.2	3.0	2.4	2.4	2.3	2.3	1.9	1.7	1.4	1.5
5	2.4	2.4	2.1	3.0	2.4	2.4	2.2	2.3	1.9	1.7	1.4	1.5
6	2.6	2.4	2.1	2.8	2.6	2.4	2.2	2.2	1.8	1.7	1.4	1.5
7	2.6	2.4	2.1	2.8	2.6	2.4	2.2	2.1	1.8	1.7	1.4	1.5
8	2.6	2.4	2.8	2.8	2.7	2.4	2.2	2.1	1.8	1.7	1.4	1.5
9	2.8	2.4	3.2	2.8	2.8	2.4	2.2	2.1	1.8	1.7	1.4	1.5
10	2.8	2.6	3.0	2.8	2.8	2.4	2.2	2.1	1.8	1.7	1.4	1.5
11	2.8	2.6	3.2	2.8	2.8	2.4	2.2	2.1	1.8	1.7	1.4	1.5
12	2.8	2.6	3.4	2.8	3.1	2.3	2.2	2.1	1.8	1.7	1.4	1.5
13	2.8	2.6	4.0	2.8	3.2	2.7	2.2	2.0	1.7	1.7	1.4	1.5
14	2.8	2.6	4.8	2.8	2.9	2.2	2.2	2.0	1.7	1.6	1.4	1.5
15	2.6	2.6	4.0	2.8	2.8	2.1	2.2	2.0	1.7	1.6	1.4	1.5
16	2.6	2.6	3.8	2.8	3.0	2.1	2.2	2.0	1.7	1.6	1.4	1.5
17	2.4	2.6	3.8	2.8	3.2	2.1	2.2	2.0	1.7	1.6	1.4	1.5
18	2.4	2.6	4.0	2.6	2.7	2.1	2.2	2.0	1.7	1.6	1.4	1.5
19	2.4	2.6	4.5	2.6	2.7	2.0	2.2	2.0	1.7	1.6	1.4	1.5
20	2.4	2.6	3.2	2.6	2.8	2.0	2.2	2.0	1.7	1.5	1.4	1.5
21	2.4	2.6	21	2.6	2.8	2.2	2.2	2.0	1.7	1.5	1.4	1.4
22	2.4	2.6	5.3	2.6	2.6	2.2	2.2	2.0	1.7	1.5	1.4	1.4
23	2.4	2.6	4.0	2.6	2.6	2.2	2.2	2.0	1.7	1.5	1.4	1.4
24	2.4	2.6	3.6	2.6	2.5	2.3	2.3	2.0	1.7	1.5	1.4	1.4
25	2.4	2.6	3.2	2.6	2.6	2.3	2.3	2.0	1.7	1.5	1.4	1.4
26	2.4	2.6	3.2	2.6	2.4	2.3	2.3	2.0	1.7	1.5	1.4	1.4
27	2.4	2.6	3.0	2.4	2.4	2.3	2.3	2.0	1.7	1.5	1.4	1.4
28	2.4	8.4	3.0	2.2	2.4	2.3	2.3	2.0	1.7	1.5	1.4	1.4
29	2.4	80	3.0	2.2	-----	2.4	2.3	2.0	1.7	1.5	1.4	1.3
30	2.4	11	3.0	2.2	-----	2.4	2.3	2.0	1.7	1.5	1.4	1.3
31	2.4	-----	3.0	2.4	-----	2.5	-----	1.9	-----	1.5	1.4	-----
TOTAL	77.8	167.8	122.5	83.4	75.0	71.2	67.3	64.2	52.7	49.7	43.7	43.7
MEAN	2.51	5.59	3.95	2.69	2.68	2.30	2.24	2.07	1.76	1.60	1.41	1.46
MAX	2.8	80	21	3.0	3.2	2.7	2.4	2.3	1.9	1.7	1.5	1.5
MIN	2.4	2.4	2.1	2.2	2.4	2.0	2.2	1.9	1.7	1.5	1.4	1.3
AC-FT	154	333	243	165	149	141	133	127	105	99	87	87

CAL YR 1970 TOTAL 1,223.2 MEAN 3.35 MAX 80 MIN 1.8 AC-FT 2,430  
WTR YR 1971 TOTAL 919.0 MEAN 2.52 MAX 80 MIN 1.3 AC-FT 1,820

PEAK DISCHARGE (BASE, 80 CFS).--Nov. 29 (1300) 665 cfs (5.75 ft); Dec. 21 (0545) 88 cfs (2.77 ft).

NOTE.--No gage-height record Apr. 6 to Sept. 30.

## 11063680 DEVIL CANYON CREEK NEAR SAN BERNARDINO, CALIF.

LOCATION.--Lat 34°12'12", long 117°20'02", in Muscupiabe Grant, San Bernardino County, on right bank 1.0 mile downstream from confluence of East Fork and West Fork and 7.0 miles northwest of San Bernardino.

DRAINAGE AREA.--5.61 sq mi.

PERIOD OF RECORD.--November 1911 to September 1912, October 1913 to September 1914, December 1919 to current year. Monthly figures only for January 1914, published in WSP 1315-B.

GAGE.--Water-stage recorder. Broad-crested weir since July 1925 (affected by debris in most years) on creek; flowmeter on diversion. Altitude of gage is 1,900 ft (from topographic map). Prior to December 1919, nonrecording gage at site 500 ft downstream at different datum. Since July 2, 1969, supplementary gage at site 0.4 mile upstream at different datum.

AVERAGE DISCHARGE (Creek only).--52 years (1913-14, 1920-71), 1.87 cfs (1,350 acre-ft per year); median of yearly mean discharges, 0.8 cfs (580 acre-ft per year).  
(Combined creek and diversion).--38 years (1913-14, 1934-71), 3.60 cfs (2,610 acre-ft per year); median of yearly mean discharges, 2.3 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 172 cfs (estimated) Nov. 29 (gage height, 4.46 ft, from floodmark); minimum daily, 0.30 cfs Aug. 8.  
1913-14, 1919 to current year: Maximum discharge, 3,720 cfs Jan. 25, 1969 (gage height, 5.40 ft), on basis of slope-area measurement of maximum flow; no flow at times in most years.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation above station. City of San Bernardino diverts above station for municipal supply. See schematic diagram of Santa Ana River basin.

COOPERATION.--Records of diversion furnished by city of San Bernardino.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.0	4.0	2.0	1.9	2.0	1.3	1.0	1.3	.64	.64	2.5
2	1.6	2.1	3.0	3.4	2.0	2.1	1.2	1.0	1.2	.62	.63	2.5
3	1.6	2.0	2.6	3.0	2.2	2.1	1.2	1.0	1.2	.58	.46	2.3
4	1.6	2.0	2.3	2.3	1.5	1.9	1.2	1.0	1.1	.58	.48	1.5
5	1.6	2.0	2.0	1.9	2.0	2.0	1.2	1.0	1.1	.64	.46	.86
6	1.7	2.0	1.8	1.8	2.0	2.0	1.2	7.0	1.1	.66	.40	.86
7	1.6	2.0	1.7	1.9	2.0	1.9	1.2	3.0	1.1	.64	.36	.85
8	1.7	2.0	1.6	1.8	2.0	1.8	1.2	2.5	1.0	.64	.30	.86
9	1.7	1.9	1.6	1.8	1.2	1.8	1.2	2.2	.96	.64	.37	.84
10	1.7	1.8	1.4	1.8	1.6	1.8	1.2	2.0	.92	.64	.49	.75
11	1.8	1.8	1.6	1.8	2.3	1.8	1.2	1.9	.90	.64	.46	.69
12	1.8	1.8	1.5	1.6	2.3	1.8	1.2	1.9	.86	.64	.47	.64
13	1.8	1.8	1.5	6.9	2.5	6.9	1.3	1.8	.84	.64	.49	.52
14	1.9	1.9	1.7	4.5	2.6	3.2	1.3	1.7	.81	.64	.50	.52
15	1.9	1.9	1.5	3.7	2.4	2.5	1.4	1.6	.80	.64	.52	.64
16	2.0	1.9	6.5	3.3	3.1	2.0	1.4	1.6	.76	.64	.47	.66
17	2.0	1.9	9.1	3.0	4.2	1.9	1.4	1.5	.75	.68	.47	.69
18	1.9	1.9	3.3	2.8	2.0	1.8	1.4	1.5	.74	.64	.52	.69
19	1.8	1.9	4.8	2.5	2.0	1.7	1.4	1.4	.73	.66	.47	.69
20	1.8	1.9	3.7	2.5	2.0	1.6	1.4	1.4	.69	.64	.52	.69
21	1.9	1.9	26	2.4	1.7	1.6	1.4	1.4	.71	.64	.52	.69
22	2.0	1.9	11	2.4	1.6	1.6	1.4	1.3	.69	.64	.58	.69
23	1.9	1.9	5.9	2.4	1.6	1.5	1.5	1.3	.71	.64	.66	.69
24	2.0	1.9	4.7	2.3	1.7	1.5	1.8	1.3	.71	.64	.72	.69
25	2.0	2.7	3.6	2.3	1.8	1.5	2.5	1.3	.69	.58	.75	.69
26	2.0	4.4	3.5	2.2	1.8	1.4	1.3	1.3	.64	.62	.80	.69
27	1.9	2.0	3.0	2.1	1.9	1.4	1.2	1.5	.64	.61	.86	.69
28	2.0	3.3	2.3	2.1	2.0	1.4	1.1	2.0	.64	.52	1.1	.69
29	2.0	80	2.2	2.1	-----	1.3	1.1	1.7	.62	.52	1.4	.69
30	2.0	5.0	2.0	2.0	-----	1.3	1.0	1.6	.58	.52	1.7	.72
31	2.0	-----	2.0	2.0	-----	1.3	-----	1.4	-----	.55	2.0	-----
TOTAL	57.0	143.5	123.4	93.0	57.9	60.4	39.8	54.1	25.49	19.22	20.57	27.18
MEAN	1.84	4.78	3.98	3.00	2.07	1.95	1.33	1.75	.85	.62	.66	.91
MAX	2.0	80	26	16	4.2	6.9	2.5	7.0	1.3	.68	2.0	2.5
MIN	1.6	1.8	1.4	1.8	1.2	1.3	1.0	1.0	.58	.52	.30	.52
AC-FT	113	285	245	184	115	120	79	107	51	38	41	54
(a)	186	300	279	259	167	172	138	170	111	71	63	76
CAL YR 1970	TOTAL	1,075.30	MEAN	2.95	MAX	80	MIN	1.4	AC-FT	2,130	AC-FT	a 3,000
WTR YR 1971	TOTAL	721.56	MEAN	1.98	MAX	80	MIN	.30	AC-FT	1,430	AC-FT	a 1,980

PEAK DISCHARGE (BASE, 25 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	--	4.46	172	1-12	1800	3.62	64
12-21	0715	3.61	63	3-13	0715	3.28	31

a Combined discharge, in acre-ft, of Devil Canyon Creek and city of San Bernardino diversion.  
NOTE.--No gage-height record Nov. 28 to Dec. 7, Apr. 12 to June 6.

## SANTA ANA RIVER BASIN

11065000 LYTLE CREEK AT COLTON, CALIF.

LOCATION.--Lat 34°04'44", long 117°18'17", in San Bernardino Grant, San Bernardino County, on right bank 400 ft downstream from Colton Avenue, 1,930 ft upstream from outlet end of channel, and 1.3 miles northeast of Colton.

DRAINAGE AREA.--172 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 974.67 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--14 years, 7.59 cfs (5,500 acre-ft per year); median of yearly mean discharges, 1.5 cfs (1,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,600 cfs Nov. 29 (gage height, 3.65 ft); no flow most of year. Period of record: Maximum discharge, 16,800 cfs Jan. 25, 1969 (gage height, 13.6 ft, from floodmarks), from rating curve extended above 4,200 cfs on basis of discharge for design flood at gage height 21.4 ft; no flow most of each year.

REMARKS.--Records good except those below 1 cfs, which are poor. Flow partly regulated by Lytle Creek spreading grounds 3.2 miles upstream. Diversions above station for irrigation, power development, domestic use, and ground-water replenishment. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.20	0	0	0	0	0				
2		0	.33	3.0	0	0	0	0				
3		0	0	0	0	0	0	0				
4		0	0	0	0	0	0	0				
5		0	0	0	0	0	0	0				
6		0	0	0	0	0	0	2.4				
7		0	0	0	0	0	0	0				
8		0	0	0	0	0	0	0				
9		0	.62	0	0	0	0	0				
10		0	0	0	0	0	0	0				
11		0	0	0	0	0	0	0				
12		0	0	4.4	0	0	0	0				
13		0	0	0	0	24	0	0				
14		0	.22	0	0	0	0	0				
15		0	0	0	0	0	0	0				
16		0	.17	0	1.3	0	0	0				
17		0	.11	0	.08	0	.70	0				
18		0	0	0	0	0	.08	0				
19		0	17	0	0	0	0	0				
20		0	0	0	0	0	0	0				
21		0	216	0	0	0	0	0				
22		0	.21	0	0	0	0	0				
23		0	0	0	0	0	0	0				
24		0	0	0	0	0	0	0				
25		1.1	0	0	0	0	2.7	0				
26		12	0	0	0	0	0	0				
27		0	0	0	0	0	0	.76				
28		1.5	0	0	0	0	0	0				
29		340	0	0	-----	0	0	0				
30		5.1	0	0	-----	0	0	0				
31		-----	0	0	-----	0	-----	0	-----			-----
TOTAL	0	359.7	234.86	7.4	1.38	24	3.48	3.16	0	0	0	0
MEAN	0	12.0	7.58	.24	.049	.77	.12	.10	0	0	0	0
MAX	0	340	216	4.4	1.3	24	2.7	2.4	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	713	466	15	2.7	48	6.9	6.3	0	0	0	0
CAL YR 1970	TOTAL	918.37	MEAN	2.52	MAX	340	MIN	0	AC-FT	1,820		
WTR YR 1971	TOTAL	633.98	MEAN	1.74	MAX	340	MIN	0	AC-FT	1,260		

11066440 SANTA ANA RIVER AT MISSION BOULEVARD, AT RIVERSIDE, CALIF.

LOCATION.--Lat 33°59'28", long 117°23'36", in Jurupa Grant, Riverside County, near right bank on downstream end of pier of Mission Boulevard bridge between Rubidoux and Riverside.

DRAINAGE AREA.--810 sq mi.

PERIOD OF RECORD.--February to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 758.52 ft above mean sea level.

EXTREMES.--Maximum discharge during period February to September 1971, 52 cfs (estimated) Mar. 13 (gage height, 9.65 ft); no flow most of period.

REMARKS.--Records poor. This is a project station the purpose of which is to record surface flow entering Riverside Narrows from upper Santa Ana River drainage. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, FEBRUARY TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			a 0	-	0	0	0	0				
2			a 0	-	0	0	0	0				
3			a 0	-	0	0	0	0				
4			-	-	0	0	0	0				
5			-	-	0	0	0	0				
6			-	-	0	0	0	2.0				
7			-	-	0	0	0	2.2				
8			-	-	0	0	0	1.0				
9			-	-	0	0	0	0				
10			-	-	0	0	0	1.3				
11			a 0	-	0	0	0	.95				
12			-	-	0	0	0	0				
13			-	a6.0	0	3.4	0	0				
14			-	-	0	0	0	0				
15			-	-	0	0	0	0				
16			-	a0	0	0	0	0				
17			a48	-	.58	0	.23	0				
18			-	-	.08	0	1.9	0				
19			a73	-	.07	0	0	0				
20			-	-	0	0	0	0				
21			-	-	0	0	0	0				
22			a32	-	0	0	0	0				
23			a 4.1	-	0	0	0	0				
24			-	-	0	0	0	0				
25			-	-	0	0	3.5	0				
26			-	-	0	0	0	0				
27			-	-	0	0	0	.81				
28			a 3.6	-	0	0	0	.71				
29			-	-	-----	0	0	0				
30		a41	-	-	-----	0	0	0				
31		-----	-----	-----	-----	0	-----	0	-----			-----
TOTAL	-	-	-	-	.73	3.4	5.63	8.97	0	0	0	0
MEAN					.026	.11	.19	.29	0	0	0	0
MAX					.58	3.4	3.5	2.2	0	0	0	0
MIN					0	0	0	0	0	0	0	0
AC-FT					1.5	6.7	11	18	0	0	0	0

a Discharge measurement made on this day.

## SANTA ANA RIVER BASIN

11066460 SANTA ANA RIVER AT MWD CROSSING, NEAR ARLINGTON, CALIF.

LOCATION.--Lat 33°58'04", long 117°26'46", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.30, T.2 S., R.5 W., Riverside County, on left bank 300 ft upstream from MWD crossing, 0.7 mile downstream from Union Pacific Railroad bridge, 1.2 miles upstream from bridge on Van Buren Boulevard, and 3.3 miles north of Arlington.

DRAINAGE AREA.--854 sq mi.

PERIOD OF RECORD.--March 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 685 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 5,300 cfs Nov. 29 (gage height, 10.93 ft), result of slope-conveyance measurement; minimum daily, 17 cfs Jan. 1.  
Period of record: Maximum discharge, 5,300 cfs Nov. 29, 1970 (gage height, 10.93 ft), result of slope-conveyance measurement; minimum daily, 17 cfs Jan. 1, 1971.

REMARKS.--Records fair. Flow partly regulated by Big Bear Lake (see sta 11049000). Natural streamflow affected by ground-water withdrawals, diversions for irrigation, and return flows from irrigated areas. Records of chemical analyses for the current year are published in Part 2 of this report. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	28	37	17	28	25	19	27	21	24	21	20
2	25	30	27	29	31	25	19	27	21	25	23	20
3	25	31	24	19	31	24	20	28	20	24	23	21
4	24	32	22	24	28	30	20	30	20	24	23	21
5	24	31	25	25	32	30	21	30	21	22	22	21
6	22	28	25	27	25	28	24	32	21	21	21	20
7	22	28	31	20	24	20	21	31	22	20	20	20
8	22	25	34	28	28	25	21	28	22	20	20	19
9	21	25	32	31	28	25	24	28	24	20	20	19
10	21	24	30	34	28	30	24	27	25	20	20	19
11	21	21	25	34	31	28	24	31	24	20	22	19
12	22	21	24	47	30	25	22	31	24	19	25	20
13	22	22	24	48	30	36	22	27	22	19	25	20
14	22	24	36	32	34	25	32	25	20	19	25	21
15	20	24	22	28	34	30	28	25	20	18	25	21
16	25	21	25	27	47	25	28	21	20	19	25	21
17	27	22	43	31	45	27	27	20	22	19	25	21
18	27	22	41	31	32	25	24	21	24	19	26	20
19	28	22	271	21	37	22	21	22	24	21	25	20
20	27	24	52	27	37	27	22	25	24	21	22	20
21	27	24	862	25	31	25	22	22	22	22	22	19
22	25	24	177	22	31	30	22	25	22	21	22	20
23	24	24	41	20	30	28	20	25	24	24	22	20
24	25	24	31	24	25	24	22	27	24	24	19	21
25	24	27	36	19	24	27	27	25	24	24	21	20
26	22	36	37	22	24	27	24	25	24	22	21	21
27	22	30	34	24	28	27	24	26	24	24	19	21
28	21	44	32	22	21	24	21	25	24	25	20	21
29	20	1,560	27	22	-----	27	24	24	24	22	21	21
30	25	510	25	24	-----	24	25	23	24	21	21	20
31	28	-----	22	30	-----	28	-----	22	-----	20	21	-----
TOTAL	735	2,808	2,174	834	854	823	694	805	677	663	687	607
MEAN	23.7	93.6	70.1	26.9	30.5	26.5	23.1	26.0	22.6	21.4	22.2	20.2
MAX	28	1,560	862	48	47	36	32	32	25	25	26	21
MIN	20	21	22	17	21	20	19	20	20	18	19	19
AC-FT	1,460	5,570	4,310	1,650	1,690	1,630	1,380	1,600	1,340	1,320	1,360	1,200
CAL YR 1970	TOTAL	5,717.00	MEAN	15.7	MAX	1,560	MIN	0	AC-FT	11,340		
WTR YR 1971	TOTAL	12,361.00	MEAN	33.9	MAX	1,560	MIN	17	AC-FT	24,520		

LOCATION.--Lat 33°57'53", long 117°27'26", in SE<sub>1</sub>NE<sub>1</sub>SE<sub>4</sub> sec.25, T.2 S., R.6 W., Riverside County, at effluent end of chlorine contact chambers, 0.4 mile upstream from Van Buren Boulevard, and 3.1 miles northwest of Arlington.

GAGE.--Water-stage recorders and concrete controls for Plants Nos. 1 and 2. Altitude of gage is 690 ft (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 32 cfs Apr. 6, 1969; minimum daily, 17 cfs May 11, June 8, 1969.

REMARKS.--Records good. Discharge reported herein is total effluent from city of Riverside's Water Quality Control Plants Nos. 1 and 2, released to river 0.4 mile upstream from Santa Ana River at Riverside Narrows (see sta 11066500). Records of chemical analyses for the current year are published in Part 2 of this report.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	25	26	23	25	26	26	23	26	25	24	29
2	29	28	26	25	24	25	26	24	26	26	25	28
3	27	26	27	24	24	25	24	27	26	24	27	28
4	27	27	26	27	25	25	23	24	26	22	27	25
5	29	26	26	26	25	25	26	25	25	23	27	23
6	28	26	25	27	25	24	26	26	24	26	27	25
7	27	26	26	26	23	23	26	26	26	26	24	28
8	27	25	26	26	27	26	26	25	26	26	23	28
9	28	27	26	25	25	25	26	23	26	27	27	28
10	26	27	27	24	26	25	24	26	26	25	27	27
11	26	28	26	26	26	25	23	26	26	23	27	27
12	28	27	26	27	26	25	24	26	25	26	27	26
13	28	26	25	26	24	24	25	26	23	27	26	29
14	27	25	26	26	22	23	24	26	26	27	24	29
15	27	25	25	25	25	26	25	24	26	26	23	29
16	27	27	25	25	27	25	25	23	26	27	27	28
17	26	27	26	24	26	26	23	26	27	25	26	28
18	25	26	25	28	26	25	23	26	27	24	26	27
19	27	27	27	27	26	25	26	26	25	27	26	26
20	26	26	23	27	25	24	26	26	24	27	26	29
21	27	25	29	25	23	23	25	25	27	27	24	28
22	27	24	27	26	26	26	26	24	26	27	23	27
23	26	27	26	24	26	26	26	24	27	27	26	27
24	26	26	25	23	26	25	24	26	27	25	28	27
25	25	26	21	26	26	26	24	26	26	24	27	26
26	27	23	23	26	25	25	26	26	25	27	26	25
27	27	24	24	26	25	23	26	25	23	27	28	28
28	27	25	25	26	23	22	26	25	26	27	27	28
29	27	28	26	26	-----	27	26	23	26	27	25	27
30	26	27	26	24	-----	26	26	21	26	27	29	27
31	26	-----	25	23	-----	25	-----	23	-----	25	28	-----
TOTAL	834	782	792	789	702	771	752	772	771	799	807	817
MEAN	26.9	26.1	25.5	25.5	25.1	24.9	25.1	24.9	25.7	25.8	26.0	27.2
MAX	29	28	29	28	27	27	26	27	27	27	29	29
MIN	25	23	21	23	22	22	23	21	23	22	23	23
AC-FT	1,650	1,550	1,570	1,560	1,390	1,530	1,490	1,530	1,530	1,580	1,600	1,620
CAL YR 1970	TOTAL 9,622		MEAN 26.4	MAX 30	MIN 21	AC-FT 19,090						
WTR YR 1971	TOTAL 9,388		MEAN 25.7	MAX 29	MIN 21	AC-FT 18,620						



## SANTA ANA RIVER BASIN

11066500 SANTA ANA RIVER AT RIVERSIDE NARROWS, NEAR ARLINGTON, CALIF.

LOCATION.--Lat 33°57'53", long 117°27'55", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.25, T.2 S., R.6 W., Riverside County, on right bank at downstream side of Van Buren Boulevard bridge, 1.8 miles downstream from Union Pacific Railroad bridge, 3.3 miles northwest of Arlington, and 12 miles upstream from Temescal Creek.

DRAINAGE AREA.--855 sq mi.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October 1927 to January 1929, December 1937 to April 1938, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 666.87 ft above mean sea level (levels by Riverside County Engineer). See WSP 1735 for history of changes prior to Jan. 17, 1955.

EXTREMES.--Current year: Maximum discharge, 5,300 cfs Nov. 29 (gage height, 9.77 ft, from floodmark); minimum daily, 40 cfs Jan. 1.

Period of record: Maximum discharge, 100,000 cfs Mar. 2, 1938, on basis of slope-area measurement of maximum flow; minimum daily, 11 cfs Oct. 17, 26, 1966.

Flood of Jan. 22, 1862, 320,000 cfs, by slope-conveyance measurement at site 9.3 miles upstream. Stage at that site was 5 ft higher than Mar. 2, 1938.

REMARKS.--Records fair. Flow partly regulated by Big Bear Lake (see sta 11049000). Natural streamflow affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Riverside Water Quality Control plant released to river 0.4 mile upstream. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	53	63	40	53	51	45	49	47	49	51	49
2	54	58	53	54	55	50	45	47	47	50	52	48
3	52	57	51	43	55	49	44	51	47	46	53	49
4	51	59	48	51	53	45	43	50	46	44	55	44
5	53	57	51	51	57	55	47	52	46	44	49	44
6	50	54	50	54	50	52	50	53	46	47	46	45
7	49	54	57	46	47	43	49	53	47	47	44	48
8	49	50	60	54	55	51	50	53	46	47	44	47
9	50	52	58	56	53	50	50	47	47	46	46	47
10	48	51	57	58	54	55	46	49	48	44	46	46
11	47	49	51	60	57	53	42	54	48	43	46	46
12	50	48	50	74	56	50	42	48	47	44	46	45
13	50	48	49	74	54	60	41	48	47	45	46	46
14	49	49	62	59	56	48	51	46	47	46	46	47
15	47	49	47	53	59	56	46	45	46	46	44	47
16	52	48	50	52	74	50	46	46	46	46	47	48
17	53	49	69	55	71	53	46	46	47	44	49	48
18	52	48	66	59	58	50	46	45	48	44	49	47
19	55	49	298	48	63	47	46	46	48	49	49	46
20	53	50	75	54	62	51	48	46	48	47	47	49
21	54	49	891	50	54	48	48	45	48	46	46	48
22	52	48	204	48	57	56	47	45	47	47	45	47
23	50	51	67	44	56	54	47	47	49	45	48	47
24	51	50	56	47	51	49	47	47	49	44	47	47
25	49	53	57	45	50	53	60	48	49	44	48	47
26	49	59	60	48	49	52	56	48	49	47	47	46
27	49	54	58	50	53	50	47	47	49	47	47	49
28	48	69	57	48	44	46	48	51	49	47	47	48
29	47	1,590	53	48	-----	54	49	47	50	47	46	47
30	51	537	51	48	-----	50	50	44	51	47	49	49
31	54	-----	47	53	-----	53	-----	45	-----	50	49	-----
TOTAL	1,571	3,592	2,966	1,624	1,556	1,584	1,422	1,488	1,429	1,429	1,474	1,411
MEAN	50.7	120	95.7	52.4	55.6	51.1	47.4	48.0	47.6	46.1	47.5	47.0
MAX	55	1,590	891	74	74	60	60	54	51	50	55	49
MIN	47	48	47	40	44	43	41	44	46	43	44	44
AC-FT	3,120	7,120	5,880	3,220	3,090	3,140	2,820	2,950	2,830	2,830	2,920	2,800
CAL YR 1970	TOTAL 23,238		MEAN 63.7	MAX 1,590	MIN 44	AC-FT 46,090						
WTR YR 1971	TOTAL 21,546		MEAN 59.0	MAX 1,590	MIN 40	AC-FT 42,740						

PEAK DISCHARGE (BASE, 500 CFS).--Nov. 29 (1900) 5,300 cfs (9.77 ft); Dec. 21 (1230) 2,450 cfs (7.90 ft).

NOTE.--No gage-height record or stage-discharge relation indefinite most of time.

## 11067000 DAY CREEK NEAR ETIWANDA, CALIF.

LOCATION.--Lat 34°11'06", long 117°32'20", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.8, T.1 N., R.6 W., San Bernardino County, on left bank 0.5 mile downstream from confluence of two main forks and 4 miles north of Etiwanda.

DRAINAGE AREA.--4.56 sq mi.

PERIOD OF RECORD.--October 1927 to current year. Combined records of creek and diversion, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

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.

AVERAGE DISCHARGE (Creek only).--44 years, 4.12 cfs (2,980 acre-ft per year); median of yearly mean discharges, 1.9 cfs (1,400 acre-ft per year).

(Combined).--21 years, 5.22 cfs (3,780 acre-ft per year); median of yearly mean discharges, 2.8 cfs (2,000 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 358 cfs Nov. 29 (gage height, 5.82 ft); minimum daily, 1.5 cfs Sept. 19.

Period of record: Maximum discharge, 9,450 cfs Jan. 25, 1969 (gage height, 9.90 ft), from rating curve extended above 340 cfs on basis of slope-area measurements at gage heights 3.78, 4.90, and 9.90 ft; no flow Oct. 5 to Nov. 1, 1950.

(Combined).--Current year: Maximum discharge, 358 cfs Nov. 29; minimum daily, 1.5 cfs Sept. 19.

Period of record: Maximum discharge, 9,450 cfs Jan. 25, 1969; minimum daily, 0.30 cfs for several days in 1961 and 1963.

REMARKS.--Records fair. No regulation above station. Etiwanda Water Co. has diverted water above station during entire period of record. No diversion during current year. An infiltration gallery, unwatering the gravel in the bed of the stream at gaging station, produced 784 acre-ft during year. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.0	9.6	4.0	2.5	3.3	2.5	2.7	3.3	2.4	2.1	1.8
2	2.5	1.9	11	5.0	2.5	2.9	2.6	4.9	3.3	2.3	2.0	1.8
3	2.5	1.9	7.5	4.8	2.5	3.0	2.6	7.5	3.3	2.3	2.0	1.8
4	2.6	1.9	5.9	4.6	2.5	3.1	2.6	6.4	3.3	2.3	2.1	1.8
5	2.5	2.0	5.3	4.5	2.5	3.2	2.8	5.9	3.3	2.2	2.1	1.8
6	2.5	2.1	5.1	4.4	2.5	3.2	2.7	4.2	3.3	2.2	2.1	1.8
7	2.4	2.2	4.7	4.3	2.5	3.3	2.7	3.8	3.3	2.1	2.3	1.8
8	2.3	2.2	4.7	4.2	2.4	3.5	2.8	3.6	3.3	2.1	2.4	1.8
9	2.2	2.1	4.7	4.1	2.4	3.6	2.8	3.5	3.3	2.1	2.1	2.1
10	2.3	2.0	4.3	4.0	2.3	3.6	2.8	3.4	3.3	2.1	2.0	2.1
11	2.3	2.0	4.0	4.5	2.3	3.8	2.8	3.4	3.3	2.1	2.0	2.0
12	2.2	1.9	3.7	7.0	2.3	4.5	2.8	3.3	2.9	2.0	1.9	1.9
13	2.2	2.0	3.5	6.9	2.9	4.0	2.7	3.3	2.5	2.2	2.0	2.0
14	2.2	2.0	3.4	6.7	3.9	3.6	2.8	3.5	2.5	2.3	1.9	2.0
15	2.2	1.9	3.3	6.5	4.6	3.3	2.7	3.9	2.7	2.3	1.9	2.0
16	2.2	1.9	3.5	6.2	5.2	3.1	2.7	3.8	2.6	2.0	1.9	1.9
17	2.2	1.9	3.5	5.9	3.5	3.0	2.7	3.5	2.7	1.9	1.9	1.8
18	2.2	1.9	3.4	5.4	3.3	2.9	2.7	3.3	2.7	1.7	2.0	1.7
19	2.2	1.9	3.3	5.1	3.4	2.9	2.6	3.6	2.7	1.8	1.9	1.5
20	2.2	1.9	4.0	4.7	3.3	2.8	2.6	3.6	2.6	1.7	1.9	1.6
21	2.2	1.9	11	4.2	3.4	2.8	2.6	3.3	2.6	1.8	1.8	1.7
22	2.1	1.9	5.4	3.9	3.5	2.7	2.6	3.4	2.6	1.9	2.0	1.6
23	2.1	1.8	5.1	3.6	3.6	2.7	2.5	3.8	2.7	2.4	1.9	1.6
24	2.1	1.8	4.8	3.3	3.7	2.7	2.5	3.3	2.6	2.1	2.0	1.6
25	2.1	1.8	4.6	3.1	3.7	2.6	2.5	3.3	2.6	2.0	2.1	1.6
26	2.1	2.3	4.5	3.0	3.3	2.6	2.5	3.3	2.6	1.9	2.0	1.7
27	2.1	2.2	4.4	2.9	3.2	2.6	2.5	3.3	2.6	2.0	2.0	1.7
28	2.0	3.3	4.3	2.8	3.4	2.6	2.5	3.3	2.6	2.0	2.0	1.7
29	2.0	4.5	4.2	2.7	-----	2.6	2.5	3.3	2.7	1.9	1.9	1.7
30	2.0	11	4.1	2.6	-----	2.6	2.5	3.3	2.6	2.3	1.9	1.7
31	2.0	-----	4.0	2.6	-----	2.6	-----	3.3	-----	2.0	1.9	-----
TOTAL	69.2	112.6	154.8	137.5	87.1	95.7	79.2	118.0	86.4	64.4	62.0	53.6
MEAN	2.23	3.75	4.99	4.44	3.11	3.09	2.64	3.81	2.88	2.08	2.00	1.79
MAX	2.6	4.5	11	7.0	5.2	4.5	2.8	7.5	3.3	2.4	2.4	2.1
MIN	2.0	1.8	3.3	2.6	2.3	2.6	2.5	2.7	2.5	1.7	1.8	1.5
AC-FT	137	223	307	273	173	190	157	234	171	128	123	106

CAL YR 1970 TOTAL 1,077.0 MEAN 2.95 MAX 45 MIN 1.2 AC-FT 2,140  
WTR YR 1971 TOTAL 1,120.5 MEAN 3.07 MAX 45 MIN 1.5 AC-FT 2,220

PEAK DISCHARGE (BASE, 25 CFS).--Nov. 29 (1230) 358 cfs (5.82 ft); Dec. 21 (0830) 27 cfs (4.41 ft).

## SANTA ANA RIVER BASIN

11067890 SANTA ANA RIVER AT PRADO PARK, NEAR CORONA, CALIF.

LOCATION.--Lat 33°55'42", long 117°35'44", in Jurupa Grant, Riverside County, in Prado Park on right bank 0.4 mile upstream from Auburndale bridge and 4.1 miles northwest of Corona.

DRAINAGE AREA.--1,010 sq mi.

PERIOD OF RECORD.--March to September 1971. Records May 1930 to November 1966 (irrigation seasons only), October 1966 to September 1968 at site 0.4 mile downstream (at Auburndale bridge, sta 11068000), equivalent if diversion to Durkee ditch added.

GAGE.--Water-stage recorder. Altitude of gage is 560 ft (from topographic map).

EXTREMES.--Maximum discharge during period March to September 1971, 125 cfs Apr. 14 (gage height, 5.80 ft); minimum daily, 10 cfs Aug. 7, Sept. 19.

REMARKS.--Records good. Regulation and diversions same as sta 11066500. Sheehan ditch water returned to river above station. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, MARCH TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			a 85	-	-	-	34	37	37	27	20	22
2			-	-	-	-	37	37	38	28	18	22
3			a 71	-	a 50	-	38	38	37	27	19	22
4			-	a 60	-	-	35	38	43	26	19	22
5			-	-	-	-	36	45	40	26	19	19
6			-	-	-	-	32	48	40	27	19	18
7			-	-	-	-	36	52	42	28	10	20
8			-	a 40	-	-	39	49	43	26	13	22
9			-	-	-	49	43	44	45	26	16	21
10			-	-	a 45	49	40	46	38	23	26	21
11			-	-	-	50	39	46	44	21	26	20
12			-	-	-	49	45	46	42	19	26	17
13			-	a 90	-	58	44	45	43	22	24	17
14			-	-	-	43	54	44	44	22	23	18
15			-	-	-	45	40	44	38	22	25	22
16			a 50	-	-	50	42	44	38	25	26	24
17			a 119	-	a 88	53	43	44	38	19	26	27
18			-	-	-	48	44	45	39	18	27	24
19			-	-	-	46	43	44	35	17	26	10
20			-	a 52	-	48	43	34	32	22	25	18
21			-	-	-	49	43	52	31	25	23	23
22			a 195	-	-	52	40	48	29	24	22	24
23			a 101	-	-	49	43	45	27	26	22	25
24			-	-	-	39	45	40	27	22	24	27
25			-	-	a 49	45	46	38	29	22	24	33
26			-	-	-	42	43	36	25	23	24	23
27			-	-	-	40	44	36	23	23	24	23
28			a 63	a 47	-	37	45	38	23	22	23	23
29			-	-	-----	34	43	40	24	18	19	25
30			a 49	-	-----	32	42	36	25	18	20	34
31	-----		-	-	-----	32	-----	35	-----	18	22	-----
TOTAL							1,241	1,314	1,059	712	680	666
MEAN							41.4	42.4	35.3	23.0	21.9	22.2
MAX							54	52	45	28	27	34
MIN							32	34	23	17	10	10
AC-FT							2,460	2,610	2,100	1,410	1,350	1,320

a Discharge measurement made on this day.

## 11069000 LAKE HEMET NEAR IDYLLWILD, CALIF.

LOCATION.--Lat 33°39'56", long 116°42'19", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.7, T.6 S., R.3 E., Riverside County, on upstream face near right end of dam on South Fork San Jacinto River, 5 miles southeast of Idyllwild, and 6.5 miles upstream from mouth.

DRAINAGE AREA.--65.6 sq mi.

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

GAGE.--Nonrecording gage read once daily. Datum of gage is 4,201.5 ft above mean sea level (levels by Lake Hemet Municipal Water District).

EXTREMES.--Current year: Maximum contents observed, 8,620 acre-ft May 29 to June 15 (elevation, 4,324.08 ft); minimum, 6,590 acre-ft Sept. 30 (elevation, 4,316.92 ft).  
Period of record: Maximum contents, 13,879 acre-ft Feb. 25, 1969 (elevation, 4,337.58 ft); minimum, 264 acre-ft Nov. 19, 1962, Nov. 19, 1963 (elevation, 4,266.9 ft).

REMARKS.--Lake is formed by single-arch dam. Dam was completed to a height of 110 ft in 1893; raised to 122.5 ft in 1895, and to 135 ft in 1923. Capacity table is dated February 1932 (furnished by Lake Hemet Municipal Water District). Lowest sluice gate silted (elevation, 4,222.6 ft). Capacity below spillway level (elevation, 4,333.0 ft), 11,882 acre-ft. Water is released from lake to South Fork San Jacinto River for domestic use and irrigation in the Hemet-San Jacinto Valley. See schematic diagram of Santa Ana River basin.

COOPERATION.--Elevations furnished by Lake Hemet Municipal Water District.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet) <sup>a</sup>	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	4,323.17	8,340	-
Oct. 31.....	4,320.67	7,600	-740
Nov. 30.....	4,319.50	7,280	-320
Dec. 31.....	4,321.00	7,700	+420
CAL YR 1970.....	-	-	-2,220
Jan. 31.....	4,322.33	8,080	+380
Feb. 28.....	4,323.00	8,280	+200
Mar. 31.....	4,323.42	8,410	+130
Apr. 30.....	4,323.58	8,460	+50
May 31.....	4,324.08	8,620	+160
June 30.....	4,323.58	8,460	-160
July 31.....	4,321.67	7,890	-570
Aug. 31.....	4,319.42	7,260	-630
Sept. 30.....	4,316.92	6,590	-670
WTR YR 1971.....	-	-	-1,750

<sup>a</sup> Elevation at 0800.

## 11069500 SAN JACINTO RIVER NEAR SAN JACINTO, CALIF.

LOCATION.--Lat 33°44'10", long 116°49'26", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.13, T.5 S., R.1 E., Riverside County, on right bank 350 ft upstream from bridge on State Highway 74, 1 mile downstream from North Fork, and 8.3 miles southeast of San Jacinto.

DRAINAGE AREA.--141 sq mi.

PERIOD OF RECORD.--October 1920 to February 1927, March 1927 to current year. Records since Oct. 1, 1969, equivalent to prior records if lower diversion is deducted from flow past station. Combined records of river and diversions, October 1948 to current year. Monthly discharge only for October 1920 and July to September 1926, published in WSP 1315-B.

GAGE.--Water-stage recorder on river; water-stage recorder on lower canal; water-stage recorder on upper canal; nonrecording gage on pipeline. Datum of gage is 1,982.75 ft above mean sea level (Corps of Engineers bench mark). See WSP 1735 for history of changes prior to Jan. 23, 1948. Prior to Oct. 1, 1969, at site 350 ft downstream at same datum.

AVERAGE DISCHARGE (River only).--48 years (1920-26, 1927-69), 18.0 cfs (13,040 acre-ft per year); median of yearly mean discharges, 6.0 cfs (4,300 acre-ft per year).

(Combined river and diversions).--23 years (1948-71), 19.3 cfs (13,980 acre-ft per year); median of yearly mean discharges, 9.5 cfs (6,900 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 45 cfs Nov. 29 (gage height, 8.92 ft); no flow Oct. 1 to Nov. 25, June 30 to Sept. 30.

Period of record: Maximum discharge, 45,000 cfs Feb. 16, 1927, on basis of slope-area measurement of maximum flow; no flow for several months in each year.

(Combined flow).--Current year: Maximum discharge, 49 cfs Nov. 29; minimum daily, 0.50 cfs June 15.

Period of record: Maximum discharge, 7,420 cfs Jan. 25, 1969; no flow at times in 1951, 1952, and 1957.

REMARKS.--Records good. Flow partly regulated by Lake Hemet (see sta 11069000). Lake Hemet Municipal Water District's upper canal diverts 4.0 miles above station and since Oct. 1, 1969, lower canal diverts 50 ft downstream for irrigation. Fairview Land and Water Co.'s pipeline diverts water above station for domestic use. Diversion above station began prior to 1920. See schematic diagram of Santa Ana River basin. Combined records are equivalent for period of record. For records of combined daily discharge of San Jacinto River and diversions, see following page.

COOPERATION.--Records of Fairview Land and Water Co.'s pipeline furnished by Lake Hemet Municipal Water District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	3.8	3.4	4.8	.66	.37	.16	.38			
2		0	2.0	9.7	4.5	.60	.24	.06	.28			
3		0	1.7	8.1	4.4	.91	.23	.05	.25			
4		0	1.5	5.5	3.4	2.4	.24	.05	.24			
5		0	1.4	4.8	3.0	1.1	.18	.05	.21			
6		0	1.3	4.5	2.8	.83	.08	.21	.19			
7		0	1.1	3.8	2.5	.72	.07	1.4	.20			
8		0	.94	3.8	2.3	.57	.14	2.7	.20			
9		0	.70	3.4	2.1	.42	.16	2.0	.17			
10		0	.71	3.4	1.2	.17	.21	1.8	.21			
11		0	.87	3.5	.77	.17	.19	1.7	.25			
12		0	.88	3.9	.61	.13	.20	1.3	.20			
13		0	.76	8.7	.54	.18	.15	.62	.12			
14		0	1.1	6.6	.56	1.1	.27	.21	.12			
15		0	1.1	6.3	.60	.80	.31	.16	.10			
16		0	1.0	6.1	.72	.77	.41	.12	.08			
17		0	2.4	7.8	1.2	.76	.44	.13	.07			
18		0	3.5	17	2.4	.73	.91	.12	.06			
19		0	4.5	24	2.2	.57	.92	.10	.04			
20		0	3.5	27	1.9	.45	.58	.13	.03			
21		0	13	23	1.4	.39	.57	.16	.02			
22		0	9.9	17	1.3	.29	.59	.16	.02			
23		0	6.4	12	1.1	.25	.42	.16	.01			
24		0	4.7	9.6	.99	.28	.53	.14	.01			
25		0	3.8	7.7	.79	.40	.58	.06	.01			
26		3.8	3.4	6.4	.66	.35	.74	.07	.01			
27		3.5	3.3	6.0	.60	.62	.65	.13	.01			
28		1.2	3.2	5.9	.68	.70	.70	.44	.01			
29		9.1	3.1	4.9	-----	.48	.57	1.1	.01			
30		18	2.2	5.1	-----	.47	.44	.76	0			
31		-----	2.5	5.0	-----	.44	-----	.74	-----			-----
TOTAL	0	35.6	90.26	263.9	50.02	18.71	12.09	16.99	3.51	0	0	0
MEAN	0	1.19	2.91	8.51	1.79	.60	.40	.55	.12	0	0	0
MAX	0	18	13	27	4.8	2.4	.92	2.7	.38	0	0	0
MIN	0	0	.70	3.4	.54	.13	.07	.05	0	0	0	0
AC-FT	0	71	179	523	99	37	24	34	7.0	0	0	0

CAL YR 1970 TOTAL 1,109.18 MEAN 3.04 MAX 71 MIN 0 AC-FT 2,200  
WTR YR 1971 TOTAL 491.08 MEAN 1.35 MAX 27 MIN 0 AC-FT 974

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

## 11069500 SAN JACINTO RIVER NEAR SAN JACINTO, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SAN JACINTO RIVER,  
LAKE HEMET WATER CO.'S UPPER AND LOWER CANALS, AND FAIRVIEW LAND AND WATER  
CO.'S PIPELINE, NEAR SAN JACINTO, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.2	7.9	4.1	5.6	2.8	1.4	1.2	1.8	2.5	5.6	9.0
2	10	9.6	2.9	11	4.9	2.5	1.0	1.2	1.6	2.8	4.8	9.2
3	11	10	2.3	9.3	6.6	3.1	.91	1.2	1.6	2.8	4.7	8.4
4	11	9.8	1.9	6.0	8.5	4.4	.87	1.8	1.4	3.3	8.4	7.3
5	11	9.3	1.6	5.2	7.8	3.0	.98	2.0	1.3	3.5	10	7.4
6	11	8.3	1.5	4.7	4.4	2.7	1.1	2.8	1.2	3.3	9.9	7.5
7	12	5.0	1.3	4.0	2.7	2.5	1.7	5.1	1.3	3.1	9.8	7.5
8	12	4.5	1.1	4.0	3.1	2.3	2.0	7.2	1.4	3.2	10	7.5
9	12	4.4	.90	3.6	4.5	2.1	1.5	4.7	1.6	3.3	11	7.2
10	12	4.5	.91	3.6	4.5	2.0	1.1	3.7	1.7	3.3	10	7.7
11	12	4.4	1.1	3.7	4.0	2.0	1.1	3.4	1.6	3.7	10	7.4
12	12	4.3	1.1	4.1	3.2	1.8	1.0	2.0	1.2	3.5	10	7.0
13	12	3.9	.96	9.3	2.5	2.3	.92	3.2	.96	3.4	10	7.1
14	12	3.6	1.4	7.1	2.6	3.4	1.4	6.2	.89	3.3	11	7.0
15	12	3.7	1.4	6.6	2.6	3.0	2.0	2.4	.50	3.4	10	6.5
16	10	3.7	1.2	6.4	2.7	2.9	1.5	.93	.98	3.1	10	6.9
17	10	3.6	3.0	8.2	4.1	2.8	1.8	.86	2.1	3.4	10	7.2
18	10	3.8	4.5	22	5.5	2.6	3.1	1.3	2.9	2.8	10	6.9
19	10	3.7	5.7	32	4.8	2.4	3.0	1.5	3.2	5.9	10	7.0
20	10	3.8	4.2	35	4.7	2.2	2.6	1.4	3.3	6.4	10	7.4
21	9.7	4.0	17	30	4.2	2.1	2.6	1.8	3.3	4.7	10	7.8
22	6.9	4.0	15	22	3.8	1.9	2.4	2.1	3.4	6.4	9.4	9.0
23	6.2	4.0	9.2	17	3.6	1.8	2.1	2.0	3.5	8.5	9.4	8.4
24	5.1	3.7	6.6	13	3.4	1.7	2.1	1.2	3.5	7.3	9.3	5.4
25	4.9	4.2	5.3	9.9	3.1	1.8	2.2	.85	4.3	7.2	9.2	4.5
26	4.6	12	4.7	9.7	3.0	1.8	2.4	.94	4.0	7.1	9.2	4.6
27	6.5	9.9	4.5	13	2.7	1.9	2.2	1.7	3.9	6.8	9.3	4.5
28	7.2	3.5	4.4	11	2.9	1.9	2.2	3.0	3.6	6.6	9.6	4.5
29	8.5	12	4.2	6.7	-----	1.6	2.0	3.1	3.0	6.4	9.5	4.7
30	7.9	25	3.2	6.1	-----	1.6	1.7	2.6	2.9	6.5	9.6	4.8
31	8.1	-----	3.5	5.9	-----	1.5	-----	2.3	-----	6.1	10	-----
TOTAL	297.6	194.4	124.47	334.2	116.0	72.4	52.88	75.68	67.93	143.6	289.7	207.3
MEAN	9.60	6.48	4.02	10.8	4.14	2.34	1.76	2.44	2.26	4.63	9.35	6.91
MAX	12	25	17	35	8.5	4.4	3.1	7.2	4.3	8.5	11	9.2
MIN	4.6	3.5	.90	3.6	2.5	1.5	.87	.85	.50	2.5	4.7	4.5
AC-FT	590	386	247	663	230	144	105	150	135	285	575	411

CAL YR 1970 TOTAL 3,241.47 MEAN 8.88 MAX 86 MIN .90 AC-FT 6,430  
WTR YR 1971 TOTAL 1,976.16 MEAN 5.41 MAX 35 MIN .50 AC-FT 3,920

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

## SANTA ANA RIVER BASIN

11070050 BAUTISTA CREEK AT VALLE VISTA, CALIF.

LOCATION.--Lat 33°44'04", long 116°53'33", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.17, T.5 S., R.1 E., Riverside County, on left levee of flood channel, 1.0 mile south of Valle Vista.

DRAINAGE AREA.--47.2 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,835 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 221 cfs Dec. 19 (gage height, 1.78 ft), from rating curve extended as explained below; no flow most of year.

Period of record: Maximum discharge, 302 cfs Mar. 6, 1970 (gage height, 1.94 ft), from rating curve based on computation of flow in concrete-lined channel at gage heights 1.50, 2.00, and 3.00 ft; no flow many days in each year.

REMARKS.--Records fair. No regulation above station. Diversion above station for irrigation of about 15 acres. Some infiltration by detention dam, 1.5 miles upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	.01	.32	0			0	0	0
2	0	0	0	.25	.01	.24	0			0	.46	0
3	0	0	0	0	0	.26	0			0	.02	0
4	0	0	0	0	0	.25	0			0	0	0
5	0	0	0	0	0	.02	0			.27	.03	0
6	0	0	0	0	0	0	0			.12	0	0
7	0	0	0	0	0	0	0			.22	.04	0
8	0	0	0	0	0	0	0			.26	.06	0
9	0	0	0	0	0	0	0			.35	.08	0
10	0	0	0	0	0	0	.01			.34	.01	0
11	0	0	0	.01	0	0	0			.40	.01	0
12	0	0	0	0	0	0	0			.31	0	0
13	0	0	0	0	0	0	0			.43	0	0
14	0	0	.76	0	0	0	.03			.01	.10	0
15	0	0	0	0	0	0	0			0	0	0
16	0	0	0	0	0	0	0			0	.47	0
17	0	0	1.4	0	0	0	.02			.95	.02	0
18	.07	0	1.5	0	.02	0	4.2			.03	0	0
19	0	0	20	0	0	0	2.3			.01	0	0
20	0	0	.10	0	.01	0	.01			0	0	0
21	0	0	6.4	0	.01	0	.01			0	0	0
22	0	0	.02	0	0	0	0			0	0	0
23	0	.05	0	0	0	0	0			0	0	0
24	0	0	0	0	0	0	0			.03	0	0
25	0	.02	0	0	.01	0	0			0	.10	0
26	0	.01	0	0	0	0	0			.03	.04	0
27	0	.09	0	0	0	0	0			0	.12	.01
28	0	1.7	0	0	.50	0	0			0	.26	.01
29	0	17	0	0	-----	0	0			0	0	0
30	0	3.4	0	0	-----	0	0			.06	0	0
31	0	-----	0	.01	-----	0	-----			.01	0	-----
TOTAL	.07	22.27	30.18	.27	.57	1.09	6.58	0	0	3.83	1.82	.02
MEAN	.002	.74	.97	.009	.020	.035	.22	0	0	.12	.059	.0007
MAX	.07	17	20	.25	.50	.32	4.2	0	0	.95	.47	.01
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.1	44	60	.5	1.1	2.2	13	0	0	7.6	3.6	.04

CAL YR 1970 TOTAL 221.45 MEAN .61 MAX 20 MIN 0 AC-FT 439  
WTR YR 1971 TOTAL 66.70 MEAN .18 MAX 20 MIN 0 AC-FT 132

PEAK DISCHARGE (BASE, 25 CFS).--Nov. 29 (1615) 89 cfs (1.46 ft); Dec. 19 (1630) 221 cfs (1.78 ft).

## 11070270 PERRIS VALLEY STORM DRAIN AT NUEVO ROAD, NEAR PERRIS, CALIF.

LOCATION.--Lat 33°48'04", long 117°12'19", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.21, T.4 S., R.3 W., Riverside County, 1.9 miles northeast of Perris and 2.0 miles upstream from San Jacinto River.

DRAINAGE AREA.--93.3 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,413 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 790 cfs Dec. 21 (gage height, 2.55 ft, from floodmark), from rating curve extended as explained below; no flow most of year.

Period of record: Maximum discharge, 790 cfs Dec. 21, 1970 (gage height, 2.55 ft, from floodmark), from rating curve extended above 150 cfs on basis of slope-area measurement at gage height 6.7 ft; no flow most of each year.

Flood of Feb. 25, 1969, 5,600 cfs (gage height, 6.7 ft, from floodmarks), result of slope-area measurement by Riverside County Flood Control District.

REMARKS.--Records good except those below 10 cfs, which are poor. Some regulation by percolation basins above station. Extensive pumping for irrigation above station. Rainfall data collected at this site.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.0	0		0						
2		0	0	11		0						
3		0	0	.42		0						
4		0	0	0		0						
5		0	0	0		0						
6		0	0	0		0						
7		0	0	0		0						
8		0	0	0		0						
9		0	0	0		0						
10		0	0	0		0						
11		0	0	0		0						
12		0	0	0		0						
13		0	0	0		.10						
14		0	0	0		0						
15		0	0	0		0						
16		0	0	0		0						
17		0	0	0		0						
18		0	0	0		0						
19		0	7.0	0		0						
20		0	3.0	0		0						
21		0	50	0		0						
22		0	5.0	0		0						
23		0	0	0		0						
24		0	0	0		0						
25		0	0	0		0						
26		0	0	0		0						
27		0	0	0		0						
28		0	0	0		0						
29		31	0	0	-----	0						
30		19	0	0	-----	0						
31		-----	0	0	-----	0	-----		-----			-----
TOTAL	0	50	66.0	11.42	0	.10	0	0	0	0	0	0
MEAN	0	1.67	2.13	.37	0	.003	0	0	0	0	0	0
MAX	0	31	50	11	0	.10	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	99	131	23	0	.2	0	0	0	0	0	0
(a)	.27	1.59	2.38	.29	.30	.06	.17	.42	.06	0	0	0
CAL YR 1970	TOTAL	368.70	MEAN	1.01	MAX	69	MIN	0	AC-FT	731		
WTR YR 1971	TOTAL	127.52	MEAN	.35	MAX	50	MIN	0	AC-FT	253		

a Precipitation, in inches.



## SANTA ANA RIVER BASIN

11070500 SAN JACINTO RIVER NEAR ELSINORE, CALIF.

LOCATION.--Lat 33°39'51", long 117°17'35", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.9, T.6 S., R.4 W., Riverside County, on right bank 2 miles east of Elsinore and 2.1 miles downstream from Railroad Canyon Dam.

DRAINAGE AREA.--728 sq mi.

PERIOD OF RECORD.--January 1916 to current year. Monthly figures 1927-50, adjusted for diversion, published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 1,270 ft (from topographic map). Prior to Feb. 13, 1916, nonrecording gage at site 0.7 mile downstream at different datum. Feb. 13, 1916, to Oct. 27, 1921, nonrecording gage at present site at different datum.

EXTREMES.--Current year: Maximum discharge, 1.6 cfs Nov. 29 (gage height, 2.23 ft); no flow most of year. Period of record: Maximum discharge, 16,000 cfs Feb. 17, 1927 (gage height, 11.8 ft), from rating curve extended above 2,000 cfs on basis of slope-area measurement of maximum flow; no flow for several months in most years.

REMARKS.--Records good. Flow partly regulated by Lake Hemet (see sta 11069000) and regulated since 1928 by Railroad Canyon Reservoir (capacity, 12,000 acre-ft) 2.1 miles above station. Diversion for irrigation and domestic use above Railroad Canyon Reservoir. Temescal Water Co. diverted 697 acre-ft during year from Railroad Canyon Reservoir for irrigation below station in vicinity of Corona. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.24	.16	.18	.10	.12	.04				
2		0	.18	.16	.17	.08	.11	.02				
3		0	.13	.16	.17	.08	.11	.02				
4		0	.15	.16	.17	.09	.10	.02				
5		0	.15	.16	.17	.11	.10	.01				
6		0	.15	.16	.17	.10	.11	.03				
7		0	.15	.16	.17	.10	.11	.08				
8		0	.15	.16	.17	.11	.11	.04				
9		0	.15	.17	.15	.11	.12	.04				
10		0	.15	.17	.15	.12	.14	0				
11		0	.15	.17	.15	.13	.29	0				
12		0	.15	.17	.15	.14	.24	0				
13		0	.15	.17	.15	.14	.27	.01				
14		0	.15	.17	.15	.16	.06	.03				
15		0	.15	.17	.15	.13	.05	.02				
16		0	.15	.17	.15	.14	.11	.03				
17		0	.15	.17	.27	.13	.06	.02				
18		0	.15	.17	.22	.13	.04	0				
19		0	.15	.17	.16	.12	.04	0				
20		0	.15	.17	.16	.13	.01	0				
21		0	.15	.17	.14	.16	.02	0				
22		0	.16	.17	.14	.17	.02	0				
23		0	.16	.17	.15	.17	.01	0				
24		0	.16	.17	.13	.18	0	0				
25		0	.16	.17	.11	.18	0	0				
26		0	.16	.18	.07	.19	0	0				
27		0	.16	.18	.08	.19	0	0				
28		0	.16	.18	.10	.17	0	0				
29		.12	.16	.19	-----	.16	.08	0				
30		.54	.16	.18	-----	.13	.07	0				
31		-----	.16	.18	-----	.12	-----	0	-----			-----
TOTAL	0	.66	4.85	5.26	4.30	4.17	2.50	.41	0	0	0	0
MEAN	0	.022	.16	.17	.15	.13	.083	.013	0	0	0	0
MAX	0	.54	.24	.19	.27	.19	.29	.08	0	0	0	0
MIN	0	0	.13	.16	.07	.08	0	0	0	0	0	0
AC-FT	0	1.3	9.6	10	8.5	8.3	5.0	.8	0	0	0	0
CAL YR 1970	TOTAL	223.00	MEAN .61	MAX 9.8	MIN 0	AC-FT 442						
WTR YR 1971	TOTAL	22.15	MEAN .061	MAX .54	MIN 0	AC-FT 44						

## 11072000 TEMESCAL CREEK NEAR CORONA, CALIF.

LOCATION.--Lat 33°50'29", long 117°30'37", in El Sobrante de San Jacinto Grant, Riverside County, on left bank 0.2 mile downstream from unnamed tributary and 3.8 miles southeast of Corona.

DRAINAGE AREA.--164 sq mi, excludes 768 sq mi above Lake Elsinore.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for the period October 1928 to January 1929, published in WSP 1315-B.

GAGE.--Water-stage recorder. Concrete control since June 12, 1970. Altitude of gage is 730 ft (from topographic map). Prior to Feb. 11, 1943, at datum 6.00 ft higher.

AVERAGE DISCHARGE.--44 years, 3.58 cfs (2,590 acre-ft per year); median of yearly mean discharges, 0.10 cfs (72 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 150 cfs (estimated) Dec. 21; no flow July 21 to Sept. 30.  
Period of record: Maximum discharge, 14,900 cfs Mar. 2, 1938, on basis of slope-area measurement of maximum flow; no flow at times most years.

REMARKS.--Records poor. Flow regulated by several storage reservoirs. Many diversions above station for irrigation. See schematic diagram of Santa Ana River basin. Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.08	3.1	4.5	3.9	3.7	2.7	1.3	.76	.38		
2	.02	.08	2.2	7.0	3.8	3.7	2.6	1.3	.75	.34		
3	.02	.08	1.7	4.5	3.8	3.6	2.5	1.2	.74	.32		
4	.02	.10	1.3	4.4	3.8	3.5	2.4	1.2	.73	.29		
5	.02	.10	1.1	4.3	3.8	3.5	2.4	1.2	.72	.26		
6	.02	.15	1.0	4.3	3.8	3.5	2.3	1.2	.71	.23		
7	.02	.15	.80	4.3	3.8	3.5	2.3	1.2	.70	.21		
8	.02	.15	.70	4.3	3.7	3.4	2.2	1.1	.68	.18		
9	.02	.15	1.0	4.3	3.7	3.5	2.1	1.1	.68	.15		
10	.02	.20	.92	4.3	3.7	3.7	2.1	1.1	.67	.13		
11	.02	.20	.87	4.3	3.7	4.1	2.0	1.1	.67	.10		
12	.02	.20	.83	4.3	3.7	5.0	2.0	1.1	.64	.09		
13	.02	.25	.80	4.3	3.7	4.8	1.9	1.0	.62	.08		
14	.02	.25	.90	4.2	3.7	4.7	2.1	1.0	.61	.07		
15	.10	.30	.83	4.2	3.7	4.5	1.9	1.0	.60	.06		
16	.08	.30	.78	4.2	3.7	4.4	1.8	1.0	.59	.05		
17	.08	.32	.90	4.2	4.0	4.2	1.9	.98	.58	.04		
18	.08	.35	1.0	4.2	6.0	4.1	1.7	.96	.56	.03		
19	.08	.38	2.0	4.2	5.5	4.0	1.6	.94	.55	.02		
20	.08	.38	5.0	4.1	5.1	3.8	1.6	.92	.54	.01		
21	.08	.39	60	4.1	4.7	3.7	1.6	.90	.53	0		
22	.08	.39	40	4.1	4.4	3.6	1.5	.88	.52	0		
23	.08	.40	20	4.1	4.3	3.5	1.5	.87	.51	0		
24	.08	.40	9.0	4.0	4.2	3.4	1.5	.86	.50	0		
25	.08	.40	7.5	4.0	4.0	3.3	1.7	.85	.49	0		
26	.08	.40	5.7	4.0	3.9	3.2	1.4	.84	.48	0		
27	.08	.40	5.2	4.0	3.9	3.1	1.4	.83	.47	0		
28	.08	.50	5.0	3.9	3.8	3.0	1.4	.82	.46	0		
29	.08	25	4.8	3.9	-----	2.9	1.3	.80	.44	0		
30	.08	6.4	4.7	3.9	-----	2.8	1.3	.78	.41	0		
31	.08	-----	4.6	3.9	-----	2.7	-----	.77	-----	0		
TOTAL	1.66	38.85	212.23	132.3	113.8	114.4	56.7	31.10	17.91	3.04	0	0
MEAN	.054	1.30	6.85	4.27	4.06	3.69	1.89	1.00	.60	.098	0	0
MAX	.10	.25	.60	7.0	6.0	5.0	2.7	1.3	.76	.38	0	0
MIN	.02	.08	.70	3.9	3.7	2.7	1.3	.77	.41	0	0	0
AC-FT	3.3	77	421	262	226	227	112	62	36	6.0	0	0

CAL YR 1970 TOTAL 1,088.59 MEAN 2.98 MAX 70 MIN .02 AC-FT 2,160  
WTR YR 1971 TOTAL 721.99 MEAN 1.98 MAX 60 MIN 0 AC-FT 1,430

NOTE.--Stage-discharge relation indefinite most of year.

## SANTA ANA RIVER BASIN

11072200 TEMESCAL CREEK AT CORONA, CALIF.

LOCATION.--Lat 33°53'46", long 117°34'50", in La Sierra Grant, Riverside County, on right bank 0.2 mile downstream from Lincoln Avenue and 1.0 mile northwest of Corona.

DRAINAGE AREA.--249 sq mi, excludes 768 sq mi above Lake Elsinore.

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

GAGE.--Water-stage recorder. Altitude of gage is 550 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 304 cfs Dec. 21 (gage height, 2.82 ft); no flow most of year.  
 Period of record: Maximum discharge, 8,850 cfs Feb. 25, 1969 (gage height, 8.17 ft, from floodmark), on basis of slope-area measurement of maximum flow; no flow most of each year.  
 Flood of Mar. 2, 1938, 14,900 cfs, by slope-area measurement at site 3 miles upstream.

REMARKS.--Records fair. Flow regulated by Lake Elsinore and several storage reservoirs. Many diversions for irrigation. Prior to July 22, 1968, effluent from city of Corona disposal plant was released to creek at site 0.5 mile upstream. Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	0	.01	.06					
2		0	0	6.6	0	.08	.12					
3		0	0	0	0	0	0					
4		0	0	0	0	0	0					
5		0	0	0	0	0	0					
6		0	0	0	0	0	.01					
7		0	0	0	0	0	.01					
8		0	0	0	0	.05	.01					
9		0	.07	0	0	.02	.02					
10		0	0	0	0	.02	0					
11		0	0	0	0	0	0					
12		0	0	0	0	.08	0					
13		0	0	0	0	.02	0					
14		0	0	0	0	0	0					
15		0	0	0	0	.01	0					
16		0	0	0	1.0	0	0					
17		0	.24	0	5.0	0	.29					
18		0	0	0	0	0	0					
19		0	36	0	0	0	0					
20		0	4.2	0	0	0	0					
21		0	90	0	0	0	0					
22		0	.42	0	0	.02	.02					
23		0	0	0	0	.02	.02					
24		0	0	0	0	.04	0					
25		0	0	0	0	.05	0					
26		0	0	0	0	0	.01					
27		0	0	0	0	0	.14					
28		3.9	0	0	0	0	.12					
29		41	0	0	-----	0	.20					
30		2.1	0	0	-----	0	.03					
31		-----	0	0	-----	.01	-----		-----		-----	
TOTAL	0	47.0	130.93	6.6	6.0	.43	1.06	0	0	0	0	0
MEAN	0	1.57	4.22	.21	.21	.014	.035	0	0	0	0	0
MAX	0	41	90	6.6	5.0	.08	.29	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	93	260	13	12	.9	2.1	0	0	0	0	0
CAL YR 1970	TOTAL	359.71	MEAN .99	MAX 90	MIN 0	AC-FT 713						
WTR YR 1971	TOTAL	192.02	MEAN .53	MAX 90	MIN 0	AC-FT 381						

## 11073000 SAN ANTONIO CREEK NEAR CLAREMONT, CALIF.

LOCATION.--Lat 34°12'58", long 117°40'04", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.36, T.2 N., R.8 W., Los Angeles County, on right bank 0.5 mile upstream from Southern California Edison Co.'s Sierra powerplant, and 8.8 miles northeast of Claremont.

DRAINAGE AREA.--16.5 sq mi.

PERIOD OF RECORD.--January 1917 to current year; combined records of creek and conduit, March 1901 to December 1916 (fragmentary, published as "near Upland"), January 1917 to current year.

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 mean sea level. See WSP 1315-B for history of changes prior to Jan. 9, 1939. Prior to July 28, 1969, at datum 1.0 ft higher.

AVERAGE DISCHARGE (Creek only).--54 years (1917-71), 10.1 cfs (7,320 acre-ft per year); median of yearly mean discharges, 2.5 cfs (1,800 acre-ft per year).

(Combined creek and conduit).--66 years (1901-2, 1903-4, 1905-9, 1910-15, 1916-71), 22.9 cfs (16,590 acre-ft per year); median of yearly mean discharges, 16 cfs (11,600 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 202 cfs Nov. 29 (gage height, 1.80 ft); minimum daily, 0.43 cfs Oct. 9-15, Nov. 2, 3.

Period of record: Maximum discharge, 21,400 cfs 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 flow).--Current year: Maximum discharge, 212 cfs Nov. 29; minimum daily, 2.6 cfs Nov. 26.

Period of record: Maximum discharge, 21,400 cfs Mar. 2, 1938; minimum daily, 0.30 cfs Dec. 8-19, 1954, Dec. 12-17, 1963.

REMARKS.--Records poor. No regulation above station. See schematic diagram of Santa Ana River basin. For records of combined discharge of San Antonio Creek and Southern California Edison Co.'s Sierra conduit, which diverts from site 0.5 mile above station, see following page.

COOPERATION.--Records of discharge through Sierra conduit furnished by Southern California Edison Co.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	.47	4.4	2.5	3.7	1.8	1.0	.82	1.6	.82	.56	.56
2	.56	.43	3.4	2.8	4.1	1.9	1.0	.99	1.6	.79	.54	.56
3	.56	.43	3.0	2.7	3.9	1.9	1.0	1.0	1.6	.75	.50	.56
4	.56	.50	2.7	2.4	3.0	1.6	1.0	1.0	1.6	.72	.50	.56
5	.54	.50	2.4	2.2	1.8	1.4	1.0	1.1	1.6	.69	.45	.55
6	.52	.50	2.1	2.0	1.6	1.4	1.0	1.4	1.5	.66	.50	.56
7	.50	.50	2.0	1.9	1.5	1.3	1.0	1.3	1.5	.64	.50	.56
8	.47	.50	1.9	1.9	2.5	1.3	1.0	1.2	1.5	.62	.56	.54
9	.43	.50	1.9	1.7	3.0	1.3	1.0	1.2	1.5	.61	.56	.50
10	.43	.50	1.8	1.6	1.7	1.3	1.0	1.1	1.5	.60	.55	.50
11	.43	.50	1.7	1.6	1.5	1.3	1.1	1.1	1.5	.60	.56	.50
12	.43	.50	1.7	1.7	1.8	1.3	.99	1.1	1.5	.59	.56	.48
13	.43	.50	1.8	1.6	1.4	1.9	.95	1.0	1.5	.58	.56	.50
14	.43	.50	1.9	1.6	1.4	1.7	.95	1.0	1.5	.58	.56	.50
15	.43	.56	1.7	1.5	1.3	1.7	.95	1.0	1.5	.57	.56	.50
16	.50	.62	1.8	1.5	1.4	1.6	.95	.95	1.5	.56	.56	.49
17	.50	.62	1.9	4.0	1.7	1.6	1.0	.95	1.4	.56	.56	.61
18	.50	.62	2.0	3.8	1.6	1.6	1.0	.95	1.4	.56	.56	.62
19	.50	.62	3.2	3.6	1.6	1.5	1.0	.90	1.4	.55	.56	.60
20	.50	.62	4.9	3.4	1.5	1.5	.98	.90	1.4	.55	.56	.56
21	.50	.62	6.4	3.3	1.5	1.4	.88	.85	1.4	.54	.56	.56
22	.50	.62	5.9	3.1	1.5	1.4	.88	.85	1.2	.54	.56	.56
23	.50	.59	5.6	2.9	1.4	1.3	.88	.85	1.1	.56	.56	.56
24	.50	.56	4.9	2.6	1.4	1.3	.88	.80	1.1	.56	.56	.56
25	.50	.57	4.6	2.3	1.4	1.3	.91	.80	1.1	.56	.56	.56
26	.50	.69	4.5	2.1	1.3	1.2	.95	1.9	1.0	.56	.56	.56
27	.50	.69	4.1	2.1	1.2	1.2	.85	1.7	.95	.56	.56	.56
28	.50	1.9	4.1	2.0	1.3	1.2	.82	1.7	.90	.56	.56	.56
29	.50	69	3.9	2.0	-----	1.1	.82	1.6	.88	.56	.56	.56
30	.50	7.1	3.6	2.0	-----	1.1	.76	1.6	.85	.56	.56	.56
31	.50	-----	2.7	2.2	-----	1.1	-----	1.6	-----	.56	.56	-----
TOTAL	15.28	92.83	98.5	72.6	53.0	44.5	28.50	35.21	40.58	18.72	16.98	16.41
MEAN	.49	3.09	3.18	2.34	1.89	1.44	.95	1.14	1.35	.60	.55	.55
MAX	.56	.69	6.4	4.0	4.1	1.9	1.1	1.9	1.6	.82	.56	.62
MIN	.43	.43	1.7	1.5	1.2	1.1	.76	.80	.85	.54	.45	.48
AC-FT	30	184	195	144	105	88	57	70	80	37	34	33

CAL YR 1970 TOTAL 2,931.15 MEAN 8.03 MAX 69 MIN .43 AC-FT 5,810  
WTR YR 1971 TOTAL 533.11 MEAN 1.46 MAX 69 MIN .43 AC-FT 1,060

PEAK DISCHARGE (BASE, 50 CFS).--Nov. 29 (1300) 202 cfs (1.80 ft).

NOTE.--No gage-height record May 13 to June 14.

## 11073000 SAN ANTONIO CREEK NEAR CLAREMONT, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SAN ANTONIO CREEK NEAR SOUTHERN CALIFORNIA  
EDISON CO.'S SIERRA CONDUIT NEAR CLAREMONT, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	7.3	15	12	17	14	11	11	11	8.7	6.6	6.3
2	6.8	7.2	13	14	16	13	11	11	11	8.4	6.7	6.3
3	6.8	7.2	13	14	16	13	11	11	11	8.4	7.0	6.3
4	6.3	7.3	12	13	16	13	11	11	11	8.3	7.0	6.3
5	6.0	7.3	11	13	17	13	11	11	10	8.3	7.0	6.0
6	6.2	7.3	11	13	19	14	11	11	10	8.3	7.0	6.1
7	2.8	7.3	11	13	18	14	12	11	10	7.9	7.0	6.1
8	5.0	7.3	11	13	16	13	12	11	10	7.7	7.1	6.0
9	5.1	7.0	11	13	16	13	12	11	10	7.7	6.8	6.0
10	6.9	7.0	12	12	17	13	12	10	10	7.1	6.8	5.7
11	6.6	7.0	13	13	16	13	12	10	10	7.1	6.8	5.7
12	6.6	6.5	12	13	17	11	12	10	9.7	7.1	6.8	5.7
13	6.6	6.7	12	13	17	14	12	10	9.7	7.1	6.6	5.7
14	6.6	6.7	13	13	16	13	12	11	9.7	7.1	6.6	5.7
15	6.6	6.8	13	11	16	13	12	11	9.7	7.1	6.6	5.7
16	6.7	6.8	14	9.1	17	13	12	11	9.7	7.1	6.6	5.7
17	7.0	6.8	14	11	18	13	12	4.0	9.6	7.1	6.6	5.8
18	6.7	6.8	13	10	18	13	12	4.4	9.6	7.1	6.6	5.8
19	6.7	7.1	11	11	17	12	12	9.7	9.6	7.0	6.6	5.8
20	7.0	7.1	12	13	16	12	12	10	9.6	7.0	6.6	5.8
21	7.0	7.4	14	15	16	11	12	10	9.6	7.0	6.3	5.8
22	6.7	7.4	13	15	16	11	11	10	9.4	7.0	6.3	5.8
23	7.0	7.4	12	15	16	11	11	10	9.3	7.1	6.3	5.8
24	7.0	7.4	12	15	16	11	11	9.6	9.3	7.1	6.3	5.8
25	7.0	7.4	12	14	15	11	11	9.9	9.3	7.1	6.3	5.8
26	6.7	2.6	12	14	15	11	11	11	9.2	6.8	6.3	5.8
27	6.7	5.4	11	14	15	11	11	11	9.2	6.8	6.3	5.8
28	6.7	8.7	11	14	14	11	11	11	9.1	6.8	6.3	5.8
29	7.0	7.9	11	15	-----	11	11	11	9.1	6.8	6.3	5.8
30	7.3	17	12	16	-----	11	11	11	9.0	6.8	6.3	5.8
31	7.3	-----	13	16	-----	11	-----	11	-----	6.6	6.3	-----
TOTAL	202.0	290.2	380	410.1	459	381	345	315.6	293.4	227.5	204.7	176.5
MEAN	6.52	9.67	12.3	13.2	16.4	12.3	11.5	10.2	9.78	7.34	6.60	5.88
MAX	7.3	7.9	15	16	19	14	12	11	11	8.7	7.1	6.3
MIN	2.8	2.6	11	9.1	14	11	11	4.0	9.0	6.6	6.3	5.7
AC-FT	401	576	754	813	910	756	684	626	582	451	406	350

CAL YR 1970 TOTAL 4,253.7 MEAN 11.7 MAX 79 MIN 2.6 AC-FT 8,440

WTR YR 1971 TOTAL 3,685.0 MEAN 10.1 MAX 79 MIN 2.6 AC-FT 7,310

PEAK DISCHARGE (BASE, 50 CFS).--Nov. 29 (1300) 212 cfs.

## 11073200 SAN ANTONIO CREEK BELOW SAN ANTONIO DAM, CALIF.

LOCATION.--Lat 34°09'26", long 117°40'50", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.23, T.1 N., R.8 W., Los Angeles-San Bernardino County line, on left wall of outlet channel at toe of San Antonio Dam and 4.7 miles northeast of Claremont.

DRAINAGE AREA.--26.9 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 2,093.94 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--9 years, 12.4 cfs (8,980 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 160 cfs June 1 (gage height, 1.90 ft); no flow most of year.

Period of record: Maximum discharge, 8,420 cfs Jan. 25, 1969 (gage height, 11.22 ft), from rating curve extended above 400 cfs on basis of gate openings at dam; no flow most of each year.

REMARKS.--Records fair. Flow regulated by San Antonio flood-control reservoir (capacity, 7,620 acre-ft).

Water diverted out of basin for power, domestic use, and irrigation. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	21	.16	.10	.16	0		6.7			
2		0	11	.16	.05	.03	0		0			
3		0	.10	.16	.05	0	0		0			
4		0	.10	.16	.05	0	0		0			
5		0	0	.16	.05	0	0		0			
6		0	0	.16	.05	0	0		0			
7		0	0	.16	.05	0	.03		0			
8		0	0	.16	.05	0	.05		0			
9		0	0	.16	.05	0	.10		0			
10		0	0	.16	.05	0	.16		0			
11		0	0	.16	.05	0	.10		0			
12		0	0	.16	.05	0	.16		0			
13		0	0	.24	.05	0	.05		0			
14		0	0	.52	.05	0	0		0			
15		0	0	.52	.10	0	0		0			
16		0	0	.36	.10	0	0		0			
17		0	0	.36	.10	3.4	0		0			
18		0	0	.36	.10	.11	0		0			
19		0	0	.36	.10	.03	0		0			
20		0	0	.36	.10	0	0		0			
21		0	0	.52	.10	0	0		0			
22		0	.11	.94	.10	.18	0		0			
23		0	.16	.72	.16	.27	0		0			
24		0	.16	.52	.16	0	0		0			
25		0	.16	.24	.16	.21	0		0			
26		0	.16	.36	.16	.16	0		0			
27		0	.16	.36	.16	.05	0		0			
28		0	.16	.24	.16	0	0		0			
29		.36	.16	.24	-----	0	0		0			
30		.36	.16	.16	-----	0	0		0			
31		-----	.16	.10	-----	0	-----		-----			-----
TOTAL	0	.72	33.75	9.40	2.51	4.60	.65	0	6.7	0	0	0
MEAN	0	.024	1.09	.30	.090	.15	.022	0	.22	0	0	0
MAX	0	.36	21	.94	.16	3.4	.16	0	6.7	0	0	0
MIN	0	0	0	.10	.05	0	0	0	0	0	0	0
AC-FT	0	1.4	67	19	5.0	9.1	1.3	0	13	0	0	0
CAL YR 1970	TOTAL	198.44	MEAN .54	MAX 59	MIN 0	AC-FT 394						
WTR YR 1971	TOTAL	58.33	MEAN .16	MAX 21	MIN 0	AC-FT 116						

## 11073360 CHINO CREEK AT SCHAEFER AVENUE, NEAR CHINO, CALIF.

LOCATION.--Lat 34°00'14", long 117°43'34", in Santa Ana del Chino Grant, San Bernardino County, on right bank 300 ft downstream from Schaefer Avenue, 0.8 mile downstream from San Antonio Creek, and 1.5 miles southwest of Chino.

DRAINAGE AREA.--48.9 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 685 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 1,180 cfs Dec. 21 (gage height, 5.62 ft); minimum daily, 0.24 cfs Mar. 7.

Period of record: Maximum discharge, 1,520 cfs Mar. 1 (gage height, 5.84 ft), from rating curve extended above 520 cfs on basis of computation of flow in concrete-lined channel at 1,600 cfs; minimum daily, 0.07 cfs Jan. 13, 1970.

Flood of Jan. 25, 1969, 9,200 cfs (gage height, 9.23 ft, present datum), by contracted-opening measurement at site 6.1 miles downstream.

REMARKS.--Records good. Flow partly regulated by San Antonio flood-control reservoir (capacity, 7,620 acre-ft, revised). Natural streamflow affected by extensive ground-water withdrawals, diversions for power, domestic use, irrigation, and return flow from irrigated areas. Records of chemical analyses for the current year are published in Part 2 of this report. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.40	1.3	.42	.38	.26	.33	.38	.84	.53	.61	.71
2	.50	.48	20	9.2	.40	.26	.32	.40	.84	.50	.86	.75
3	1.1	.43	.59	.51	.40	.26	.32	.54	.77	.51	1.3	.64
4	.42	.46	.50	1.7	.35	.26	.32	.85	.62	.47	1.5	.60
5	.49	.59	.44	1.8	.35	.26	.32	.64	.62	.34	.92	.68
6	.46	4.3	.55	1.8	.33	.26	.32	1.8	.62	.45	.67	.44
7	.40	.47	.51	1.9	.35	.24	.32	1.3	.62	.57	.67	.43
8	.37	.40	.42	1.7	.33	.25	.27	.69	.62	.62	.58	.50
9	.44	.45	25	1.6	.40	.62	.31	.53	.62	.60	.54	.53
10	.40	.40	.40	.34	.37	.60	.32	.42	1.4	.54	.52	.55
11	.44	.42	.32	1.7	.35	.44	.32	.40	.71	.40	.54	.55
12	.49	.56	.29	19	.36	.36	.38	.40	.62	.40	.69	.44
13	.44	.43	1.3	5.2	.37	63	.40	.54	.62	.44	.70	.46
14	.45	.47	28	.71	.36	1.2	8.9	.59	.62	.40	.51	.47
15	.46	.53	.72	.47	.36	.64	.95	.50	.70	.40	.50	.41
16	.50	.53	11	.40	49	.46	.72	.42	.68	.40	.53	.38
17	.46	.52	6.7	.35	42	.35	3.9	.40	.69	.42	.50	.36
18	.52	.50	4.8	.33	1.4	.32	1.0	.43	.88	.40	.50	.34
19	.49	.60	124	.58	6.2	.32	.66	.59	.73	.40	.56	.34
20	.47	.60	16	1.6	1.1	.32	.50	.68	.71	.42	.62	.36
21	.41	.48	253	1.6	.67	.32	.98	.76	.84	.48	.66	.32
22	.45	.52	4.2	1.8	.44	.29	.70	.68	.72	.44	.62	.32
23	.49	.57	1.1	.50	.40	.32	.54	.58	.72	.49	.59	.34
24	.48	.96	.76	.50	.35	.27	.48	.61	.79	.40	.62	.37
25	.60	10	.34	1.7	.32	.87	2.7	.83	.70	.48	.61	.32
26	.39	46	.33	1.7	.32	.84	.92	.73	.62	.68	.70	.33
27	.43	.69	.33	1.1	.26	.55	.60	13	.62	.57	.61	.36
28	.46	113	1.2	1.3	.26	.40	.47	11	.76	.50	.52	.58
29	.52	299	1.3	.40	-----	.33	.40	1.1	.64	.49	.51	.61
30	.40	7.2	.30	.39	-----	.39	.40	.79	.58	.50	.53	.55
31	.43	-----	.71	.40	-----	.40	-----	.78	-----	.68	.47	-----
TOTAL	14.77	491.96	506.41	62.70	108.18	75.66	29.07	43.36	21.52	14.92	20.26	14.04
MEAN	.48	16.4	16.3	2.02	3.86	2.44	.97	1.40	.72	.48	.65	.47
MAX	1.1	299	253	19	49	63	8.9	13	1.4	.68	1.5	.75
MIN	.37	.40	.29	.33	.26	.24	.27	.38	.58	.34	.47	.32
AC-FT	29	976	1,000	124	215	150	58	86	43	30	40	28

CAL YR 1970 TOTAL 2,134.12 MEAN 5.85 MAX 307 MIN .07 AC-FT 4,230  
WTR YR 1971 TOTAL 1,402.85 MEAN 3.84 MAX 299 MIN .24 AC-FT 2,780

## PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0030	5.40	880	2-16	1945	5.30	760
12-21	0645	5.62	1,180	3-13	0445	5.09	552

## SANTA ANA RIVER BASIN

203

## 11073470 CUCAMONGA CREEK NEAR UPLAND, CALIF.

LOCATION.--Lat 34°10'46", long 117°37'41", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.17, T.1 N., R.7 W., San Bernardino County, on left bank 0.1 mile upstream from unnamed tributary, and 5.7 miles north of Upland. Prior to Mar. 31, 1971 at site 0.6 mile downstream.

DRAINAGE AREA.--9.68 sq mi (revised). Area at site used prior to Mar. 31, 1971, 10.1 sq mi (revised).

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October to December 1928, published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 2,600 ft (from topographic map). See WSP 1735 for history of changes prior to Dec. 13, 1938. Dec. 14, 1938, to Mar. 30, 1971, at site 0.6 mile downstream at different datums.

AVERAGE DISCHARGE.--44 years, 7.93 cfs (5,750 acre-ft per year); median of yearly mean discharges, 5.0 cfs (3,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 580 cfs Nov. 29 (gage height, 5.90 ft, datum then in use), on basis of slope-conveyance measurement; minimum daily, 1.6 cfs Oct. 1, 2.

Period of record: Maximum discharge, 14,100 cfs Jan. 25, 1969 (gage height, 14.44 ft, site and datum then in use), from rating curve extended above 450 cfs on basis of slope-area measurements at gage heights 6.22 and 12.44 ft; minimum daily, 0.30 cfs Oct. 5, 6, 1962.

REMARKS.--Records poor. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.5	15	5.4	5.1	3.6	3.3	3.6	3.6	2.5	2.4	2.0
2	1.6	2.5	10	7.0	5.1	3.5	3.3	3.6	3.5	2.5	2.4	2.0
3	3.9	2.5	8.5	5.6	5.0	3.5	3.2	3.6	3.4	2.5	2.5	2.0
4	3.8	2.5	7.8	5.3	5.0	3.4	3.2	3.6	3.3	2.5	2.5	2.0
5	3.8	2.6	7.1	5.1	4.9	3.3	3.2	3.6	3.1	2.5	2.5	2.0
6	3.7	2.7	6.6	4.9	4.9	3.3	3.2	7.5	3.2	2.5	2.5	2.0
7	3.6	2.8	6.3	4.7	4.8	3.2	3.2	4.0	3.3	2.4	2.5	2.0
8	3.5	3.0	6.0	4.6	4.8	3.2	3.1	3.9	3.3	2.4	2.4	1.9
9	3.4	3.1	7.0	4.6	4.8	3.1	3.1	3.8	3.3	2.4	2.4	1.9
10	3.3	3.2	6.2	4.5	4.8	3.1	3.1	3.7	3.4	2.4	2.4	1.9
11	3.2	3.2	5.8	4.5	4.7	3.0	3.1	3.7	3.3	2.4	2.4	1.9
12	3.0	3.2	5.4	4.5	4.7	3.0	3.1	3.6	3.2	2.4	2.3	1.9
13	2.9	3.2	5.8	4.4	4.7	15	3.1	3.5	3.1	2.3	2.3	1.9
14	2.9	3.2	5.6	4.4	4.7	7.0	3.5	3.4	3.1	2.3	2.3	1.9
15	2.8	3.2	5.4	4.3	4.7	5.7	3.9	3.3	3.0	2.3	2.3	1.9
16	2.8	3.3	5.2	4.3	5.0	5.3	3.7	3.2	2.9	2.3	2.3	1.9
17	2.7	3.3	6.0	10	10	5.0	3.9	3.1	2.8	2.3	2.3	1.9
18	2.7	3.3	6.5	8.4	5.6	4.8	3.7	3.0	2.8	2.3	2.3	1.9
19	2.7	3.3	9.0	7.5	5.0	4.6	3.4	3.0	2.7	2.3	2.3	1.9
20	2.6	3.3	10	7.0	4.5	4.4	3.7	3.0	2.6	2.3	2.2	1.9
21	2.6	3.4	15	6.8	4.3	4.2	3.7	3.0	2.5	2.3	2.2	2.0
22	2.6	3.4	11	6.5	4.2	4.1	3.6	3.0	2.4	2.3	2.2	2.0
23	2.6	3.4	9.5	6.1	4.1	3.9	3.6	3.0	2.4	2.3	2.2	2.0
24	2.6	3.4	8.5	5.9	4.0	3.8	3.6	2.9	2.3	2.3	2.2	2.0
25	2.5	3.4	8.0	5.8	3.9	3.7	3.8	2.8	2.3	2.3	2.2	2.0
26	2.5	4.5	7.0	5.7	3.8	3.6	3.6	3.7	2.3	2.3	2.1	2.0
27	2.5	4.0	6.6	5.6	3.8	3.6	3.6	4.5	2.3	2.3	2.1	2.0
28	2.5	5.0	6.3	5.5	3.7	3.5	3.5	4.1	2.3	2.3	2.1	2.1
29	2.5	100	6.1	5.4	-----	3.4	3.5	3.9	2.3	2.3	2.1	2.1
30	2.5	29	5.8	5.3	-----	3.3	3.5	3.8	2.3	2.4	2.1	2.1
31	2.5	-----	5.5	5.2	-----	3.2	-----	3.5	-----	2.4	2.0	-----
TOTAL	88.4	219.4	234.5	174.8	134.6	131.3	103.0	111.9	86.3	73.3	71.0	59.0
MEAN	2.85	7.31	7.56	5.64	4.81	4.24	3.43	3.61	2.88	2.36	2.29	1.97
MAX	3.9	100	15	10	10	15	3.9	7.5	3.6	2.5	2.5	2.1
MIN	1.6	2.5	5.2	4.3	3.7	3.0	3.1	2.8	2.3	2.3	2.0	1.9
AC-FT	175	435	465	347	267	260	204	222	171	145	141	117

CAL YR 1970 TOTAL 2,179.2 MEAN 5.97 MAX 100 MIN 1.1 AC-FT 4,320  
WTR YR 1971 TOTAL 1,487.5 MEAN 4.08 MAX 100 MIN 1.6 AC-FT 2,950

PEAK DISCHARGE (BASE, 80 CFS).--Nov. 29 (time unknown) 580 cfs (5.90 ft).

NOTE.--No gage-height record prior to Mar. 31.



## SANTA ANA RIVER BASIN

11073495 CUCAMONGA CREEK NEAR MIRA LOMA, CALIF.

LOCATION.--Lat 33°58'58", long 117°35'55", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.22, T.2 S., R.7 W., San Bernardino County, on left levee 200 ft upstream from Merrill Avenue and 4.6 miles west of Mira Loma.

DRAINAGE AREA.--75.8 sq mi.

PERIOD OF RECORD.--January 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 655.3 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,080 cfs Nov. 29 (gage height, 3.15 ft); no flow most of year.  
Period of record: Maximum discharge, 9,100 cfs Jan. 25, 1969 (gage height, 7.08 ft, from floodmark), on basis of slope-area measurement of maximum flow; no flow most of each year.

REMARKS.--Records poor. Flood flows not materially affected by percolation basins in headwater areas. Extensive ground-water withdrawals for municipal supply and irrigation. See schematic diagram of Santa Ana River basin. Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	4.7	0	.30	1.1	.28	.08				
2		0	4.4	1.0	0	.18	.42	.06				
3		0	1.5	0	0	.54	.93	.06				
4		0	0	0	0	.54	1.4	.04				
5		0	0	0	0	.72	.17	.04				
6		0	0	0	.64	3.5	0	1.0				
7		0	0	0	1.1	3.5	.01	.15				
8		0	0	0	.43	2.5	.05	.10				
9		0	2.6	0	0	2.0	.05	.06				
10		0	1.5	0	0	1.1	1.4	.04				
11		0	0	0	0	.58	1.5	.01				
12		0	0	2.5	.37	.44	.41	0				
13		0	0	0	1.5	5.0	.02	0				
14		0	2.1	0	1.6	2.9	.08	0				
15		0	.19	0	1.0	.86	.37	0				
16		0	.29	0	.68	.58	.48	0				
17		0	4.3	0	.60	.76	.54	0				
18		0	.09	0	.28	.68	.68	0				
19		0	22	0	.28	1.4	.48	0				
20		0	7.9	0	1.0	2.3	.21	0				
21		0	62	0	2.5	2.3	.06	0				
22		0	7.5	0	.80	.52	.12	0				
23		0	5.0	.51	.24	.12	.10	0				
24		0	3.0	.60	.76	.10	.15	0				
25		0	1.0	.33	.76	.12	.37	0				
26		0	0	.03	.93	.93	.42	0				
27		0	0	0	3.1	3.1	.21	0				
28		5.0	0	0	2.9	3.1	.15	0				
29		169	0	0	-----	1.8	.12	0				
30		8.0	0	.43	-----	.24	.10	0				
31		-----	0	.93	-----	.21	-----	0	-----			-----
TOTAL	0	182.0	130.07	6.33	21.77	43.72	11.28	1.64	0	0	0	0
MEAN	0	6.07	4.20	.20	.78	1.41	.38	.053	0	0	0	0
MAX	0	169	62	2.5	3.1	5.0	1.5	1.0	0	0	0	0
MIN	0	0	0	0	0	.10	0	0	0	0	0	0
AC-FT	0	361	258	13	43	87	22	3.3	0	0	0	0

CAL YR 1970 TOTAL 388.95 MEAN 1.07 MAX 169 MIN 0 AC-FT 771  
WTR YR 1971 TOTAL 396.81 MEAN 1.09 MAX 169 MIN 0 AC-FT 787

PEAK DISCHARGE (BASE, 100 CFS).--Nov. 29 (1400) 1,080 cfs (3.15 ft); Dec. 21 (0530) 470 cfs (2.45 ft).

LOCATION.--Lat 33°53'00", long 117°38'40", in La Sierra Grant, Riverside County, on left bank of outlet channel, 2,500 ft downstream from axis of Prado Dam, and 4.5 miles west of Corona.

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 mean sea level (Corps of Engineers Survey). Prior to Mar. 18, 1940, at about same site at various datums.

Period of record: Maximum discharge, 5,800 cfs Jan. 26, 1969 (gage height, 5.75 ft); minimum daily, 11 cfs July 13, 1971.

REMARKS.--Records good. Flow regulated since 1941 by Prado Reservoir (capacity, 201,200 acre-ft) and Big Bear Lake (see sta 11049000). Natural streamflow affected by extensive ground-water withdrawals, diversion for irrigation, and return flow from irrigated areas. Wells in Prado Reservoir which pumped water into conduit that passes through dam and released to river immediately downstream from gage have been abandoned. See schematic diagram of Santa Ana River basin. Records of chemical analyses for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	45	250	239	81	80	68	62	45	31	30	28
2	28	43	215	236	82	71	68	70	57	28	28	27
3	35	50	210	224	82	71	64	68	57	30	22	27
4	35	52	210	210	85	74	68	60	62	27	20	28
5	35	52	208	202	86	74	64	71	62	27	20	27
6	37	50	205	195	91	74	52	76	60	28	21	24
7	30	50	202	178	88	74	54	81	62	31	17	21
8	27	50	202	102	88	74	54	81	62	31	12	22
9	28	47	200	82	88	75	54	79	66	30	12	22
10	31	50	195	82	82	75	57	76	68	27	17	22
11	33	54	190	86	81	75	62	72	66	24	22	21
12	35	60	188	86	78	80	64	66	62	20	24	17
13	41	47	185	140	83	91	60	66	57	11	22	15
14	39	37	182	111	80	119	77	62	52	18	25	15
15	39	41	180	91	72	157	77	57	50	30	24	17
16	41	47	178	81	75	80	74	60	43	33	22	18
17	45	52	172	80	122	75	78	52	43	14	24	22
18	47	60	170	79	140	71	85	47	47	17	27	25
19	45	52	172	82	131	68	77	47	45	20	28	17
20	47	54	178	81	97	70	72	50	41	22	27	14
21	41	54	180	84	86	79	72	50	39	21	24	22
22	43	54	195	91	88	77	68	52	43	27	22	24
23	45	60	224	92	88	72	71	50	41	28	21	24
24	52	60	258	90	84	72	70	47	41	27	27	25
25	52	60	266	92	79	74	78	45	39	27	28	31
26	52	86	262	91	78	76	75	41	35	27	28	28
27	43	103	262	88	79	77	68	45	35	31	25	28
28	33	86	259	86	81	76	66	68	33	33	25	30
29	43	291	289	82	-----	76	64	71	33	28	21	28
30	43	356	263	79	-----	72	60	60	31	24	20	35
31	43	-----	242	80	-----	71	-----	47	-----	30	24	-----
TOTAL	1,216	2,203	6,592	3,622	2,475	2,450	2,021	1,879	1,477	802	709	704
MEAN	39.2	73.4	213	117	88.4	79.0	67.4	60.6	49.2	25.9	22.9	23.5
MAX	52	356	289	239	140	157	85	81	68	33	30	35
MIN	27	37	170	79	72	68	52	41	31	11	12	14
AC-FT	2,410	4,370	13,080	7,180	4,910	4,860	4,010	3,730	2,930	1,590	1,410	1,400
CAL YR 1970	TOTAL 29,658		MEAN 81.3	MAX 356	MIN 17	AC-FT 58,830						
WTR YR 1971	TOTAL 26,150		MEAN 71.6	MAX 356	MIN 11	AC-FT 51,870						

## SANTA ANA RIVER BASIN

11075720 CARBON CREEK BELOW CARBON CANYON DAM, CALIF.

LOCATION.--Lat 33°54'40", long 117°50'29", in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.17, T.3 S., R.9 W., Orange County, on right wall of outlet channel 250 ft downstream from toe of Carbon Canyon Dam and 2.4 miles northwest of Yorba Linda.

DRAINAGE AREA.--19.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 398.29 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--10 years, 0.65 cfs (471 acre-ft per year); median of yearly mean discharges, 0.2 cfs (140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10 cfs Dec. 28 (gage height, 0.40 ft); no flow most of year.  
Period of record: Maximum discharge, 446 cfs Feb. 25, 1969 (gage height, 2.64 ft), from rating curve extended above 110 cfs on basis of computation of flow in concrete-lined channel at gage height 4.18 ft; no flow most of each year.

REMARKS.--Records good. Flow regulated by Carbon Canyon flood-control reservoir (capacity, 6,610 acre-ft, revised). No diversion above station. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0									
2			0									
3			1.7									
4			0									
5			0									
6			0									
7			0									
8			0									
9			0									
10			0									
11			0									
12			0									
13			0									
14			0									
15			0									
16			0									
17			0									
18			.04									
19			.62									
20			.03									
21			.02									
22			0									
23			6.7									
24			2.6									
25			0									
26			0									
27			0									
28			0									
29			0		-----							
30			0		-----							
31		-----	0		-----		-----		-----		-----	
TOTAL	0	0	11.71	0	0	0	0	0	0	0	0	0
MEAN	0	0	.38	0	0	0	0	0	0	0	0	0
MAX	0	0	6.7	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	23	0	0	0	0	0	0	0	0	0
CAL YR 1970	TOTAL 16.41	MEAN .045	MAX 6.7	MIN 0	AC-FT 33							
WTR YR 1971	TOTAL 11.71	MEAN .032	MAX 6.7	MIN 0	AC-FT 23							

## SANTA ANA RIVER BASIN

207

11075800 SANTIAGO CREEK AT MODJESKA, CALIF.

LOCATION.--Lat 33°42'32", long 117°38'05", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.29, T.5 S., R.7 W., Orange County, on right bank at Santiago Canyon road bridge, 0.3 mile west of Modjeska, and 0.4 mile downstream from Harding Creek.

DRAINAGE AREA.--12.5 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,252.31 ft above mean sea level. Prior to Sept. 10, 1969, at datum 6.46 ft higher.

AVERAGE DISCHARGE.--10 years, 8.52 cfs (6,170 acre-ft per year); median of yearly mean discharges, 1.5 cfs (1,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 56 cfs Dec. 21 (gage height, 3.00 ft); no flow Oct. 10 to Nov.5.  
Period of record: Maximum discharge, 6,520 cfs Feb. 25, 1969 (gage height, 6.18 ft), from rating curve extended above 840 cfs on basis of slope-area measurement of maximum flow; no flow for several months in each year.

REMARKS.--Records good. Slight regulation by Modjeska Reservoir on Harding Creek. No diversion above station. See schematic diagram of Santa Ana River basin.

COOPERATION.--Three discharge measurements furnished by Orange County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	0	1.1	2.7	2.4	.86	.61	.66	.79	.28	.07	.04
2	.01	0	.82	7.3	2.3	.86	.52	.65	.78	.27	.06	.04
3	.02	0	.83	4.9	2.2	.86	.49	.62	.77	.22	.06	.03
4	.02	0	.83	4.0	2.0	.86	.49	.64	.77	.22	.06	.02
5	.02	0	.83	3.8	1.9	.86	.44	.68	.76	.22	.06	.02
6	.02	.01	.77	3.5	1.7	.83	.38	1.1	.76	.22	.06	.02
7	.02	.01	.79	3.3	1.7	.81	.37	1.4	.76	.22	.06	.02
8	.02	.01	.79	3.1	1.6	.86	.36	1.5	.76	.22	.06	.02
9	.01	.01	.86	3.0	1.4	.96	.36	1.3	.76	.22	.05	.02
10	0	.02	.86	2.9	1.4	1.1	.34	1.2	.79	.19	.05	.02
11	0	.02	.86	2.8	1.5	1.2	.30	1.2	.79	.19	.06	.02
12	0	.02	.94	4.3	1.8	1.2	.31	1.2	.76	.14	.06	.02
13	0	.02	.94	7.2	1.8	2.5	.25	.92	.76	.14	.06	.01
14	0	.02	1.1	6.1	1.9	2.2	.48	.91	.75	.13	.06	.01
15	0	.02	1.1	5.4	1.8	1.7	.49	.92	.65	.13	.07	.01
16	0	.02	1.2	5.0	2.1	1.6	.46	.93	.59	.12	.07	.01
17	0	.02	1.6	4.8	2.9	1.5	.65	.98	.53	.11	.07	.01
18	0	.02	1.7	4.6	2.5	1.6	.72	1.0	.51	.11	.07	.01
19	0	.02	1.3	4.0	2.2	1.4	.72	.98	.47	.10	.08	.01
20	0	.02	7.3	3.7	2.1	1.4	.72	.97	.44	.09	.07	.01
21	0	.02	3.0	3.0	1.8	1.3	.80	.96	.43	.08	.06	.01
22	0	.02	2.8	2.8	1.5	1.1	.79	.94	.39	.08	.06	.01
23	0	.02	1.3	2.5	1.2	1.1	.71	.90	.37	.07	.06	.01
24	0	.02	8.2	2.2	.94	1.1	.72	.90	.33	.07	.06	.01
25	0	.03	6.1	2.0	.86	1.0	.72	.90	.29	.07	.06	.01
26	0	.09	4.8	1.9	.86	.90	.73	.89	.29	.04	.06	.01
27	0	.09	4.1	1.9	.86	.86	.76	.88	.31	.06	.05	.01
28	0	.14	3.7	2.0	.86	.79	.66	.86	.29	.05	.05	.01
29	0	7.1	3.4	2.1	-----	.81	.67	.84	.31	.05	.05	.01
30	0	3.8	3.1	2.0	-----	.76	.69	.80	.29	.06	.05	.01
31	0	-----	2.9	2.2	-----	.64	-----	.80	-----	.12	.05	-----
TOTAL	.15	11.59	145.52	111.0	48.08	35.52	16.71	29.43	17.25	4.29	1.87	.47
MEAN	.005	.39	4.69	3.58	1.72	1.15	.56	.95	.58	.14	.060	.016
MAX	.02	7.1	30	7.3	2.9	2.5	.80	1.5	.79	.28	.08	.04
MIN	0	0	.77	1.9	.86	.64	.25	.62	.29	.04	.05	.01
AC-FT	.3	23	289	220	95	70	33	58	34	8.5	3.7	.9

CAL YR 1970 TOTAL 633.42 MEAN 1.74 MAX 53 MIN 0 AC-FT 1,260  
WTR YR 1971 TOTAL 421.88 MEAN 1.16 MAX 30 MIN 0 AC-FT 837

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

## SANTA ANA RIVER BASIN

## 11077500 SANTIAGO CREEK AT SANTA ANA, CALIF.

LOCATION.--Lat 33°46'13", long 117°53'02", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.1, T.5 S., R.10 W., Orange County, on downstream side of Bristol Street bridge at Santa Ana and 1,600 ft upstream from mouth.

DRAINAGE AREA.--95.1 sq mi.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only October to December 1928, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 102.34 ft above mean sea level (Orange County Flood Control District bench mark). Prior to Sept. 8, 1969, at site 0.1 mile upstream at different datums.

AVERAGE DISCHARGE.--43 years, 5.38 cfs (3,900 acre-ft per year); median of yearly mean discharges, 0.7 cfs (510 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 330 cfs Dec. 19 (gage height, 4.90 ft); no flow most of year. Period of record: Maximum discharge, 6,600 cfs Feb. 25, 1969 (gage height, 9.10 ft, site and datum then in use); maximum gage height, 9.85 ft Jan. 16, 1952; no flow most of each year.

REMARKS.--Records fair. Flow regulated by Santiago Reservoir (see sta 11076000), since January 1963 by Villa Park flood-control reservoir (capacity, 15,500 acre-ft), and affected by intervening gravel pits. Diversions above station by Irvine Co. and Serrano and Carpenter Irrigation Districts. In each winter season, some water originally diverted from Santa Ana River by Santa Ana Valley Irrigation Co.'s canal is occasionally wasted into Santiago Creek 3 miles above station. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	4.2	0	0	0	0				0	
2		0	13	9.1	0	0	0				0	
3		0	.34	0	0	0	0				0	
4		0	0	0	0	0	0				0	
5		0	0	0	0	0	0				0	
6		0	0	0	0	0	0				0	
7		0	0	0	0	0	0				0	
8		0	0	0	0	0	0				0	
9		0	1.0	0	0	0	0				0	
10		0	0	0	0	0	0				0	
11		0	0	0	0	0	0				0	
12		0	0	.94	0	0	0				0	
13		0	0	1.2	0	6.0	0				0	
14		0	.24	0	0	0	6.9				0	
15		0	0	0	0	0	0				0	
16		0	.40	0	1.3	0	0				0	
17		0	3.8	0	11	0	0				0	
18		0	9.3	0	0	0	0				0	
19		0	46	0	0	0	0				0	
20		0	5.7	0	0	0	0				1.9	
21		0	49	0	0	0	0				0	
22		0	1.1	0	0	0	0				0	
23		0	0	0	0	0	0				0	
24		0	0	0	0	0	0				0	
25		.33	0	0	0	0	0				0	
26		2.0	0	0	0	0	0				0	
27		0	0	0	0	0	0				0	
28		31	0	0	0	0	0				0	
29		58	0	0	-----	0	0				0	
30		4.2	0	0	-----	0	0				0	
31		-----	0	0	-----	0	-----		-----		0	-----
TOTAL	0	95.53	134.08	11.24	12.3	6.0	6.9	0	0	0	1.9	0
MEAN	0	3.18	4.33	.36	.44	.19	.23	0	0	0	.061	0
MAX	0	58	49	9.1	11	6.0	6.9	0	0	0	1.9	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	189	266	22	24	12	14	0	0	0	3.8	0
CAL YR 1970	TOTAL	511.21	MEAN	1.40	MAX	96	MIN	0	AC-FT	1,010		
WTR YR 1971	TOTAL	267.95	MEAN	.73	MAX	58	MIN	0	AC-FT	531		

## SANTA ANA RIVER BASIN

209

## 11078000 SANTA ANA RIVER AT SANTA ANA, CALIF.

LOCATION.--Lat 33°44'56", long 117°54'30", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.10, T.5 S., R.10 W., Orange County, on pier of Fifth Street bridge in Santa Ana, 1.8 miles downstream from Santiago Creek.

DRAINAGE AREA.--1,689 sq mi, excludes 768 sq mi above Lake Elsinore.

PERIOD OF RECORD.--January 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 71.20 ft above mean sea level (Orange County bench mark). Jan. 3, 1923, to Jan. 24, 1929, at same site at different datum. Jan. 25, 1929, to June 20, 1948, at site 450 ft upstream at different datum. June 21, 1948, to May 2, 1960, at same site at different datum. Feb. 28, 1961, to Oct. 1, 1961, at same site at datum 2.00 ft higher.

AVERAGE DISCHARGE.--17 years (1923-40), 23.4 cfs (16,940 acre-ft per year); median of yearly mean discharges, 3.1 cfs (2,200 acre-ft per year); 31 years (1940-71), 30.5 cfs (22,100 acre-ft per year); median of yearly mean discharges, 2.8 cfs (2,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 885 cfs Dec. 21 (gage height, 3.39 ft); no flow most of year. Period of record: Maximum discharge (excludes flow which bypassed gage from break in levee below Imperial Highway), 46,300 cfs Mar. 3, 1938 (gage height, 10.20 ft, site and datum then in use), on basis of slope-area measurement of maximum flow; no flow for several months in each year.

REMARKS.--Records good. Natural flow affected by ground-water withdrawals, diversions, importation from Metropolitan Water District, municipal use, return flow from irrigation, Prado flood-control reservoir (capacity, 201,200 acre-ft) since 1940, three small flood-control reservoirs (combined capacity, 31,900 acre-ft), Big Bear Lake (see sta 11049000), and Santiago Reservoir (see sta 11076000). Discharge up to 100 cfs can be diverted from Carbon Creek to Coyote Creek, 1.5 miles upstream from mouth of Carbon Creek. See schematic diagram of Santa Ana River basin.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	48	70	0	0	0					
2		0	88	114	0	0	0					
3		0	13	43	0	0	0					
4		0	8.4	43	0	0	0					
5		0	11	50	0	0	0					
6		0	14	48	0	0	0					
7		0	16	43	0	0	0					
8		0	7.0	43	0	0	0					
9		0	10	33	0	0	0					
10		0	7.4	1.8	0	0	0					
11		0	7.0	.51	0	0	0					
12		0	11	1.0	0	0	0					
13		0	10	1.5	0	5.7	0					
14		0	15	2.4	0	0	11					
15		0	16	.33	0	0	0					
16		0	17	.03	8.0	0	0					
17		0	38	.02	23	0	0					
18		0	31	.01	0	0	0					
19		0	235	0	0	0	0					
20		0	16	0	0	0	0					
21		0	171	0	0	0	0					
22		0	38	0	0	0	0					
23		0	13	0	0	0	0					
24		0	9.1	0	0	0	0					
25		0	23	0	0	0	0					
26		9.9	30	0	0	0	0					
27		.87	41	0	0	0	0					
28		70	55	0	0	0	0					
29		225	55	0	-----	0	0					
30		69	50	0	-----	0	0					
31		-----	43	0	-----	0	-----					
TOTAL	0	374.77	1,146.9	494.60	31.0	5.7	11	0	0	0	0	0
MEAN	0	12.5	37.0	16.0	1.11	.18	.37	0	0	0	0	0
MAX	0	225	235	114	23	5.7	11	0	0	0	0	0
MIN	0	0	7.0	0	0	0	0	0	0	0	0	0
AC-FT	0	743	2,270	981	61	11	22	0	0	0	0	0
CAL YR 1970	TOTAL	2,595.22	MEAN 7.11	MAX 498	MIN 0	AC-FT 5,150						
WTR YR 1971	TOTAL	2,063.97	MEAN 5.65	MAX 235	MIN 0	AC-FT 4,090						

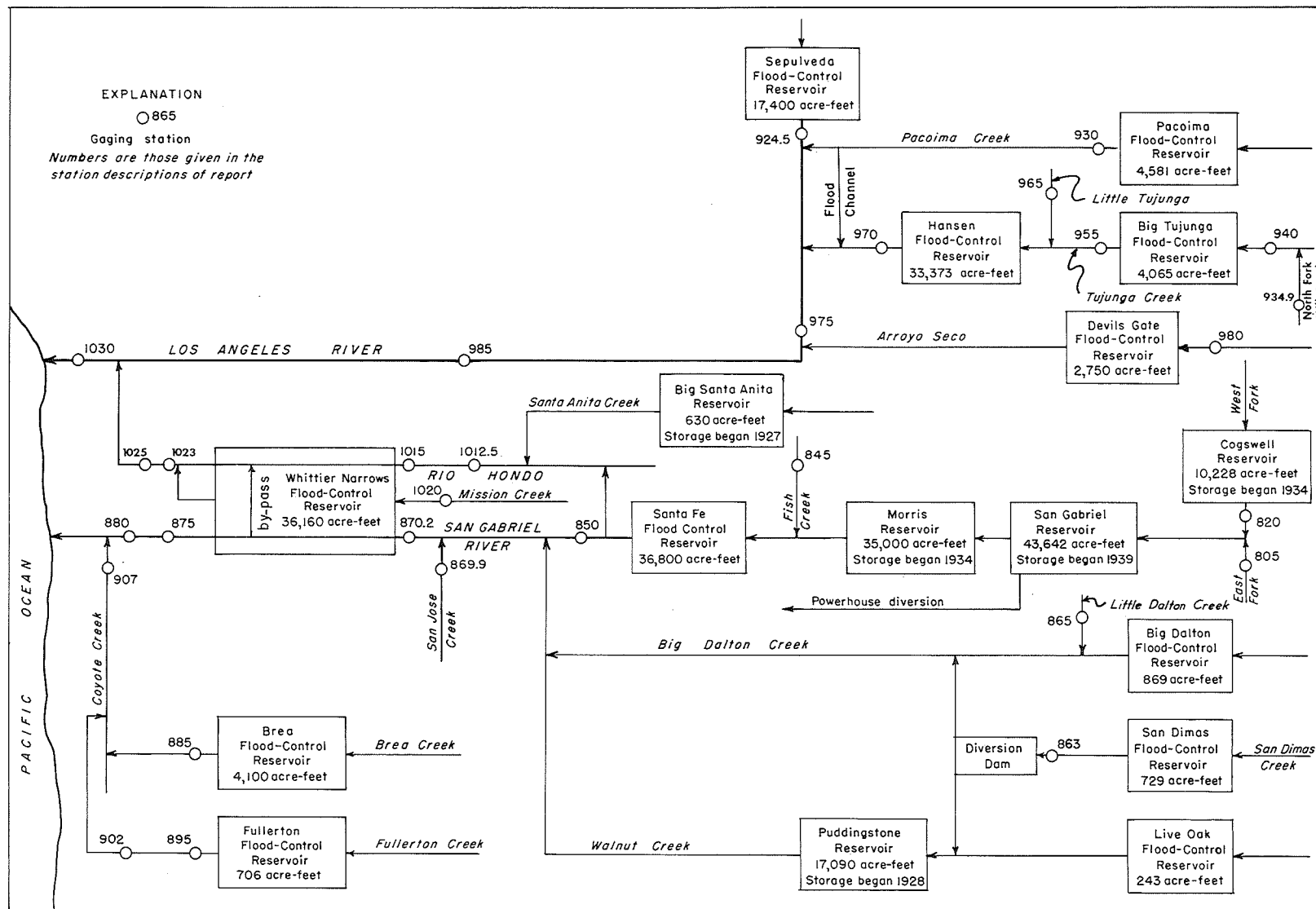


Figure 4.--Schematic diagram showing diversions and storage in San Gabriel and Los Angeles River basins.

## 11080500 EAST FORK SAN GABRIEL RIVER NEAR CAMP BONITA, CALIF.

LOCATION.--Lat 34°14'09", long 117°48'18", in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.27, T.2 N., R.9 W., Los Angeles County, on right bank 1,600 ft upstream from mouth of Graveyard Canyon, 2.5 miles upstream from confluence with West Fork, and 2.5 miles west of Camp Bonita.

DRAINAGE AREA.--84.6 sq mi.

PERIOD OF RECORD.--December 1932 to current year. Prior to 1940, published as San Gabriel River near Camp Bonita.

GAGE.--Water-stage recorder. Datum of gage is 1,567.04 ft above mean sea level (levels by Los Angeles County Flood Control District). Prior to Dec. 10, 1938, at site 0.6 mile downstream at different datum.

AVERAGE DISCHARGE.--38 years (1933-71), 71.2 cfs (51,580 acre-ft per year); median of yearly mean discharges, 42 cfs (30,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,490 cfs Nov. 29 (gage height, 10.42 ft); minimum daily, 9.9 cfs Sept. 24.

Period of record: Maximum discharge, 46,000 cfs Mar. 2, 1938, from rating curve extended above 21,300 cfs (computed by Geological Survey); minimum, 1.5 cfs Oct. 1, 1934.

REMARKS.--No regulation or diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	16	68	71	59	36	34	31	20	18	13	11
2	15	16	61	74	55	34	33	31	20	18	13	11
3	16	16	54	69	53	34	32	31	19	18	13	11
4	16	16	50	66	51	35	31	30	18	18	13	11
5	17	16	48	64	50	35	30	30	17	18	13	11
6	17	16	42	59	50	34	30	29	17	18	13	11
7	19	16	42	55	49	33	31	28	17	17	13	10
8	19	16	42	54	49	35	32	27	17	17	13	10
9	18	16	48	54	48	35	33	26	18	17	13	10
10	18	15	48	54	45	35	33	26	19	17	12	10
11	17	15	46	53	45	35	33	25	18	16	12	10
12	16	15	45	66	46	35	33	25	18	16	12	10
13	16	15	44	65	46	47	33	25	18	16	12	10
14	17	15	46	62	46	35	33	25	18	16	12	10
15	17	15	44	61	46	33	32	25	17	16	12	10
16	17	15	46	58	53	32	31	25	16	16	12	10
17	16	15	53	66	74	32	36	23	15	16	12	10
18	15	15	48	83	61	34	36	22	15	16	12	10
19	16	15	73	102	58	35	34	21	16	16	12	10
20	16	15	49	117	54	34	33	20	16	16	12	10
21	16	15	183	90	50	33	32	20	16	15	11	10
22	16	14	112	80	48	32	31	20	17	15	11	10
23	16	14	86	74	46	32	30	19	17	15	11	10
24	16	14	78	72	44	33	30	18	18	15	11	9.9
25	17	15	77	71	44	34	31	17	18	14	11	10
26	17	20	72	71	45	34	30	17	18	14	11	10
27	17	16	66	69	42	35	29	20	18	14	11	10
28	17	25	61	68	40	36	29	22	18	13	11	10
29	17	474	68	66	-----	36	30	20	18	13	11	10
30	16	118	65	64	-----	36	30	20	19	13	11	10
31	16	-----	64	61	-----	36	-----	20	-----	13	11	-----
TOTAL	514	1,034	1,929	2,139	1,397	1,075	955	738	526	490	370	305.9
MEAN	16.6	34.5	62.2	69.0	49.9	34.7	31.8	23.8	17.5	15.8	11.9	10.2
MAX	19	474	183	117	74	47	36	31	20	18	13	11
MIN	15	14	42	53	40	32	29	17	15	13	11	9.9
AC-FT	1,020	2,050	3,830	4,240	2,770	2,130	1,890	1,460	1,040	972	734	607

CAL YR 1970 TOTAL 14,428.0 MEAN 39.5 MAX 474 MIN 13 AC-FT 28,620  
WTR YR 1971 TOTAL 11,472.9 MEAN 31.4 MAX 474 MIN 9.9 AC-FT 22,760

NOTE.--Stage-discharge relation indefinite Oct. 19 to Nov. 23, June 12 to Sept. 23.



## SAN GABRIEL RIVER BASIN

11082000 WEST FORK SAN GABRIEL RIVER AT CAMP RINCON, CALIF.

LOCATION.--Lat 34°14'28", long 117°51'45", Los Angeles County, in Angeles National Forest, on right bank 0.2 mile upstream from Camp Rincon, 0.5 mile downstream from North Fork, and 6 miles downstream from Cogswell Dam.

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--October 1927 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,474.94 ft above mean sea level (levels by Los Angeles County Flood Control District). See WSP 1735 for history of changes prior to July 3, 1941.

AVERAGE DISCHARGE.--44 years, 69.1 cfs (50,060 acre-ft per year); median of yearly mean discharges, 34 cfs (24,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,230 cfs Nov. 29 (gage height, 17.76 ft); minimum daily, 13 cfs Oct. 1-10.

Period of record: Maximum discharge, 34,000 cfs (estimated) Mar. 2, 1938; no flow at times in 1928-29.

REMARKS.--Flow partly regulated by Cogswell flood-control reservoir since 1934 (capacity, 9,339 acre-ft).  
No diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	164	111	90	37	31	25	23	17	25	24
2	13	33	151	113	71	37	30	25	23	17	25	24
3	13	78	139	108	53	37	29	26	23	16	25	23
4	13	74	128	105	52	37	28	26	21	16	25	23
5	13	111	117	103	52	37	26	26	20	16	25	22
6	13	146	116	97	51	35	26	30	21	16	25	22
7	13	139	111	94	49	34	26	31	20	16	25	22
8	13	134	110	94	48	34	26	28	20	16	25	22
9	13	120	111	91	47	34	26	26	21	16	24	21
10	13	101	100	90	46	33	26	26	23	15	24	21
11	14	69	93	88	46	33	26	26	23	14	24	21
12	14	63	88	104	45	33	25	25	22	14	24	21
13	14	17	84	105	44	57	25	24	21	19	25	20
14	14	15	88	101	44	39	28	24	20	17	25	20
15	15	14	75	100	44	37	28	24	20	18	24	21
16	15	14	59	98	47	36	28	23	19	19	24	22
17	14	14	64	107	76	35	35	22	19	19	21	22
18	14	14	60	113	50	34	33	21	18	19	23	22
19	14	14	129	124	44	33	31	21	18	18	24	22
20	14	14	107	122	42	33	30	21	17	18	24	22
21	14	14	344	120	41	33	29	22	17	18	24	22
22	15	14	162	114	40	33	28	22	16	18	23	22
23	15	14	124	110	40	33	26	22	16	18	23	22
24	15	14	117	105	40	33	26	21	16	17	22	22
25	15	15	119	103	40	33	26	21	16	17	22	22
26	15	16	114	100	39	33	26	21	16	17	23	22
27	15	15	110	97	38	33	26	22	17	17	23	21
28	14	30	107	94	38	33	26	25	17	16	23	21
29	14	1,590	105	93	-----	32	26	24	17	16	23	21
30	14	372	107	91	-----	32	25	24	17	19	24	21
31	14	-----	111	91	-----	32	-----	24	-----	26	24	-----
TOTAL	432	3,292	3,614	3,186	1,357	1,085	827	748	577	535	740	653
MEAN	13.9	110	117	103	48.5	35.0	27.6	24.1	19.2	17.3	23.9	21.8
MAX	15	1,590	344	124	90	57	35	31	23	26	25	24
MIN	13	14	59	88	38	32	25	21	16	14	21	20
AC-FT	857	6,530	7,170	6,320	2,690	2,150	1,640	1,480	1,140	1,060	1,470	1,300
CAL YR 1970	TOTAL	21,268	MEAN	58.3	MAX	1,590	MIN	12	AC-FT	42,190		
WTR YR 1971	TOTAL	17,046	MEAN	46.7	MAX	1,590	MIN	13	AC-FT	33,810		

## 11084500 FISH CREEK NEAR DUARTE, CALIF.

LOCATION.--Lat 34°09'57", long 117°55'24", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.15, T.1 N., R.10 W., Los Angeles County, on left bank 0.8 mile upstream from mouth of canyon and 3.2 miles northeast of Duarte.

DRAINAGE AREA.--6.36 sq mi.

PERIOD OF RECORD.--July to September 1916, July 1917 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Broad-crested weir since July 1917, restored in December 1938. Datum of gage is 905.9 ft above mean sea level. See WSP 1315-B for history changes prior to Dec. 7, 1938. Dec. 7, 1938, to Oct. 3, 1951, at datum 1 ft higher.

AVERAGE DISCHARGE.--54 years (1917-71), 4.62 cfs (3,350 acre-ft per year); median of yearly mean discharges, 2.3 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 259 cfs Nov. 29 (gage height, 3.79 ft); minimum daily, 0.58 cfs Sept. 4-30.

Period of record: Maximum discharge, 13,000 cfs Jan. 25, 1969 (gage height, 11.98 ft, from inside gage), from rating curve extended above 1,100 cfs on basis of slope-area measurement of maximum flow; maximum gage height, about 14.5 ft Feb. 11, 16, 1959 (from debris wave); no flow at times in some years.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	1.3	8.5	5.7	3.3	2.7	2.2	3.2	1.6	1.2	.76	.63
2	.96	1.3	12	5.7	3.3	2.7	2.2	3.2	1.6	1.2	.72	.63
3	1.1	1.3	7.7	5.4	3.1	2.8	2.2	3.4	1.6	1.1	.67	.62
4	1.2	1.3	6.9	5.1	2.9	3.0	2.1	3.4	1.6	1.1	.67	.58
5	1.3	1.3	6.8	4.8	2.9	3.1	2.1	3.5	1.5	1.1	.68	.58
6	1.5	1.3	6.6	4.2	3.0	3.0	2.1	5.0	1.5	1.1	.68	.58
7	1.5	1.4	7.0	4.1	3.8	3.0	2.1	4.3	1.5	1.1	.68	.58
8	1.4	1.4	7.8	3.9	3.7	3.0	2.3	3.2	1.4	1.1	.68	.58
9	1.3	1.4	10	3.7	3.4	3.1	2.4	2.6	1.4	1.1	.68	.58
10	1.2	1.4	8.6	3.6	3.2	3.2	2.4	2.1	1.5	1.1	.68	.58
11	1.3	1.4	7.9	3.5	3.0	3.1	2.0	2.2	1.4	1.1	.68	.58
12	1.3	1.5	7.4	8.8	2.8	3.1	2.0	2.9	1.4	1.1	.68	.58
13	1.4	1.7	7.4	7.2	2.7	10	2.0	2.8	1.4	.99	.68	.58
14	1.5	1.5	8.0	6.1	2.5	3.6	2.4	2.8	1.3	.99	.68	.58
15	1.6	1.4	7.5	5.6	6.7	3.4	2.4	2.7	1.3	.99	.68	.58
16	1.5	1.4	8.4	5.2	14	3.3	2.6	2.6	1.3	.99	.68	.58
17	1.4	1.5	11	5.0	24	3.1	3.9	1.8	1.3	.94	.68	.58
18	1.4	1.5	9.4	5.3	16	3.0	3.3	1.7	1.3	.91	.68	.58
19	1.4	1.6	19	4.9	11	2.9	3.1	1.6	1.2	.91	.68	.58
20	1.5	1.6	12	4.8	8.3	2.9	3.1	1.6	1.2	.91	.68	.58
21	1.5	1.7	55	4.8	6.6	2.7	3.3	1.8	1.2	.83	.68	.58
22	1.6	1.7	23	4.6	5.4	2.7	3.1	1.7	1.2	.83	.68	.58
23	1.6	1.6	16	4.4	4.5	2.6	3.0	1.7	1.2	.83	.68	.58
24	1.7	1.6	14	4.2	3.8	2.5	3.2	1.7	1.2	.83	.68	.58
25	1.7	1.8	12	4.1	3.5	2.5	3.2	1.5	1.2	.83	.68	.58
26	1.6	3.2	9.9	3.9	3.2	2.4	3.2	1.5	1.2	.83	.68	.58
27	1.5	2.3	8.0	3.7	3.0	2.4	3.2	1.5	1.2	.83	.68	.58
28	1.4	10	7.0	3.6	2.8	2.4	3.2	2.1	1.2	.83	.68	.58
29	1.4	93	6.2	3.4	-----	2.3	3.3	1.8	1.2	.76	.68	.58
30	1.3	16	5.8	3.3	-----	2.3	3.2	1.7	1.2	.76	.68	.58
31	1.3	-----	5.5	3.2	-----	2.3	-----	1.6	-----	.76	.68	-----
TOTAL	43.24	161.4	342.3	145.8	156.4	95.1	80.8	75.2	40.3	29.95	21.18	17.54
MEAN	1.39	5.38	11.0	4.70	5.59	3.07	2.69	2.43	1.34	.97	.68	.58
MAX	1.7	93	55	8.8	24	10	3.9	5.0	1.6	1.2	.76	.63
MIN	.88	1.3	5.5	3.2	2.5	2.3	2.0	1.5	1.2	.76	.67	.58
AC-FT	86	321	679	289	310	189	160	149	80	59	42	35

CAL YR 1970 TOTAL 1,368.22 MEAN 5.12 MAX 99 MIN .76 AC-FT 3,710  
WTR YR 1971 TOTAL 1,209.21 MEAN 3.31 MAX 93 MIN .58 AC-FT 2,400

PEAK DISCHARGE (BASE, 60 CFS).--Nov. 29 (1030) 259 cfs (3.79 ft); Dec. 21 (0600) 129 cfs (3.16 ft).

## SAN GABRIEL RIVER BASIN

11085000 SAN GABRIEL RIVER BELOW SANTA FE DAM, NEAR BALDWIN PARK, CALIF.

LOCATION.--Lat 34°06'44", long 117°58'07", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.6, T.1 S., R.10 W., Los Angeles County, on left bank at stilling basin of outlet of Santa Fe flood-control dam, 500 ft downstream from axis of dam, and 1.7 miles north of Baldwin Park.

DRAINAGE AREA.--236 sq mi.

PERIOD OF RECORD.--October 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum discharge, 123 cfs Dec. 17 (gage height, 10.68 ft); no flow most of year. Period of record: Maximum discharge, 30,900 cfs Jan. 26, 1969 (gage height, 22.20 ft); no flow for several months in each year.

REMARKS.--Records good. Flow regulated by Cogswell and San Gabriel flood-control reservoirs (combined capacity, 53,870 acre-ft), Morris Reservoir (capacity, 35,000 acre-ft), and Santa Fe flood-control reservoir (capacity, 32,640 acre-ft). Diversions above station for irrigation, power development, and ground-water replenishment. At times water diverted from right side of stilling basin to headwaters of Rio Hondo; 2,430 acre-ft diverted during year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Two discharge measurements and records of diversion to Rio Hondo furnished by Los Angeles County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	13	95	0	6.9						
2		0	13	95	0	6.1						
3		0	12	91	0	4.5						
4		0	12	95	0	0						
5		0	10	91	0	0						
6		0	9.5	88	0	0						
7		0	7.7	88	0	3.9						
8		0	.23	55	.51	5.4						
9		0	0	0	5.4	4.7						
10		0	0	0	6.1	3.4						
11		0	0	0	6.1	2.8						
12		0	0	.93	5.4	2.3						
13		0	0	57	4.7	8.6						
14		0	0	88	4.7	2.8						
15		0	0	73	4.7	0						
16		0	46	14	5.4	2.3						
17		0	116	0	14	2.3						
18		0	58	0	6.1	1.8						
19		0	19	0	6.1	1.4						
20		0	20	0	6.1	1.4						
21		0	22	0	4.7	1.4						
22		0	82	0	4.7	1.0						
23		0	99	0	4.1	.48						
24		0	91	0	3.4	.17						
25		0	88	0	2.0	0						
26		0	88	0	3.4	0						
27		0	82	0	4.1	0						
28		0	91	0	4.7	0						
29		0	101	0	-----	0						
30		7.0	101	0	-----	0						
31		-----	98	0	-----	0	-----		-----			-----
TOTAL	0	7.0	1,279.43	930.93	106.41	63.65	0	0	0	0	0	0
MEAN	0	.23	41.3	30.0	3.80	2.05	0	0	0	0	0	0
MAX	0	7.0	116	95	14	8.6	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	14	2,540	1,850	211	126	0	0	0	0	0	0
(a)	0	56	3,860	2,920	211	126	0	0	0	0	0	0

CAL YR 1970 TOTAL 6,126.98 MEAN 16.8 MAX 263 MIN 0 AC-FT 12,150 AC-FT a 14,880  
 WTR YR 1971 TOTAL 2,387.42 MEAN 6.54 MAX 116 MIN 0 AC-FT 4,740 AC-FT a 7,170

a Combined discharge, in acre-feet, of river and diversion to Rio Hondo.

## 11086300 SAN DIMAS CREEK BELOW SAN DIMAS DAM, CALIF.

LOCATION.--Lat 34°09'10", long 117°46'18", in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.24, T.1 N., R.9 W., Los Angeles County, on left bank 1,000 ft downstream from San Dimas Dam and 3.7 miles northeast of San Dimas.

DRAINAGE AREA.--16.3 sq mi.

PERIOD OF RECORD.--October 1951 to current year. Prior to October 1956 monthly discharge only, published in WSP 1735.

GAGE.--Water-stage recorder and low-flow concrete control. Datum of gage is 1,325.0 ft above mean sea level (levels by Los Angeles County Flood Control District).

EXTREMES.--Current year: Maximum discharge, 28 cfs Dec. 18 (gage height, 0.58 ft); minimum daily, 0.01 cfs May 16.

Period of record: Maximum discharge, 4,280 cfs Jan. 25, 1969 (gage height, 6.98 ft), from rating curve extended above 600 cfs on basis of computation of maximum flow over dam; no flow at times in most years.

REMARKS.--Flow regulated by San Dimas flood-control reservoir (capacity, 756 acre-ft) and at times by old water tunnel 150 ft upstream. No diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.6	.10	11	4.1	.60	.80	.20	.10	.10	.80	9.3
2	1.4	2.6	.10	10	4.1	.60	.80	.20	.10	.20	.80	10
3	1.4	2.0	.10	9.8	4.1	.60	.90	.10	.10	.60	.80	11
4	1.4	2.0	.10	3.8	4.1	.50	1.1	.10	.10	.80	.80	8.7
5	1.4	2.0	.10	8.7	4.1	.50	1.2	.10	.10	.60	.80	8.7
6	1.4	1.0	.10	14	4.1	.50	1.5	.10	.10	.60	.80	8.7
7	1.4	1.0	.10	13	4.1	.30	1.7	.10	.10	.80	.80	8.7
8	1.4	1.0	.10	9.8	4.1	.30	1.7	.10	.10	.80	.80	8.7
9	1.4	1.0	.10	9.3	1.9	.60	1.7	.10	.10	.90	.80	8.7
10	1.4	.50	.10	7.7	1.1	.60	1.7	.10	.10	.30	.80	8.7
11	1.4	.50	.10	6.7	.90	.60	1.7	.10	.10	.30	.80	8.7
12	1.4	.50	.10	6.7	.90	.60	1.5	.10	.10	.20	.80	8.7
13	1.4	.30	.10	6.1	.90	1.1	1.5	.10	.10	.20	.80	8.7
14	1.4	.30	.10	8.7	.90	1.5	1.5	.10	.10	1.6	.80	8.7
15	2.6	.30	6.3	13	.90	1.5	1.4	.10	.10	.90	.80	9.3
16	2.6	.30	7.4	13	.90	1.5	1.4	.01	.10	.90	.80	9.3
17	2.6	.30	6.7	12	.90	1.5	1.2	.10	.10	.90	.80	9.3
18	2.6	.40	8.9	12	.80	1.5	1.2	.10	.10	.90	.80	9.3
19	2.6	.40	6.7	12	.80	1.5	1.1	.10	.10	.80	.80	9.3
20	2.6	.40	6.7	12	.80	1.5	1.1	.10	.10	.80	.80	9.3
21	2.6	.30	6.5	12	.80	1.5	1.1	.10	.10	.80	.80	9.3
22	2.6	.30	9.8	12	.80	1.5	1.1	.10	.10	.80	.80	9.3
23	2.6	.30	14	12	.80	1.5	.70	.10	.10	.80	.80	9.3
24	2.6	.40	14	12	.60	1.5	.20	.10	.10	.80	.80	9.3
25	2.6	.40	14	11	.60	1.5	.20	.10	.10	.80	.80	9.3
26	2.6	.30	14	10	.60	1.4	.20	.10	.10	.80	.80	9.3
27	2.6	.30	14	9.8	.60	1.2	.20	.10	.10	.80	.80	9.3
28	2.6	.30	13	9.8	.60	.90	.20	.10	.10	.80	.80	9.3
29	2.6	.30	12	6.3	-----	.90	.20	.10	.10	.80	.80	8.7
30	2.6	.30	11	4.1	-----	.80	.20	.10	.10	.80	3.8	8.7
31	2.6	-----	11	4.1	-----	.80	-----	.10	-----	.80	9.3	-----
TOTAL	63.8	22.60	177.40	302.4	49.90	31.40	31.00	3.21	3.00	22.00	36.30	273.6
MEAN	2.06	.75	5.72	9.75	1.78	1.01	1.03	.10	.10	.71	1.17	9.12
MAX	2.6	2.6	14	14	4.1	1.5	1.7	.20	.10	1.6	9.3	11
MIN	1.4	.30	.10	3.8	.60	.30	.20	.01	.10	.10	.80	8.7
AC-FT	127	45	352	600	99	62	61	6.4	6.0	44	72	543

CAL YR 1970 TOTAL 1,743.85 MEAN 4.78 MAX 32 MIN .10 AC-FT 3,460  
WTR YR 1971 TOTAL 1,016.61 MEAN 2.79 MAX 14 MIN .01 AC-FT 2,020

NOTE.--No gage-height record Oct. 1 to Nov. 12.

## SAN GABRIEL RIVER BASIN

11086500 LITTLE DALTON CREEK NEAR GLENDORA, CALIF.

LOCATION.--Lat 34°10'03", long 117°50'15", in NE<sup>1</sup>SE<sup>1</sup>SE<sup>1</sup> sec.17, T.1 N., R.9 W., Los Angeles County, on left bank 0.2 mile upstream from Angeles National Forest boundary and 2.6 miles northeast of Glendora.

DRAINAGE AREA.--2.72 sq mi.

PERIOD OF RECORD.--December 1938 to September 1968, October 1969 to September 1971 (discontinued). January 1929 to November 1938, at site 0.8 mile downstream; records not equivalent because diversion was not included.

GAGE.--Water-stage recorder. Datum of gage is 1,334.38 ft above mean sea level (levels by Los Angeles County Flood Control District).

AVERAGE DISCHARGE.--32 years, 0.71 cfs (514 acre-ft per year); median of yearly mean discharges, 0.3 cfs (220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 25 cfs Dec. 21 (gage height, 39.4 ft); no flow Oct. 1 to Nov. 7, June 8 to Sept. 30.  
Period of record: Maximum discharge, 2,600 cfs Jan. 25, 1969 (gage height, 10.89 ft, from inside gage), on basis of slope-area measurement of maximum flow; no flow at times in each year.  
Flood of Mar. 2, 1938, 960 cfs (estimated). Flood of February 1914, 1,020 cfs, by slope-area measurement.

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.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.0	1.0	.40	.40	.20	.10	.40			
2		0	.90	1.0	.40	.30	.20	.10	.40			
3		0	.80	1.0	.40	.30	.20	.10	.40			
4		0	.80	1.0	.40	.20	.20	.10	.40			
5		0	.70	1.0	.40	.20	.10	.10	.40			
6		0	.70	1.0	.30	.20	.10	1.0	.30			
7		0	.60	1.0	.30	.30	.10	.50	.30			
8		.10	.60	1.0	.30	.30	.10	.20	.20			
9		.10	.50	1.0	.20	.40	.10	.20	.20			
10		.10	.50	1.0	.20	.40	.10	.20	.20			
11		.10	.50	1.0	.20	.50	.10	.20	.10			
12		.10	.50	1.5	.20	.50	.20	.20	.10			
13		.10	.40	1.3	.30	.50	.20	.20	0			
14		.10	.40	.80	.30	.50	.20	.20	0			
15		.10	.30	.80	.40	.50	.20	.20	0			
16		.10	.50	.80	.40	.50	.20	.20	0			
17		.10	1.0	.70	.50	.50	.20	.10	0			
18		.10	.50	.70	.50	.50	.20	.10	0			
19		.10	3.0	.70	.50	.50	.10	.10	0			
20		.10	2.0	.60	.50	.60	.10	.10	0			
21		.10	10	.60	.50	.70	.10	.10	0			
22		.10	2.0	.60	.50	.80	.10	.10	0			
23		.10	1.9	.60	.50	.90	.10	.10	0			
24		.10	1.8	.50	.50	1.0	.10	.10	0			
25		.10	1.8	.50	.50	.80	.10	.20	0			
26		1.0	1.7	.50	.50	.60	.10	.20	0			
27		.20	1.7	.50	.40	.40	.10	.20	0			
28		3.0	1.6	.50	.40	.20	.10	.20	0			
29		8.0	1.5	.50	-----	.20	.10	.30	0			
30		5.0	1.3	.50	-----	.20	.10	.30	0			
31		-----	1.0	.40	-----	.20	-----	.30	-----			
TOTAL	0	19.00	42.50	24.60	10.90	14.10	4.10	6.30	3.40	0	0	0
MEAN	0	.63	1.37	.79	.39	.45	.14	.20	.11	0	0	0
MAX	0	8.0	10	1.5	.50	1.0	.20	1.0	.40	0	0	0
MIN	0	0	.30	.40	.20	.20	.10	.10	0	0	0	0
AC-FT	0	38	84	49	22	28	8.1	13	6.7	0	0	0

CAL YR 1970 TOTAL 213.40 MEAN .58 MAX 15 MIN 0 AC-FT 423  
WTR YR 1971 TOTAL 124.90 MEAN .34 MAX 10 MIN 0 AC-FT 248

NOTE.--Stage-discharge relation indefinite entire year.

## 11086990 SAN JOSE CREEK NEAR EL MONTE, CALIF.

LOCATION.--Lat 34°01'55", long 118°00'40", in El Monte Grant, Los Angeles County, on right bank of San Jose flood channel, 1,650 ft upstream from Workman Mill Road, and 2.7 miles southeast of El Monte.

DRAINAGE AREA.--87.8 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 248.52 ft above mean sea level (levels by Los Angeles County Flood Control District).

AVERAGE DISCHARGE.--7 years, 31.4 cfs (22,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,400 cfs Dec. 29 (gage height, 4.81 ft); minimum daily, 5.0 cfs at times.

Period of record: Maximum discharge, 10,200 cfs Jan. 24, 1967 (gage height, 6.80 ft, from outside gage); no flow for some days in some years.

REMARKS.--No regulation above station. One small diversion for ground-water recharge. At times effluent from city of Pomona's sewage reclamation plant is released to creek above Spadra and at Lemon Street. Bypass to the original San Jose Creek channel has been closed since Oct. 1, 1964. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	7.0	9.0	10	13	11	9.3	8.0	12	8.0	11	9.0
2	17	8.0	93	26	13	11	9.3	8.0	13	8.0	10	9.0
3	25	7.0	21	9.6	13	11	9.3	8.0	13	9.0	10	9.0
4	19	8.0	11	9.6	13	12	9.2	8.0	12	10	10	10
5	18	7.0	11	9.6	13	13	9.2	8.1	12	11	10	10
6	18	17	10	9.6	12	13	9.2	14	11	12	10	10
7	17	14	9.5	10	12	13	9.2	10	10	12	10	11
8	17	8.0	9.7	10	12	13	9.2	12	10	11	11	11
9	15	7.0	109	10	12	13	9.0	11	9.1	11	11	10
10	15	7.0	11	10	12	13	8.8	11	9.0	10	11	9.0
11	15	7.0	10	10	12	12	8.6	11	10	10	11	9.0
12	17	6.0	9.0	58	12	12	8.4	11	10	9.0	11	8.0
13	17	6.0	9.0	12	12	185	8.2	11	11	9.0	12	8.0
14	17	5.0	53	11	11	15	44	11	11	9.0	12	7.0
15	14	5.0	10	11	10	14	8.0	11	12	9.0	13	7.0
16	11	7.0	75	11	102	13	8.0	10	12	10	13	8.0
17	9.0	14	31	11	184	13	28	10	11	10	14	9.0
18	8.0	14	155	11	13	13	8.9	10	10	10	14	11
19	7.0	14	513	11	17	12	8.9	10	9.0	11	14	12
20	6.0	15	65	11	15	12	8.9	10	8.0	11	13	13
21	6.0	14	943	11	13	11	8.9	10	7.0	11	13	14
22	6.0	14	35	11	11	10	8.8	10	6.0	12	13	14
23	6.0	14	17	11	11	10	8.6	10	5.2	12	12	13
24	5.0	13	15	12	10	9.7	8.4	10	5.0	12	12	13
25	5.0	25	13	12	10	10	8.3	10	5.0	11	12	12
26	5.0	135	12	12	10	10	8.2	10	5.0	11	12	12
27	5.0	9.0	11	12	10	10	8.1	38	6.0	12	11	11
28	5.0	347	11	13	10	10	8.0	57	6.0	12	11	11
29	6.0	1,180	11	14	-----	10	8.0	12	7.0	12	10	10
30	7.0	55	11	14	-----	10	9.0	12	7.0	11	10	9.4
31	7.0	-----	11	13	-----	10	-----	12	-----	11	10	-----
TOTAL	363.0	1,989.0	2,314.2	406.4	598	534.7	315.9	394.1	274.3	327.0	357	309.4
MFAN	11.7	66.3	74.7	13.1	21.4	17.2	10.5	12.7	9.14	10.5	11.5	10.3
MAX	25	1,180	943	58	184	185	44	57	13	12	14	14
MIN	5.0	5.0	9.0	9.6	10	9.7	8.0	8.0	5.0	8.0	10	7.0
AC-FT	720	3,950	4,590	806	1,190	1,060	627	782	544	649	708	614

CAL YR 1970 TOTAL 12,860.2 MEAN 35.2 MAX 1,180 MIN 5.0 AC-FT 25,510

WTR YR 1971 TOTAL 8,183.0 MEAN 22.4 MAX 1,180 MIN 5.0 AC-FT 16,230

NOTE.--No gage-height record after Dec. 3 when discharge was less than 15 cfs.

## SAN GABRIEL RIVER BASIN

## 11087020 SAN GABRIEL RIVER ABOVE WHITTIER NARROWS DAM, CALIF.

LOCATION.--Lat 34°02'00", long 118°02'14", in La Puente Grant, Los Angeles County, on downstream side of bridge near center, on San Gabriel River Parkway, 0.8 mile downstream from San Jose flood channel, 1.2 miles upstream from axis of Whittier Narrows Dam, and 1.8 miles south of El Monte.

DRAINAGE AREA.--353 sq mi.

PERIOD OF RECORD.--October 1955 to September 1957, October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 220 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 7,500 cfs Dec. 21 (gage height, 6.65 ft); minimum daily, 4.0 cfs Aug. 15-18.

Period of record: Maximum discharge, 46,600 cfs Jan. 25, 1969 (gage height, 10.90 ft); no flow for part of most years.

REMARKS.--Records good. Flow regulated by San Gabriel, Cogswell, and Santa Fe flood-control reservoirs (combined capacity, 90,670 acre-ft), several small flood-control reservoirs (combined capacity, 19,100 acre-ft), and Morris Reservoir (capacity, 35,000 acre-ft). Many diversions above station for irrigation, power development, and ground-water replenishment. Colorado River water released to the San Gabriel River at a site 14.9 miles (revised) upstream from gage at Metropolitan Water District aqueduct crossing on San Dimas Creek for ground-water replenishment. Los Angeles County Flood Control District diverted 2,430 acre-ft of water from San Gabriel River below Santa Fe Dam to Rio Hondo during year. See schematic diagram of San Gabriel and Los Angeles River basins.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	68	22	74	15	146	179	13	12	81	115	11
2	12	62	134	132	36	146	179	12	10	74	157	27
3	15	62	26	74	135	146	179	12	8.0	68	152	74
4	15	47	18	78	157	146	179	11	9.0	65	140	97
5	13	6.0	15	78	162	146	174	11	7.0	62	110	97
6	13	8.0	16	74	168	146	174	16	5.5	62	110	97
7	11	18	18	71	168	146	112	13	5.5	65	114	97
8	13	62	20	74	168	146	13	14	5.5	89	101	97
9	19	62	138	78	174	146	10	11	5.5	114	87	97
10	81	65	18	81	162	146	10	11	38	114	51	106
11	84	65	15	81	152	157	12	12	48	110	12	101
12	87	68	15	126	152	125	13	11	48	106	5.0	101
13	90	68	13	53	152	395	13	12	51	106	4.5	93
14	87	81	52	22	152	27	51	38	51	106	4.5	48
15	87	81	15	35	146	49	14	135	54	99	4.0	12
16	87	81	64	62	328	184	13	146	54	54	4.0	11
17	87	93	61	62	605	184	30	162	54	57	4.0	51
18	87	101	89	62	22	184	15	190	57	51	5.0	114
19	87	122	1,260	71	24	184	13	190	59	81	5.5	101
20	90	118	77	87	16	184	13	190	59	122	6.0	106
21	106	101	1,910	78	14	184	13	190	59	131	7.0	118
22	106	97	62	122	14	184	13	190	62	131	6.0	127
23	106	97	20	122	18	184	13	190	65	140	5.0	131
24	106	97	22	122	101	184	13	196	65	146	6.0	118
25	106	106	16	118	140	184	13	196	68	146	7.0	106
26	101	192	15	114	162	131	14	202	68	146	7.0	106
27	90	18	16	82	157	27	14	202	57	152	7.0	118
28	87	722	16	16	152	26	13	119	54	152	7.0	140
29	84	2,580	16	15	-----	34	12	15	65	157	8.0	140
30	71	135	16	15	-----	168	14	13	81	125	9.0	146
31	65	-----	30	15	-----	174	-----	12	-----	87	9.0	-----
TOTAL	2,105	5,483.0	4,225	2,294	3,852	4,613	1,528	2,735	1,285.0	3,199	1,269.5	2,788
MEAN	67.9	183	136	74.0	138	149	50.9	88.2	42.8	103	41.0	92.9
MAX	106	2,580	1,910	132	605	395	179	202	81	157	157	146
MIN	11	6.0	13	15	14	26	10	11	5.5	51	4.0	11
AC-FT	4,180	10,880	8,380	4,550	7,640	9,150	3,030	5,420	2,550	6,350	2,520	5,530
(a)	4,370	3,780	0	0	6,620	8,220	2,180	5,040	4,130	9,900	2,900	7,690
CAL YR 1970	TOTAL	35,320.0	MEAN	96.8	MAX	2,580	MIN	6.0	AC-FT	70,060	AC-FT a	8,150
WTR YR 1971	TOTAL	35,376.5	MEAN	96.9	MAX	2,580	MIN	4.0	AC-FT	70,170	AC-FT a	54,830

a Colorado River water, in acre-feet, released to river.

## 219

LOCATION.--Lat 34°00'47", long 118°03'48", in Paso de Bartolo Grant, Los Angeles County, on right levee 460 ft downstream from San Gabriel River Parkway, 4,200 ft downstream from axis of Whittier Narrows Dam, and 1.4 miles northeast of Pico Rivera.

GAGE.--Water-stage recorder. Datum of gage is 181.55 ft above mean sea level. See WSP 1735 for history of changes prior to Mar. 6, 1952. Mar. 6, 1952, to Aug. 9, 1968, at bridge 0.5 mile downstream at datum 9.05 ft lower.

Period of record: Maximum discharge, 22,700 cfs Mar. 2, 1938; no flow for periods in most years.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	94	37	69	52	57	71	46	9.5	8.4	100	14
2	43	94	159	110	52	65	67	44	17	8.1	78	3.1
3	45	92	36	74	49	69	64	31	14	8.1	86	2.6
4	60	82	27	76	54	73	64	20	17	7.8	82	4.7
5	43	78	25	78	58	76	65	20	17	7.8	88	7.8
6	43	37	25	74	58	78	67	26	16	8.4	88	8.8
7	26	47	24	71	58	78	56	21	16	8.4	88	15
8	15	92	33	73	74	76	21	20	26	39	82	48
9	16	94	154	76	58	76	18	18	43	90	78	125
10	74	96	36	78	49	82	18	18	80	88	65	127
11	86	94	30	80	44	84	16	16	94	86	14	127
12	90	98	29	111	54	76	12	12	96	84	10	138
13	84	74	28	62	57	335	12	15	96	86	18	125
14	84	78	59	36	52	30	49	9.2	96	88	27	76
15	86	78	30	38	52	21	22	21	77	82	27	38
16	82	78	60	69	224	28	20	34	31	59	27	33
17	84	94	72	64	519	47	33	52	17	106	26	46
18	86	133	76	51	49	62	26	84	8.1	102	28	49
19	86	138	1,140	28	38	62	19	80	7.8	110	29	44
20	92	142	120	30	32	65	19	84	8.1	108	31	50
21	110	136	1,650	34	32	65	28	84	44	106	31	64
22	112	136	83	64	27	73	43	86	82	100	32	90
23	114	140	30	64	27	82	43	88	78	86	31	112
24	114	140	25	60	27	84	44	90	76	78	31	145
25	118	118	25	65	38	86	44	88	74	84	31	136
26	120	181	25	32	49	67	46	86	67	73	31	136
27	118	33	25	21	47	26	47	104	71	73	32	93
28	116	327	25	30	47	22	47	44	78	73	30	34
29	112	2,170	25	38	-----	33	43	9.5	51	80	28	28
30	104	214	25	47	-----	52	52	9.5	9.5	78	29	28
31	96	-----	31	49	-----	64	-----	9.5	-----	98	28	-----
TOTAL	2,502	5,408	4,169	1,852	1,977	2,194	1,176	1,369.7	1,417.0	2,114.0	1,406	1,948.0
MEAN	80.7	180	134	59.7	70.6	70.8	39.2	44.2	47.2	68.2	45.4	64.9
MAX	120	2,170	1,650	111	519	335	71	104	96	110	100	145
MIN	15	33	24	21	27	21	12	9.2	7.8	7.8	10	2.6
AC-FT	4,960	10,730	8,270	3,670	3,920	4,350	2,330	2,720	2,810	4,190	2,790	3,860
CAL YR 1970	TOTAL 41,755.0		MEAN 114	MAX 2,170	MIN 13	AC-FT 82,820						
WTR YR 1971	TOTAL 27,532.7		MEAN 75.4	MAX 2,170	MIN 2.6	AC-FT 54,610						



## SAN GABRIEL RIVER BASIN

11088000 SAN GABRIEL RIVER AT SPRING STREET, NEAR LOS ALAMITOS, CALIF.

LOCATION.--Lat 33°48'43", long 118°05'24", in SE<sup>1</sup>SE<sup>1</sup>NW<sup>1</sup> sec.24, T.4 S., R.12 W., Los Angeles County, on right levee, 455 ft upstream from Spring Street bridge, 1.3 miles upstream from Coyote Creek, and 1.3 miles northwest of Los Alamitos.

DRAINAGE AREA.--472 sq mi.

PERIOD OF RECORD.--October 1927 to September 1951, October 1952 to current year. Monthly discharge only for October 1927 to September 1936, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 11.87 ft above mean sea level (levels by Los Angeles County Flood Control District). Prior to October 1952, at datum 4.82 ft higher and October 1952 to Nov. 17, 1964, at site 455 ft downstream at datum 0.38 ft higher.

AVERAGE DISCHARGE.--43 years, 28.2 cfs (20,430 acre-ft per year); median of yearly mean discharges, 4.4 cfs (3,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,550 cfs Dec. 19 (gage height, 6.86 ft); no flow some days.

Period of record: Maximum discharge, 27,000 cfs (estimated) Mar. 2, 1938; no flow for several months in each year.

REMARKS.--Regulation and diversions same as sta 11087500. Additional diversion to percolation basin near Washington Boulevard and percolation basins in streambed. AVERAGE DISCHARGE represents flow to ocean during period of record regardless of upstream development. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	12	13	11	12	11	10	12	0	.10	1.2	.10
2	14	12	60	46	13	12	9.8	13	.10	.10	1.2	.50
3	13	11	29	9.8	11	12	10	13	.10	.10	1.4	.50
4	13	11	8.2	10	9.3	13	10	8.8	0	.20	1.2	1.4
5	12	14	12	9.8	10	14	11	.10	.20	.10	1.6	1.4
6	13	13	7.2	11	10	16	13	0	.10	.10	.20	.50
7	15	11	7.2	14	9.8	14	11	5.0	.20	.10	.10	.20
8	13	13	8.2	9.8	9.3	15	11	22	.10	.10	.30	.30
9	12	11	38	10	7.7	17	13	13	.10	.30	.40	1.6
10	13	12	13	9.8	6.2	14	13	14	.30	.50	.50	1.4
11	13	13	13	11	5.9	14	11	5.3	.30	.20	.60	1.4
12	11	12	14	16	6.7	13	18	.10	.10	.30	.70	1.2
13	13	10	13	25	6.2	145	12	.10	.10	.30	.80	1.4
14	13	13	17	14	7.7	16	73	.10	.10	.50	.90	1.4
15	13	13	16	14	9.8	11	12	.10	.10	.30	1.0	1.6
16	13	13	23	7.7	51	11	13	0	.30	1.2	1.1	1.4
17	11	13	30	0	553	11	14	.10	.30	.50	1.2	1.4
18	13	14	104	2.5	14	11	12	.30	.30	1.2	1.6	1.4
19	13	12	1,330	2.3	13	11	13	.10	.30	1.2	2.2	1.4
20	13	13	49	0	13	11	9.3	1.4	.20	1.2	1.8	1.4
21	10	13	1,600	2.5	7.7	12	13	2.3	.20	.20	1.6	1.2
22	13	12	96	15	7.2	12	13	2.0	.10	.50	1.6	1.2
23	13	11	2.5	15	8.2	12	13	2.0	.20	1.4	1.6	5.0
24	13	11	4.6	15	10	12	11	1.8	.20	.50	1.8	14
25	13	12	9.8	14	11	12	11	1.8	.10	.50	1.8	18
26	12	44	11	12	10	11	11	1.8	.10	.50	1.6	18
27	13	11	11	16	10	13	11	1.8	.10	.20	2.0	16
28	13	193	11	15	9.8	11	11	3.7	.20	.20	1.2	15
29	14	2,700	10	11	-----	12	12	.20	.20	.30	.10	8.2
30	12	202	10	8.8	-----	11	12	0	.10	.50	.10	15
31	10	-----	11	9.8	-----	12	-----	0	-----	1.4	.10	-----
TOTAL	389.8	3,455	3,581.7	367.8	852.5	522	417.1	125.90	4.80	14.80	33.50	133.50
MEAN	12.6	115	116	11.9	30.4	16.8	13.9	4.06	.16	.48	1.08	4.45
MAX	15	2,700	1,600	46	553	145	73	22	.30	1.4	2.2	18
MIN	9.8	10	2.5	0	5.9	11	9.3	0	0	.10	.10	.10
AC-FT	773	6,850	7,100	730	1,690	1,040	827	250	9.5	29	66	265

CAL YR 1970 TOTAL 15,201.30 MEAN 41.6 MAX 2,700 MIN 0 AC-FT 30,150  
WTR YR 1971 TOTAL 9,898.40 MEAN 27.1 MAX 2,700 MIN 0 AC-FT 19,630

REMARKS.--Records good. Flow regulated by Brea flood-control reservoir (capacity, 4,100 acre-ft). No diversion above station. Since August 1966, low flow mostly the result of irrigation waste water from golf course 0.8 mile upstream. See schematic diagram of San Gabriel and Los Angeles River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.20	1.5	.46	.41	.23	.17	.20	.36	.08	.27	.31
2	.20	.20	13	5.0	.70	.23	.12	.20	.31	.14	.31	.23
3	.20	.23	1.2	.41	.63	.27	.27	.23	.31	.12	.31	.17
4	.20	.22	1.1	.51	.57	.41	.12	.27	.51	.12	.36	.31
5	.23	.22	.27	.46	.70	.31	.14	.46	.31	.12	.41	.36
6	.18	3.4	.14	.63	.70	.20	.17	.70	.23	.14	.31	.14
7	.16	.25	.10	.77	.36	.23	.13	.57	.31	.17	.17	.23
8	.20	.20	.27	.70	.20	.27	.08	.46	.41	.92	.31	.17
9	.18	.19	3.8	.57	.57	.27	.17	.14	.31	.14	.31	.31
10	.20	.19	.46	.41	.51	.31	.17	.41	.70	.20	.23	.23
11	.23	.18	.51	.51	.27	.27	.08	.17	.57	.23	.23	.17
12	.28	.18	.36	4.2	.20	.36	.17	.23	.27	.17	.27	.17
13	.26	.19	.27	3.0	.36	9.2	.17	.31	.27	.12	.31	.23
14	.24	.15	3.4	1.0	.23	.36	4.8	.46	.23	.20	.20	.20
15	.22	.18	.41	.77	.27	.14	.23	.23	.23	.23	.20	.20
16	.22	.16	5.7	.70	7.8	.14	.14	.23	.77	.20	.27	.14
17	.22	.18	4.5	.41	17	.14	.46	.57	.20	.20	.17	.12
18	.22	.20	14	.36	1.3	.06	.70	.51	.31	.20	.20	.08
19	.20	.22	73	.41	.84	.10	.14	.36	.17	.27	.20	.08
20	.20	.22	12	.36	.92	.08	.14	.36	.17	.46	.36	.10
21	.20	.23	89	.36	.51	.08	.23	.36	.17	.40	.31	.06
22	.20	.20	11	.36	.41	.10	.20	.41	.17	.40	.31	.10
23	.20	.20	2.3	.41	.51	.10	.27	.41	.46	.40	.20	.12
24	.20	.25	1.7	.23	.36	.12	.23	.57	.17	.40	.31	.17
25	.20	1.6	1.6	.31	.36	.12	.20	.63	.17	.40	.31	.06
26	.20	18	1.1	.31	.31	.10	.20	.63	.17	.40	.27	.06
27	.20	.27	1.0	.41	.27	.12	.23	3.2	.16	.40	.23	.08
28	.20	50	.77	.70	.27	.10	.23	4.3	.16	.40	.23	.08
29	.20	110	.84	.70	-----	.10	.20	.36	.12	.40	.23	.12
30	.20	15	.84	.70	-----	.14	.23	.27	.14	.41	.27	.12
31	.20	-----	.77	.57	-----	.12	-----	.36	-----	.31	.27	-----
TOTAL	6.44	202.91	246.91	26.70	37.54	14.78	10.79	18.57	8.84	8.75	8.34	4.92
MEAN	.21	6.76	7.96	.86	1.34	.48	.36	.60	.29	.28	.27	.16
MAX	.28	110	89	5.0	17	9.2	4.8	4.3	.77	.92	.41	.36
MIN	.16	.15	.10	.23	.20	.06	.08	.14	.12	.08	.17	.06
AC-FT	13	402	490	53	74	29	21	37	18	17	17	9.8
CAL YR 1970	TOTAL	694.22	MEAN	1.90	MAX 110	MIN	.02	AC-FT	1,380			
WTR YR 1971	TOTAL	595.49	MEAN	1.63	MAX 110	MIN	.06	AC-FT	1,180			

## SAN GABRIEL RIVER BASIN

11089500 FULLERTON CREEK BELOW FULLERTON DAM, NEAR BREA, CALIF.

LOCATION.--Lat 33°53'45", long 117°53'07", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.24, T.3 S., R.10 W., Orange County, on left bank of outlet channel of Fullerton Dam, 1.6 miles southeast of Brea.

DRAINAGE AREA.--4.94 sq mi.

PERIOD OF RECORD.--October 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (from topographic map). V-notch sharp-crested weir used Oct. 25, 1946, to Feb. 2, 1956.

AVERAGE DISCHARGE.--13 years (1941-54), 0.19 cfs (135 acre-ft per year); median of yearly mean discharges, 0.02 cfs (14 acre-ft per year); 17 years (1954-71), 0.53 cfs (384 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 30 cfs Dec. 21 (gage height, 1.03 ft); no flow most of year.

Period of record: Maximum discharge, 313 cfs Jan. 25, 1969 (gage height, 4.32 ft); no flow at times each year.

REMARKS.--Records good. Flow regulated by Fullerton flood-control reservoir (capacity 706 acre-ft). Small tributary formerly entering below station diverted into reservoir since December 1954. See schematic diagram of San Gabriel and Los Angeles River basins.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	7.3	.02	0	0	0			0		.09
2	0	0	3.3	2.4	0	0	0			0		.06
3	0	0	.04	.04	0	0	0			0		.02
4	0	0	0	.02	0	0	0			0		.01
5	0	0	0	.02	0	0	0			0		0
6	0	0	0	.01	0	0	0			0		0
7	0	0	0	.01	0	0	0			0		0
8	0	0	0	.03	0	0	0			0		0
9	0	0	1.2	.02	0	0	0			0		0
10	0	0	0	.02	0	.02	0			0		0
11	0	0	0	.01	0	0	0			0		0
12	0	0	0	2.9	0	.02	0			0		0
13	0	0	.13	.56	0	2.6	0			0		0
14	0	0	1.7	.12	0	.01	.65			0		0
15	0	0	0	.06	0	0	0			0		0
16	0	0	3.5	.03	2.3	0	0			0		0
17	0	0	1.2	.03	6.6	0	0			0		0
18	0	0	2.7	.02	.04	0	0			0		0
19	0	0	22	.02	.04	0	0			0		0
20	0	0	15	.02	.03	0	0			0		0
21	0	0	26	.01	.02	0	0			0		0
22	0	0	22	.01	.02	0	0			0		0
23	0	0	1.4	.01	.01	0	0			0		0
24	0	0	.12	.01	0	0	0			0		0
25	0	0	.09	0	0	0	0			0		0
26	0	0	.09	0	0	0	0			0		0
27	0	0	.09	0	0	0	0			0		0
28	0	2.0	.06	0	0	0	0				.08	0
29	.04	22	.06	0	-----	0	0				.02	0
30	.03	22	.03	0	-----	0	0				0	0
31	0	-----	.03	0	-----	0	-----		-----		.12	-----
TOTAL	.07	46.0	108.04	6.40	9.06	2.65	.65	0	0	0	.22	.18
MEAN	.002	1.53	3.49	.21	.32	.086	.022	0	0	0	.007	.006
MAX	.04	22	26	2.9	6.6	2.6	.65	0	0	0	.12	.09
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.1	91	214	13	18	5.3	1.3	0	0	0	.4	.4
CAL YR 1970	TOTAL 217.78		MEAN .60	MAX 26	MIN 0	AC-FT 432						
WTR YR 1971	TOTAL 173.27		MEAN .47	MAX 26	MIN 0	AC-FT 344						

## 11090200 FULLERTON CREEK AT RICHMAN AVENUE, AT FULLERTON, CALIF.

LOCATION.--Lat 33°51'45", long 117°55'55", in NW¼SW¼SE¼ sec.33, T.3 S., R.10 W., Orange County, on right bank 125 ft east of Richman Avenue, at Fullerton.

DRAINAGE AREA.--12.1 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 126.4 ft above mean sea level (levels by Orange County Flood Control District).

AVERAGE DISCHARGE.--12 years, 1.88 cfs (1,360 acre-ft per year); median of yearly mean discharges, 1.3 cfs (940 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 538 cfs Dec. 21 (gage height, 4.08 ft); no flow many days.  
Period of record: Maximum discharge, 1,100 cfs Jan. 25, 1969 (gage height, 4.78 ft); no flow many days in each year.

REMARKS.--Flow regulated by Fullerton flood-control reservoir (capacity, 706 acre-ft). No diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Orange County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	0	5.9	0	0	.10	0	0	.10	.50	.60	.20
2	.20	0	6.8	7.3	0	0	0	0	.10	.50	.70	.20
3	.20	0	.10	0	0	0	.10	0	.10	.50	.60	.20
4	.20	0	0	0	0	0	.20	0	.10	.50	.50	.10
5	.40	0	0	0	0	0	.20	0	.10	.50	.70	.20
6	1.1	49	0	0	0	0	.10	.30	.10	.50	.90	.20
7	.20	0	0	0	0	0	.10	.30	.10	.60	1.2	.20
8	.10	0	0	0	0	0	0	0	.10	.50	.80	.20
9	.20	0	3.3	0	0	0	0	0	.10	.50	.70	.20
10	.10	0	0	0	.10	0	0	0	.10	.40	.70	.20
11	.10	0	0	0	.10	0	.10	0	.10	.40	.50	.20
12	.10	0	0	2.4	.10	0	.10	0	.10	.40	.40	.20
13	.10	0	1.4	2.4	.10	8.0	0	0	.20	.40	.50	.20
14	.10	0	7.4	.10	.10	0	9.7	0	.10	.20	.40	.20
15	.10	.10	0	0	.20	0	0	0	.10	.20	.50	.10
16	.20	.10	4.9	0	18	0	0	0	.20	.20	.60	.10
17	.20	0	4.2	0	14	0	.10	0	.20	.20	.40	.10
18	.30	0	32	0	.10	0	0	0	.20	.30	.60	.10
19	.40	0	58	0	0	0	0	0	.20	.40	.60	.10
20	.30	.10	14	0	0	0	0	0	.20	.30	.90	.30
21	.10	0	77	0	0	0	0	0	.20	.30	.70	.10
22	.10	.10	19	0	0	.10	0	0	.20	.30	.70	.10
23	.10	.10	2.2	0	0	0	0	0	.20	.30	.60	.10
24	.10	.10	0	0	0	0	.10	0	.10	.30	.40	.10
25	.10	3.0	0	0	0	0	0	0	.20	.20	.20	.10
26	.10	2.2	0	0	0	0	0	0	.20	.20	.20	.10
27	.10	.20	0	0	0	0	0	0	.20	.30	.30	.10
28	.20	58	0	0	.10	0	0	0	.20	.40	.20	.10
29	.10	108	0	0	-----	0	0	0	.30	.40	.20	.40
30	.10	19	0	0	-----	0	0	0	.30	.50	.20	.30
31	.10	-----	0	0	-----	0	-----	0	-----	.50	.20	-----
TOTAL	6.00	240.00	236.20	12.20	32.90	8.20	10.80	.60	4.70	11.70	16.70	5.00
MEAN	.19	8.00	7.62	.39	1.18	.26	.36	.019	.16	.38	.54	.17
MAX	1.1	108	77	7.3	18	8.0	9.7	.30	.30	.60	1.2	.40
MIN	.10	0	0	0	0	0	0	0	.10	.20	.20	.10
AC-FT	12	476	469	24	65	16	21	1.2	9.3	23	33	9.9
CAL YR 1970	TOTAL	803.50	MEAN	2.20	MAX	108	MIN	0	AC-FT	1,590		
WTR YR 1971	TOTAL	585.00	MEAN	1.60	MAX	108	MIN	0	AC-FT	1,160		

## SAN GABRIEL RIVER BASIN

11090700 COYOTE CREEK AT LOS ALAMITOS, CALIF.

LOCATION.--Lat 33°48'38", long 118°04'28", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.19, T.4 S., R.11 W., Orange County, on right bank about 250 ft downstream from Spring Street, 0.5 mile northwest of Los Alamitos.

DRAINAGE AREA.--136 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7.37 ft above mean sea level (levels by Los Angeles County Flood Control District).

AVERAGE DISCHARGE.--8 years, 33.7 cfs (23,690 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,140 cfs Dec. 19 (gage height, 4.74 ft); minimum daily, 1.4 cfs Nov. 11.

Period of record: Maximum discharge, 11,300 cfs Jan. 20, 1969 (gage height, 6.38 ft); no flow Jan. 25, Feb. 15-17, 1964.

REMARKS.--Flows up to 100 cfs can be diverted from present Carbon Creek channel to Coyote Creek through the original Carbon Creek channel. Flow partially regulated by Carbon Canyon, Brea and Fullerton flood-control reservoirs (combined capacity, 11,840 acre-ft). AVERAGE DISCHARGE represents flow to ocean during period of record, regardless of upstream development. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.9	31	8.4	8.1	9.4	8.8	5.2	2.8	6.8	13	17
2	4.9	5.5	191	8.6	7.4	5.2	11	5.5	3.1	7.4	12	8.8
3	4.9	9.4	10	8.9	11	8.1	5.5	6.2	2.8	8.8	12	8.8
4	3.4	9.4	4.3	9.3	8.1	8.1	8.1	8.1	3.1	9.4	12	9.4
5	6.8	6.8	4.3	9.5	8.8	8.1	8.1	11	2.8	11	11	8.8
6	8.1	69	4.6	9.7	7.4	9.4	9.4	28	4.6	8.1	11	12
7	6.2	2.8	4.6	10	5.5	8.1	10	27	11	8.8	12	16
8	5.2	1.7	4.9	10	8.8	8.8	8.8	45	25	11	16	13
9	6.2	1.9	113	10	15	7.4	11	5.5	12	16	20	16
10	6.8	1.6	9.4	10	15	5.5	6.8	5.5	8.8	11	13	16
11	9.4	1.4	8.8	11	10	8.1	7.4	5.2	19	10	11	15
12	11	1.9	8.8	11	13	7.4	6.8	5.5	11	11	11	11
13	12	3.1	9.4	11	19	200	10	6.2	11	12	9.4	11
14	5.5	2.5	50	12	40	7.4	351	5.5	20	13	8.8	12
15	4.6	2.1	7.4	6.8	31	7.4	21	5.2	19	13	8.8	12
16	4.6	2.5	56	8.1	265	8.1	11	11	12	15	8.8	12
17	3.7	2.8	95	11	324	8.1	22	16	8.8	13	8.8	15
18	3.4	2.8	282	9.4	9.4	6.8	11	16	5.5	10	7.4	11
19	4.3	4.6	1,740	16	15	6.2	11	20	4.9	15	8.1	5.2
20	3.7	5.5	113	16	8.1	6.2	11	21	4.3	10	6.8	4.6
21	2.8	4.9	1,140	15	7.4	8.1	8.1	25	4.3	10	5.5	5.2
22	3.4	4.9	113	13	7.4	5.2	6.8	22	4.3	7.4	5.5	6.2
23	9.6	6.2	9.5	16	7.4	15	8.1	11	4.9	5.5	6.8	6.8
24	4.0	6.2	9.3	15	7.4	15	5.2	8.1	5.5	5.5	8.1	6.8
25	4.9	20	9.1	11	7.4	5.2	5.2	5.2	4.9	5.5	4.9	6.8
26	4.6	190	8.9	11	7.4	5.2	8.1	5.5	11	6.2	4.3	7.4
27	5.2	6.8	8.7	15	6.8	7.4	13	32	8.1	6.8	6.2	8.1
28	4.9	852	8.6	9.4	8.8	11	11	49	6.2	8.8	8.1	12
29	4.6	2,320	8.4	8.8	-----	8.1	11	6.8	8.1	8.1	5.2	27
30	4.6	269	8.2	8.1	-----	8.8	5.5	4.6	6.2	11	6.2	34
31	6.2	-----	8.2	7.4	-----	6.8	-----	4.0	-----	13	12	-----
TOTAL	173.8	3,822.2	4,079.4	336.4	889.6	439.6	631.7	431.8	255.0	308.1	293.7	354.9
MEAN	5.61	127	132	10.9	31.8	14.2	21.1	13.9	8.50	9.94	9.47	11.8
MAX	12	2,320	1,740	16	324	200	351	49	25	16	20	34
MIN	2.8	1.4	4.3	6.8	5.5	5.2	5.2	4.0	2.8	5.5	4.3	4.6
AC-FT	345	7,580	8,090	667	1,760	872	1,250	856	506	611	583	704
CAL YR 1970	TOTAL	14,790.2	MEAN	40.5	MAX	2,320	MIN	1.4	AC-FT	29,340		
WTR YR 1971	TOTAL	12,016.2	MEAN	32.9	MAX	2,320	MIN	1.4	AC-FT	23,830		

## 11092450 LOS ANGELES RIVER AT SEPULVEDA DAM, CALIF.

LOCATION.--Lat 34°09'42", long 118°27'57", in Ex Mission de San Fernando Grant, Los Angeles County, on right bank of outlet channel of Sepulveda Dam, 200 ft upstream from Sepulveda Boulevard in city of Los Angeles, and 1.8 miles southwest of Van Nuys.

DRAINAGE AREA.--158 sq mi.

PERIOD OF RECORD.--January 1929 to February 1938, May 1938 to current year. See WSP 1315-B, 1735 for history of records prior to September 1950.

GAGE.--Water-stage recorder. Datum of gage is 652.7 ft above mean sea level. See WSP 1735 for history of changes prior to Aug. 29, 1953.

AVERAGE DISCHARGE.--41 years (1929-37, 1938-71), 29.4 cfs (21,300 acre-ft per year); median of yearly mean discharges, 22 cfs (15,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,300 cfs Nov. 29 (gage height, 10.57 ft); minimum daily, 5.0 cfs Nov. 9.

Period of record: Maximum discharge, 13,800 cfs Jan. 25, 1969 (gage height, 11.42 ft); no flow Sept. 19, 20, 1930.

Flood of Mar. 2, 1938, amounted to 12,000 cfs (estimated).

REMARKS.--Records good. Flow regulated since December 1941 by Sepulveda flood-control reservoir (capacity, 17,400 acre-ft). Some diversion above station. At times city of Los Angeles discharges imported Owens River water into Los Angeles River from upstream distributing reservoirs. After Feb. 9, 1971, 6,000 acre-ft was drained from Van Norman Reservoir, a portion of which passed station in February and March. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of released water from reservoirs furnished by city of Los Angeles. Three discharge measurements furnished by Los Angeles County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	6.8	70	16	9.1	135	16	21	9.7	9.1	12	7.9
2	10	6.8	200	98	9.7	135	16	16	12	9.7	12	7.9
3	9.7	6.8	50	15	8.5	130	17	17	12	11	11	7.4
4	9.7	6.8	36	11	7.9	130	16	16	8.5	12	10	8.5
5	9.7	6.9	24	11	9.1	130	16	18	7.9	12	10	9.1
6	9.7	38	17	11	7.9	125	16	49	7.9	11	9.7	82
7	9.7	6.4	12	12	8.5	135	22	24	8.5	11	13	10
8	9.7	5.4	12	15	10	145	22	18	10	12	15	10
9	9.7	5.0	164	14	116	204	28	13	11	12	15	11
10	9.7	5.4	8.5	13	481	187	27	14	12	12	14	10
11	8.5	5.9	5.9	16	343	135	24	15	12	12	13	10
12	8.5	5.9	5.9	298	150	130	27	15	11	13	15	10
13	8.5	5.4	6.4	192	121	402	26	14	11	15	19	9.7
14	8.5	5.9	118	42	22	135	460	13	12	16	21	9.1
15	8.5	6.9	8.5	21	34	130	42	13	13	14	19	9.1
16	8.5	7.9	93	19	235	94	33	12	13	12	16	7.4
17	8.5	7.4	122	12	318	36	25	12	15	11	16	7.4
18	7.5	7.9	1,850	9.1	38	25	14	13	13	10	15	9.1
19	7.5	7.9	2,200	11	36	19	17	13	14	10	14	10
20	7.5	7.9	162	11	28	23	23	15	15	10	13	10
21	7.5	8.5	1,960	9.1	19	56	16	15	15	10	14	10
22	7.5	7.9	95	8.5	21	21	17	12	12	9.7	14	9.1
23	7.4	7.9	68	7.9	21	21	24	14	15	10	13	9.1
24	7.4	7.9	50	7.9	16	24	15	16	14	9.7	13	9.1
25	7.0	62	38	7.9	15	19	17	16	13	9.1	14	9.7
26	6.8	84	36	7.9	19	18	15	15	12	7.9	13	9.7
27	6.8	6.9	27	7.9	125	18	38	15	10	7.9	10	9.7
28	6.8	1,240	25	15	130	21	21	26	9.7	8.4	11	9.7
29	6.8	6,410	21	20	-----	23	22	14	9.1	11	10	9.7
30	6.8	425	21	20	-----	20	23	10	9.7	9.7	8.5	9.7
31	6.8	-----	18	12	-----	20	-----	9.7	-----	10	7.9	-----
TOTAL	256.3	8,423.4	7,524.2	971.2	2,358.7	2,846	1,095	503.7	348.0	338.2	411.1	351.1
MEAN	8.27	281	243	31.3	84.2	91.8	36.5	16.2	11.6	10.9	13.3	11.7
MAX	10	6,410	2,200	298	481	402	460	49	15	16	21	82
MIN	6.8	5.0	5.9	7.9	7.9	18	14	9.7	7.9	7.9	7.9	7.4
AC-FT	508	16,710	14,920	1,930	4,680	5,650	2,170	999	690	671	815	696

CAL YR 1970 TOTAL 27,463.4 MEAN 75.2 MAX 6,410 MIN 5.0 AC-FT 54,470  
WTR YR 1971 TOTAL 25,426.9 MEAN 69.7 MAX 6,410 MIN 5.0 AC-FT 50,430

## LOS ANGELES RIVER BASIN

11093000 PACOIMA CREEK NEAR SAN FERNANDO, CALIF.

LOCATION.--Lat 34°20'07", long 118°23'50", in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.24, T.3 N., R.15 W., Los Angeles County, on right bank 500 ft downstream from Pacoima Dam, 0.3 mile upstream from mouth of canyon, and 4 miles northeast of San Fernando.

DRAINAGE AREA.--28.3 sq mi.

PERIOD OF RECORD.--March to July 1916 (fragmentary), December 1916 to current year.

GAGE.--Water-stage recorder. Flume or weir control since June 1937. Altitude of gage is 1,650 ft (from topographic map). See WSP 1735 for history of changes prior to Feb. 1, 1935.

AVERAGE DISCHARGE.--54 years (1917-71), 9.66 cfs (7,000 acre-ft per year); median of yearly mean discharges, 4.1 cfs (3,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 250 cfs (estimated) June 15; no flow Nov. 28 to Dec. 14, Dec. 18-20. Period of record: Maximum discharge, 2,440 cfs Mar. 3, 1938; no flow for several months in most years.

REMARKS.--Flow regulated since February 1929 by Pacoima flood-control reservoir (capacity, 3,841 acre-ft). Flow passing over Pacoima Dam spillway enters creek below station. No diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	.50	0	2.0	40	19	6.7	6.1	2.2	1.0	1.0	1.0
2	.60	.50	0	2.0	59	19	6.7	6.1	1.8	1.0	1.0	1.0
3	.60	.50	0	2.0	56	23	6.7	6.1	1.5	1.0	1.0	1.0
4	.60	.50	0	2.0	55	28	6.7	6.1	1.5	1.0	1.0	1.0
5	.60	.50	0	2.0	26	25	6.7	6.1	1.5	1.0	1.0	1.0
6	.60	.50	0	2.0	2.0	23	6.7	6.1	1.5	1.0	1.0	1.0
7	.60	.50	0	2.0	2.0	22	6.7	8.0	1.5	1.0	1.0	1.0
8	.50	.50	0	2.0	45	22	6.0	9.4	1.5	1.0	1.0	1.0
9	.50	.50	0	2.0	34	22	6.0	9.4	1.5	1.0	1.0	1.0
10	.50	.50	0	2.0	7.4	22	6.0	8.0	27	1.0	1.0	1.0
11	.50	.50	0	2.0	7.7	13	6.0	6.2	39	1.0	1.0	1.0
12	.50	.50	0	2.0	8.1	7.9	8.9	5.8	34	1.0	1.0	1.0
13	.50	.50	0	2.0	8.4	7.9	8.9	5.5	39	1.0	1.0	1.0
14	.50	.50	0	2.0	8.3	7.9	8.9	4.8	45	1.0	1.0	1.0
15	.50	.50	.10	2.0	15	7.9	8.9	4.8	53	1.0	1.0	1.0
16	.50	.50	3.8	2.0	23	7.9	8.9	4.8	1.0	1.0	1.0	1.0
17	.50	.50	2.7	2.0	22	8.9	8.9	4.8	1.0	1.0	1.0	1.0
18	.50	.60	0	2.0	22	11	8.9	4.8	1.0	1.0	1.0	1.0
19	.50	.60	0	2.0	22	22	8.9	4.8	1.0	1.0	1.0	1.0
20	.50	.60	0	2.0	22	34	8.9	4.8	1.0	1.0	1.0	1.0
21	.50	.60	16	2.0	22	33	8.9	4.8	1.0	1.0	1.0	1.0
22	.50	.60	62	2.0	22	19	7.6	4.1	1.0	1.0	1.0	1.0
23	.50	.50	61	2.0	22	8.8	6.1	3.4	1.0	1.0	1.0	1.0
24	.50	.50	58	2.0	22	7.4	6.1	3.4	1.0	1.0	1.0	1.0
25	.60	.50	60	2.0	22	7.4	6.1	4.5	1.0	1.0	1.0	1.0
26	.50	.50	55	2.0	11	7.4	6.1	2.2	1.0	1.0	1.0	1.0
27	.50	.20	51	2.0	.60	6.7	6.1	2.2	1.0	1.0	1.0	1.0
28	.50	0	64	2.0	.60	6.7	6.1	2.2	1.0	1.0	1.0	1.0
29	.50	0	79	2.0	-----	6.7	6.1	2.2	1.0	1.0	1.0	1.0
30	.50	0	77	2.0	-----	6.7	6.1	2.2	1.0	1.0	1.0	1.0
31	.50	-----	36	2.0	-----	6.9	-----	2.2	-----	1.0	1.0	-----
TOTAL	16.30	13.70	625.60	62.0	607.10	470.1	216.3	155.9	266.5	31.0	31.0	30.0
MEAN	.53	.46	20.2	2.00	21.7	15.2	7.21	5.03	8.88	1.00	1.00	1.00
MAX	.60	.60	79	2.0	59	34	8.9	9.4	53	1.0	1.0	1.0
MIN	.50	0	0	2.0	.60	6.7	6.0	2.2	1.0	1.0	1.0	1.0
AC-FT	32	27	1,240	123	1,200	932	429	309	529	61	61	60

CAL YR 1970 TOTAL 1,690.20 MEAN 4.63 MAX 79 MIN 0 AC-FT 3,350  
WTR YR 1971 TOTAL 2,525.50 MEAN 6.92 MAX 79 MIN 0 AC-FT 5,010

NOTE.--Stage-discharge relation indefinite most of year.

## 11093490 NORTH FORK MILL CREEK NEAR LA CANADA, CALIF.

LOCATION.--Lat 34°19'03", long 118°08'00", (unsurveyed), Los Angeles County, Angeles National Forest, on right upstream end of culvert on Angeles Forest Highway, 0.2 mile west of Hidden Springs, and 8.8 miles northeast of La Canada.

DRAINAGE AREA.--5.80 sq mi.

PERIOD OF RECORD.--Water years 1960-66 (annual maximum), June 1966 to current year.

GAGE.--Water-stage recorder with rain-gage attachment and crest-stage gage. Altitude of gage is 3,060 ft (from topographic map). Crest-stage gage is at datum 4.66 ft higher.

AVERAGE DISCHARGE.--5 years (1967-71), 2.51 cfs (1,820 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 110 cfs Nov. 29 (gage height, 4.24 ft); no flow Aug. 1 to Sept. 30.

Period of record: Maximum discharge, 1,280 cfs Jan. 25, 1969 (gage height, 17.3 ft, from floodmarks), from rating curve extended above 10 cfs on basis of computations of flow through culvert at gage-heights 4.00, 9.4, and 17.3 ft; no flow at times in most years.

REMARKS.--Records poor. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.03	1.9	.80	1.1	1.1	.98	1.1	.75	.15		
2	.05	.03	1.7	.86	1.1	1.1	.98	1.1	.66	.08		
3	.05	.03	1.4	.90	1.1	1.1	.98	1.1	.57	.04		
4	.05	.03	1.4	.90	1.1	1.1	.86	1.1	.42	.09		
5	.05	.04	1.4	.94	1.1	1.1	.86	1.1	.25	.11		
6	.05	.15	1.4	.94	1.1	1.1	.86	1.1	.25	.11		
7	.05	.11	1.4	.98	1.1	1.1	.98	1.2	.30	.06		
8	.05	.09	1.4	.98	1.1	1.1	.98	1.2	.21	.08		
9	.05	.09	1.4	.98	1.1	1.1	.86	1.1	.18	.08		
10	.05	.09	1.5	.98	1.1	1.1	.86	.98	.25	.06		
11	.05	.09	1.4	1.3	1.1	1.1	.86	.98	.25	.04		
12	.04	.12	1.4	1.4	1.1	1.1	.86	.98	.21	.03		
13	.04	.12	1.4	1.3	1.1	1.4	.86	.86	.25	.03		
14	.04	.07	1.5	1.3	1.1	1.3	1.2	.86	.21	.03		
15	.04	.09	1.4	1.3	1.1	1.2	1.1	.86	.21	.03		
16	.04	.12	1.4	1.3	1.1	1.2	1.1	.86	.18	.02		
17	.04	.12	1.7	1.3	1.2	1.2	1.1	.86	.21	.02		
18	.04	.12	1.6	1.3	1.3	1.2	1.1	.75	.18	.02		
19	.04	.15	1.4	1.3	1.2	1.2	1.1	.75	.18	.02		
20	.04	.21	1.4	1.3	1.2	1.2	1.1	.75	.18	.02		
21	.04	.25	1.2	1.2	1.1	1.2	1.1	.86	.15	.01		
22	.04	.30	2.0	1.2	1.1	1.2	1.1	.86	.15	.01		
23	.04	.25	1.1	1.2	1.1	1.2	1.1	.86	.15	.01		
24	.04	.25	.98	1.2	1.1	1.2	1.1	.75	.15	.01		
25	.04	.36	.96	1.2	1.1	1.2	1.1	.75	.15	.01		
26	.04	.66	.90	1.2	1.1	1.4	1.1	.75	.18	.01		
27	.04	.42	.86	1.2	1.1	1.2	1.1	.86	.18	.01		
28	.04	1.9	.84	1.2	1.1	1.1	1.1	1.1	.21	.01		
29	.04	25	.84	1.2	-----	.98	1.1	1.1	.25	.01		
30	.04	4.0	.84	1.2	-----	.98	1.1	.98	.18	.01		
31	.04	-----	.80	1.2	-----	.98	-----	.98	-----	.01		
TOTAL	1.35	35.29	51.62	35.56	31.3	35.74	30.58	29.44	7.65	1.23	0	0
MEAN	.044	1.18	1.67	1.15	1.12	1.15	1.02	.95	.26	.040	0	0
MAX	.05	.25	.12	1.4	1.3	1.4	1.2	1.2	.75	.15	0	0
MIN	.04	.03	.80	.80	1.1	.98	.86	.75	.15	.01	0	0
AC-FT	2.7	70	102	71	62	71	61	58	15	2.4	0	0

CAL YR 1970 TOTAL 329.09 MEAN .90 MAX 25 MIN .03 AC-FT 653  
WTR YR 1971 TOTAL 259.76 MEAN .71 MAX 25 MIN 0 AC-FT 515

NOTE.--No gage-height record Oct. 1 to Nov. 9, Dec. 30 to Mar. 24.



## LOS ANGELES RIVER BASIN

11094000 TUJUNGA CREEK BELOW MILL CREEK, NEAR COLBY RANCH, CALIF.

LOCATION.--Lat 34°18'33", long 118°08'40", (unsurveyed), Los Angeles County, Angeles National Forest, on left bank 500 ft downstream from Mill Creek and 2 miles west of Colby Ranch.

DRAINAGE AREA.--64.9 sq mi.

PERIOD OF RECORD.--January 1948 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 2,650 ft (from topographic map).

AVERAGE DISCHARGE.--23 years, 12.3 cfs (8,910 acre-ft per year); median of yearly mean discharges, 3.3 cfs (2,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,300 cfs Nov. 29 (gage height, 10.15 ft); minimum daily, 0.50 cfs Sept. 19, 20.

Period of record: Maximum discharge, 20,700 cfs Feb. 25, 1969 (gage height, 15.25 ft), from rating curve extended above 7,000 cfs; no flow at times in most years.

REMARKS.--No regulation or diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.7	50	36	17	15	9.1	7.8	5.9	3.7	2.8	.80
2	.90	1.8	26	38	17	15	9.1	7.6	6.3	3.6	2.4	.80
3	1.0	1.8	22	32	16	14	8.8	8.0	6.1	3.4	2.0	.80
4	1.2	1.8	18	28	15	14	8.6	8.3	5.5	3.3	1.6	.70
5	1.3	1.9	15	27	15	14	8.6	8.3	5.7	3.3	1.2	.70
6	1.3	2.0	12	26	15	13	8.3	8.6	5.5	3.1	1.0	.70
7	1.4	2.0	12	25	14	13	8.3	8.6	5.3	2.8	.90	.70
8	1.5	2.0	12	24	14	13	8.0	8.6	5.3	2.8	.80	.60
9	1.4	1.9	14	24	15	13	8.0	8.6	5.1	3.0	.80	.60
10	1.4	1.9	11	24	15	13	8.0	8.6	5.3	3.0	.80	.60
11	1.5	1.9	10	24	15	12	7.8	8.3	5.3	3.0	.80	.60
12	1.5	1.9	9.4	30	15	12	7.8	8.3	7.3	2.8	.80	.60
13	1.5	1.8	9.4	28	15	18	7.8	7.8	4.9	2.8	.90	.60
14	1.5	1.8	11	26	15	14	8.6	7.0	4.9	2.8	.90	.70
15	1.6	1.8	8.8	26	15	12	8.6	7.0	4.7	2.8	.90	.70
16	1.6	1.8	9.1	26	20	12	8.3	6.8	4.5	2.8	.90	.70
17	1.6	1.8	13	40	29	11	9.1	6.3	4.2	2.8	.90	.70
18	1.6	1.8	13	48	24	10	9.1	6.3	4.2	2.8	1.0	.60
19	1.6	1.9	18	51	24	10	8.6	6.1	4.0	2.8	1.0	.50
20	1.6	1.9	17	40	21	10	8.6	6.1	3.9	2.8	1.0	.50
21	1.6	2.0	44	35	20	10	8.3	6.1	3.9	2.8	1.0	.80
22	1.7	2.1	35	38	20	10	8.3	6.3	3.7	2.8	1.1	.80
23	1.8	2.1	29	27	20	10	8.0	6.1	3.4	2.8	1.0	.80
24	1.9	2.1	30	24	19	10	8.0	5.9	3.3	2.8	1.1	.60
25	1.8	2.2	29	22	19	10	8.0	5.9	3.1	2.8	1.0	.70
26	1.8	2.7	29	22	16	10	7.8	5.9	2.1	2.8	1.0	.80
27	1.8	2.5	29	21	15	10	7.8	5.7	3.4	2.8	1.0	.90
28	1.7	7.0	29	20	15	10	7.8	6.6	3.4	2.8	1.0	.90
29	1.7	1,050	29	19	-----	9.7	7.6	6.6	3.4	2.8	.90	1.0
30	1.7	148	31	18	-----	9.7	7.6	6.6	3.4	2.8	1.0	1.0
31	1.7	-----	33	18	-----	9.4	-----	6.3	-----	2.8	1.0	-----
TOTAL	47.30	1,257.9	657.7	887	490	366.8	248.3	221.0	137.0	91.0	34.50	21.50
MEAN	1.53	41.9	21.2	28.6	17.5	11.8	8.28	7.13	4.57	2.94	1.11	.72
MAX	1.9	1,050	50	51	29	18	9.1	8.6	7.3	3.7	2.8	1.0
MIN	.90	1.7	8.8	18	14	9.4	7.6	5.7	2.1	2.8	.80	.50
AC-FT	94	2,500	1,300	1,760	972	728	493	438	272	181	68	43

CAL YR 1970 TOTAL 5,108.40 MEAN 14.0 MAX 1,050 MIN .90 AC-FT 10,130  
WTR YR 1971 TOTAL 4,460.00 MEAN 12.2 MAX 1,050 MIN .50 AC-FT 8,850

## 11095500 TUJUNGA CREEK NEAR SUNLAND, CALIF.

LOCATION.--Lat 34°18'02", long 118°16'04", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.32, T.3 N., R.13 W., Los Angeles County, on left bank 1,000 ft upstream from Gold Canyon, 2 miles upstream from mouth of canyon, and 4 miles northeast of Sunland.

DRAINAGE AREA.--106 sq mi.

PERIOD OF RECORD.--October 1916 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,571.80 ft above mean sea level (levels by Los Angeles County Flood Control District). Prior to Oct. 1, 1932, at site 1,000 ft upstream at different datum.

AVERAGE DISCHARGE.--54 years, 29.6 cfs (21,450 acre-ft per year); median of yearly mean discharges, 15 cfs (10,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,320 cfs Nov. 29 (gage height, 8.43 ft); minimum daily, 2.9 cfs Oct. 1.

Period of record: Maximum discharge, 50,000 cfs (estimated) Mar. 2, 1938; minimum, 0.10 cfs at times in some years.

REMARKS.--Flow regulated since July 1931 by Big Tujunga flood-control reservoir (capacity, 3,819 acre-ft). Several small diversions above station for irrigation. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	4.4	182	40	38	46	13	12	12	9.0	10	10
2	3.0	4.3	195	44	35	46	13	12	12	9.0	10	9.2
3	3.0	4.1	184	41	35	46	13	12	12	9.0	10	9.0
4	3.1	3.9	150	40	34	46	13	12	12	9.0	10	9.0
5	3.2	3.7	124	40	34	44	13	12	12	9.0	10	9.0
6	3.3	3.8	124	37	34	44	12	13	11	9.0	10	9.0
7	3.4	3.9	114	37	32	43	12	13	11	9.0	10	9.0
8	3.4	4.0	128	38	32	43	12	13	11	9.0	10	9.0
9	3.4	4.0	156	38	34	43	12	13	11	9.0	11	9.0
10	3.4	4.1	126	38	34	43	12	13	11	9.0	10	9.0
11	3.5	4.2	40	37	34	42	12	13	11	9.0	10	9.0
12	3.5	4.2	9.0	47	10	42	12	13	11	9.0	10	9.0
13	3.6	4.2	9.0	63	11	41	12	13	11	9.0	10	9.0
14	3.6	4.3	9.0	61	12	41	12	13	11	9.0	10	9.0
15	3.6	4.4	9.0	53	13	41	12	13	11	9.0	10	9.0
16	3.6	4.5	10	53	19	41	11	13	11	9.0	10	9.0
17	3.7	4.6	17	53	29	40	11	13	11	9.0	10	9.0
18	3.8	4.7	18	53	20	40	11	13	11	9.0	10	9.0
19	3.9	4.8	52	53	34	29	11	13	11	9.0	10	9.0
20	4.0	4.9	26	53	53	14	11	13	11	9.0	10	9.0
21	4.1	5.0	149	53	53	14	11	13	10	9.0	10	9.0
22	4.2	5.1	72	51	53	14	11	13	10	9.0	10	9.0
23	4.3	5.2	40	49	51	14	11	13	10	9.0	10	9.0
24	4.4	5.3	41	49	51	14	11	13	10	9.0	10	9.0
25	4.5	5.4	44	48	49	14	11	13	10	9.0	10	9.0
26	4.6	5.4	41	46	48	14	11	13	9.0	9.0	10	9.0
27	4.7	5.4	40	44	46	13	11	13	9.0	9.0	10	9.0
28	4.8	8.0	38	43	46	13	11	13	9.0	9.0	10	9.0
29	4.8	290	35	43	-----	13	11	13	9.0	9.0	10	9.0
30	4.7	217	37	41	-----	13	11	13	9.0	9.0	10	9.0
31	4.5	-----	40	40	-----	13	-----	13	-----	9.0	10	-----
TOTAL	118.5	636.8	2,259.0	1,426	974	964	350	398	320.0	279.0	311	271.2
MEAN	3.82	21.2	72.9	46.0	34.8	31.1	11.7	12.8	10.7	9.00	10.0	9.04
MAX	4.8	290	195	63	53	46	13	13	12	9.0	11	10
MIN	2.9	3.7	9.0	37	10	13	11	12	9.0	9.0	10	9.0
AC-FT	235	1,260	4,480	2,830	1,930	1,910	694	789	635	553	617	538

CAL YR 1970 TOTAL 9,240.7 MEAN 25.3 MAX 290 MIN 2.6 AC-FT 18,330  
 WTR YR 1971 TOTAL 8,307.5 MEAN 22.8 MAX 290 MIN 2.9 AC-FT 16,480

NOTE.--No gage-height record or stage-discharge relation indefinite Oct. 1 to Nov. 28, Dec. 11-15, Mar. 11 to Sept. 30.

## LOS ANGELES RIVER BASIN

11096500 LITTLE TUJUNGA CREEK NEAR SAN FERNANDO, CALIF.

LOCATION.--Lat 34°16'28", long 118°22'18", in Tujunga Grant, Los Angeles County, on downstream side of Foothill Boulevard bridge, 4 miles east of San Fernando.

DRAINAGE AREA.--21.1 sq mi.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge for April 1931, published in WSP 1315-B.

GAGE.--Water-stage recorder. Concrete control since May 1940. Datum of gage is 1,068.39 ft above mean sea level (levels by Los Angeles County Flood Control District). Prior to Nov. 30, 1964, at datum 0.5 ft lower.

AVERAGE DISCHARGE.--43 years, 2.57 cfs (1,860 acre-ft per year); median of yearly mean discharges, 0.6 cfs (430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 569 cfs (estimated) Nov. 29 (gage height, 5.34 ft); no flow most of year.

Period of record: Maximum discharge, 8,500 cfs (estimated) Mar. 2, 1938; no flow for several months in each year.

REMARKS.--No regulation or diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0		0							
2		0	8.9		0							
3		0	3.6		0							
4		0	0		0							
5		0	0		0							
6		0	0		0							
7		0	0		0							
8		0	0		0							
9		0	0		0							
10		0	0		0							
11		0	0		0							
12		0	0		0							
13		0	0		0							
14		0	0		.70							
15		0	0		0							
16		0	0		0							
17		0	6.3		2.0							
18		0	45		0							
19		0	42		0							
20		0	0		0							
21		0	77		0							
22		0	15		0							
23		0	14		0							
24		0	9.0		0							
25		0	7.1		0							
26		0	7.1		0							
27		0	3.7		0							
28		10	3.3		0							
29		93	3.7		-----							
30		2.3	2.5		-----							
31		-----	2.5		-----		-----		-----			-----
TOTAL	0	105.3	250.7	0	2.70	0	0	0	0	0	0	0
MEAN	0	3.51	8.09	0	.096	0	0	0	0	0	0	0
MAX	0	93	77	0	2.0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	209	497	0	5.4	0	0	0	0	0	0	0
CAL YR 1970	TOTAL	498.12	MEAN	1.36	MAX 93	MIN 0	AC-FT	988				
WTR YR 1971	TOTAL	358.70	MEAN	.98	MAX 93	MIN 0	AC-FT	711				

## 11097000 TUJUNGA CREEK BELOW HANSEN DAM, CALIF.

LOCATION.--Lat 34°15'13", long 118°23'17", in Ex Mission San Fernando Grant, Los Angeles County, in city of Los Angeles, on left bank of outlet channel of Hansen Dam, 0.1 mile upstream from Glen Oaks Boulevard, and 3 miles southeast of San Fernando.

DRAINAGE AREA.--153 sq mi.

PERIOD OF RECORD.--May 1932 to February 1938, August 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 943.32 ft above mean sea level (Corps of Engineers bench mark). See WSP 1735 for history of changes prior to Oct. 1, 1953.

EXTREMES.--Current year: Maximum discharge, 228 cfs Dec. 1 (gage height, 1.50 ft); no flow most of year. Period of record: Maximum discharge, 11,700 cfs Feb. 25, 1969 (gage height, 7.36 ft), from rating curve extended above 5,000 cfs on basis of gate openings at dam; no flow for parts of each year. Maximum discharge since May 1932, 54,000 cfs (estimated) Mar. 2, 1938.

REMARKS.--Records good. Flow regulated since July 1931 by Big Tujunga flood-control reservoir (capacity, 4,240 acre-ft) and since September 1940 by Hansen flood-control reservoir (capacity, 29,700 acre-ft). Several small diversions for domestic use and irrigation. Water reported herein is that which passed Hansen Dam. Los Angeles County Flood Control District diverts 0.3 mile upstream from gage to spreading grounds. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion furnished by Los Angeles County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			9.5						0			
2			0						0			
3			0						0			
4			0						0			
5			0						0			
6			0						0			
7			0						4.0			
8			0						5.4			
9			0						0			
10			0						0			
11			0						0			
12			0						0			
13			0						0			
14			0						0			
15			0						0			
16			0						0			
17			0						0			
18			0						0			
19			0						0			
20			0						0			
21			0						0			
22			0						0			
23			1.8						0			
24			0						0			
25			0						0			
26			0						0			
27			0						0			
28			0						0			
29			.97		-----				0			
30			0		-----				0			
31		-----	0		-----		-----		-----			-----
TOTAL	0	0	12.27	0	0	0	0	0	9.4	0	0	0
MEAN	0	0	.40	0	0	0	0	0	.31	0	0	0
MAX	0	0	9.5	0	0	0	0	0	5.4	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	24	0	0	0	0	0	19	0	0	0
(a)	0	0	6,430	1,480	1,070	2,270	0	0	446	0	0	0
CAL YR 1970	TOTAL	937.74	MEAN	2.57	MAX	58	MIN	0	AC-FT	1,860	AC-FT a	15,480
WTR YR 1971	TOTAL	21.67	MEAN	.05	MAX	9.5	MIN	0	AC-FT	43	AC-FT a	11,700

a Combined discharge, in acre-feet, of creek and diversion.

## LOS ANGELES RIVER BASIN

11097500 LOS ANGELES RIVER AT LOS ANGELES, CALIF.

LOCATION.--Lat 34°04'52", long 118°13'36", (landline location not available), Los Angeles County, on right bank near Figueroa Street, at Los Angeles, and 800 ft upstream from Arroyo Seco.

DRAINAGE AREA.--514 sq mi.

PERIOD OF RECORD.--October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 292.58 ft above mean sea level (levels by Los Angeles County Flood Control District). See WSP 1315-B for history of changes prior to Dec. 8, 1939.

AVERAGE DISCHARGE.--42 years, 70.9 cfs (51,340 acre-ft per year); median of yearly mean discharges, 42 cfs (30,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 41,500 cfs Nov. 29 (gage height, 12.18 ft); minimum daily, 7.4 cfs Oct. 7, 8.

Period of record: Maximum discharge, 67,000 cfs Mar. 2, 1938; no flow at times in some years.

REMARKS.--Flow regulated since September 1940 by Hansen flood-control reservoir and since December 1941 by Sepulveda flood-control reservoir (combined capacity, 49,400 acre-ft) and several small flood-control reservoirs. City of Los Angeles at times discharges imported Owens River water into Los Angeles River from upstream distributing reservoirs. Excess treated sewage effluent from Los Angeles Bureau of Sanitation is released to channel about 8 miles upstream. Many diversions above station for domestic use and irrigation. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	22	106	20	13	130	23	37	27	39	32	24
2	15	21	527	20	12	150	22	28	33	41	28	23
3	16	33	20	20	12	150	18	28	31	42	30	20
4	42	25	20	20	12	130	16	35	27	41	27	16
5	26	21	20	20	12	119	26	34	11	42	27	16
6	12	20	20	20	14	138	43	142	7.8	61	30	124
7	7.4	20	20	20	12	138	20	82	11	74	43	45
8	7.4	20	20	20	16	150	18	35	14	89	14	17
9	8.3	20	400	20	150	157	18	20	15	96	18	14
10	8.3	20	20	20	487	157	16	25	20	96	23	16
11	16	20	20	20	293	163	16	32	16	91	18	14
12	12	20	20	674	200	169	14	34	16	88	23	12
13	14	20	20	317	157	844	46	37	14	86	43	12
14	14	20	201	84	35	150	751	38	11	58	31	14
15	13	20	20	43	59	138	50	49	49	61	9.8	15
16	15	20	171	25	485	108	43	37	58	74	14	16
17	37	20	385	21	649	50	41	31	50	50	18	14
18	16	20	3,300	12	50	43	39	37	49	43	19	15
19	18	20	3,650	13	45	22	26	41	41	58	34	11
20	21	20	20	12	33	16	43	46	35	65	20	15
21	19	20	4,140	12	26	24	31	42	42	70	14	14
22	21	20	20	10	22	73	35	35	47	70	11	14
23	18	20	20	9.0	25	31	43	32	45	72	14	16
24	14	20	20	10	14	25	35	34	45	64	14	12
25	16	20	20	11	12	37	26	45	42	61	37	9.8
26	17	1,070	20	19	9.2	37	46	39	35	77	14	10
27	19	26	20	19	68	82	51	35	31	74	20	12
28	22	2,450	20	32	157	50	33	137	37	82	15	10
29	22	12,900	20	20	-----	39	34	42	38	74	14	10
30	23	736	20	16	-----	27	34	28	41	70	18	10
31	23	-----	20	12	-----	18	-----	24	-----	46	21	-----
TOTAL	547.4	17,704	13,320	1,591.0	3,079.2	3,565	1,657	1,341	938.8	2,055	693.8	570.8
MEAN	17.7	590	430	51.3	110	115	55.2	43.3	31.3	66.3	22.4	19.0
MAX	42	12,900	4,140	674	649	844	751	142	58	96	43	124
MIN	7.4	20	20	9.0	9.2	16	14	20	7.8	39	9.8	9.8
AC-FT	1,090	35,120	26,420	3,160	6,110	7,070	3,290	2,660	1,860	4,080	1,380	1,130

CAL YR 1970 TOTAL 51,322.7 MEAN 141 MAX 12,900 MIN 6.9 AC-FT 101,800  
WTR YR 1971 TOTAL 47,063.0 MEAN 129 MAX 12,900 MIN 7.4 AC-FT 93,350

## 11098000 ARROYO SECO NEAR PASADENA, CALIF.

LOCATION.--Lat 34°13'20", long 118°10'36", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.31, T.2 N., R.12 W., Los Angeles County, on right bank 1.5 miles upstream from Millard Canyon and 5.5 miles northwest of Pasadena.

DRAINAGE AREA.--16.0 sq mi.

PERIOD OF RECORD.--December 1910 to current year.

GAGE.--Water-stage recorder. Broad-crested weir since November 1938. Datum of gage is 1,397.88 ft above mean sea level. 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.

AVERAGE DISCHARGE.--57 years (1913-15, 1916-71), 9.56 cfs (6,930 acre-ft per year); median of yearly mean discharges, 5.0 cfs (3,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,330 cfs Nov. 29 (gage height, 4.60 ft); minimum daily, 0.62 cfs Sept. 24, 25.

Period of record: Maximum discharge, 8,620 cfs Mar. 2, 1938 (gage height, 9.42 ft, present datum), on basis of slope-area measurement of maximum flow; no flow at times in some years.

REMARKS.--Records good. Minor regulation by debris dam 1.5 miles upstream. No diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	.98	16	15	5.7	6.3	5.7	3.2	2.7	2.1	1.1	.98
2	.98	.98	25	16	5.7	6.3	5.7	3.4	3.0	2.1	.98	.98
3	1.1	.98	18	13	5.7	6.0	5.7	4.0	3.2	2.1	.98	.98
4	1.1	.98	14	11	5.4	6.0	5.7	4.4	3.4	2.1	.98	.98
5	1.1	.98	11	10	5.4	5.7	5.7	5.0	3.4	2.1	.98	.98
6	1.1	.98	11	9.6	5.7	5.4	5.7	6.6	3.4	2.1	.85	.98
7	1.3	1.1	10	9.3	5.7	5.4	6.0	5.7	3.3	1.9	.85	.98
8	1.3	1.1	9.9	9.0	5.7	5.4	6.3	4.4	3.3	1.9	.85	.98
9	1.1	1.1	11	8.7	6.3	5.4	6.2	4.7	3.2	1.7	.85	.85
10	1.1	1.1	10	8.5	6.8	5.4	6.0	4.7	3.2	1.7	.85	.85
11	1.1	1.1	9.9	8.2	6.6	5.4	5.7	4.7	3.2	1.7	.85	.85
12	.98	1.2	9.3	17	6.3	6.0	5.7	4.7	3.1	1.7	.98	.85
13	.98	1.5	9.6	14	6.6	30	5.7	4.7	3.1	1.7	.98	.85
14	.98	1.3	12	11	6.6	9.6	6.6	4.7	3.1	1.5	1.1	.73
15	.98	1.1	10	9.9	6.8	7.6	6.0	4.7	3.0	1.5	.98	.73
16	.98	1.1	11	9.3	8.1	6.8	6.0	4.4	3.0	1.5	.98	.73
17	.98	1.1	16	9.3	23	6.6	7.7	4.2	3.0	1.5	1.1	.73
18	1.1	1.1	18	9.6	11	6.3	5.4	4.0	3.0	1.5	1.1	.73
19	1.1	1.1	32	9.6	9.2	6.0	4.7	4.0	2.8	1.3	1.1	.73
20	1.1	1.1	22	9.6	8.5	6.0	4.7	3.7	2.8	1.3	1.1	.73
21	1.1	1.1	107	9.6	8.2	6.0	5.0	3.7	2.7	1.3	1.1	.73
22	1.1	1.3	42	9.3	8.2	6.0	4.7	3.7	2.7	1.3	1.1	.73
23	.98	1.5	28	8.5	7.9	6.0	4.4	3.7	2.6	1.3	1.1	.73
24	.98	1.4	23	7.9	7.1	6.0	4.4	3.7	2.5	1.3	1.1	.62
25	1.1	1.7	19	7.4	7.1	6.0	4.2	3.7	2.3	1.3	1.1	.62
26	1.1	2.3	18	7.4	6.3	6.0	4.1	3.7	2.3	1.3	1.1	.85
27	1.1	1.9	17	6.8	6.3	6.0	3.4	3.5	2.3	1.3	.98	.85
28	.98	7.1	16	6.8	6.3	6.0	3.2	3.9	2.1	1.1	.98	.85
29	.98	355	15	6.6	-----	5.7	3.2	3.4	2.1	1.1	.98	.85
30	.98	49	14	6.0	-----	5.7	3.2	3.0	2.1	.98	.98	.98
31	.98	-----	15	6.0	-----	5.7	-----	2.7	-----	.98	.98	-----
TOTAL	32.82	444.28	599.7	299.9	208.2	212.7	156.7	128.6	85.9	48.26	31.04	25.01
MEAN	1.06	14.8	19.3	9.67	7.44	6.86	5.22	4.15	2.86	1.56	1.00	.83
MAX	1.3	355	107	17	23	30	7.7	6.6	3.4	2.1	1.1	.98
MIN	.98	.98	9.3	6.0	5.4	5.4	3.2	2.7	2.1	.98	.85	.62
AC-FT	65	881	1,190	595	413	422	311	255	170	96	62	50

CAL YR 1970 TOTAL 2,658.52 MEAN 7.28 MAX 355 MIN .73 AC-FT 5,270  
WTR YR 1971 TOTAL 2,273.11 MEAN 6.23 MAX 355 MIN .62 AC-FT 4,510

PEAK DISCHARGE (BASE, 150 CFS).--Nov. 29 (1200) 1,330 cfs (4.60 ft); Dec. 21 (0500) 234 cfs (2.88 ft).

## LOS ANGELES RIVER BASIN

11098500 LOS ANGELES RIVER NEAR DOWNEY, CALIF.

LOCATION.--Lat 33°56'58", long 118°10'23", in San Antonio Grant, Los Angeles County, on right bank 400 ft downstream from Firestone Boulevard bridge, 1 mile upstream from Rio Hondo, and 2.5 miles west of Downey.

DRAINAGE AREA.--599 sq mi.

PERIOD OF RECORD.--March 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 96.12 ft above mean sea level (levels by Los Angeles County Flood Control District). See WSP 1735 for history of changes prior to Dec. 11, 1956.

AVERAGE DISCHARGE.--43 years, 109 cfs (80,060 acre-ft per year); median of yearly mean discharges, 67 cfs (48,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 49,800 cfs Nov. 29 (gage height, 8.40 ft); minimum daily, 11 cfs Nov. 15, 16.

Period of record: Maximum discharge, 79,700 cfs Mar. 2, 1938, on basis of slope-area measurements; no flow at times in some years.

REMARKS.--Flow regulated since September 1940 by Hansen flood-control reservoir and since December 1941 by Sepulveda flood-control reservoir (combined capacity, 49,400 acre-ft), and several small flood-control reservoirs. City of Los Angeles stores imported Owens River water in San Fernando and Chatsworth Reservoirs and at times discharges imported water into Los Angeles River. Many diversions for domestic use and irrigation above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	26	245	31	35	137	36	37	34	88	24	25
2	18	27	734	234	35	154	36	37	41	70	25	24
3	19	31	229	41	34	154	32	37	44	51	26	26
4	30	28	73	30	34	154	30	44	49	56	24	22
5	22	30	51	28	36	138	31	45	34	56	26	18
6	22	187	45	31	37	137	68	117	31	68	24	59
7	18	54	39	31	36	137	35	114	31	86	37	66
8	16	19	35	41	38	143	34	48	39	68	23	20
9	18	17	396	30	131	143	32	39	45	68	23	16
10	15	18	54	27	428	143	31	37	45	65	25	17
11	16	18	42	30	311	143	30	42	46	54	29	16
12	16	18	32	776	223	148	27	51	39	52	30	16
13	16	16	30	556	216	1,170	52	56	35	49	48	17
14	17	13	205	152	49	230	1,090	57	30	37	49	23
15	19	11	49	65	52	186	76	65	24	35	25	26
16	21	11	322	52	423	175	37	54	99	48	23	25
17	37	13	457	42	981	86	36	39	51	38	24	26
18	24	16	3,240	34	59	59	39	41	52	32	23	26
19	27	16	4,970	34	49	42	30	44	46	41	26	24
20	27	16	227	34	41	35	37	45	41	51	30	29
21	28	16	5,430	35	37	36	34	45	39	49	22	28
22	30	19	245	35	36	112	36	38	42	52	20	27
23	31	17	88	32	37	42	42	36	46	59	23	27
24	27	17	63	32	29	42	39	41	52	46	27	28
25	27	36	54	32	28	49	35	36	49	46	37	21
26	27	412	46	28	27	51	48	45	41	48	28	18
27	27	35	42	27	47	127	61	41	39	46	24	21
28	28	3,040	42	48	143	51	46	214	49	44	21	23
29	28	16,700	37	41	-----	87	39	67	70	39	19	29
30	28	764	37	36	-----	41	48	31	80	41	20	23
31	29	-----	31	32	-----	32	-----	31	-----	36	25	-----
TOTAL	724	21,641	17,590	2,677	3,632	4,384	2,247	1,674	1,363	1,619	830	766
MEAN	23.4	721	567	86.4	130	141	74.9	54.0	45.4	52.2	26.8	25.5
MAX	37	16,700	5,430	776	981	1,170	1,090	214	99	88	49	66
MIN	15	11	30	27	27	32	27	31	24	32	19	16
AC-FT	1,440	42,920	34,890	5,310	7,200	8,700	4,460	3,320	2,700	3,210	1,650	1,520
CAL YR 1970	TOTAL 66,672		MEAN 183	MAX 16,700	MIN 11	AC-FT 132,200						
WTR YR 1971	TOTAL 59,147		MEAN 162	MAX 16,700	MIN 11	AC-FT 117,300						

## 11101250 RIO HONDO ABOVE WHITTIER NARROWS DAM, CALIF.

LOCATION.--Lat 34°03'32", long 118°04'13", in Portrero Grande Grant, Los Angeles County, on right bank 0.3 mile downstream from Garvey Avenue, 0.4 mile downstream from Rubio Wash, and 2.2 miles west of El Monte.

DRAINAGE AREA.--91.2 sq mi.

PERIOD OF RECORD.--February 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 217.8 ft above mean sea level.

AVERAGE DISCHARGE.--15 years, 34.1 cfs (24,710 acre-ft per year); median of yearly mean discharges, 19 cfs (13,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,390 cfs Nov. 29 (gage height, 4.63 ft); minimum daily, 0.72 cfs May 9.

Period of record: Maximum discharge, 17,700 cfs Jan. 25, 1969 (gage height, 7.23 ft); no flow for some days in most years.

REMARKS.--Records good. Flow regulated by Big Santa Anita, Sawpit, and Eaton flood-control reservoirs (combined capacity, 1,700 acre-ft) and Sierra Madre, Las Flores, and Rubio debris basins. Many diversions above station for domestic use and irrigation. Los Angeles County Flood Control District diverted 2,430 acre-ft of water from San Gabriel River below Santa Fe Dam to Rio Hondo during year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--One discharge measurement and records of diversion furnished by the Los Angeles County Flood Control District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.9	2.6	130	1.6	2.0	3.1	2.3	1.5	4.1	2.9	2.5
2	2.5	1.7	137	149	2.5	1.7	3.4	2.1	3.4	3.4	3.1	2.9
3	3.6	1.7	14	66	3.8	2.7	3.1	2.5	4.1	3.1	2.7	2.5
4	1.7	3.1	16	68	4.0	2.3	2.1	2.7	4.1	3.8	2.7	2.3
5	2.7	2.3	13	66	4.0	2.3	4.1	4.8	2.3	2.9	2.5	2.3
6	3.4	10	13	59	4.0	2.1	3.6	13	1.1	3.4	2.9	2.3
7	2.3	2.1	14	55	3.0	1.9	3.8	3.8	2.9	2.3	2.7	3.1
8	2.3	1.4	13	51	2.3	3.1	1.7	.97	3.4	3.1	2.5	2.9
9	2.3	2.3	89	47	2.9	3.8	1.9	.72	2.9	3.6	2.7	2.9
10	1.9	3.4	9.7	32	2.3	2.7	1.6	1.1	4.5	2.7	3.8	2.9
11	1.4	2.1	12	27	2.3	2.5	1.2	2.7	2.9	2.3	4.4	2.9
12	1.9	2.3	10	188	2.5	3.1	2.1	1.7	2.3	2.7	4.4	2.7
13	2.7	1.9	7.9	26	1.7	246	4.1	1.6	1.9	3.6	4.8	3.4
14	2.1	1.6	6.8	27	.97	.97	86	1.4	2.9	2.7	4.1	4.1
15	2.9	1.2	3.8	17	2.3	1.6	3.4	1.4	3.6	2.7	4.4	3.8
16	2.7	1.4	32	17	251	1.9	4.8	.84	4.1	3.1	4.4	3.8
17	2.7	1.7	87	16	461	1.7	50	1.4	3.8	3.1	4.8	3.8
18	1.9	2.5	402	16	2.9	1.7	2.1	2.1	4.1	2.9	4.8	3.6
19	2.3	2.3	539	13	5.3	1.7	1.7	2.1	2.9	3.8	4.8	3.1
20	4.1	1.7	80	11	1.6	1.6	2.1	1.9	1.9	4.4	4.6	2.9
21	2.9	1.6	1,000	7.1	1.1	1.4	1.9	2.7	4.1	4.4	4.4	4.1
22	3.6	1.2	8.2	6.6	1.6	3.1	2.7	1.4	4.1	4.1	3.8	4.1
23	2.3	1.7	28	6.4	1.9	2.3	2.1	1.1	4.6	3.8	3.8	3.1
24	2.3	1.9	100	5.8	2.3	2.5	1.7	2.7	4.6	3.6	3.8	2.9
25	1.9	13	106	7.1	4.2	2.3	1.4	2.5	3.4	3.4	3.1	3.1
26	1.6	25	118	8.2	2.1	2.3	2.1	2.3	3.4	3.4	4.1	1.9
27	1.9	1.1	118	7.4	1.9	1.7	1.9	5.5	3.4	2.5	3.1	1.7
28	2.3	422	88	4.0	1.1	1.6	2.5	65	4.1	2.7	2.7	2.1
29	2.7	1,480	8.8	3.0	-----	1.9	2.7	2.5	4.4	4.4	2.7	1.9
30	2.7	15	5.1	2.0	-----	2.3	2.5	1.4	3.1	4.9	2.9	2.1
31	2.9	-----	67	1.5	-----	2.3	-----	.97	-----	2.1	2.7	-----
TOTAL	77.0	2,011.1	3,148.9	1,140.1	778.17	311.07	207.4	139.20	99.8	103.0	111.1	87.7
MEAN	2.48	67.0	102	36.8	27.8	10.0	6.91	4.49	3.33	3.32	3.58	2.92
MAX	4.1	1,480	1,000	188	461	246	86	65	4.6	4.9	4.8	4.1
MIN	1.4	1.1	2.6	1.5	.97	.97	1.2	.72	1.1	2.1	2.5	1.7
AC-FT	153	3,990	6,250	2,260	1,540	617	411	276	198	204	220	174

CAL YR 1970 TOTAL 12,883.69 MEAN 35.3 MAX 1,640 MIN .53 AC-FT 25,550  
WTR YR 1971 TOTAL 8,214.54 MEAN 22.5 MAX 1,480 MIN .72 AC-FT 16,290



## LOS ANGELES RIVER BASIN

11101500 RIO HONDO NEAR MONTEBELLO, CALIF.

LOCATION.--Lat 34°02'00", long 118°04'22", in Portrero Grande Grant, Los Angeles County, on right bank 900 ft upstream from Mission bridge and 2 miles northeast of Montebello.

DRAINAGE AREA.--116 sq mi (excludes area above Santa Fe Dam).

PERIOD OF RECORD.--October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 190.77 ft above mean sea level (levels by Los Angeles County Flood Control District). See WSP 1735 for history of changes prior to Sept. 1962.

AVERAGE DISCHARGE.--29 years (1928-57), 51.5 cfs (37,280 acre-ft per year); median of yearly mean discharges, 36 cfs (26,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,220 cfs Nov. 29 (gage height, 11.20 ft); minimum daily, 5.2 cfs Apr. 4, Sept. 29.

Period of record: Maximum discharge, 28,000 cfs Mar. 2, 1938 (gage height, 16.69 ft, present datum), from rating curve extended above 9,000 cfs on basis of slope-area measurement and runoff from contributing stream; no flow for some days in 1964, 1965.

REMARKS.--Flow regulated by Big Santa Anita, Sawpit, and Eaton flood-control reservoirs (combined capacity, 1,700 acre-ft) and Sierra Madre, Las Flores, and Rubio debris basins. Many diversions above station for domestic use and irrigation. At times flow is diverted from San Gabriel River below Santa Fe Dam to Rio Hondo above station. Since 1957 imported Colorado River water has been released to Rio Hondo 1.6 miles above station for ground-water recharge. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	188	13	94	9.0	7.0	5.5	8.2	7.0	7.9	7.7	6.6
2	6.9	175	169	141	9.0	10	6.3	8.8	6.6	7.9	7.9	7.1
3	48	168	28	88	9.0	6.8	6.0	9.1	7.4	7.9	8.0	6.8
4	137	152	38	82	15	7.6	5.2	9.4	7.4	7.9	8.1	7.1
5	135	119	31	75	14	7.6	6.0	9.6	6.6	7.4	8.2	6.6
6	131	134	29	71	10	7.4	6.6	38	6.6	7.6	7.6	6.6
7	133	129	30	67	9.0	7.1	6.8	17	6.6	7.1	8.5	7.4
8	151	165	25	64	9.0	6.8	6.6	12	7.1	7.1	8.5	7.1
9	148	144	89	58	9.0	6.8	6.3	10	7.4	6.8	8.5	7.1
10	153	140	60	50	9.0	6.6	6.6	9.6	7.9	7.1	8.5	7.1
11	160	144	124	41	9.0	6.6	6.6	10	6.8	7.1	8.2	7.1
12	142	151	108	168	9.0	6.6	7.1	10	7.1	7.1	8.2	7.1
13	144	155	95	40	9.0	263	8.2	9.1	6.8	7.6	7.9	7.1
14	144	153	84	26	9.0	11	71	9.6	7.1	7.1	7.9	6.8
15	160	151	65	18	9.0	10	9.1	9.4	7.9	7.1	7.4	6.8
16	153	146	70	18	196	9.0	9.5	8.8	8.2	7.1	7.4	7.1
17	158	146	62	16	402	9.0	39	9.1	8.2	7.1	7.4	7.1
18	151	153	451	14	11	8.5	15	9.1	8.5	7.1	7.1	7.4
19	140	155	768	14	12	7.6	6.8	9.4	7.9	7.1	7.4	7.1
20	137	158	88	12	15	6.8	6.3	8.5	7.4	7.4	7.1	7.4
21	155	180	990	10	13	7.0	6.3	8.2	7.9	7.4	7.4	7.6
22	158	192	14	10	11	7.0	6.6	7.4	8.5	7.4	6.8	7.9
23	153	188	28	9.0	10	7.0	6.8	6.8	9.1	6.8	6.8	7.6
24	162	188	98	9.0	10	7.0	6.8	7.1	8.8	7.1	7.1	6.8
25	153	165	101	9.0	10	6.8	6.6	6.8	7.9	6.8	6.6	6.8
26	162	108	105	9.0	10	7.1	7.4	6.0	7.6	6.8	6.6	6.0
27	180	41	100	9.0	9.0	6.6	8.2	6.5	7.4	7.1	7.1	5.8
28	182	963	72	9.0	8.0	6.0	7.6	50	7.6	7.1	6.8	5.6
29	180	2,450	11	9.0	-----	6.0	7.4	10	8.2	7.1	6.8	5.2
30	162	69	11	9.0	-----	5.5	7.9	8.0	7.9	7.3	6.8	5.5
31	178	-----	42	9.0	-----	5.5	-----	7.0	-----	7.5	6.6	-----
TOTAL	4,363.8	7,570	3,999	1,258.0	864.0	483.3	312.1	348.5	227.4	224.9	232.9	205.3
MEAN	141	252	129	40.6	30.9	15.6	10.4	11.2	7.58	7.25	7.51	6.84
MAX	182	2,450	990	168	402	263	71	50	9.1	7.9	8.5	7.9
MIN	6.9	41	11	9.0	8.0	5.5	5.2	6.0	6.6	6.8	6.6	5.2
AC-FT	8,660	15,020	7,930	2,500	1,710	959	619	691	451	446	462	407
(a)	8,760	7,420	1,230	0	12	0	0	0	0	0	0	0
CAL YR 1970	TOTAL 33,080.5	MEAN 90.6	MAX 2,450	MIN 5.0	AC-FT 65,620	AC-FT a 32,810						
WTR YR 1971	TOTAL 20,089.2	MEAN 55.0	MAX 2,450	MIN 5.2	AC-FT 39,850	AC-FT a 17,420						

a Colorado River water, in acre-feet, released to Rio Hondo via Alhambra Wash, at site 1.6 miles upstream.

## 11102000 MISSION CREEK NEAR MONTEBELLO, CALIF.

LOCATION.--Lat 34°01'45", long 118°04'07", in La Merced Grant, Los Angeles County, on upstream side of right abutment of San Gabriel Boulevard bridge, 2 miles northeast of Montebello.

DRAINAGE AREA.--4.16 sq mi.

PERIOD OF RECORD.--October 1929 to current year. Yearly estimate for 1938, published in WSP 1315-B. Prior to October 1944, published as Rio Hondo Slough near Montebello.

GAGE.--Water-stage recorder. Datum of gage is 188.2 ft above mean sea level. Prior to Nov. 3, 1938, at datum 6.30 ft higher.

AVERAGE DISCHARGE.--42 years, 11.4 cfs (8,260 acre-ft per year); median of yearly mean discharges, 11 cfs (8,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 34 cfs Nov. 29 (gage height, 8.60 ft); no flow Sept. 14-16.  
Period of record: Maximum discharge not determined, occurred Mar. 2, 1938; no flow at times in some years.

REMARKS.--Flow is almost entirely from ground-water seepage. Flow partially regulated above station by Legg Lake. No diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.2	9.0	4.5	4.1	4.0	2.8	2.7	2.2	1.2	.70	.20
2	1.6	2.3	6.9	4.9	4.0	4.0	3.2	2.8	2.2	1.1	.70	.20
3	1.6	2.4	6.3	4.9	3.9	3.9	3.1	2.8	2.1	1.1	.70	.20
4	1.6	2.4	5.4	4.8	4.0	3.9	2.9	2.8	2.0	1.1	.70	.20
5	1.7	2.4	5.5	4.9	4.0	3.9	2.8	2.8	2.0	1.1	.70	.20
6	1.8	2.4	5.7	4.8	4.1	3.8	2.8	2.8	1.9	1.1	.60	.20
7	1.8	2.4	5.8	4.7	4.2	3.8	2.8	2.8	1.8	1.1	.60	.20
8	1.8	2.4	5.0	4.6	4.3	3.8	2.7	2.7	1.8	1.1	.60	.20
9	1.8	2.3	5.7	4.5	4.4	3.8	2.7	2.6	1.8	1.1	.50	.20
10	1.8	2.3	5.5	4.5	4.4	3.7	2.7	2.6	1.8	1.1	.50	.20
11	1.8	2.2	5.0	4.3	4.3	3.7	2.7	2.5	1.8	1.0	.50	.10
12	2.0	2.4	5.0	4.3	4.1	3.8	2.8	2.4	1.8	1.0	.50	.10
13	2.0	2.4	4.8	5.1	4.1	5.0	2.8	2.3	1.8	1.0	.50	.10
14	2.1	2.2	4.7	4.8	4.0	4.8	3.2	2.4	1.8	1.0	.50	0
15	2.2	2.2	4.5	4.7	4.0	4.3	3.2	2.2	1.8	1.0	.50	0
16	2.2	2.3	4.8	4.5	4.4	4.0	3.2	2.2	1.7	.90	.50	0
17	2.2	2.3	6.4	4.6	10	3.9	3.0	2.0	1.8	.90	.50	.10
18	2.2	2.5	6.0	4.6	8.1	3.8	2.8	2.0	1.7	.90	.50	.10
19	2.3	2.5	21	4.5	5.8	3.5	2.7	2.0	1.6	.90	.50	.10
20	2.4	2.5	14	4.5	5.0	3.4	2.7	1.9	1.6	.80	.40	.10
21	2.5	2.4	17	4.4	4.4	3.3	2.6	1.8	1.6	.80	.40	.10
22	2.5	2.4	12	4.6	4.4	3.4	2.5	1.8	1.6	.80	.40	.10
23	2.5	2.4	8.2	4.8	4.4	3.4	2.6	1.7	1.5	.80	.40	.20
24	2.4	2.4	6.3	4.9	4.3	3.3	2.6	1.6	1.4	.80	.40	.10
25	2.3	2.3	6.1	5.0	4.3	3.3	2.6	1.6	1.4	.70	.40	.10
26	2.2	2.3	5.8	5.2	4.1	3.2	2.7	1.5	1.4	.70	.30	.10
27	2.2	2.3	5.5	5.2	4.0	3.1	2.7	1.6	1.4	.60	.30	.10
28	2.2	3.4	5.3	4.9	4.1	3.1	2.7	1.7	1.3	.60	.20	.10
29	2.2	27	4.9	4.8	-----	3.0	2.7	1.9	1.3	.60	.20	.10
30	2.2	18	4.7	4.6	-----	2.9	2.7	2.0	1.3	.70	.20	.10
31	2.2	-----	4.5	4.4	-----	2.8	-----	2.2	-----	.70	.20	-----
TOTAL	63.8	111.9	217.3	145.8	129.2	113.6	84.0	68.7	51.2	28.30	14.60	3.80
MEAN	2.06	3.73	7.01	4.70	4.61	3.66	2.80	2.22	1.71	.91	.47	.13
MAX	2.5	27	21	5.2	10	5.0	3.2	2.8	2.2	1.2	.70	.20
MIN	1.5	2.2	4.5	4.3	3.9	2.8	2.5	1.5	1.3	.60	.20	0
AC-FT	127	222	431	289	256	225	167	136	102	56	29	7.5

CÁL YR 1970 TOTAL 1,839.50 MEAN 5.04 MAX 27 MIN 1.4 AC-FT 3,650  
WTR YR 1971 TOTAL 1,032.20 MEAN 2.83 MAX 27 MIN 0 AC-FT 2,050

## 11102300 RIO HONDO BELOW WHITTIER NARROWS DAM, CALIF.

LOCATION.--Lat 34°01'00", long 118°05'15", in Paso de Bartolo Grant, Los Angeles County, on right levee 0.2 mile upstream from Beverly Boulevard, 0.4 mile downstream from axis of Whittier Narrows Dam, and 1.0 mile northeast of Montebello.

DRAINAGE AREA.--124 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 175 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 10,800 cfs Nov. 29 (gage height, 6.87 ft); no flow Oct. 1, 2. Period of record: Maximum discharge, 38,800 cfs Jan. 25, 1969 (gage height, 13.82 ft), from rating curve extended above 15,000 cfs on basis of gate openings at dam at gage heights 12.32 and 13.82 ft; no flow at times in each year.

REMARKS.--Records good. 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.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	148	59	116	3.6	116	148	6.8	44	93	3.6	19
2	0	136	192	174	13	96	117	6.8	34	86	41	51
3	42	136	59	116	106	96	131	18	30	86	101	101
4	126	126	67	101	121	91	135	30	34	91	101	121
5	131	116	63	106	131	96	126	30	28	91	91	126
6	126	131	59	106	126	91	121	65	30	96	76	131
7	136	126	63	106	126	91	103	44	30	96	76	121
8	154	148	59	101	104	91	44	36	24	96	71	87
9	142	136	148	101	121	91	44	34	6.8	96	59	8.4
10	142	131	83	91	126	91	44	28	5.2	101	22	6.8
11	166	136	160	81	121	91	51	28	3.6	111	10	5.2
12	148	136	142	214	106	80	51	40	1.3	89	10	2.3
13	166	142	142	81	106	279	51	40	1.3	91	10	1.3
14	148	154	136	81	106	51	124	40	1.3	106	10	1.3
15	166	154	130	59	111	59	36	121	27	96	10	5.2
16	166	154	120	55	279	142	34	116	67	52	10	8.4
17	166	154	104	55	434	148	79	116	76	6.8	10	25
18	166	148	218	57	44	148	44	116	86	6.8	10	96
19	154	172	782	106	40	142	36	116	91	18	10	96
20	154	172	202	106	30	142	34	116	91	67	10	96
21	160	166	923	106	30	136	30	116	51	71	8.4	96
22	160	172	271	106	36	131	12	116	5.2	71	6.8	96
23	160	172	81	106	91	126	8.4	116	5.2	81	6.8	74
24	160	172	142	106	136	126	10	121	5.2	86	6.8	16
25	160	132	131	106	121	126	10	126	5.2	91	6.8	10
26	160	135	131	136	116	110	8.4	126	5.2	101	6.8	12
27	160	40	131	116	116	47	6.8	131	3.6	106	6.8	69
28	154	288	111	40	116	44	6.8	172	3.6	106	6.8	101
29	142	2,410	59	16	-----	36	6.8	59	37	96	6.8	101
30	136	366	59	3.6	-----	110	6.8	44	111	68	6.8	101
31	136	-----	67	3.6	-----	118	-----	44	-----	6.8	8.4	-----
TOTAL	4,287	6,909	5,094	2,858.2	3,116.6	3,342	1,659.0	2,318.6	943.7	2,459.4	819.6	1,784.9
MEAN	138	230	164	92.2	111	108	55.3	74.8	31.5	79.3	26.4	59.5
MAX	166	2,410	923	214	434	279	148	172	111	111	101	131
MIN	0	40	59	3.6	3.6	36	6.8	6.8	1.3	6.8	3.6	1.3
AC-FT	8,500	13,700	10,100	5,670	6,180	6,630	3,290	4,600	1,870	4,880	1,630	3,540
CAL YR 1970	TOTAL 37,657.66		MEAN 103		MAX 2,410		MIN 0		AC-FT 74,690			
WTR YR 1971	TOTAL 35,592.00		MEAN 97.5		MAX 2,410		MIN 0		AC-FT 70,600			

## 11102500 RIO HONDO NEAR DOWNEY, CALIF.

LOCATION.--Lat 33°56'48", long 118°09'43", in San Antonio Grant, Los Angeles County, on left bank 700 ft upstream from Stewart and Gray Road bridge, 1.0 mile upstream from mouth, and 1.5 miles west of Downey.

DRAINAGE AREA.--143 sq mi (excludes area above Santa Fe Dam).

PERIOD OF RECORD.--March 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 91.4 ft above mean sea level (levels by Los Angeles County Flood Control District). Prior to Oct. 31, 1951, at site 700 ft downstream at datum 1.5 ft lower.

EXTREMES.--Current year: Maximum discharge, 9,350 cfs Nov. 29 (gage height, 6.18 ft); no flow at times.  
Period of record: Maximum discharge, 46,900 cfs Jan. 25, 1969 (gage height, 15.15 ft); no flow at times in most years.

REMARKS.--Flow regulated since January 1956 by Whittier Narrows flood-control reservoir (capacity, 36,160 acre-ft). There are several small flood-control reservoirs (combined capacity, 1,700 acre-ft) and several debris basins above Whittier Narrows Dam. Many diversions above station for domestic use and irrigation. At times flow is diverted from San Gabriel River below Santa Fe Dam and above Whittier Narrows Dam to Rio Hondo above station. Since 1937 much of the flow in Rio Hondo has been diverted to percolation basin from a site 5.5 miles upstream. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.80	1.4	.80	.80	.10	.40	.40	.30	1.0	.30	.40
2	0	.80	61	20	.80	0	.60	.40	.60	.80	.40	.80
3	.10	1.0	.60	.10	.80	0	.40	.30	.40	.60	.40	1.0
4	.80	.80	.30	0	.60	.30	.10	.60	0	.60	.60	.80
5	.80	1.0	.30	0	.60	.40	.10	.80	0	.60	.60	.80
6	1.4	6.5	.30	0	.60	.30	.40	4.9	0	.80	.60	.80
7	1.2	.60	.30	0	.60	.30	.40	1.0	0	.80	.40	.60
8	1.0	.60	.30	0	.60	.10	.30	.60	0	.60	.60	.80
9	.80	.60	35	0	.60	.10	.10	.60	0	.60	.80	.80
10	.80	.60	.60	0	.60	.10	.10	.40	.60	.40	.60	1.2
11	.80	.60	0	0	.60	.10	.10	.60	.80	.40	.80	1.0
12	1.2	.60	0	27	.30	.10	.30	.60	.60	.40	1.0	.60
13	1.0	.80	0	5.7	.10	84	.10	.60	.30	.60	1.0	.80
14	1.4	.50	0	.80	.30	.60	55	.60	.10	.40	1.0	1.0
15	1.0	.50	.10	.40	.30	.40	.40	.60	.60	.40	.80	.80
16	1.4	.60	63	.30	69	.40	.40	.60	.80	.80	1.0	.80
17	1.2	.50	18	.40	229	.60	1.2	.30	.80	.60	1.0	.80
18	1.2	.60	212	.40	1.0	.60	.10	.10	.80	.40	.80	1.0
19	1.2	.60	343	.40	1.2	.80	.10	.30	.80	.60	.40	1.0
20	1.2	1.0	17	.40	0	.80	.30	.40	.80	.60	.40	.80
21	1.4	1.2	525	.60	0	.80	.60	.40	.80	.80	.30	1.2
22	1.2	1.0	4.5	.40	.10	.80	.10	.60	.80	.60	.10	.80
23	1.2	1.2	2.0	.40	.10	1.6	.60	.60	.60	.60	.10	.80
24	1.2	1.0	1.2	.60	0	1.2	.60	.40	.60	.60	.30	.60
25	.80	11	.80	.40	0	.80	.40	.60	.60	.60	.10	.60
26	.80	43	.60	.40	0	.60	.60	.60	.60	.40	.10	.60
27	.60	.60	.60	.40	0	.60	.40	.60	.40	.40	.10	2.2
28	.60	304	.80	.40	0	.30	.60	12	.40	.60	.10	1.6
29	.60	2,430	.60	.40	-----	.30	.40	.40	.60	.30	.10	1.2
30	.60	24	.80	.80	-----	.40	.30	.30	.80	.40	.10	.50
31	.50	-----	.80	.80	-----	.30	-----	.10	-----	.30	.10	-----
TOTAL	28.00	2,836.60	1,290.90	62.30	308.60	97.80	65.50	31.30	14.50	17.60	15.00	26.70
MEAN	.90	94.6	41.6	2.01	11.0	3.15	2.18	1.01	.48	.57	.48	.89
MAX	1.4	2,430	525	27	229	84	55	12	.80	1.0	1.0	2.2
MIN	0	.50	0	0	0	0	.10	.10	0	.30	.10	.40
AC-FT	56	5,630	2,560	124	612	194	130	62	29	35	30	53

CAL YR 1970 TOTAL 7,536.75 MEAN 20.6 MAX 2,430 MIN 0 AC-FT 14,950  
WTR YR 1971 TOTAL 4,794.80 MEAN 13.1 MAX 2,430 MIN 0 AC-FT 9,510

## LOS ANGELES RIVER BASIN

## 11103000 LOS ANGELES RIVER AT LONG BEACH, CALIF.

LOCATION.--Lat 33°49'02", long 118°12'20", in Los Cerritos Grant, Los Angeles County, on right bank 5,000 ft upstream from Willow Street, 3.4 miles north of Long Beach, and 3.7 miles upstream from mouth.

DRAINAGE AREA.--832 sq mi.

PERIOD OF RECORD.--December 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 11.91 ft above mean sea level (levels by Los Angeles County Flood Control District). See WSP 1735 for history of changes prior to Jan. 19, 1956.

AVERAGE DISCHARGE.--42 years (1929-71), 166 cfs (120,300 acre-ft per year); median of yearly mean discharges, 96 cfs (69,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 65,100 cfs Nov. 29 (gage height, 12.45 ft); minimum daily, 20 cfs Sept. 9, 19.

Period of record: Maximum discharge, 102,000 cfs Jan. 25, 1969 (gage height, 16.00 ft); no flow at times in 1929-30, 1934.

REMARKS.--Flow regulated since September 1940 by Hansen flood-control reservoir and since December 1941 by Sepulveda flood-control reservoir (combined capacity, 49,400 acre-ft), and several small flood-control reservoirs. City of Los Angeles stores imported Owens River water in San Fernando and Chatsworth reservoirs and at times discharges imported water into Los Angeles River above station. Many diversions above station for domestic use and irrigation. AVERAGE DISCHARGE represents flow to the ocean, regardless of upstream development. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	32	424	52	42	164	40	40	30	75	25	23
2	33	33	1,490	502	43	160	38	40	35	50	25	28
3	34	41	1,030	92	34	168	36	40	43	45	25	36
4	52	40	86	44	36	164	32	45	45	45	25	34
5	43	42	56	39	37	134	30	50	35	45	25	28
6	37	222	50	41	39	144	70	72	30	50	25	29
7	28	156	44	41	36	152	35	123	29	55	38	157
8	26	38	38	57	38	160	34	48	28	50	25	33
9	29	34	902	41	68	172	32	40	31	45	25	20
10	26	39	130	32	437	164	31	38	32	40	25	24
11	25	40	64	38	320	160	30	36	33	35	30	26
12	27	39	37	881	210	160	30	34	32	30	30	21
13	29	35	37	620	230	1,260	50	40	31	24	50	21
14	30	30	329	276	77	239	1,500	50	30	24	50	27
15	30	24	72	77	56	196	85	60	25	24	30	28
16	31	26	464	68	530	185	38	50	60	35	25	30
17	53	29	1,110	63	1,650	96	38	40	54	35	25	30
18	38	33	2,610	44	117	54	38	40	50	30	25	25
19	32	32	5,560	43	76	66	36	45	45	40	25	20
20	44	31	411	45	66	54	40	45	40	53	30	29
21	43	30	6,510	42	52	49	51	45	40	45	25	32
22	47	33	474	42	63	74	40	40	45	50	25	30
23	44	31	165	41	63	57	38	40	50	60	25	33
24	41	30	105	38	60	54	38	40	62	50	25	33
25	36	30	92	38	49	53	36	40	40	50	24	30
26	32	727	66	53	40	53	40	50	35	50	28	27
27	35	95	66	56	45	137	70	152	33	45	30	24
28	33	2,100	72	63	156	61	50	90	40	45	24	24
29	34	20,600	68	62	-----	97	46	81	65	40	20	27
30	33	1,570	72	52	-----	51	42	35	75	40	25	33
31	34	-----	63	43	-----	42	-----	30	-----	35	25	-----
TOTAL	1,091	26,242	22,697	3,626	4,670	4,780	2,714	1,619	1,223	1,340	859	962
MEAN	35.2	875	732	117	167	154	90.5	52.2	40.8	43.2	27.7	32.1
MAX	53	20,600	6,510	881	1,650	1,260	1,500	152	75	75	50	157
MIN	25	24	37	32	34	42	30	30	25	24	20	20
AC-FT	2,160	52,050	45,020	7,190	9,260	9,480	5,380	3,210	2,430	2,660	1,700	1,910

CAL YR 1970 TOTAL 88,750 MEAN 243 MAX 20,600 MIN 22 AC-FT 176,000  
WTR YR 1971 TOTAL 71,823 MEAN 197 MAX 20,600 MIN 20 AC-FT 142,500

LOCATION.--Lat 33°59'54", long 118°24'05", in La Ballona Grant, Los Angeles County, 500 ft upstream from Sawtelle Boulevard bridge, 1.7 miles south of Culver City, and 4.1 miles upstream from mouth.

PERIOD OF RECORD.--February 1928 to current year (after December 1950, flow of Sepulveda Creek excluded).

GAGE.--Water-stage recorder. Datum of gage is 11.98 ft above mean sea level (levels by Los Angeles County Flood Control District). Prior to May 14, 1936, at site 1 mile downstream at different datum. May 14, 1936, to Oct. 3, 1961, at datum 0.72 ft lower and Oct. 24, 1961, to Aug. 10, 1967, at datum 0.92 ft lower at site 500 ft downstream.

EXTREMES.--Current year: Maximum discharge, 14,600 cfs Nov. 29 (gage height, 9.50 ft); minimum daily, 8.2 cfs Sept. 21.  
period of record: \*Maximum discharge, 32,500 cfs Nov. 21, 1967 (gage height, 14.89 ft); no flow at times in some years.

REMARKS.--No regulation above station. City of Los Angeles at times discharges imported Owens River water from several distribution reservoirs into the creek above station. Some small pumping diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	21	13	14	9.4	14	16	11	11	12	13
2	12	14	269	181	13	11	15	17	11	12	13	14
3	12	12	13	12	14	11	15	15	11	11	12	14
4	12	11	12	13	15	12	15	13	11	10	13	12
5	12	12	10	12	16	12	17	12	10	8.8	14	12
6	12	109	9.4	12	16	12	19	45	9.4	12	14	13
7	12	13	10	12	14	14	16	10	11	11	13	11
8	11	12	11	13	16	19	16	10	12	12	12	12
9	11	15	238	12	30	19	16	12	12	11	15	12
10	11	15	11	13	16	19	14	14	12	13	14	12
11	11	13	11	15	16	21	13	13	16	11	13	11
12	12	15	10	314	16	22	12	12	15	12	12	11
13	13	15	23	361	14	564	12	13	10	12	13	11
14	14	14	33	18	13	11	599	12	12	12	11	12
15	16	12	12	10	13	13	12	13	12	12	11	12
16	15	16	440	9.4	339	13	12	12	12	15	12	12
17	15	17	141	8.8	248	14	12	16	13	12	13	12
18	14	18	1,900	11	12	11	11	13	12	13	12	11
19	14	18	708	12	21	14	12	12	12	14	12	11
20	14	19	82	11	12	11	11	14	13	14	12	13
21	13	17	1,540	11	9.4	9.4	12	17	13	15	11	8.2
22	41	16	27	10	11	11	12	12	13	11	10	9.4
23	25	16	19	10	11	14	11	12	12	11	11	10
24	12	19	16	9.4	11	15	12	13	12	11	11	12
25	12	99	15	11	11	11	12	11	13	11	11	10
26	14	199	13	14	11	12	15	11	12	11	11	10
27	14	10	13	12	10	12	19	12	11	11	11	11
28	14	1,670	14	12	9.4	11	21	68	11	12	11	11
29	15	3,170	15	12	-----	12	19	10	11	13	11	12
30	14	180	15	12	-----	11	20	8.8	11	13	13	12
31	12	-----	14	11	-----	12	-----	8.8	-----	13	13	-----
TOTAL	442	5,778	5,665.4	1,187.6	951.8	962.8	1,016	477.6	356.4	370.8	377	346.6
MEAN	14.3	193	183	38.3	34.0	31.1	33.9	15.4	11.9	12.0	12.2	11.6
MAX	41	3,170	1,900	361	339	564	599	68	16	15	15	14
MIN	11	10	9.4	8.8	9.4	9.4	11	8.8	9.4	8.8	10	8.2
AC-FT	877	11,460	11,240	2,360	1,890	1,910	2,020	947	707	735	748	687
CAL YR 1970	TOTAL 20,737.6		MEAN 56.8		MAX 3,170	MIN 7.6	AC-FT 41,130					
WTR YR 1971	TOTAL 17,932.0		MEAN 49.1		MAX 3,170	MIN 8.2	AC-FT 35,570					

## TOPANGA CREEK BASIN

11104000 TOPANGA CREEK NEAR TOPANGA BEACH, CALIF.

LOCATION.--Lat 34°03'52", long 118°35'10", in Boca de Santa Monica Grant, Los Angeles County, on downstream side of right abutment of highway bridge, 1.7 miles north of Topanga Beach.

DRAINAGE AREA.--18.0 sq mi.

PERIOD OF RECORD.--January 1930 to September 1938, October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 265.60 ft above mean sea level (levels by Los Angeles County Flood Control District). Prior to June 5, 1940, at different datum. June 5, 1940, to Dec. 9, 1941, at site 400 ft upstream at different datum.

AVERAGE DISCHARGE.--40 years, 5.73 cfs (4,150 acre-ft per year); median of yearly mean discharges, 1.9 cfs (1,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,020 cfs Nov. 29 (gage height, 7.76 ft); no flow at times. Period of record: Maximum discharge, 12,200 cfs Jan. 25, 1969 (gage height, 13.36 ft), from rating curve extended above 610 cfs on basis of slope-area measurement of maximum flow; no flow at times in some years.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.20	.80	1.4	2.0	1.8	.40	1.2	.60	0	.20	.60
2	0	.20	4.4	1.8	2.0	1.2	.20	.80	.60	0	.40	.60
3	0	.20	2.8	0	1.8	1.4	.20	.60	.60	.20	.40	1.0
4	0	.20	2.4	0	1.4	1.8	.20	.60	.60	0	.20	.80
5	0	.20	1.6	0	1.6	1.6	.40	.80	.60	.20	.40	1.0
6	0	1.2	1.4	0	1.6	1.4	.60	.80	.60	.20	.60	1.4
7	.20	.40	1.0	0	1.2	1.4	.60	1.0	.80	.20	0	1.0
8	0	.20	.80	0	1.2	1.6	1.2	.40	.80	.20	.20	1.0
9	0	.40	1.8	0	1.0	1.6	1.2	.40	.80	0	0	.80
10	0	.40	.60	0	1.4	1.6	1.2	.60	.60	0	.20	.80
11	.20	.40	.40	0	1.4	1.6	.80	.80	.60	0	.60	.80
12	.20	.40	.40	12	1.2	2.0	.80	.80	.40	0	.40	1.6
13	.20	.20	.40	7.0	1.4	37	.80	.60	.60	.20	.40	0
14	.20	.20	.40	.40	1.4	4.0	14	.60	.40	.20	.40	.20
15	.40	.20	.20	0	2.0	2.0	1.6	1.0	.40	.40	.60	.40
16	.40	.20	2.0	3.2	10	1.8	.80	.40	.20	.60	.60	.60
17	.40	0	2.4	.40	39	1.6	.60	.20	.20	.60	.60	.60
18	.40	.20	298	.60	3.2	1.6	.40	.20	.40	.40	.60	.60
19	.40	.40	288	1.2	2.4	1.2	.60	.20	.40	.40	1.8	.20
20	.40	.40	35	1.8	2.4	1.0	.60	.40	.40	.40	.80	.20
21	.20	.40	461	3.2	2.0	1.0	.80	.60	.40	.40	.60	.40
22	.20	.40	29	3.2	2.8	1.2	1.0	.60	.60	.40	.60	.40
23	.20	.40	9.0	2.8	2.8	1.0	.80	.80	.60	.20	.40	.40
24	.20	.40	6.6	3.2	2.4	1.0	1.0	.60	.60	0	.40	.40
25	.20	.60	4.8	2.8	2.4	1.0	.80	.40	.60	0	.20	.40
26	0	1.2	4.8	2.4	1.8	1.0	.80	.40	.60	0	.20	.60
27	0	.60	5.2	2.4	1.8	.80	.80	.60	.60	0	0	.60
28	0	22	6.6	2.4	2.0	.60	.80	1.2	.40	.20	0	.40
29	0	720	4.8	2.8	-----	.80	1.0	1.0	.40	.20	0	.40
30	0	13	3.6	2.0	-----	.60	1.0	.80	.20	0	.40	.40
31	0	-----	2.4	2.0	-----	.60	-----	.80	-----	.20	.40	-----
TOTAL	4.40	765.20	1,182.60	59.00	97.6	78.80	36.00	20.20	15.60	5.80	12.60	18.60
MEAN	.14	25.5	38.1	1.90	3.49	2.54	1.20	.65	.52	.19	.41	.62
MAX	.40	720	461	12	39	37	14	1.2	.80	.60	1.8	1.6
MIN	0	0	.20	0	1.0	.60	.20	.20	.20	0	0	0
AC-FT	8.7	1,520	2,350	117	194	156	71	40	31	12	25	37

CAL YR 1970 TOTAL 2,342.60 MEAN 6.42 MAX 720 MIN 0 AC-FT 4,650  
WTR YR 1971 TOTAL 2,296.40 MEAN 6.29 MAX 720 MIN 0 AC-FT 4,550

## 11105500 MALIBU CREEK AT CRATER CAMP, NEAR CALABASAS, CALIF.

LOCATION.--Lat 34°04'40", long 118°42'03", in SW $\frac{1}{4}$  sec.18, T.1 S., R.17 W., Los Angeles County, on right bank 700 ft downstream from Cold Creek, 0.2 mile downstream from Crater Camp, and 6 miles southwest of Calabasas.

DRAINAGE AREA.--105 sq mi.

PERIOD OF RECORD.--January 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 432.82 ft above mean sea level (levels by Los Angeles County Flood Control District). Prior to Nov. 16, 1954, at datum 2.31 ft lower.

AVERAGE DISCHARGE.--40 years, 21.9 cfs (15,870 acre-ft per year); median of yearly mean discharges, 6.7 cfs (4,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,380 cfs Dec. 19 (gage height, 11.65 ft); minimum daily, 1.2 cfs Nov. 10.

Period of record: Maximum discharge, 33,800 cfs Jan. 25, 1969 (gage height, 21.43 ft), from rating curve extended above 6,000 cfs on basis of slope-area measurements at gage heights 17.27 and 21.43 ft; no flow at times in some years.

REMARKS.--Flow partly regulated by many small recreational reservoirs. Small diversions above station for domestic use.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	4.4	46	14	15	11	7.7	9.6	4.8	4.4	2.5	7.2
2	1.9	4.2	38	31	14	11	7.1	7.1	4.4	4.2	3.3	3.8
3	1.9	2.9	24	24	14	13	6.8	7.4	5.4	4.2	2.7	3.6
4	3.8	4.4	22	18	16	10	7.1	8.0	5.6	3.6	4.2	3.6
5	2.5	4.2	19	14	16	10	6.1	6.8	4.0	3.6	2.7	3.6
6	3.1	3.6	17	15	15	8.6	5.6	7.1	3.6	3.3	1.5	4.2
7	2.9	3.3	15	13	13	10	7.7	6.6	5.6	3.6	1.7	3.8
8	1.7	4.2	13	12	13	9.3	7.4	5.4	5.8	2.9	4.2	2.5
9	4.0	4.2	16	14	13	11	6.6	4.4	5.4	2.7	3.1	2.0
10	2.2	1.2	8.6	12	13	11	6.1	5.1	5.8	2.7	1.5	2.2
11	2.9	2.5	6.8	13	13	11	5.8	6.8	5.1	2.7	2.9	2.2
12	2.2	4.6	6.6	61	11	12	7.4	7.4	5.4	3.3	3.3	3.8
13	1.4	2.3	6.4	67	9.6	42	8.6	7.4	4.6	3.1	3.6	2.7
14	3.3	4.2	7.1	21	12	17	33	7.1	4.4	3.3	3.8	3.1
15	4.2	4.0	6.4	36	11	12	47	7.1	4.2	3.3	3.6	2.9
16	2.0	4.4	13	30	21	11	11	6.4	3.8	3.1	2.7	3.1
17	3.8	2.3	27	24	75	11	9.6	4.6	3.6	3.1	2.9	3.1
18	3.1	2.3	603	23	36	8.6	8.3	3.1	3.8	3.1	2.9	3.3
19	1.9	3.6	1,410	21	9.9	9.3	7.4	4.6	4.4	3.3	3.3	4.2
20	5.6	2.9	233	21	14	9.3	7.7	4.6	3.8	3.6	3.6	2.5
21	4.8	4.2	1,050	20	17	8.0	7.1	4.2	3.8	3.3	3.1	2.9
22	4.6	4.8	247	18	15	8.0	6.4	4.4	4.0	3.3	3.6	3.6
23	4.0	3.8	133	18	13	8.6	5.1	4.8	4.4	3.6	3.3	3.6
24	4.0	3.6	109	16	14	9.0	4.4	5.8	3.6	3.8	3.3	4.2
25	3.3	3.6	90	15	13	9.3	4.4	5.6	3.6	3.1	3.6	3.3
26	3.3	7.1	70	16	11	9.0	6.6	5.6	3.6	2.5	3.6	3.6
27	4.0	6.8	51	15	14	8.0	45	5.1	3.6	2.7	3.3	3.3
28	2.9	34	36	14	11	8.6	47	5.4	3.8	2.7	3.3	3.6
29	3.1	1,480	32	14	-----	8.0	19	4.2	4.6	2.5	3.3	3.3
30	3.1	144	32	15	-----	6.8	14	5.4	4.4	2.5	3.6	3.1
31	3.3	-----	26	14	-----	7.4	-----	5.1	-----	4.0	2.9	-----
TOTAL	97.0	1,761.6	4,413.9	659	462.5	338.8	373.0	182.2	132.9	101.1	96.9	101.9
MEAN	3.13	58.7	142	21.3	16.5	10.9	12.4	5.88	4.43	3.26	3.13	3.40
MAX	5.6	1,480	1,410	67	75	42	47	9.6	5.8	4.4	4.2	7.2
MIN	1.4	1.2	6.4	12	9.6	6.8	4.4	3.1	3.6	2.5	1.5	2.0
AC-FT	192	3,490	8,750	1,310	917	672	740	361	264	201	192	202

CAL YR 1970 TOTAL 9,445.20 MEAN 25.9 MAX 1,480 MIN .51 AC-FT 18,730  
WTR YR 1971 TOTAL 8,720.80 MEAN 23.9 MAX 1,480 MIN 1.2 AC-FT 17,300



## CALLEGUAS CREEK BASIN

11105850 ARROYO SIMI NEAR SIMI, CALIF.

LOCATION.--Lat 34°16'41", long 118°47'43", on line between secs.7 and 8, T.2 N., R.18 W., Ventura County, on downstream side of bridge on Los Angeles Avenue, 0.5 mile upstream from Brea Canyon, and 1.1 miles northwest of Simi.

DRAINAGE AREA.--70.6 sq mi (revised).

PERIOD OF RECORD.--October 1933 to September 1951, October 1952 to current year. Monthly discharge, in acre-feet, only for October 1933 to September 1968, published in WSP 1928.

GAGE.--Water-stage recorder. Datum of gage is 701.00 ft above mean sea level (levels by Ventura County Flood Control District).

EXTREMES.--Current year: Maximum discharge, 5,210 cfs Nov. 29 (gage height, 5.0 ft, adjusted for drawdown); no flow at times.

Period of record: Maximum discharge, 6,330 cfs Feb. 25 (gage height, 5.7 ft, from floodmark); no flow most of each year.

REMARKS.--No regulation above station. Pumping from wells for irrigation. Records of suspended-sediment loads discharge for the current year are published in Part 2 of this report.

COOPERATION.--Records furnished by Ventura County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.70	0	.02	1.0	.02	.05	.02	.02	.02	.02
2	.02	.02	2.0	5.5	.02	.60	.02	.05	.02	.02	.02	.02
3	.02	.02	.03	0	.02	.40	.02	.05	.02	.02	.02	.02
4	.02	.02	.02	0	.02	.32	.02	.05	.02	.02	.02	.02
5	.02	.10	.02	0	.02	.22	.02	.05	.02	0	.02	.02
6	.02	2.4	.02	0	.02	.15	.02	.05	.02	0	.02	4.2
7	.02	.05	.02	0	.02	.09	.02	.05	.02	.02	.02	.02
8	.02	.02	.02	0	.02	.15	.02	.05	.02	.02	.02	.02
9	.02	.02	27	0	.02	.15	.02	.05	.02	.02	.02	.02
10	.02	.02	.03	.02	.02	.22	.27	.05	.02	.02	.02	.02
11	.02	.02	.03	.02	.02	.22	.02	.04	.02	.02	.02	.02
12	.02	.02	.02	5.0	.02	1.1	.02	.04	.02	.02	.02	.02
13	.02	.02	1.2	14	.02	46	.30	.04	.02	.02	.02	.02
14	.02	.02	3.2	.22	.02	.30	61	.04	0	.02	.02	.02
15	.02	.02	.02	0	.02	.10	.10	.04	0	.02	.02	.02
16	.02	.02	2.1	0	9.5	.02	.08	.03	0	.02	.02	.02
17	.02	.02	17	0	33	.02	.08	.03	0	.02	.02	.02
18	.02	.02	737	0	.40	.02	.05	.03	0	.02	.02	.02
19	.02	.02	386	0	.35	.02	.05	.03	0	.02	.02	.02
20	.02	.02	16	0	.30	.02	.05	.02	0	.02	.02	.02
21	.02	.02	404	0	.25	.02	.05	.02	0	.02	.02	.02
22	.02	.02	6.1	0	.20	.02	.05	.02	0	.02	.02	.02
23	.02	0	.32	0	.20	.02	.05	.02	0	.02	.02	.02
24	.02	0	.15	0	.30	.02	.05	.02	0	.02	.02	.02
25	.02	2.2	.09	0	.40	.02	.05	.02	.02	.02	.02	.02
26	.02	1.7	.09	0	.60	.02	.05	.02	.02	.02	.02	.02
27	.02	.02	.09	0	.80	.02	.05	.02	.02	.02	.02	.02
28	.02	219	.05	0	1.0	.02	.05	.02	.02	.02	.02	.02
29	.02	1,200	.30	0	-----	.02	.05	.02	.02	.02	.02	.02
30	.02	22	.01	0	-----	.02	.05	.02	.02	.02	.02	.02
31	.02	-----	0	0	-----	.02	-----	.02	-----	.02	.02	-----
TOTAL	.62	1,447.85	1,603.63	24.76	47.60	51.34	62.70	1.06	.38	.58	.62	4.78
MEAN	.020	48.3	51.7	.80	1.70	1.66	2.09	.034	.013	.019	.020	.16
MAX	.02	1,200	737	14	33	46	61	.05	.02	.02	.02	4.2
MIN	.02	0	0	0	.02	.02	.02	.02	0	0	.02	.02
AC-FT	1.2	2,870	3,180	49	94	102	124	2.1	.8	1.2	1.2	9.5

CAL YR 1970 TOTAL 3,666.26 MEAN 10.0 MAX 1,200 MIN 0 AC-FT 7,270  
WTR YR 1971 TOTAL 3,245.92 MEAN 8.89 MAX 1,200 MIN 0 AC-FT 6,440

## PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1030	5.0	5,210	12-21	0430	3.63	3,610
12-18	2100	4.0	4,460				

NOTE.--Discharge less than 0.10 cfs did not record during current year.

CALLEGUAS CREEK BASIN

245

11106550 CALLEGUAS CREEK AT CAMARILLO STATE HOSPITAL, CALIF.

LOCATION.--Lat 34°10'46", long 119°02'20", in Guadalupe Grant, Ventura County, on downstream side of county road bridge, 1.0 mile northeast of Camarillo State Hospital, and 1.4 miles downstream from Conejo Creek.

DRAINAGE AREA.--248 sq mi (revised).

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 58.42 ft above mean sea level (levels by Ventura County Flood Control District).

EXTREMES.--Current year: Maximum discharge, 9,410 cfs Dec. 21 (gage height, 6.60 ft); no flow at times.  
Period of record: Maximum discharge, 16,300 cfs Feb. 25, 1969 (gage height, 8.50 ft); no flow at times in some years.

REMARKS.--No regulation above station. Pumping for irrigation in valley above station. Sustained flow from city of Thousand Oaks reclamation plant. Record of suspended-sediment discharge for the current year are published in Part 2 of this report.

COOPERATION.--Records furnished by Ventura County Flood Control District and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	.90	39	3.8	4.6	4.6	8.2	5.8	3.0	.09	6.6	.72
2	1.3	.81	35	9.8	3.8	4.2	7.4	5.8	1.7	.27	4.2	1.3
3	2.5	1.7	17	3.8	4.6	5.8	5.8	6.6	.45	.54	1.7	.90
4	.81	2.1	11	3.8	3.8	4.6	8.2	6.6	.90	.54	3.0	.90
5	1.3	2.5	9.8	3.8	3.8	5.0	5.8	7.4	.90	.36	1.7	1.3
6	.72	3.4	9.8	3.8	3.8	4.6	6.6	5.8	.18	.72	0	.63
7	.90	3.0	8.2	3.8	4.2	5.0	4.6	3.4	.36	.81	0	1.7
8	2.5	2.1	8.2	3.8	4.2	5.8	2.5	7.4	.72	.18	.45	3.4
9	2.5	1.7	19	3.8	3.8	3.0	4.2	5.8	.81	.63	.54	.90
10	2.5	1.3	4.6	3.8	3.4	3.0	4.6	4.6	1.7	.81	0	2.1
11	2.5	2.1	3.8	3.8	3.4	3.8	4.6	.81	.81	.63	.21	.90
12	2.1	2.1	3.4	8.2	4.2	4.2	5.8	4.2	.90	.27	.02	2.5
13	2.1	1.3	2.1	9.0	4.2	21	4.6	2.5	.72	0	0	1.3
14	2.5	1.7	1.7	4.2	3.8	14	55	.63	.36	.38	0	.72
15	2.5	1.3	3.8	4.6	4.2	9.8	5.0	.63	.81	.63	.18	2.5
16	2.5	1.3	8.2	3.4	5.8	8.2	3.4	.72	.63	.27	.18	3.8
17	2.5	1.3	37	3.4	36	5.0	5.0	1.3	.45	0	0	4.2
18	2.5	.90	720	3.4	5.0	4.6	4.2	.72	.90	0	.72	3.8
19	3.4	.90	1,770	3.4	4.6	5.0	4.6	.18	2.5	.33	.63	2.5
20	4.2	1.4	76	3.4	5.0	6.6	3.8	.18	3.4	1.2	.54	3.0
21	5.0	1.4	1,360	3.4	4.6	7.4	3.8	.18	3.4	0	.45	3.4
22	1.7	1.4	26	4.6	5.8	7.4	4.2	.18	3.4	.09	.63	3.8
23	1.7	1.4	11	6.6	5.8	5.8	6.6	.54	2.1	.45	1.3	3.8
24	.81	1.4	11	4.6	5.0	3.4	5.8	4.2	.63	1.3	2.5	3.8
25	.72	1.4	7.4	4.2	5.8	5.8	5.0	2.1	1.7	.72	2.1	3.8
26	.63	1.4	3.8	4.2	5.0	7.4	7.4	2.1	.90	.36	1.3	4.6
27	.63	1.4	3.8	4.2	4.2	8.2	8.2	.81	.81	.63	.45	4.2
28	.54	3.3	3.8	3.8	4.6	5.8	4.6	3.0	.45	.27	.18	4.2
29	.54	3,380	3.8	3.8	-----	7.4	7.4	4.6	0	0	.63	4.2
30	.81	148	3.8	4.2	-----	9.0	5.0	4.2	.27	0	.63	3.0
31	.90	-----	3.8	4.6	-----	9.0	-----	2.5	-----	2.1	.90	-----
TOTAL	56.71	3,574.91	4,225.8	139.0	157.0	204.4	211.9	95.48	35.86	14.58	31.74	77.87
MEAN	1.83	119	136	4.48	5.61	6.59	7.06	3.08	1.20	.47	1.02	2.60
MAX	5.0	3,380	1,770	9.8	36	21	55	7.4	3.4	2.1	6.6	4.6
MIN	.54	.81	1.7	3.4	3.4	3.0	2.5	.18	0	0	0	.63
AC-FT	112	7,090	8,380	276	311	405	420	189	71	29	63	154

CAL YR 1970 TOTAL 10,532.95 MEAN 28.9 MAX 3,380 MIN 0 AC-FT 20,890  
WTR YR 1971 TOTAL 8,825.25 MEAN 24.2 MAX 3,380 MIN 0 AC-FT 17,500

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1200	6.40	8,640	12-21	0730	6.60	9,410
12-19	0030	5.95	7,390	4-14	1000	2.56	632

## SANTA CLARA RIVER BASIN

11107745 SANTA CLARA RIVER ABOVE RAILROAD STATION, NEAR LANG, CALIF.

LOCATION.--Lat 34°25'52", long 118°21'22", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.16, T.4 N., R.14 W., Los Angeles County, on downstream side of railroad bridge, 1.1 miles east of Lang Railroad station, 1.9 miles downstream from Aqua Dulce Canyon, and 5.2 miles northeast of Solemint.

PERIOD OF RECORD.--October 1949 to September 1968, October 1969 to current year. Monthly discharge only for 1950-70 published in 1971 report. Daily discharge available in historical computer files.

GAGE.--Water-stage recorder. Altitude of gage is 1,750 ft (from topographic map). Prior to Apr. 3, 1970, at site 0.4 mile downstream at different datum.

AVERAGE DISCHARGE.--21 years (1949-69, 1970-71), 5.25 cfs (3,800 acre-ft per year); median of yearly mean discharges, 2.5 cfs (1,800 acre-ft per year).

EXTREMES.--Maximum and minimum discharges for the water years 1950-71 are contained in the following table:

Water year	Date	Maximum discharge (cfs)	Gage height (feet)	Minimum discharge (cfs)
1950	Feb. 6, 1950	6.0		0.80
1951	Apr. 28, 1951	2.0		.20
1952	Jan. 16, 1952	4,200		.50
1953	Nov. 15, 1952	39		1.2
1954	Jan. 25, 1954	29		1.0
1955	Jan. 18, 1955	5.8		1.0
1956	Apr. 13, 1956	5.0		1.0
1957	Jan. 12, 1957	1.7		.90
1958	Apr. 3, 1958	1,260		1.0
1959	Jan. 6, 1959	40		1.1
1960	Several days	1.3		.90
1961	Nov. 6, 1960	500		.30
1962	Feb. 11, 1962	500		.20
1963	Feb. 9, 1963	60		1.1
1964	Jan. 22, 1964	70		.20
1965	Apr. 9, 1965	35		.30
1966	Dec. 29, 1965	4,040		.40
1967	Jan. 24, 1967	265		.80
1968	Nov. 21, 1967	4,200		.30
1969	Feb. 25, 1969	a5,910		-
1970	Mar. 1, 1970	a 200		.10
1971	Nov. 29, 1970	620	4.44	0

a Estimated.

Period of record: Maximum discharge, 5,910 cfs (estimated) Feb. 25, 1969; no flow Sept. 4-7, 1971.

REMARKS.--No regulation above station. Small diversions for irrigation and recreation.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## MONTHLY AND YEARLY DISCHARGE IN ACRE-FEET

Water year	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1950	61	53	63	83	192	184	126	105	83	50	54	56	1,110
1951	53	43	42	49	40	66	91	98	84	79	72	57	774
1952	71	47	53	9,630	632	7,090	2,110	895	326	153	138	86	21,230
1953	97	178	313	300	282	271	237	165	134	102	86	85	2,250
1954	83	74	68	145	278	404	356	181	108	110	99	91	2,000
1955	90	80	75	103	156	157	128	153	99	78	76	74	1,270
1956	68	66	62	69	87	130	136	139	98	86	80	77	1,100
1957	76	67	69	67	55	78	90	93	80	78	78	76	906
1958	79	66	71	66	328	743	4,550	825	283	130	108	95	7,340
1959	145	146	116	246	351	189	127	111	92	84	86	83	1,780
1960	69	68	68	68	67	70	69	70	68	65	65	60	807
1961	58	316	164	124	91	38	38	36	32	28	33	22	980
1962	19	19	119	139	1,900	791	449	328	169	97	82	80	4,190
1963	84	83	82	85	142	145	131	104	86	79	74	65	1,160
1964	65	62	58	69	50	51	62	66	54	53	53	54	697
1965	45	43	14	30	23	25	46	43	36	31	34	36	432
1966	35	1,300	3,300	1,770	1,010	778	449	308	115	68	54	45	9,240
1967	63	91	523	757	489	1,030	2,290	1,880	729	212	104	89	8,260
1968	73	255	487	300	242	276	180	72	32	32	30	25	2,000
1969	-	-	-	-	-	-	-	-	-	-	-	-	-
1970	318	391	398	461	550	1,170	464	290	169	721	62	58	4,400

11107745 SANTA CLARA RIVER ABOVE RAILROAD STATION, NEAR LANG, CALIF.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	1.0	29	13	6.9	11	6.9	5.0	5.6	1.9	.30	.10
2	.10	1.2	27	14	6.9	9.8	6.2	4.3	6.2	1.0	.30	.10
3	.10	1.2	25	13	6.9	9.8	6.2	5.0	3.0	1.0	1.0	.10
4	.10	1.4	23	13	6.9	9.8	6.2	5.0	3.0	1.0	1.0	0
5	.10	1.4	21	12	6.9	9.8	6.2	5.0	2.4	.90	1.0	0
6	.10	1.2	19	12	6.9	9.8	6.2	5.0	1.9	.90	1.0	0
7	.10	1.2	17	11	6.9	9.8	6.2	5.0	3.0	.90	1.0	0
8	.10	1.4	15	11	6.9	9.8	5.6	5.0	3.7	.80	.70	.10
9	.10	1.2	12	11	11	9.8	4.3	5.0	4.3	.80	.50	.10
10	.10	1.4	9.0	11	8.8	11	5.6	5.0	5.0	.80	.50	.10
11	.10	1.4	7.8	11	8.8	11	6.2	5.6	5.0	.70	.50	.10
12	.10	1.4	6.8	12	8.8	11	6.2	5.6	3.7	.70	.50	.10
13	.20	1.0	6.0	11	8.8	14	6.2	5.0	3.7	.60	.50	.10
14	.20	.20	5.5	11	8.8	11	7.5	2.4	3.7	.60	.20	.10
15	.20	.20	5.0	11	8.8	11	7.5	1.2	2.4	.50	.20	.10
16	.50	1.2	4.5	11	11	9.8	7.5	1.4	2.2	.50	.20	.10
17	.50	1.0	4.5	11	13	8.8	8.2	2.4	1.9	.50	.20	.10
18	.10	1.0	6.0	9.8	11	8.2	8.2	3.7	1.7	.50	.20	.10
19	.10	.50	40	9.8	11	8.2	7.5	4.3	1.4	2.2	.20	.10
20	.50	.50	7.5	8.8	11	7.5	8.2	3.7	1.0	1.9	.20	.10
21	.50	.50	153	8.8	11	7.5	7.5	3.7	1.0	1.7	.20	.10
22	.50	.10	49	8.8	11	6.9	7.5	4.3	1.0	1.7	.20	.10
23	.70	.20	30	8.2	11	7.5	6.9	3.7	.70	1.4	.20	.10
24	.70	.20	25	8.2	11	7.5	6.2	3.7	.70	1.2	.20	.10
25	.50	.50	22	7.5	11	7.5	6.9	3.0	1.2	1.4	.20	.10
26	1.4	.70	20	6.9	11	7.5	7.5	3.7	1.0	1.7	.20	.10
27	1.4	.50	19	6.9	11	7.5	6.9	4.3	1.4	2.4	.20	.10
28	1.2	3.1	18	6.9	11	6.9	6.2	5.6	8.8	3.0	.20	.10
29	1.0	195	17	6.9	-----	6.9	6.2	5.0	2.4	.70	.20	.10
30	1.0	31	16	6.9	-----	6.9	5.6	5.0	1.0	.70	.20	.10
31	1.0	-----	15	6.2	-----	6.9	-----	5.6	-----	.70	.20	-----
TOTAL	13.40	252.80	674.6	309.6	264.0	280.4	200.2	132.2	84.00	35.30	12.40	2.60
MEAN	.43	8.43	21.8	9.99	9.43	9.05	6.67	4.26	2.80	1.14	.40	.087
MAX	1.4	195	153	14	13	14	8.2	5.6	8.8	3.0	1.0	.10
MIN	.10	.10	4.5	6.2	6.9	6.9	4.3	1.2	.70	.50	.20	0
AC-FT	27	501	1,340	614	524	556	397	262	167	70	25	5.2

CAL YR 1970 TOTAL 2,700.90 MEAN 7.40 MAX 195 MIN .10 AC-FT 5,360  
WTR YR 1971 TOTAL 2,261.50 MEAN 6.20 MAX 195 MIN 0 AC-FT 4,490

## SANTA CLARA RIVER BASIN

11107860 BOUQUET CREEK NEAR SAUGUS, CALIF.

LOCATION.--Lat 34°26'56", long 118°30'22", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.12, T.4 N., R.16 W., Los Angeles County, on left bank 50 ft upstream from Urbandale Avenue bridge, 0.3 mile upstream from Haskell Canyon, and 3.2 miles northeast of Saugus.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 1,305 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 273 cfs Dec. 18 (gage height, 2.73 ft); no flow for long periods.

REMARKS.--Partial regulation by Bouquet Reservoir (capacity, 36,500 cfs, principally used as equalizing reservoir to city of Los Angeles aqueduct). Some pumping by wells for irrigation.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	1.0	7.8	.80	0		0	.40	3.6	3.4
2	0	.10	0	5.9	5.6	0	0		0	0	4.7	4.5
3	.10	.20	0	1.4	5.2	4.7	0		0	.40	4.0	2.8
4	.10	.30	0	0	7.5	3.8	0		0	0	5.0	2.4
5	.10	.30	0	0	5.9	1.4	0		0	0	3.4	2.6
6	0	.30	2.8	0	5.2	2.8	0		0	.60	2.6	4.0
7	0	.30	3.2	0	7.1	6.1	0		0	0	4.5	0
8	0	.30	3.2	0	5.4	4.0	0		0	0	6.1	2.4
9	0	.40	15	1.0	4.6	3.0	0		0	0	4.3	.60
10	0	.40	1.8	3.2	3.2	1.6	0		0	0	1.8	3.0
11	0	.40	1.4	2.6	3.2	1.6	0		0	0	3.0	1.6
12	0	.40	1.2	27	2.8	1.4	0		0	0	1.8	1.2
13	0	.40	2.2	16	2.0	4.7	0		0	0	4.3	.60
14	0	.40	6.8	1.4	1.2	2.4	.10		.20	0	1.2	2.8
15	0	.40	1.0	0	1.6	0	0		0	0	1.8	3.8
16	0	.40	2.5	0	7.3	1.4	0		0	1.6	2.2	3.8
17	0	.40	4.6	0	20	1.4	0		0	1.6	1.8	4.3
18	0	.40	18	2.8	3.0	0	0		.80	.60	2.0	2.4
19	0	.40	30	3.4	.80	0	0		.60	.60	1.6	2.4
20	0	.40	2.5	1.2	.80	3.0	0		0	1.6	1.4	3.0
21	0	.40	14	1.4	3.2	3.4	0		0	1.6	2.0	3.0
22	0	.40	0	2.4	2.2	3.0	0		0	1.8	2.2	3.2
23	0	.40	0	5.6	3.4	1.4	0		0	1.8	4.0	3.2
24	0	.40	0	5.6	3.2	2.6	0		0	1.4	3.4	3.2
25	0	.40	0	6.1	1.8	1.4	0		0	0	3.0	3.2
26	0	.40	0	6.8	.80	2.0	0		0	0	2.4	3.2
27	2.7	.40	1.0	7.1	2.6	3.0	0		0	0	2.6	3.2
28	0	1.0	1.0	7.1	3.0	3.0	0		0	.40	2.6	2.8
29	0	1.0	.80	6.8	-----	3.6	0		.40	.40	3.0	2.8
30	0	.50	.80	8.5	-----	3.2	0		.40	0	3.4	3.2
31	0	-----	1.0	6.8	-----	2.4	-----		-----	0	3.0	-----
TOTAL	3.00	11.90	114.80	131.1	120.40	73.10	.10	0	2.40	14.80	92.7	82.60
MEAN	.097	.40	3.70	4.23	4.30	2.36	.003	0	.080	.48	2.99	2.75
MAX	2.7	1.0	30	27	20	6.1	.10	0	.80	1.8	6.1	4.5
MIN	0	0	0	0	.80	0	0	0	0	0	1.2	0
AC-FT	6.0	24	228	260	239	145	.2	0	4.8	29	184	164
CAL YR 1970	TOTAL -		MEAN -	MAX -	MIN -	AC-FT -						
WTR YR 1971	TOTAL 646.90		MEAN 1.77	MAX 30	MIN 0	AC-FT 1,280						

## SANTA CLARA RIVER BASIN

249

11108145 CASTAIC CREEK NEAR SAUGUS, CALIF.

LOCATION.--Lat 34°25'42", long 118°37'40", in San Francisco Grant, Los Angeles County, on downstream side of bridge on State Highway 126, 0.6 mile upstream from mouth, 4.6 miles southwest of Castaic, and 5.1 miles northwest of Saugus.

PERIOD OF RECORD.--December 1945 to current year. Monthly discharge only for 1947-70 published in 1971 report. Daily discharge available in historical computer files.

GAGE.--Water-stage recorder. Datum of gage is 952.05 ft above mean sea level (levels by Los Angeles County Flood Control District).

AVERAGE DISCHARGE.--25 years (1946-71), 12.2 cfs (8,840 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Maximum and minimum discharges for the water years 1947-71 are contained in the following table:

Water year	Date	Maximum discharge (cfs)	Gage height (feet)	Minimum discharge (cfs)
1947	Dec. 26, 1946	1,440	-	0
1948	Mar. 24, 1948	243	-	0
1949	(a)	0	-	0
1950	(a)	0	-	0
1951	(a)	0	-	0
1952	Jan. 15, 1952	4,200	-	0
1953	Dec. 2, 1952	377	-	0
1954	Feb. 13, 1954	1,480	-	0
1955	Apr. 30, 1955	82	-	0
1956	Jan. 26, 1956	281	-	0
1957	Jan. 13, 1957	237	-	0
1958	Apr. 3, 1958	2,690	-	0
1959	Jan. 13, 1959	466	-	0
1960	(a)	0	-	0
1961	Nov. 6, 1960	3.1	-	0
1962	Feb. 11, 1962	3,170	-	0
1963	Mar. 16, 1963	76	-	0
1964	Jan. 22, 1964	1.5	-	0
1965	Apr. 9, 1965	96	-	0
1966	Dec. 29, 1965	9,900	-	0
1967	Jan. 24, 1967	4,250	-	0
1968	Nov. 30, 1967	1,820	-	0
1969	Feb. 25, 1969	19,300	-	0
1970	Feb. 10, 1970	212	4.94	0
1971	Nov. 29, 1970	355	5.58	0

a No flow during year.

Period of record: Maximum discharge, 19,300 cfs Feb. 25, 1969, result of slope-area measurement of maximum flow; no flow for all or long periods in each year.

REMARKS.--Flow regulated beginning in 1972 by Castaic Reservoir (capacity, 350,000 acre-ft).

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

## MONTHLY AND YEARLY DISCHARGE IN ACRE-FEET

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1947	0	895	1,930	139	47	35	25	8.7	0	0	0	0	3,080
1948	0	0	0	0	0	48	27	1.8	0	0	0	0	77
1949													0
1950													0
1951													0
1952	0	0	76	7,880	.8	9,810	1,520	41	0	0	0	2.2	19,330
1953	0	1.2	132	0	0	0	0	0	0	0	0	0	133
1954	0	0	0	201	631	145	0	0	0	0	0	0	977
1955	0	0	0	17	0	0	32	85	0	0	0	0	134
1956	0	0	0	296	.0	0	0	15	0	0	0	0	311
1957	0	0	0	132	33	18	0	0	0	0	0	0	184
1958	0	0	375	0	2,110	4,770	16,220	686	0	0	0	0	24,180
1959	0	0	0	16	456	0	0	0	0	0	0	0	472
1960													0
1961	0	.8	0	0	0	0	0	0	0	0	0	0	.8
1962	0	8.9	70	4.0	14,360	410	0	0	0	0	0	0	14,850
1963	0	0	0	0	6.3	23	2.2	0	0	0	0	0	32
1964	0	0	0	.4	0	0	0	0	0	0	0	0	.4
1965	0	0	0	0	0	0	78	0	0	0	0	0	78
1966	0	3,760	5,980	1,680	1,170	361	166	82	37	33	2.4	1.2	13,420
1967	10	249	1,830	4,480	1,170	2,880	10,730	3,660	1,470	367	214	156	27,420
1968	224	1,430	833	815	954	1,070	446	314	273	129	90	33	6,610
1969	53	64	135	22,410	47,610	19,340	4,260	2,600	1,810	521	130	435	99,400
1970	497	565	514	386	878	1,580	261	301	358	350	342	238	6,270

## SANTA CLARA RIVER BASIN

11108145 CASTAIC CREEK NEAR SAUGUS, CALIF.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.3	33	5.9	1.8	5.8	1.6	3.9	1.8	1.4	1.4	8.0
2	3.0	3.4	36	5.9	1.6	6.4	1.6	3.9	1.8	1.8	1.4	8.0
3	3.0	3.5	33	5.9	1.3	7.0	1.6	3.9	3.2	1.6	1.4	9.5
4	3.0	3.6	33	5.2	.70	7.5	1.6	5.2	3.2	1.6	1.4	5.9
5	3.0	3.7	30	5.9	3.2	8.0	1.6	5.2	2.5	1.4	1.6	4.6
6	3.1	3.7	27	5.9	5.2	6.6	1.6	4.6	1.8	1.6	1.4	3.9
7	3.1	3.6	24	5.9	1.6	6.6	1.6	4.6	3.2	1.4	1.1	1.6
8	3.1	3.5	21	5.9	1.4	5.0	1.6	3.2	4.6	1.4	.90	1.8
9	3.2	3.4	18	5.9	5.2	4.0	1.6	2.5	3.9	1.4	.90	1.8
10	3.3	3.4	15	6.6	2.5	3.0	1.6	3.2	3.9	1.4	1.1	3.9
11	3.4	3.3	12	5.2	4.6	2.1	1.4	3.9	3.9	1.3	1.4	3.9
12	3.5	3.3	12	5.9	6.6	2.1	1.6	3.9	1.8	1.4	1.8	2.5
13	3.6	3.2	14	5.2	7.3	2.1	1.8	3.2	1.6	1.6	1.8	2.5
14	3.7	3.1	16	5.9	7.3	2.2	3.9	3.9	2.5	1.4	1.6	3.2
15	3.8	3.0	16	5.2	8.0	2.2	3.9	3.2	2.5	2.5	1.4	3.9
16	3.7	3.0	16	5.0	7.3	2.2	4.6	3.2	2.5	3.2	1.4	3.9
17	3.6	3.0	15	4.8	5.2	2.3	3.2	3.2	2.5	2.5	2.5	5.2
18	3.5	3.0	28	4.6	5.9	2.3	4.6	3.2	1.8	1.6	3.2	3.9
19	3.4	3.0	34	4.4	5.6	2.3	5.9	2.5	.90	1.8	4.6	1.6
20	3.3	3.0	9.5	4.2	5.3	2.3	6.6	4.6	.90	3.2	3.9	1.3
21	3.2	3.0	93	4.0	5.0	2.3	6.6	3.9	1.1	3.2	3.2	0
22	3.2	3.0	7.3	3.8	4.6	2.4	5.9	3.9	1.1	2.5	3.2	0
23	3.2	3.0	5.2	3.6	4.2	2.4	5.9	3.9	1.3	1.8	3.9	0
24	3.2	3.0	4.6	3.4	3.8	2.4	5.2	3.9	1.4	1.8	5.9	0
25	3.2	3.0	3.9	3.2	3.4	3.2	5.2	4.6	1.6	1.6	6.6	0
26	3.2	3.0	3.9	3.0	4.0	3.9	5.9	4.6	1.4	1.8	6.6	0
27	3.2	3.0	3.9	2.8	4.6	1.6	5.9	4.6	1.4	1.8	7.3	0
28	3.2	4.0	4.6	2.6	5.2	1.6	5.2	3.9	1.4	1.8	7.3	0
29	3.2	153	6.6	2.5	-----	1.6	5.2	1.8	1.4	1.8	4.6	0
30	3.2	29	6.6	1.3	-----	1.6	5.2	1.8	1.6	2.5	5.9	2.0
31	3.2	-----	6.6	1.1	-----	1.6	-----	1.8	-----	1.8	8.0	-----
TOTAL	101.5	273.0	588.7	140.7	122.40	106.6	109.7	113.7	64.50	57.9	98.70	82.9
MEAN	3.27	9.10	19.0	4.54	4.37	3.44	3.66	3.67	2.15	1.87	3.18	2.76
MAX	3.8	153	93	6.6	8.0	8.0	6.6	5.2	4.6	3.2	8.0	9.5
MIN	3.0	3.0	3.9	1.1	.70	1.6	1.4	1.8	.90	1.3	.90	0
AC-FT	201	542	1,170	279	243	211	218	226	128	115	196	164
CAL YR 1970	TOTAL 3,321.20		MEAN 9.10		MAX 153	MIN .90	AC-FT 6,590					
WTR YR 1971	TOTAL 1,860.30		MEAN 5.10		MAX 153	MIN 0	AC-FT 3,690					

## 11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CALIF.

LOCATION.--Lat 34°23'59", long 118°42'14", in San Francisco Grant, Ventura County, on downstream end of old diversion weir on right bank, 0.8 mile west of Los Angeles-Ventura County Line.

DRAINAGE AREA.--644 sq mi.

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 794.93 ft above mean sea level.

AVERAGE DISCHARGE.--19 years, 36.2 cfs (26,230 acre-ft per year); median of yearly mean discharges, 10 cfs (7,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,080 cfs Nov. 29 (gage height, 8.26 ft); minimum daily, 7.0 cfs Sept. 1-8.

Period of record: Maximum discharge, 68,800 cfs Jan. 25, 1969 (gage height, 19.01 ft), from rating curve extended above 9,200 cfs of basis of field estimate of maximum flow; no flow at times in some years.

REMARKS.--Records poor. No regulation above station. Base flow affected by pumping from wells along stream for irrigation. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	90	42	30	27	15	17	15	14	9.9	7.0
2	11	17	52	42	30	27	15	17	15	14	9.8	7.0
3	10	18	50	37	30	27	15	17	14	13	9.6	7.0
4	10	18	46	35	30	27	15	17	14	13	9.4	7.0
5	12	18	45	38	30	26	15	17	14	12	9.0	7.0
6	14	18	44	40	30	26	15	17	13	11	9.0	7.0
7	13	16	42	40	30	26	15	17	13	11	8.9	7.0
8	13	16	40	41	30	25	15	16	12	11	8.8	7.0
9	14	18	38	40	30	24	15	16	12	11	8.7	7.1
10	13	19	38	36	29	23	15	16	11	10	8.6	7.2
11	13	18	40	37	29	22	15	16	11	9.9	8.6	7.3
12	15	18	40	42	29	22	15	16	11	9.8	8.6	7.4
13	16	18	40	35	29	22	25	16	10	10	8.5	7.4
14	17	15	40	33	29	22	23	16	9.7	11	8.4	7.6
15	17	15	40	32	29	21	22	16	9.8	11	8.3	7.8
16	18	16	42	34	29	21	21	16	9.9	11	8.2	8.0
17	16	17	80	36	29	20	21	16	10	11	8.1	8.1
18	17	16	150	37	29	20	20	16	10	11	8.0	8.4
19	19	16	200	38	29	20	20	16	10	11	8.0	8.6
20	20	16	150	39	29	19	20	16	10	11	7.8	8.8
21	21	15	900	36	29	19	19	16	11	11	7.8	8.9
22	20	14	70	33	28	18	19	16	12	11	7.6	9.0
23	20	15	69	31	28	18	18	16	13	11	7.5	9.1
24	21	15	67	31	28	17	18	16	14	11	7.4	9.2
25	21	17	54	31	28	17	18	16	14	11	7.4	9.4
26	23	18	57	31	28	17	18	16	15	11	7.4	9.6
27	21	16	51	31	28	16	17	16	15	11	7.4	9.8
28	18	27	49	31	28	16	17	16	14	11	7.4	10
29	16	2,370	51	30	-----	16	17	16	14	11	7.3	11
30	15	486	48	30	-----	16	17	16	14	11	7.2	11
31	14	-----	45	30	-----	15	-----	15	-----	10	7.2	-----
TOTAL	500	3,331	2,768	1,099	814	652	530	502	370.4	346.7	255.8	246.7
MEAN	16.1	111	89.3	35.5	29.1	21.0	17.7	16.2	12.3	11.2	8.25	8.22
MAX	23	2,370	900	42	30	27	25	17	15	14	9.9	11
MIN	10	14	38	30	28	15	15	15	9.7	9.8	7.2	7.0
AC-FT	992	6,610	5,490	2,180	1,610	1,290	1,050	996	735	688	507	489

CAL YR 1970 TOTAL 15,662.5 MEAN 42.9 MAX 2,370 MIN 8.5 AC-FT 31,070  
WTR YR 1971 TOTAL 11,415.6 MEAN 31.3 MAX 2,370 MIN 7.0 AC-FT 22,640

PEAK DISCHARGE (BASE, 750 CFS).--Nov. 29 (1130) 9,080 cfs (8.26 ft); Dec. 21 (time unknown) 4,800 cfs (5.00, from floodmark).



## SANTA CLARA RIVER BASIN

## 11109600 PIRU CREEK ABOVE LAKE PIRU, CALIF.

LOCATION.--Lat 34°31'40", long 118°45'21", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.10, T.5 N., R.18 W., Ventura County, on right bank at Blue Point, 1.0 mile downstream from Agua Blanca Creek, 4.6 miles upstream from Santa Felicia Dam, and 8.0 miles northeast of Piru.

DRAINAGE AREA.--372 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,063.62 ft above mean sea level (levels by Ventura County Flood Control District).

AVERAGE DISCHARGE.--16 years, 55.1 cfs (39,920 acre-ft per year); median of yearly mean discharges, 21 cfs (15,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,860 cfs Nov. 29 (gage height, 11.03 ft), from rating curve extended as explained below; minimum daily, 0.81 cfs Sept. 15.

Period of record: Maximum discharge, 31,200 cfs Feb. 25, 1969 (gage height, 18.6 ft, from floodmark), from rating curve extended above 4,000 cfs on basis of slope-area measurement at gage-height 12.2 ft and inflow-outflow records for Lake Piru; no flow for several months in most years.

REMARKS.--Records good. No regulation or diversion above station. Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	7.8	253	114	68	52	31	29	18	8.0	1.9	1.0
2	3.0	7.4	141	115	66	45	30	30	18	7.8	1.9	1.0
3	3.1	7.3	83	111	51	43	29	31	18	7.6	1.9	1.0
4	2.1	7.4	70	101	50	42	29	37	16	7.4	1.9	1.0
5	3.1	8.6	68	90	49	41	29	34	14	7.2	1.9	1.0
6	2.2	9.4	69	90	50	39	28	33	13	7.0	1.7	1.0
7	3.3	9.4	73	91	51	38	28	36	13	6.8	1.7	2.8
8	3.4	8.9	77	94	49	38	27	29	13	6.6	1.7	2.5
9	3.5	8.7	81	95	50	38	25	31	13	6.4	1.7	2.3
10	3.6	8.5	83	95	50	37	24	29	13	6.0	1.7	2.1
11	3.8	8.4	68	98	51	36	24	29	13	5.6	1.5	1.8
12	4.0	8.1	67	123	53	36	23	28	12	5.4	1.5	1.5
13	4.2	8.0	71	125	57	47	22	27	11	5.2	1.5	1.2
14	4.4	8.5	76	119	59	37	33	27	11	4.8	1.5	.90
15	4.6	8.7	92	108	61	34	45	27	10	4.4	1.5	.81
16	4.8	8.3	79	105	84	34	37	25	10	4.0	1.3	.90
17	5.0	8.0	74	119	136	33	35	24	10	3.8	1.3	1.0
18	5.1	7.9	92	240	74	32	34	25	10	3.6	1.3	1.0
19	5.3	8.1	135	276	69	31	34	22	10	3.4	1.3	1.0
20	5.5	8.2	199	265	66	31	33	22	10	3.2	1.3	1.1
21	5.6	8.6	858	227	63	31	33	21	9.0	3.0	1.2	1.2
22	5.7	8.7	350	201	61	31	31	22	9.0	2.8	1.2	1.2
23	5.8	8.6	148	169	59	32	31	20	9.0	2.6	1.2	1.2
24	6.0	8.2	139	149	57	33	30	19	9.0	2.4	1.2	1.2
25	6.2	9.0	164	136	55	35	31	19	9.0	2.2	1.2	1.2
26	6.4	12	155	116	54	36	34	19	9.0	2.2	1.2	1.7
27	6.6	12	143	101	53	36	33	19	8.8	2.0	1.2	2.4
28	6.8	53	141	86	54	35	32	19	8.4	2.0	1.1	2.6
29	7.0	4,330	125	78	-----	34	32	19	8.2	1.9	1.1	2.9
30	7.3	450	103	75	-----	33	31	21	8.0	1.9	1.0	3.2
31	7.6	-----	108	73	-----	32	-----	20	-----	1.9	1.0	-----
TOTAL	150.0	5,065.7	4,375	3,989	1,700	1,132	918	793	343.4	139.1	44.6	45.71
MEAN	4.84	169	141	129	60.7	36.5	30.6	25.6	11.4	4.49	1.44	1.52
MAX	7.6	4,330	858	276	136	52	45	37	18	8.0	1.9	3.2
MIN	3.0	7.3	67	73	49	31	22	19	8.0	1.9	1.0	.81

CAL YR 1970 TOTAL 19,673.75 MEAN 53.9 MAX 4,330 MIN .90 AC-FT 39,020  
WTR YR 1971 TOTAL 18,695.51 MEAN 51.2 MAX 4,330 MIN .81 AC-FT 37,080

PEAK DISCHARGE (BASE, 800 CFS).--Nov. 29 (1100) 9,860 cfs (11.03 ft); Dec. 21 (0430) 1,410 cfs (5.84 ft).

## 11109700 LAKE PIRU NEAR PIRU, CALIF.

LOCATION.--Lat 34°27'52", long 118°44'57", in Temescal Grant, Ventura County, at Santa Felicia Dam on Piru Creek, on left bank 1,000 ft upstream from left end of dam, 0.5 mile downstream from Santa Felicia Canyon, and 4.2 miles northeast of Piru.

DRAINAGE AREA.--425 sq mi.

PERIOD OF RECORD.--May 1955 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by United Water Conservation District). Prior to Jan. 27, 1956, reference point at intake tower at same datum.

EXTREMES.--Current year: Maximum contents, 56,650 acre-ft May 14-19 (elevation, 1,013.45 ft); minimum contents, 22,380 acre-ft Nov. 5 (elevation, 969.10 ft).

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.

REMARKS.--Lake is formed by earthfill dam. Storage began May 20, 1955. Capacity table is based on surveys made in 1949 and 1956. Dead storage below two 24-inch sluice gates (elevation, 880.0 ft), 74 acre-ft, included in contents. Capacity below spillway level (elevation, 1,055.0 ft), 101,225 acre-ft. Water is released from outlet to Piru Creek for ground-water recharge, domestic use, and irrigation on the Oxnard plain.

COOPERATION.--Elevations furnished by United Water Conservation District.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet) <sup>a</sup>	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	977.40	27,800	-
Oct. 31.....	970.20	23,070	-4,730
Nov. 30.....	987.35	34,970	+11,900
Dec. 31.....	996.50	42,070	+7,100
CAL YR 1970.....	-	-	-6,830
Jan. 31.....	1,005.65	49,670	+7,600
Feb. 28.....	1,009.75	53,280	+3,610
Mar. 31.....	1,012.10	55,410	+2,130
Apr. 30.....	1,013.05	56,280	+870
May 31.....	1,011.50	54,860	-1,420
June 30.....	1,003.45	47,790	-7,070
July 31.....	994.05	40,620	-7,170
Aug. 31.....	984.95	33,190	-7,430
Sept. 30.....	975.70	26,660	-6,530
WTR YR 1971.....	-	-	-1,140

<sup>a</sup> Elevation at 0800.



## SANTA CLARA RIVER BASIN

255

11110500 HOPPER CREEK NEAR PIRU, CALIF.

LOCATION.--Lat 34°24'03", long 118°49'32", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.25, T.4 N., R.19 W., Ventura County, on downstream end of center pier of bridge on State Highway 126, 1 mile upstream from mouth, and 2.1 miles southwest of Piru.

DRAINAGE AREA.--23.6 sq mi.

PERIOD OF RECORD.--October 1930 to September 1932, October 1933 to September 1936, October 1937 to current year.

GAGE.--Water-stage recorder. Concrete control since October 1967 (ineffective due to fill). Altitude of gage is 590 ft (from topographic map).

AVERAGE DISCHARGE.--39 years, 5.58 cfs (4,040 acre-ft per year); median of yearly mean discharges, 2.2 cfs (1,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,620 cfs Nov. 29 (gage height, 7.95 ft), from rating curve extended above 320 cfs on basis of slope-area measurement of peak flow; no flow many days.

Period of record: Maximum discharge, 8,400 cfs Jan. 25, 1969 (gage height, 12.72 ft, from floodmark), from rating curve extended above 850 cfs on basis of slope-area measurement of maximum flow; no flow for several months in most years.

REMARKS.--No regulation above station. Some pumping along stream for irrigation.

COOPERATION.--Records furnished by Ventura County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.4	13	1.0	3.2	1.6	1.5	.94	.42	.64	.36
2		0	9.2	9.0	1.2	3.2	2.0	1.5	.94	.42	.64	.49
3		0	.73	4.1	1.2	3.5	2.0	1.8	.94	.36	.64	.49
4		0	.15	2.7	1.4	3.5	1.6	1.6	.83	.31	.64	.49
5		.06	.03	2.0	1.4	3.5	1.6	1.8	.83	.31	.64	.42
6		.18	0	1.8	1.4	3.2	1.5	1.8	.83	.31	.56	.42
7		.03	0	1.8	1.4	3.2	1.5	1.6	.94	.36	.56	.36
8		0	0	1.8	1.5	3.2	1.6	1.4	.94	.42	.56	.31
9		0	1.7	1.8	2.0	3.2	1.6	1.2	.94	.31	.49	.26
10		0	.15	1.6	3.2	3.5	1.6	1.0	.94	.31	.56	.26
11		0	.02	1.6	3.5	3.5	1.6	1.0	.94	.49	.56	.22
12		0	.04	18	3.5	4.1	1.6	1.0	.94	.56	.56	.22
13		0	.34	11	3.8	33	1.6	1.0	.83	.73	.64	.22
14		0	1.1	6.7	4.1	4.1	3.8	1.0	.83	.83	.64	.22
15		0	.64	4.1	4.5	3.2	2.4	1.0	.83	.73	.64	.22
16		0	2.4	3.5	6.2	3.0	2.0	.83	.94	.64	.64	.26
17		.21	4.1	4.1	34	2.4	2.0	.73	.73	.49	.56	.22
18		.27	29	4.5	6.7	2.0	2.2	.73	.83	.36	.56	.22
19		.28	38	2.4	4.9	2.0	2.0	.73	.83	.49	.56	.18
20		.19	12	1.5	3.8	2.0	2.0	.73	.73	.56	.56	.22
21		.38	188	1.0	3.5	2.0	1.6	.73	.64	.64	.56	.26
22		.49	35	1.0	3.5	2.0	1.6	.83	.64	.73	.56	.26
23		.26	14	.94	3.0	2.4	1.6	.83	.64	.73	.56	.22
24		.26	10	.94	3.0	2.4	1.6	.83	.64	.73	.49	.26
25		1.1	7.8	.83	3.0	2.4	1.6	.73	.64	.73	.49	.26
26		2.4	9.0	.83	3.0	2.4	1.6	.73	.56	.73	.42	.22
27		.94	13	.73	3.2	2.4	1.6	.83	.49	.73	.42	.18
28		14	12	.73	3.2	2.0	1.6	1.4	.42	.73	.36	.15
29		369	9.0	.73	-----	2.0	1.5	1.0	.36	.73	.36	.10
30		40	9.0	.73	-----	2.0	1.4	1.0	.36	.64	.36	.08
31		-----	14	.83	-----	1.8	-----	.94	-----	.64	.36	-----
TOTAL	0	430.05	421.80	106.29	116.1	116.3	53.5	33.80	22.89	17.17	16.79	8.05
MEAN	0	14.3	13.6	3.43	4.15	3.75	1.78	1.09	.76	.55	.54	.27
MAX	0	369	188	18	34	33	3.8	1.8	.94	.83	.64	.49
MIN	0	0	0	.73	1.0	1.8	1.4	.73	.36	.31	.36	.08
AC-FT	0	853	837	211	230	231	106	67	45	34	33	16

CAL YR 1970 TOTAL 1,692.39 MEAN 4.64 MAX 369 MIN 0 AC-FT 3,360  
WTR YR 1971 TOTAL 1,342.74 MEAN 3.68 MAX 369 MIN 0 AC-FT 2,660

PEAK DISCHARGE (BASE, 150 CFS).--Nov. 29 (0930) 1,620 cfs (7.95 ft); Dec. 21 (0700) 570 cfs (6.60 ft).

## SANTA CLARA RIVER BASIN

## 11111500 SESPE CREEK NEAR WHEELER SPRINGS, CALIF.

LOCATION.--Lat 34°34'40", long 119°15'25", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.30, T.6 N., R.22 W., Ventura County, on right bank at Sespe Gorge, 1.6 miles upstream from Tule Creek, 5 miles upstream from Cold Springs damsite, and 5 miles northeast of Wheeler Springs.

DRAINAGE AREA.--49.5 sq mi.

PERIOD OF RECORD.--January 1948 to current year. Monthly discharge only for January to July 1948 and yearly estimate for water year 1948 (incomplete), published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 3,500.65 ft above mean sea level (levels by Ventura County Flood Control District).

AVERAGE DISCHARGE.--24 years (1947-71), 10.7 cfs (7,750 acre-ft per year); median of yearly mean discharges, 3.0 cfs (2,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,150 cfs Nov. 29 (gage height, 9.25 ft); minimum daily, 0.06 cfs Oct. 11-15.

Period of record: Maximum discharge, 9,700 cfs Jan. 25, 1969 (gage height, 13.16 ft), from rating curve extended above 3,000 cfs on basis of slope-area measurement of maximum flow; no flow many days in most years.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.64	24	36	18	12	6.0	4.1	3.2	1.2	.53	.28
2	.28	.64	15	41	18	11	6.0	4.1	3.2	1.2	.43	.28
3	.28	.64	11	29	17	11	6.0	4.5	2.9	1.2	.35	.28
4	.28	.64	9.0	23	15	11	5.6	4.5	2.9	1.2	.35	.21
5	.28	.64	6.9	21	15	11	5.6	4.5	2.9	1.2	.35	.16
6	.28	.64	6.0	20	14	11	5.6	4.8	2.6	1.2	.28	.16
7	.28	.64	5.2	18	13	10	5.6	5.2	2.6	1.2	.28	.16
8	.28	.64	4.8	18	13	10	5.6	4.8	2.4	1.2	.28	.16
9	.28	.64	4.5	19	12	9.5	5.2	4.5	2.6	1.2	.28	.16
10	.08	.64	4.1	20	12	9.5	4.8	4.5	2.9	1.2	.28	.16
11	.06	.64	3.8	24	11	9.5	4.8	4.5	2.6	1.2	.28	.11
12	.06	.75	3.5	30	11	9.5	4.8	4.1	2.6	1.2	.28	.11
13	.06	.88	3.5	30	11	13	4.8	3.8	2.4	1.2	.35	.11
14	.06	1.0	3.5	29	11	11	6.9	3.8	2.2	1.2	.35	.11
15	.06	1.0	3.2	28	10	9.5	6.0	3.5	2.2	1.2	.35	.11
16	.08	1.0	4.1	29	14	9.0	5.2	3.2	2.2	1.2	.35	.11
17	.08	1.0	4.1	83	31	9.0	5.2	3.2	1.7	1.0	.35	.11
18	.11	1.0	2.4	118	29	8.4	5.2	3.2	1.3	1.0	.28	.11
19	.16	1.0	4.1	104	25	7.9	5.2	3.2	1.3	1.0	.28	.11
20	.21	1.0	9.0	101	20	7.9	5.2	3.2	1.3	.88	.28	.11
21	.28	1.0	8.4	77	18	7.9	5.2	3.2	1.3	.75	.28	.11
22	.35	1.0	8.4	58	17	7.4	5.2	2.9	1.2	.64	.28	.11
23	.43	1.0	8.4	43	15	7.4	5.2	2.6	1.2	.53	.28	.11
24	.43	1.0	8.4	37	14	7.4	5.2	2.6	1.2	.53	.28	.11
25	.53	1.2	9.0	32	13	6.9	5.2	2.4	1.2	.53	.28	.11
26	.53	1.3	11	28	13	6.9	5.2	2.6	1.2	.53	.28	.11
27	.64	1.3	13	26	12	6.4	4.8	2.9	1.2	.53	.28	.11
28	.64	18	14	24	12	6.4	4.8	3.8	1.2	.53	.28	.11
29	.64	689	18	21	-----	6.0	4.5	3.5	1.2	.53	.28	.11
30	.64	50	22	20	-----	6.0	4.1	3.2	1.2	.53	.28	.11
31	.64	-----	29	19	-----	6.0	-----	3.2	-----	.53	.28	-----
TOTAL	9.29	780.47	281.3	1,206	434	275.4	158.7	114.1	60.1	29.24	9.64	4.21
MEAN	.30	26.0	9.07	38.9	15.5	8.88	5.29	3.68	2.00	.94	.31	.14
MAX	.64	689	29	118	31	13	6.9	5.2	3.2	1.2	.53	.28
MIN	.06	.64	2.4	18	10	6.0	4.1	2.4	1.2	.53	.28	.11
AC-FT	18	1,550	558	2,390	861	546	315	226	119	58	19	8.4

CAL YR 1970 TOTAL 3,331.69 MEAN 9.13 MAX 689 MIN .06 AC-FT 6,610

WTR YR 1971 TOTAL 3,362.45 MEAN 9.21 MAX 689 MIN .06 AC-FT 6,670

PEAK DISCHARGE (BASE, 50 CFS).--Nov. 29 (0800) 3,150 cfs (9.25 ft); Jan. 17 (2000) 154 cfs (3.42 ft).

## SANTA CLARA RIVER BASIN

257

11113000 SESPE CREEK NEAR FILLMORE, CALIF.

LOCATION.--Lat 34°27'03", long 118°55'30", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.12, T.4 N., R.20 W., Ventura County, on right bank 0.1 mile downstream from Little Sespe Creek and 3.5 miles north of Fillmore.

DRAINAGE AREA.--251 sq mi.

PERIOD OF RECORD.--September 1911 to September 1913, October 1927 to current year; combined records of creek and canal, October 1927 to current year. Prior to 1935, published as "at Sespe."

GAGE.--Water-stage recorder on creek; water-stage recorder and Parshall flume on canal. Altitude of gage is 580 ft (from topographic map). See WSP 1315-B for history of changes prior to Jan. 17, 1946.

AVERAGE DISCHARGE (Creek only).--46 years, 105 cfs (76,070 acre-ft per year); median of yearly mean discharges, 53 cfs (38,400 acre-ft per year).  
(Combined creek and canal).--44 years, 110 cfs (79,700 acre-ft per year); median of yearly mean discharges, 52 cfs (37,900 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 22,800 cfs Nov. 29 (gage height, 20.42 ft); minimum daily, 0.76 cfs Oct. 1-3.

Period of record: Maximum discharge, 60,000 cfs Jan. 25, 1969 (gage height, 20.80 ft), from rating curve extended above 22,000 cfs on basis of slope-area measurement at gage height 19.0 ft; maximum gage height, 24.95 ft Feb. 25, 1969 (from debris wave); no flow at times in some years.

(Combined flow).--Current year: Maximum discharge, 22,800 cfs Nov. 29; minimum daily, 5.4 cfs Sept. 19.

Period of record: Maximum discharge, 60,000 cfs Jan. 25, 1969; minimum daily, 1.1 cfs July 31, Aug. 2, 1951.

REMARKS.--Records good. No regulation above station. Fillmore Irrigation Co. has diverted water one mile upstream since September 1911. Records of suspended-sediment loads for the current year are published in Part 2 of this report. For records of combined discharge of Sespe Creek and Fillmore Irrigation Co.'s canal, see following page.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	6.8	484	350	102	69	42	27	21	6.4	2.0	1.5
2	.76	6.8	255	350	98	67	39	27	20	6.8	2.1	1.4
3	.76	7.3	242	300	92	66	38	28	20	8.2	2.6	1.4
4	3.1	7.3	131	252	86	64	35	29	20	8.2	2.3	1.5
5	6.8	10	92	234	80	62	35	29	20	8.2	2.2	1.3
6	7.8	13	76	192	76	59	34	30	19	8.2	1.6	1.5
7	8.2	14	71	175	73	58	35	29	19	8.2	1.5	1.4
8	7.8	12	67	166	67	56	34	38	19	7.8	1.4	1.4
9	7.3	12	64	159	67	54	32	37	19	6.4	1.4	1.4
10	7.3	12	60	153	69	52	30	34	19	5.2	1.6	1.4
11	6.8	11	56	148	67	50	28	28	20	3.7	2.6	1.4
12	5.2	11	53	211	62	52	27	28	20	2.8	2.0	1.2
13	4.3	11	48	264	59	114	26	28	18	3.4	1.8	1.5
14	4.9	11	52	238	59	78	44	27	16	3.7	1.7	1.5
15	5.5	11	44	213	59	67	50	26	15	3.1	1.5	1.6
16	6.0	12	56	202	79	64	46	25	13	3.1	1.5	1.2
17	6.0	11	64	342	308	62	43	23	12	3.4	1.6	1.1
18	6.0	6.0	219	585	183	60	43	22	11	2.8	1.8	.95
19	6.0	2.5	430	472	145	56	42	20	11	1.1	1.7	1.2
20	6.0	1.8	344	400	122	54	38	20	9.8	1.3	1.8	1.1
21	6.0	1.8	1,200	318	110	53	32	20	8.1	1.6	1.6	1.2
22	2.8	1.8	345	238	98	53	28	21	7.5	2.0	1.4	1.2
23	1.4	1.4	278	199	92	53	27	22	7.3	1.8	1.4	1.4
24	1.1	1.3	252	185	86	53	25	22	6.8	2.3	1.6	1.4
25	.99	6.7	234	179	80	53	30	21	6.6	3.1	1.8	1.4
26	.99	21	248	172	74	53	34	19	6.7	2.8	2.1	1.4
27	.99	19	318	163	71	53	31	18	6.7	2.8	1.7	1.5
28	.85	230	268	145	69	52	30	20	6.8	13	1.5	1.6
29	3.6	8,730	244	133	-----	48	29	23	6.8	2.1	1.5	1.7
30	6.8	1,740	264	120	-----	47	27	22	6.4	2.0	1.4	1.7
31	6.8	-----	322	110	-----	44	-----	22	-----	2.0	1.4	-----
TOTAL	139.60	10,942.5	6,881	7,368	2,633	1,826	1,034	785	411.5	137.5	54.1	41.45
MEAN	4.50	365	222	238	94.0	58.9	34.5	25.3	13.7	4.44	1.75	1.38
MAX	8.2	8,730	1,200	585	308	114	50	38	21	13	2.6	1.7
MIN	.76	1.3	44	110	59	44	25	18	6.4	1.1	1.4	.95
AC-FT	277	21,700	13,650	14,610	5,220	3,620	2,050	1,560	816	273	107	82

CAL YR 1970 TOTAL 43,122.11 MEAN 118 MAX 8,730 MIN .42 AC-FT 85,530  
WTR YR 1971 TOTAL 32,253.65 MEAN 88.4 MAX 8,730 MIN .76 AC-FT 63,980

PEAK DISCHARGE (BASE, 1,300 CFS).--Nov. 29 (1130) 22,800 cfs (20.42 ft); Dec. 21 (0500) 3,600 cfs (16.10 ft).

## SANTA CLARA RIVER BASIN

11113000 SESPE CREEK NEAR FILLMORE, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SESPE CREEK AND FILLMORE  
IRRIGATION CO.'S CANAL NEAR FILLMORE, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	10	484	350	104	70	47	34	30	14	8.1	6.5
2	5.6	11	255	350	100	67	45	34	29	14	8.0	6.5
3	5.7	11	242	300	93	66	45	35	28	14	8.5	6.7
4	6.8	11	131	252	87	64	41	36	28	13	8.1	6.7
5	9.9	14	92	234	81	62	41	36	27	13	7.9	6.4
6	11	16	76	192	77	59	40	34	26	13	7.3	6.7
7	11	16	71	175	73	59	41	31	26	13	7.2	6.7
8	11	13	67	166	69	57	40	41	26	12	6.9	6.5
9	10	13	64	159	68	56	40	39	26	11	6.7	6.5
10	11	13	60	153	69	57	38	38	26	10	6.5	6.3
11	10	13	56	148	68	55	36	33	27	9.7	7.0	6.2
12	9.3	13	53	211	64	56	36	32	27	9.0	7.3	5.6
13	8.7	13	48	264	62	114	35	33	24	9.8	7.2	5.8
14	9.3	13	52	238	62	78	47	32	22	10	7.2	5.9
15	9.8	13	46	213	63	67	51	31	21	9.5	7.1	6.2
16	10	14	57	202	82	64	47	29	20	9.5	7.1	6.0
17	10	14	64	342	308	64	44	28	19	9.4	6.8	6.1
18	10	11	219	585	183	63	43	28	18	9.0	7.0	5.8
19	10	8.9	430	472	145	59	42	27	18	8.1	7.0	5.4
20	10	8.5	344	400	122	57	40	27	16	7.4	7.2	5.8
21	10	8.7	1,200	318	110	56	39	27	15	7.6	7.0	6.1
22	8.4	8.8	345	238	98	56	36	28	15	8.0	6.9	6.2
23	7.5	8.3	278	199	92	56	36	29	14	8.2	6.9	6.2
24	7.2	8.3	252	185	86	56	34	29	14	8.3	6.9	6.1
25	7.0	12	234	180	80	56	38	27	14	8.8	6.6	6.2
26	6.9	25	248	172	75	56	39	26	14	9.1	6.7	6.3
27	6.4	22	318	163	72	56	38	27	14	9.4	6.8	6.5
28	6.2	232	268	146	70	55	37	29	14	19	6.6	6.7
29	8.2	8,730	244	135	-----	51	36	32	14	8.5	6.5	6.7
30	10	1,740	264	122	-----	51	34	31	14	8.2	6.2	6.8
31	10	-----	322	111	-----	49	-----	31	-----	8.1	6.4	-----
TOTAL	272.7	11,044.5	6,884	7,375	2,663	1,892	1,206	974	626	321.6	219.6	188.1
MEAN	8.80	368	222	238	95.1	61.0	40.2	31.4	20.9	10.4	7.08	6.27
MAX	11	8,730	1,200	585	308	114	51	41	30	19	8.5	6.8
MIN	5.6	8.3	46	111	62	49	34	26	14	7.4	6.2	5.4
AC-FT	541	21,910	13,650	14,630	5,280	3,750	2,390	1,930	1,240	638	436	373

CAL YR 1970 TOTAL 44,521.8 MEAN 122 MAX 8,730 MIN 5.5 AC-FT 88,310  
WTR YR 1971 TOTAL 33,666.5 MEAN 92.2 MAX 8,730 MIN 5.4 AC-FT 66,780

PEAK DISCHARGE (BASE, 1,300 CFS).--Same as those listed on previous page.

## 11113500 SANTA PAULA CREEK NEAR SANTA PAULA, CALIF.

LOCATION.--Lat 34°23'44", long 119°04'32", in NW¼SW¼SW¼ sec.27, T.4 N., R.21 W., Ventura County, on right bank 15 ft upstream from Santa Paula Water Works diversion dam, 200 ft upstream from Mud Creek, and 3 miles north of Santa Paula.

DRAINAGE AREA.--40.0 sq mi.

PERIOD OF RECORD.--October 1927 to current year. March 1912 to September 1913, at site 2.5 miles upstream; records not equivalent.

GAGE.--Water-stage recorder and concrete diversion dam control. Datum of gage is 638.59 ft above mean sea level (Corps of Engineers bench mark). Oct. 1, 1927, to Feb. 19, 1931, at site 500 ft downstream at different datum. Feb. 20, 1931, to Dec. 5, 1963, July 30, 1965, to May 5, 1969, at datum 3.00 ft higher. Dec. 6, 1963, to July 29, 1965, at site 50 ft upstream at datum 3.00 ft higher.

AVERAGE DISCHARGE.--44 years, 21.6 cfs (15,650 acre-ft per year); median of yearly mean discharges, 10 cfs (7,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,530 cfs Nov. 29 (gage height, 7.96 ft); minimum daily, 1.6 cfs Aug. 11, 30.

Period of record: Maximum discharge, 21,000 cfs Feb. 25, 1969 (gage height, 18.18 ft, from floodmark, present datum), from rating curve extended above 2,300 cfs on basis of critical-depth measurement at gage height 15.2 ft; no flow at times in 1949, 1951-52, 1965.

REMARKS.--Records good. No regulation above station. Diversion above station for irrigation of 60 acres by Santa Paula Water Works began prior to October 1927; 373 acre-ft was diverted during year. Records of chemical analyses for the current year are published in Part 2 of this report.

COOPERATION.--Record of diversion furnished by Santa Paula Water Works.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.5	90	37	22	13	9.0	9.1	6.7	5.3	3.1	2.0
2	2.3	3.0	85	56	22	13	9.2	9.1	6.2	3.8	2.7	2.2
3	2.4	3.3	80	35	21	13	9.2	9.1	7.1	2.5	2.5	2.5
4	2.5	3.3	70	28	20	12	9.2	9.1	7.4	2.2	2.3	2.6
5	2.6	3.6	60	27	20	12	9.2	8.9	7.7	2.2	2.3	3.0
6	2.8	4.4	55	27	19	12	9.2	9.0	8.0	2.6	2.3	3.5
7	2.8	4.6	50	26	19	12	9.2	9.0	7.1	3.0	2.5	3.1
8	2.9	4.5	40	26	18	12	9.2	8.6	6.9	2.7	2.3	2.5
9	2.7	4.4	30	26	18	12	9.2	8.4	7.1	2.8	2.0	2.2
10	2.5	4.4	20	26	19	12	9.2	7.7	7.2	2.6	1.9	2.4
11	2.8	4.4	14	26	19	12	9.2	7.5	6.7	2.4	1.6	3.5
12	2.4	4.5	13	33	17	12	9.2	7.4	6.2	3.2	2.0	3.7
13	2.4	4.3	12	43	15	24	9.2	7.7	5.8	4.5	2.6	2.9
14	2.4	4.8	11	34	15	14	16	7.7	5.3	4.4	2.9	2.5
15	2.7	4.3	11	32	15	13	13	7.7	4.9	4.6	3.1	3.0
16	2.1	3.9	17	31	16	13	10	7.4	4.9	4.4	2.8	3.3
17	2.2	3.4	19	122	21	13	9.6	7.4	4.7	4.5	2.7	3.5
18	3.2	3.9	125	175	18	12	9.4	7.1	5.3	4.3	2.6	3.2
19	3.6	4.1	156	145	17	11	9.2	6.8	5.1	3.6	2.5	3.1
20	3.6	4.0	91	124	16	11	9.2	6.8	4.7	3.1	2.6	2.7
21	3.7	3.8	280	106	16	11	9.1	7.1	4.3	3.0	2.8	2.6
22	3.0	4.1	68	49	16	10	9.1	7.1	4.5	3.4	3.0	2.9
23	2.8	4.2	57	32	16	9.9	9.1	6.8	4.5	3.7	3.0	2.6
24	3.0	4.1	53	30	15	9.9	9.1	6.8	4.5	3.5	3.0	2.1
25	2.8	4.6	50	28	15	9.9	9.1	6.6	4.7	3.4	3.0	2.4
26	2.7	6.0	47	26	15	9.9	9.1	6.6	4.9	3.4	2.4	2.7
27	2.4	5.3	45	25	14	9.7	9.1	6.6	5.3	3.3	2.6	2.9
28	2.4	23	43	24	14	9.5	9.1	7.5	5.5	3.1	2.2	2.8
29	2.6	1,060	39	23	-----	9.2	9.1	7.4	5.4	3.1	2.2	2.4
30	2.5	105	29	23	-----	9.1	9.1	7.1	5.2	3.0	1.6	2.6
31	2.6	-----	25	22	-----	9.0	-----	6.9	-----	3.1	1.7	-----
TOTAL	83.9	1,299.7	1,785	1,467	488	365.1	286.8	238.0	173.8	104.7	76.8	83.4
MEAN	2.71	43.3	57.6	47.3	17.4	11.8	9.56	7.68	5.79	3.38	2.48	2.78
MAX	3.7	1,060	280	175	22	24	16	9.1	8.0	5.3	3.1	3.7
MIN	2.1	2.5	11	22	14	9.0	9.0	6.6	4.3	2.2	1.6	2.0
AC-FT	166	2,580	3,540	2,910	968	724	569	472	345	208	152	165

CAL YR 1970 TOTAL 6,502.4 MEAN 17.8 MAX 1,060 MIN 1.5 AC-FT 12,900

WTR YR 1971 TOTAL 6,452.2 MEAN 17.7 MAX 1,060 MIN 1.6 AC-FT 12,800

PEAK DISCHARGE (BASE, 200 CFS).--Nov. 29 (0800) 2,530 cfs (7.96 ft); Dec. 21 (0400) 964 cfs (7.45 ft).



## SANTA CLARA RIVER BASIN

## 11113900 SATICOY DIVERSION NEAR SATICOY, CALIF.

LOCATION.--Lat 34°17'06", long 119°07'14", in Santa Paula Y Saticoy Grant, Ventura County, on diversion ditch 0.7 mile downstream from Santa Clara River and 1.5 miles east of Saticoy.

PERIOD OF RECORD.--April 1969 to current year. October 1928 to April 1969 in files of United Water Conservation District.

GAGE.--Water-stage recorder. Altitude of gage is 160 ft (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 407 cfs Jan. 5, 6, 1966; no flow at times in most years.

REMARKS.--Water is diverted from left bank of Santa Clara River to percolation basin near Los Angeles Avenue (State Highway 118) and for irrigation in Pleasant Valley. See sta 11110000, Piru Creek near Piru, for report of controlled releases from Lake Piru. Records of chemical analyses for the current year are published in Part 2 of this report.

COOPERATION.--Records furnished by United Water Conservation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	26	0	387	219	159	113	57	52	34	24	14
2	19	26	0	346	225	155	104	61	50	37	24	12
3	21	26	0	320	235	178	116	67	43	37	24	12
4	22	26	0	341	231	176	106	64	45	40	24	15
5	2.9	26	92	303	210	183	84	56	48	46	24	16
6	12	26	235	274	196	178	85	58	46	46	24	16
7	18	26	181	274	214	166	75	55	48	46	24	17
8	34	26	180	269	215	161	69	51	47	43	24	12
9	32	26	177	255	212	158	71	52	47	44	24	12
10	32	26	160	242	214	154	66	56	46	35	24	10
11	32	26	146	241	210	141	61	52	46	42	24	10
12	32	26	136	285	205	152	62	59	46	43	24	12
13	32	20	131	291	197	140	54	62	44	33	24	12
14	32	26	124	227	194	202	118	47	41	28	24	16
15	32	26	106	269	199	162	120	52	36	19	24	17
16	32	26	125	266	196	87	72	56	36	36	24	14
17	32	26	180	248	208	175	59	68	40	57	24	16
18	32	26	124	248	178	166	55	52	43	46	24	15
19	32	26	0	206	191	167	75	47	47	61	24	14
20	32	26	0	214	209	158	79	51	43	58	24	14
21	32	26	0	242	186	165	94	59	34	56	24	19
22	32	26	0	259	194	156	76	59	37	54	24	19
23	32	26	0	235	219	156	63	61	37	58	24	22
24	32	26	94	213	139	162	56	59	37	64	24	22
25	32	25	289	247	3.8	161	61	56	37	56	24	24
26	32	26	324	242	189	159	59	51	39	42	24	26
27	3.0	26	367	202	188	160	61	54	44	34	24	27
28	32	45	375	229	149	148	58	66	41	37	24	26
29	32	0	379	233	-----	142	61	62	37	20	24	28
30	32	0	378	208	-----	131	59	55	43	14	24	30
31	32	-----	389	267	-----	122	-----	55	-----	14	24	-----
TOTAL	956.9	740	4,692	8,083	5,425.8	4,880	2,292	1,760	1,280	1,280	744	519
MEAN	27.6	24.7	151	261	194	157	76.4	56.8	42.7	41.3	24.0	17.3
MAX	34	45	389	387	235	202	120	68	52	64	24	30
MIN	2.9	0	0	202	3.8	87	54	47	34	14	24	10
AC-FT	1,700	1,470	9,310	16,030	10,760	9,680	4,550	3,490	2,540	2,540	1,480	1,030

CAL YR 1970 TOTAL 33,842.90 MEAN 92.7 MAX 389 MIN 0 AC-FT 67,130  
WTR YR 1971 TOTAL 32,552.70 MEAN 89.2 MAX 389 MIN 0 AC-FT 64,570

## 11114000 SANTA CLARA RIVER AT MONTALVO, CALIF.

LOCATION.--Lat 34°14'31", long 119°11'21", in San Miguel Grant, Ventura County, on downstream end of center pier southbound bridge on U.S. Highway 101, 0.9 mile southeast of Montalvo.

DRAINAGE AREA.--1,612 sq mi.

PERIOD OF RECORD.--October 1927 to September 1932, October 1949 to current year. October 1949 to September 1969, published as "at Saticoy." Monthly discharge only for 1950-67 published in WRD 1968 report.

GAGE.--Water-stage recorder. Datum of gage is 51.88 ft above mean sea level (levels by Ventura County Flood Control District). Oct. 1, 1927, to Sept. 30, 1932, and Oct. 1, 1949, to Sept. 30, 1967, at same site at different datums. Oct. 1, 1967, to Feb. 2, 1970, at site 3.9 miles upstream at different datum.

AVERAGE DISCHARGE.--27 years, 114 cfs (82,590 acre-ft per year); median of yearly mean discharges, 22 cfs (15,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 28,800 cfs Nov. 29 (gage height, 10.35 ft); no flow Nov. 1-18. Period of record: Maximum discharge, 165,000 cfs Jan. 25, 1969 (gage height, 17.41 ft, present datum); no flow for long periods in most years. Flood of Mar. 2, 1938, 120,000 cfs, estimated by Ventura County Flood Control District.

REMARKS.--Records poor. Flow partly regulated since May 1955 by Lake Piru (see sta 11109700). Natural flow affected by ground-water withdrawals, diversions, municipal use, and ground-water replenishment. Diversion to spreading grounds and for irrigation in Pleasant Valley, at site 6.0 miles upstream (see sta 11113900). AVERAGE DISCHARGE represents flow to the ocean regardless of upstream development. Records of chemical analyses and suspended-sediment discharge for the current year are published in Part 2 of this report.

COOPERATION.--Twenty-six discharge measurements furnished by Ventura County Flood Control District. Records of diversion furnished by United Water Conservation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	0	565	6.0	14	150	2.1	.31	.29	.30	.04	.04
2	.12	0	513	5.0	14	130	2.1	.29	.29	.27	.04	.04
3	.10	0	390	4.0	9.0	80	2.1	.29	.28	.24	.04	.04
4	.08	0	272	3.5	5.0	50	2.0	.30	.28	.21	.04	.04
5	.05	0	230	3.0	3.5	30	1.5	.40	.28	.18	.04	.04
6	.04	0	25	2.5	3.0	20	1.0	.56	.28	.16	.04	.04
7	.03	0	1.0	2.1	2.0	10	.80	.57	.28	.14	.04	.04
8	.03	0	.9	1.9	1.7	7.0	.53	.56	.28	.12	.04	.04
9	.03	0	.8	1.9	1.4	4.0	.52	.55	.28	.10	.04	.04
10	.03	0	.8	1.9	1.2	2.5	.60	.52	.28	.09	.04	.04
11	.03	0	.8	2.5	1.0	1.8	.90	.50	.28	.08	.04	.04
12	.03	0	.8	3.1	1.0	11	1.5	.48	.28	.08	.03	.04
13	.03	0	.8	70	1.0	10	10	.46	.28	.08	.03	.04
14	.03	0	.8	57	1.1	9.5	58	.44	.28	.08	.03	.04
15	.03	0	.9	50	1.2	9.0	40	.42	.28	.08	.03	.04
16	.04	0	3.0	45	30	8.0	30	.40	.28	.07	.03	.04
17	.04	0	100	100	170	7.0	20	.38	.29	.06	.03	.04
18	.04	0	1,170	450	38	5.0	12	.37	.30	.06	.03	.04
19	.04	.1	2,720	400	35	4.0	9.0	.36	.31	.06	.03	.04
20	.04	.1	678	350	31	3.0	6.0	.35	.32	.06	.03	.04
21	.04	.1	3,890	200	32	2.7	4.0	.35	.33	.06	.03	.04
22	.04	.1	923	160	40	2.5	2.8	.34	.35	.06	.03	.04
23	.04	.1	300	70	100	2.4	2.2	.33	.36	.06	.03	.04
24	.04	.1	100	40	180	2.3	1.9	.33	.37	.06	.03	.04
25	.04	.1	60	30	190	2.2	1.5	.32	.37	.06	.03	.04
26	.04	.1	30	20	190	2.2	1.3	.32	.37	.05	.03	.04
27	.04	.1	20	15	180	2.1	1.1	.32	.37	.05	.03	.04
28	.04	209	15	11	170	2.1	1.0	.31	.36	.05	.04	.04
29	.04	14,300	12	12	-----	2.1	.60	.31	.35	.05	.04	.04
30	.04	2,660	7.0	12	-----	2.1	.40	.30	.33	.05	.04	.04
31	.04	-----	7.0	13	-----	2.1	-----	.30	-----	.05	.04	-----
TOTAL	1.41	17,169.9	12,039.6	2,142.4	1,446.1	576.6	217.45	12.04	9.28	3.12	1.08	1.20
MEAN	.046	572	388	69.1	51.6	18.6	7.25	.39	.31	.10	.035	.040
MAX	.12	14,300	3,890	450	190	150	58	.57	.37	.30	.04	.04
MIN	.03	0	.80	1.9	1.0	1.8	.40	.29	.28	.05	.03	.04
AC-FT	2.8	34,060	23,880	4,250	2,870	1,140	431	24	18	6.2	2.1	2.4
CAL YR 1970	TOTAL 54,705.44		MEAN 150		MAX 14,300		MIN 0		AC-FT 108,500			
WTR YR 1971	TOTAL 33,620.18		MEAN 92.1		MAX 14,300		MIN 0		AC-FT 66,690			

## PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1200	10.35	28,800	12-21	0600	7.15	7,050
12-18	2400	6.83	5,510				

NOTE.--No gage-height record all year except Nov. 29 to Dec. 4, Dec. 18-22.

## VENTURA RIVER BASIN

## 11115500 MATILIJA CREEK AT MATILIJA HOT SPRINGS, CALIF.

LOCATION.--Lat 34°28'58", long 119°18'03", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.28, T.5 N., R.23 W., Ventura County, on right bank 0.2 mile east of Matilija Hot Springs, 0.2 mile upstream from North Fork, and 0.4 mile downstream from Matilija Dam.

DRAINAGE AREA.--54.6 sq mi.

PERIOD OF RECORD.--October 1927 to current year. Combined monthly records for creek and diversion, May 1951 to current year. Prior to October 1953, published as "at Matilija."

GAGE.--Water-stage recorder. Concrete control since September 1969. Altitude of gage is 900 ft (from topographic map). Prior to Feb. 11, 1939, at site 0.6 mile upstream at different datum.

EXTREMES.--Current year: Maximum discharge, 520 cfs Dec. 1 (gage height, 4.20 ft); minimum daily, 0.43 cfs May 22.

Period of record: Maximum discharge, 20,000 cfs Jan. 25, 1969 (gage height, 16.5 ft), from rating curve extended above 4,200 cfs on basis of computation of maximum flow over dam; minimum daily, 0.10 cfs for several days in some years of regulated flow.

REMARKS.--Records good. Flow regulated by Matilija Reservoir March 1948 to March 1964 (capacity, 7,020 acre-ft) and partly regulated since March 1964 (capacity, 3,800 acre-ft).

COOPERATION.--Three discharge measurements furnished by Casitas Municipal Water District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.9	436	60	3.7	4.1	6.7	9.0	12	8.5	4.0	2.7
2	2.1	2.9	370	60	59	3.9	6.7	9.1	12	8.5	4.0	2.7
3	2.2	3.0	153	59	108	4.3	6.7	9.4	12	8.5	4.0	2.7
4	2.2	3.0	52	110	86	4.2	6.7	12	12	8.5	4.0	2.7
5	17	3.9	28	123	37	4.0	6.7	14	12	8.0	3.7	2.7
6	38	3.8	26	86	3.4	4.0	7.2	13	12	7.5	3.2	2.6
7	13	3.4	22	78	3.6	4.0	9.0	13	12	7.0	3.2	2.6
8	2.9	3.4	20	46	3.7	4.0	9.0	13	12	7.0	3.2	2.6
9	2.8	3.3	24	27	3.7	4.1	9.0	13	12	6.8	3.2	2.6
10	2.8	3.3	11	25	3.9	4.3	9.0	13	12	6.7	3.2	2.6
11	2.8	3.3	7.1	13	4.0	4.3	10	13	12	6.5	3.2	2.6
12	2.8	3.3	7.1	4.1	4.3	4.5	9.8	13	11	6.2	3.2	2.5
13	2.8	3.2	7.1	71	4.3	4.5	10	13	11	5.4	3.2	2.5
14	2.8	3.2	7.1	110	4.3	4.3	10	13	11	5.4	3.4	2.5
15	2.8	3.2	7.3	91	4.6	4.3	9.6	13	11	5.5	3.3	2.5
16	2.8	3.2	7.6	50	71	4.7	9.0	13	11	5.2	3.2	2.5
17	2.8	3.3	7.5	50	144	4.3	9.0	7.2	11	4.6	3.2	2.5
18	2.8	3.3	9.1	59	153	4.3	9.0	.83	11	4.6	3.2	2.5
19	2.9	3.3	108	79	101	4.3	9.0	.77	11	4.6	3.2	2.5
20	2.9	3.4	133	99	49	4.4	9.0	.66	11	4.6	3.1	2.5
21	3.1	3.4	163	108	49	4.6	9.0	.63	32	4.6	2.8	2.4
22	3.2	3.5	230	79	65	4.6	9.0	.43	62	4.6	2.8	2.4
23	3.3	3.6	109	3.4	3.7	4.6	9.0	.56	71	4.6	2.8	2.4
24	3.2	3.4	73	3.6	59	4.6	9.0	.64	71	4.6	2.8	2.4
25	3.2	3.8	73	53	62	4.6	9.0	.64	70	4.6	2.8	2.4
26	3.0	4.8	72	120	29	4.6	9.0	2.3	68	4.4	2.8	2.4
27	2.9	3.5	72	44	3.7	4.6	9.0	4.3	67	4.0	2.8	2.4
28	2.9	1.5	69	3.4	4.0	4.6	9.0	7.2	66	4.0	2.8	2.3
29	2.9	82	65	3.4	-----	4.5	9.0	13	54	4.0	2.7	2.3
30	2.9	418	61	3.4	-----	5.4	9.0	13	9.9	4.0	2.7	2.3
31	2.9	-----	59	3.7	-----	6.8	-----	13	-----	4.0	2.7	-----
TOTAL	147.1	593.1	2,488.9	1,725.0	1,126.9	138.3	261.1	261.66	801.9	177.0	98.4	75.3
MEAN	4.75	19.8	80.3	55.6	40.2	4.46	8.70	8.44	26.7	5.71	3.17	2.51
MAX	38	418	436	123	153	6.8	10	14	71	8.5	4.0	2.7
MIN	2.1	1.5	7.1	3.4	3.4	3.9	6.7	.43	9.9	4.0	2.7	2.3

CAL YR 1970 TOTAL 8,520.60 MEAN 23.3 MAX 469 MIN .47 AC-FT 16,900  
WTR YR 1971 TOTAL 7,894.66 MEAN 21.6 MAX 436 MIN .43 AC-FT 15,600

NOTE.--No gage-height record Aug. 25 to Sept. 30.

## 11116000 NORTH FORK MATILIJA CREEK AT MATILIJA HOT SPRINGS, CALIF.

LOCATION.--Lat 34°29'33", long 119°18'20", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.29, T.5 N., R.23 W., Ventura County, on right bank at bridge on U.S. Highway 399, 0.7 mile north of Matilija Hot Springs, and 0.8 mile upstream from mouth.

DRAINAGE AREA.--15.6 sq mi.

PERIOD OF RECORD.--October 1928 to September 1932, October 1933 to current year. Prior to October 1953, published as "at Matilija."

GAGE.--Water-stage recorder. Concrete control since September 1966. Datum of gage is 1,142.02 ft above mean sea level (levels by Ventura County Flood Control District). Prior to Nov. 12, 1948, at site 0.3 mile downstream at different datum.

AVERAGE DISCHARGE.--42 years, 10.3 cfs (7,460 acre-ft per year); median of yearly mean discharges, 4.0 cfs (2,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,060 cfs Nov. 29 (gage height, 5.12 ft); minimum daily, 0.85 cfs Sept. 13, 14, 24-26, 29, 30.

Period of record: Maximum discharge, 9,440 cfs Feb. 24, 1969 (gage height, 11.0 ft, from floodmark), from rating curve extended above 1,700 cfs on basis of slope-area measurement at gage height 10.0 ft; minimum daily, 0.10 cfs for several days in some years.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by Ventura County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.2	16	17	7.4	6.6	4.4	3.4	3.1	1.9	1.2	1.0
2	1.2	1.2	14	16	7.0	6.6	4.4	3.4	3.1	1.9	1.2	1.0
3	1.2	1.3	13	14	7.0	6.6	4.0	3.4	3.1	1.9	1.2	1.0
4	1.2	1.3	11	13	7.0	6.6	4.0	3.4	2.8	1.9	1.3	1.0
5	1.2	1.7	8.4	12	6.6	6.2	3.4	3.7	2.8	1.9	1.3	1.0
6	1.2	1.7	6.2	12	6.6	6.2	3.4	4.0	2.8	1.9	1.2	1.0
7	1.2	1.5	5.1	12	6.6	6.2	3.7	4.0	2.8	1.9	1.2	1.0
8	1.2	1.3	5.1	11	6.2	6.2	3.7	3.4	2.8	1.9	1.0	1.0
9	1.0	1.3	5.1	11	6.2	5.8	3.7	3.4	2.8	1.7	1.0	1.0
10	1.2	1.2	4.8	11	6.2	5.8	4.0	3.4	2.8	1.7	1.0	1.0
11	1.2	1.2	4.4	11	6.6	5.8	4.0	3.1	2.8	1.7	1.0	1.0
12	1.2	1.2	4.0	13	6.6	5.8	3.7	3.1	2.6	1.7	1.0	1.0
13	1.2	1.3	4.0	14	6.6	7.0	4.0	3.1	2.6	1.7	1.0	.85
14	1.2	1.3	4.0	13	6.6	5.4	5.1	3.1	2.6	1.7	1.0	.85
15	1.2	1.3	4.0	12	7.0	5.1	4.0	3.1	2.4	1.7	1.0	1.0
16	1.2	1.3	4.4	11	10	4.8	4.0	3.1	2.4	1.5	1.0	1.0
17	1.2	1.3	4.4	13	21	4.8	4.0	2.8	2.4	1.5	1.0	1.2
18	1.2	1.3	23	14	12	4.4	4.0	2.8	2.4	1.5	1.0	1.2
19	1.2	1.3	43	13	9.4	4.8	3.7	2.8	2.4	1.5	1.2	1.2
20	1.2	1.2	25	11	8.9	4.8	3.7	2.8	2.4	1.5	1.2	1.0
21	1.3	1.3	110	11	7.9	4.8	3.7	2.6	2.1	1.5	1.0	1.0
22	1.3	1.3	44	9.4	7.4	4.8	3.7	2.6	2.1	1.5	1.2	1.2
23	1.3	1.3	23	8.9	7.4	5.1	3.4	2.6	2.1	1.5	1.2	1.2
24	1.3	1.2	19	8.4	7.0	5.1	3.4	2.6	2.1	1.5	1.2	.85
25	1.3	1.3	17	7.9	7.4	5.1	3.4	2.6	2.1	1.5	1.2	.85
26	1.3	1.9	19	7.9	7.4	5.1	3.4	2.6	2.1	1.3	1.2	.85
27	1.2	1.3	20	7.4	7.4	4.8	3.4	2.6	2.1	1.3	1.0	1.0
28	1.2	4.7	18	7.4	7.0	4.4	3.4	3.1	2.1	1.3	1.0	1.0
29	1.2	497	17	7.4	-----	4.4	3.4	3.1	2.1	1.2	1.0	.85
30	1.0	36	18	7.4	-----	4.4	3.4	3.1	2.1	1.2	1.0	.85
31	1.2	-----	20	7.4	-----	4.4	-----	3.1	-----	1.2	1.0	-----
TOTAL	37.4	573.7	533.9	344.5	220.4	167.9	113.5	95.9	74.9	49.6	34.0	29.95
MEAN	1.21	19.1	17.2	11.1	7.87	5.42	3.78	3.09	2.50	1.60	1.10	1.00
MAX	1.3	497	110	17	21	7.0	5.1	4.0	3.1	1.9	1.3	1.2
MIN	1.0	1.2	4.0	7.4	6.2	4.4	3.4	2.6	2.1	1.2	1.0	.85
AC-FT	74	1,140	1,060	683	437	333	225	190	149	98	67	59

CAL YR 1970 TOTAL 2,735.00 MEAN 7.49 MAX 497 MIN 1.0 AC-FT 5,420  
WTR YR 1971 TOTAL 2,275.65 MEAN 6.23 MAX 497 MIN .85 AC-FT 4,510

## PEAK DISCHARGE (BASE, 40 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0600	5.12	2,060	2-17	0130	2.02	41
12-21	0330	3.00	220				

## VENTURA RIVER BASIN

11116550 VENTURA RIVER NEAR MEINERS OAKS, CALIF.

LOCATION.--Lat 34°27'54", long 119°17'20", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.33, T.5 N., R.23 W., Ventura County, on right bank 50 ft downstream from Robles diversion dam and 1.2 miles northwest of Meiners Oaks.

DRAINAGE AREA.--76.4 sq mi.

PERIOD OF RECORD.--May 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 750.00 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Oct. 30, 1969, at site 500 ft downstream at datum 5.40 ft lower.

EXTREMES.--Current year: Maximum discharge, 1,560 cfs (estimated) Nov. 29 (gage height, 10.7 ft, from floodmarks); no flow much of year.

Period of record: Maximum discharge, 28,000 cfs (estimated) Jan. 25, 1969 (gage height, unknown); no flow for several months in most years.

REMARKS.--Records fair. Flow regulated by Matilija Reservoir (capacity, 3,800 acre-ft). Flow up to 500 cfs diverted since May 1959 at Robles diversion dam to Lake Casitas on Coyote Creek. Flow reported herein is that released through gates in Robles diversion dam.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	10	11	4.4	8.2	24	6.3	8.3	7.0		0
2	0	0	15	9.7	5.3	11	47	7.0	8.6	5.0		.64
3	0	0	14	12	4.3	15	8.4	6.8	8.6	4.3		.97
4	0	0	14	11	1.5	13	10	8.4	8.6	4.0		.76
5	5.7	0	13	7.0	1.8	23	11	9.8	8.6	4.3		.71
6	36	.01	16	4.0	7.2	16	10	10	8.9	4.2		.60
7	15	0	16	2.9	8.5	11	11	10	9.4	3.2		.11
8	0	0	30	2.8	2.3	10	11	9.8	9.4	3.0		0
9	0	0	31	8.6	3.5	7.4	11	9.5	9.0	2.8		0
10	0	0	14	8.3	1.8	6.3	9.6	9.3	9.0	2.2		0
11	0	0	10	15	3.9	6.0	6.6	9.4	9.0	2.0		0
12	0	0	10	18	13	6.8	6.4	9.4	9.0	1.5		0
13	0	0	11	11	5.1	17	7.0	9.3	9.3	.60		0
14	0	0	10	6.3	3.0	8.7	5.4	9.0	8.9	.38		0
15	0	0	10	5.2	6.4	10	.38	9.4	8.9	0		0
16	0	0	12	5.7	8.8	21	8.9	9.6	9.0	0		0
17	0	0	11	6.2	4.5	29	6.9	5.6	9.3	0		0
18	0	0	8.6	6.7	3.5	33	6.5	.50	9.3	0		0
19	0	0	3.3	8.7	3.2	30	6.5	.50	8.9	0		0
20	0	0	4.0	9.8	2.4	26	6.5	.50	8.5	0		0
21	0	0	2.9	9.8	3.1	29	6.5	.50	7.1	0		0
22	0	0	0	7.7	6.1	28	6.4	.50	6.9	0		0
23	0	0	0	5.3	8.0	27	5.9	.50	6.7	0		0
24	0	0	.48	4.9	16	25	5.9	.50	6.5	0		0
25	0	0	1.3	7.5	12	23	5.9	.50	6.4	0		0
26	0	.03	5.2	8.4	8.9	19	5.0	.50	6.2	0		0
27	0	.04	5.4	7.4	7.3	17	5.6	.50	6.2	0		0
28	0	.55	3.4	6.9	6.4	16	5.9	2.0	6.2	0		0
29	0	270	7.2	6.3	-----	9.2	6.4	8.0	6.1	0		0
30	0	7.7	9.6	5.7	-----	5.7	6.1	8.0	11	0		0
31	0	-----	8.4	4.6	-----	6.9	-----	7.9	-----	0		-----
TOTAL	56.7	278.33	306.88	244.4	162.6	514.2	273.68	179.50	247.8	44.48	0	3.79
MEAN	1.83	9.28	9.90	7.88	5.81	16.6	9.12	5.79	8.26	1.43	0	.13
MAX	36	270	31	18	16	33	47	10	11	7.0	0	.97
MIN	0	0	0	2.8	1.5	5.7	.38	.50	6.1	0	0	0

CAL YR 1970 TOTAL 1,767.34 MEAN 4.84 MAX 270 MIN 0 AC-FT 3,510  
WTR YR 1971 TOTAL 2,312.36 MEAN 6.34 MAX 270 MIN 0 AC-FT 4,590

## 11117500 SAN ANTONIO CREEK AT CASITAS SPRINGS, CALIF.

LOCATION.--Lat 34°22'49", long 119°18'13", in Santa Ana Grant, Ventura County, on downstream side of bridge on U.S. Highway 399, 0.2 mile upstream from mouth, and 0.9 mile north of Casitas Springs.

DRAINAGE AREA.--51.2 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 307.25 ft above mean sea level (levels by Ventura County Flood Control District). Prior to Jan. 30, 1962, at datum 0.30 ft higher.

AVERAGE DISCHARGE.--22 years, 11.4 cfs (8,260 acre-ft per year); median of yearly mean discharges, 1.9 cfs (1,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,150 cfs Dec. 18 (gage height, 6.57 ft); minimum daily, 0.44 cfs Sept. 14-30.

Period of record: Maximum discharge, 16,200 cfs Jan. 25, 1969 (gage height, 14.30 ft, from inside gage), from rating curve extended above 2,000 cfs on basis of slope-area measurement of maximum flow; no flow for several months in most years.

REMARKS.--No regulation above station; pumping from wells along creek for irrigation.

COOPERATION.--Records furnished by Ventura County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.53	.76	7.3	7.3	5.0	4.6	3.9	3.6	2.8	1.9	1.0	.53
2	.53	.89	6.1	7.8	5.0	4.6	3.9	3.6	2.8	1.9	1.0	.53
3	.64	.76	5.3	6.9	5.0	4.6	3.9	3.6	2.8	1.9	1.0	.53
4	.64	.89	5.0	6.5	5.0	4.6	3.9	3.6	2.8	1.9	.89	.53
5	.64	1.5	4.6	6.1	5.0	5.0	3.6	3.6	2.8	1.9	.76	.53
6	.89	1.9	4.2	6.1	5.0	5.0	3.6	3.6	2.8	1.9	.76	.53
7	1.0	1.3	3.6	6.1	5.0	5.0	3.6	3.6	2.8	1.9	.76	.53
8	.89	1.0	3.3	6.5	4.6	5.0	3.6	3.3	2.8	1.9	.76	.53
9	.89	.89	6.9	6.1	4.6	5.0	3.6	3.3	2.8	1.9	.76	.53
10	.76	.89	3.6	5.7	4.6	5.3	3.6	3.3	2.8	1.9	.76	.53
11	.64	.89	3.0	5.7	4.6	5.7	3.6	3.3	2.8	1.9	.76	.53
12	.76	.89	2.8	16	4.2	5.7	3.6	3.3	2.8	1.7	.76	.53
13	.89	.76	2.6	33	4.2	22	3.6	3.3	2.6	1.7	.64	.53
14	.89	.76	3.9	10	4.2	6.1	8.5	3.3	2.3	1.7	.64	.44
15	1.0	.76	2.3	7.3	4.6	5.7	3.6	3.3	2.3	1.7	.64	.44
16	1.2	.76	9.7	6.5	13	5.0	3.6	3.0	2.3	1.7	.64	.44
17	1.2	.89	7.9	6.5	30	4.6	3.6	3.0	2.3	1.7	.64	.44
18	.89	.89	393	6.1	5.7	4.2	3.6	2.8	2.3	1.5	.64	.44
19	.76	.76	197	6.1	5.3	4.2	3.6	2.8	2.3	1.3	.64	.44
20	.76	.64	25	5.7	4.6	4.2	3.6	2.8	2.1	1.3	.64	.44
21	.89	.64	368	5.7	5.0	4.2	3.6	2.8	2.1	1.2	.64	.44
22	.89	.76	53	5.7	5.3	5.0	3.6	2.8	1.9	1.2	.64	.44
23	1.0	.76	25	5.7	5.0	4.6	3.6	2.5	1.9	1.2	.64	.44
24	1.2	.76	18	5.3	5.0	5.0	3.6	2.6	1.9	1.2	.64	.44
25	1.0	.89	15	5.3	4.6	5.0	3.6	2.6	1.9	1.2	.64	.44
26	.89	4.2	12	5.0	4.2	5.0	3.6	2.6	1.9	1.2	.53	.44
27	.76	2.3	11	5.0	4.6	5.0	3.6	2.6	1.9	1.0	.53	.44
28	.76	2.8	10	5.0	4.6	5.0	3.6	3.3	1.9	1.0	.53	.44
29	.76	525	9.3	5.3	-----	4.6	3.6	3.8	1.9	1.0	.53	.44
30	.76	33	8.3	5.3	-----	4.6	3.6	3.3	1.9	1.0	.53	.44
31	.76	-----	8.3	5.0	-----	4.2	-----	2.8	-----	1.0	.53	-----
TOTAL	26.07	589.89	1,235.0	226.3	167.5	168.3	114.1	97.7	71.3	47.4	21.47	14.37
MEAN	.84	19.7	39.8	7.30	5.98	5.43	3.80	3.15	2.38	1.53	.69	.48
MAX	1.2	525	393	33	30	22	8.5	3.8	2.8	1.9	1.0	.53
MIN	.53	.64	2.3	5.0	4.2	4.2	3.6	2.5	1.9	1.0	.53	.44
AC-FT	52	1,170	2,450	449	332	334	226	194	141	94	43	29

CAL YR 1970 TOTAL 4,017.99 MEAN 11.0 MAX 525 MIN .53 AC-FT 7,970  
WTR YR 1971 TOTAL 2,779.40 MEAN 7.61 MAX 525 MIN .44 AC-FT 5,510

## PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0730	6.45	1,600	12-21	0400	6.24	1,560
12-18	2130	6.57	2,150				

## VENTURA RIVER BASIN

11117600 COYOTE CREEK NEAR OAK VIEW, CALIF.

LOCATION.--Lat 34°25'02", long 119°22'01", in Santa Ana Grant, Ventura County, on right bank 1,000 ft downstream from Los Padres National Forest boundary, 0.6 mile upstream from Poplin Creek, and 4.2 miles northwest of Oak View.

DRAINAGE AREA.--13.2 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 560.47 ft above mean sea level (Bureau of Reclamation bench mark).

AVERAGE DISCHARGE.--13 years, 6.49 cfs (4,700 acre-ft per year); median of yearly mean discharges, 2.2 cfs (1,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,430 cfs Nov. 29 (gage height, 8.96 ft); minimum daily, 0.18 cfs Sept. 13.

Period of record: Maximum discharge, 8,000 cfs Jan. 25, 1969 (gage height, 12.00 ft, from floodmarks), from rating curve extended above 2,100 cfs on basis of slope-area measurements at gage heights 9.10 and 12.00 ft; no flow at times in most years.

REMARKS.--Records good. No regulation or diversion above station.

COOPERATION.--Two discharge measurements furnished by Casitas Municipal Water District.

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.34	6.6	9.1	3.0	2.6	1.7	1.4	1.0	.70	.39	.30
2	.22	.34	7.2	8.4	3.0	2.6	1.6	1.4	1.0	.70	.39	.35
3	.23	.36	4.5	7.5	3.0	2.6	1.6	1.4	1.0	.68	.36	.35
4	.23	.36	3.3	6.8	2.8	2.6	1.6	1.4	.97	.66	.38	.35
5	.24	.41	2.8	6.2	2.6	2.4	1.6	1.4	.97	.67	.37	.30
6	.25	.38	2.1	5.8	2.6	2.3	1.6	1.3	1.0	.65	.37	.27
7	.23	.35	1.8	5.4	2.6	2.3	1.6	1.5	1.0	.65	.37	.25
8	.24	.34	1.7	5.0	2.5	2.3	1.7	1.4	1.0	.63	.36	.23
9	.23	.35	1.8	4.6	2.4	2.3	1.7	1.4	1.0	.61	.35	.22
10	.24	.36	1.7	4.4	2.5	2.3	1.7	1.3	1.0	.59	.36	.22
11	.25	.33	1.7	4.2	2.5	2.3	1.7	1.3	.95	.58	.36	.21
12	.26	.37	1.6	6.4	2.4	2.5	1.6	1.2	.94	.57	.30	.20
13	.26	.39	1.6	17	2.3	5.0	1.5	1.2	.90	.55	.32	.18
14	.26	.39	1.5	12	2.2	2.8	2.0	1.2	.86	.54	.33	.19
15	.27	.41	1.4	8.0	2.3	2.2	1.7	1.2	.85	.54	.33	.22
16	.27	.42	1.6	6.9	3.4	2.1	1.6	1.1	.85	.54	.32	.28
17	.27	.42	1.7	5.9	20	2.1	1.6	1.1	.84	.51	.30	.30
18	.26	.43	76	5.8	4.9	2.0	1.5	1.2	.84	.49	.30	.27
19	.28	.42	84	5.5	4.0	2.0	1.5	1.1	.83	.48	.30	.24
20	.28	.42	21	5.1	3.6	2.0	1.6	1.1	.77	.47	.30	.22
21	.30	.43	184	4.9	3.2	1.9	1.5	1.1	.74	.46	.32	.26
22	.30	.45	21	4.7	3.0	1.9	1.5	1.1	.74	.46	.33	.26
23	.30	.44	15	4.4	3.0	1.9	1.5	1.1	.74	.48	.31	.25
24	.30	.40	14	4.0	2.8	1.9	1.4	.92	.73	.49	.31	.24
25	.30	.51	13	3.8	2.7	1.9	1.4	.91	.74	.47	.30	.26
26	.30	.55	12	3.6	2.8	1.9	1.4	.89	.74	.45	.35	.27
27	.29	.42	12	3.5	2.8	1.9	1.4	.90	.76	.42	.35	.29
28	.30	.77	11	3.4	2.7	1.9	1.4	1.1	.74	.41	.35	.28
29	.31	275	11	3.3	-----	1.8	1.4	1.0	.73	.40	.35	.27
30	.31	26	10	3.3	-----	1.8	1.4	1.0	.70	.39	.35	.27
31	.33	-----	9.5	3.1	-----	1.7	-----	1.1	-----	.38	.35	-----
TOTAL	8.32	312.56	538.1	182.0	97.7	69.8	47.0	36.72	25.93	16.62	10.55	7.80
MEAN	.27	10.4	17.4	5.87	3.49	2.25	1.57	1.18	.86	.54	.34	.26
MAX	.33	275	184	17	20	5.0	2.0	1.5	1.0	.70	.39	.35
MIN	.21	.33	1.4	3.1	2.3	1.7	1.4	.89	.70	.38	.30	.18

CAL YR 1970 TOTAL 1,562.35 MEAN 4.28 MAX 275 MIN .20 AC-FT 4,000  
WTR YR 1971 TOTAL 1,353.10 MEAN 3.71 MAX 275 MIN .18 AC-FT 2,680

## PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0630	8.96	1,430	12-21	0330	8.53	904
12-18	2145	7.54	324				

## 11117800 SANTA ANA CREEK NEAR OAK VIEW, CALIF.

LOCATION.--Lat 34°25'25", long 119°20'25", in Santa Ana Grant, Ventura County, on upstream end of right abutment of bridge, 400 ft upstream from unnamed tributary, and 3.0 miles northwest of Oak View.

DRAINAGE AREA.--9.11 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 612.43 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Aug. 17, 1970, on downstream end of right abutment.

AVERAGE DISCHARGE.--13 years, 5.44 cfs (3,940 acre-ft per year); median of yearly mean discharges, 1.6 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 806 cfs Nov. 29 (gage height, 8.44 ft); no flow Oct. 1 to Nov. 28, July 28 to Sept. 30.

Period of record: Maximum discharge, 4,730 cfs Jan. 25, 1969 (gage height, 10.70 ft); no flow at times in each year.

Flood of Mar. 2, 1938, 3,780 cfs, by slope-area measurement at site 2.0 miles downstream.

REMARKS.--Records good. No regulation or diversion above station.

COOPERATION.--Three discharge measurements furnished by Casitas Municipal Water District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	16	10	2.8	2.1	1.3	.34	.36	.11		
2		0	14	11	2.8	1.9	1.1	.74	.38	.08		
3		0	7.8	9.4	2.7	1.6	.97	.76	.35	.07		
4		0	6.5	8.0	2.6	1.7	.87	.35	.35	.09		
5		0	6.1	7.0	2.6	1.5	.64	.52	.35	.08		
6		0	5.1	6.2	2.7	1.4	.51	.83	.40	.12		
7		0	2.8	5.7	2.6	1.4	.53	1.0	.40	.09		
8		0	2.4	5.2	2.5	1.3	.55	.86	.40	.11		
9		0	2.3	4.9	2.2	1.3	.53	.78	.40	.09		
10		0	2.0	4.1	2.1	1.2	.53	.59	.40	.09		
11		0	1.9	3.8	2.1	1.2	.49	.56	.35	.06		
12		0	1.8	5.8	2.0	1.3	.46	.75	.31	.08		
13		0	1.7	13	1.9	3.6	.48	.54	.27	.06		
14		0	1.8	9.8	1.9	1.4	1.3	.51	.23	.08		
15		0	1.7	7.3	1.9	1.3	1.0	.43	.19	.08		
16		0	2.3	6.5	3.6	1.2	.81	.43	.14	.08		
17		0	2.2	6.4	14	1.2	.81	.38	.14	.08		
18		0	19	7.4	3.4	1.3	.80	.37	.14	.06		
19		0	37	7.4	2.6	1.2	.72	.23	.14	.05		
20		0	31	6.6	3.0	1.2	.70	.17	.14	.03		
21		0	137	6.0	2.7	1.2	.70	.16	.14	.03		
22		0	38	5.5	2.6	1.3	.66	.17	.14	.02		
23		0	21	5.1	2.5	1.3	.64	.17	.14	.03		
24		0	16	4.7	2.1	1.3	.60	.26	.14	.04		
25		0	13	4.3	2.3	1.3	.60	.16	.12	.05		
26		0	13	4.1	2.7	1.3	.50	.13	.12	.02		
27		0	13	3.9	2.6	1.4	.44	.17	.12	.01		
28		0	12	3.6	2.2	1.4	.41	.36	.12	0		
29		131	10	3.4	-----	1.4	.40	.46	.12	0		
30		32	10	3.1	-----	1.4	.35	.44	.11	0		
31		-----	10	3.1	-----	1.4	-----	.41	-----	0		-----
TOTAL	0	163	458.4	192.3	81.7	45.0	20.40	14.03	7.11	1.79	0	0
MEAN	0	5.43	14.8	6.20	2.92	1.45	.68	.45	.24	.058	0	0
MAX	0	131	137	13	14	3.6	1.3	1.0	.40	.12	0	0
MIN	0	0	1.7	3.1	1.9	1.2	.35	.13	.11	0	0	0

CAL YR 1970 TOTAL 1,236.30 MEAN 3.39 MAX 154 MIN 0 AC-FT 2,450  
WTR YR 1971 TOTAL 983.73 MEAN 2.70 MAX 137 MIN 0 AC-FT 1,950

PEAK DISCHARGE (BASE, 150 CFS).--Nov. 29 (0645) 806 cfs (8.44 ft); Dec. 21 (0315) 368 cfs (7.83 ft).



## VENTURA RIVER BASIN

11118000 COYOTE CREEK NEAR VENTURA, CALIF.

LOCATION.--Lat 34°21'26", long 119°18'46", near southeast corner of Santa Ana Grant, Ventura County, on right bank 200 ft downstream from county highway bridge, 0.3 mile upstream from mouth, and 5.5 miles northwest of Ventura.

DRAINAGE AREA.--41.2 sq mi.

PERIOD OF RECORD.--October 1927 to September 1932, October 1933 to September 1958, October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 224.95 ft above mean sea level (Ventura County Flood Control bench mark). See WSP 1735 for history of changes prior to Oct. 1, 1969.

AVERAGE DISCHARGE.--30 years (1927-32, 1933-58), 13.2 cfs (9,560 acre-ft per year); median of yearly mean discharges, 5.1 cfs (3,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 47 cfs Dec. 21 (gage height, 6.95 ft); no flow Oct. 1-5, July 17 to Sept. 30.

Period of record: Maximum discharge, 11,500 cfs Mar. 2, 1938, on basis of slope-area measurement of maximum flow; no flow at times in some years.

REMARKS.--Records good. Flow mostly regulated since October 1959 by Casitas Reservoir (capacity, 267,000 acre-ft).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.04	.74	.70	.62	.54	.13	.12	.09	.06		
2	0	.05	.66	.73	.62	.51	.13	.12	.09	.06		
3	0	.05	.43	.70	.62	.55	.14	.12	.08	.06		
4	0	.05	.32	.70	.62	.54	.13	.11	.08	.06		
5	0	.09	.30	.70	.57	.51	.13	.12	.08	.06		
6	.01	.07	.29	.70	.57	.49	.12	.12	.08	.06		
7	.01	.05	.31	.70	.56	.51	.12	.11	.09	.06		
8	.01	.05	.31	.70	.53	.49	.11	.11	.09	.05		
9	.01	.04	.31	.66	.53	.48	.11	.11	.09	.05		
10	.01	.04	.30	.66	.53	.49	.11	.11	.09	.04		
11	.02	.04	.31	.66	.53	.48	.11	.11	.09	.04		
12	.02	.04	.31	.85	.51	.53	.11	.11	.07	.02		
13	.02	.03	.32	1.4	.49	.63	.11	.11	.08	.02		
14	.02	.03	.33	.77	.49	.37	.19	.11	.08	.01		
15	.02	.03	.34	.70	.48	.35	.14	.11	.07	.01		
16	.03	.03	.48	.65	.69	.33	.13	.11	.07	.01		
17	.03	.04	.39	.66	.84	.42	.13	.11	.07	0		
18	.03	.04	2.9	.66	.50	.29	.12	.10	.07	0		
19	.03	.04	6.3	.90	.50	.28	.11	.10	.07	0		
20	.03	.04	1.6	.67	.49	.27	.10	.10	.06	0		
21	.03	.04	14	.66	.47	.27	.10	.10	.06	0		
22	.03	.04	1.6	.66	.49	.26	.09	.10	.06	0		
23	.04	.04	1.0	.66	.49	.24	.09	.10	.06	0		
24	.04	.04	.92	.62	.49	.25	.09	.10	.05	0		
25	.04	.06	.91	1.7	.49	.23	.09	.10	.06	0		
26	.04	.09	.90	.74	.49	.21	.09	.09	.06	0		
27	.04	.06	1.1	.61	.53	.19	.11	.09	.06	0		
28	.03	.17	.88	.59	.53	.18	.12	.09	.07	0		
29	.03	7.0	.76	.61	-----	.15	.12	.09	.06	0		
30	.04	1.3	.74	.62	-----	.14	.11	.09	.06	0		
31	.04	-----	.74	.62	-----	.14	-----	.09	-----	0		-----
TOTAL	.70	9.73	40.80	22.96	15.27	11.32	3.49	3.26	2.19	.67	0	0
MEAN	.023	.32	1.32	.74	.55	.37	.12	.11	.073	.022	0	0
MAX	.04	7.0	14	1.7	.84	.63	.19	.12	.09	.06	0	0
MIN	0	.03	.29	.59	.47	.14	.09	.09	.05	0	0	0
AC-FT	1.4	19	81	46	30	22	6.9	6.5	4.3	1.3	0	0

CAL YR 1970 TOTAL 166.67 MEAN .46 MAX 14 MIN 0 AC-FT 331  
WTR YR 1971 TOTAL 110.39 MEAN .30 MAX 14 MIN 0 AC-FT 219

## 11118500 VENTURA RIVER NEAR VENTURA, CALIF.

LOCATION.--Lat 34°21'08", long 119°18'27", in southeast corner of Santa Ana Grant, Ventura County, on right bank 50 ft downstream from county road bridge at Foster Memorial Park, 0.2 mile downstream from Coyote Creek, and 5 miles north of Ventura.

DRAINAGE AREA.--188 sq mi.

PERIOD OF RECORD.--September 1911 to January 1914, October 1929 to current year; combined records of river and diversion, October 1932 to current year.

GAGE.--Water-stage recorder on river; water-stage recorder and Parshall flume on diversion. Datum of gage is 205.23 ft above mean sea level (Ventura County Flood Control bench mark). See WSP 1315-B for history of changes prior to Nov. 2, 1949. Nov. 2, 1949, to June 12, 1969, at site 450 ft downstream at datum 4.00 ft lower.

AVERAGE DISCHARGE (River only).--44 years (1911-13, 1929-71), 57.5 cfs (41,660 acre-ft per year); median of yearly mean discharges, 19 cfs (13,800 acre-ft per year).

(Combined river and diversion).--39 years, 67.2 cfs (48,690 acre-ft per year); median of yearly mean discharges, 24 cfs (17,400 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 3,120 cfs Dec. 21 (gage height, 9.40 ft); no flow Oct. 10-22, Nov. 4, 13-26, Sept. 14, 16-30.

Period of record: Maximum discharge, 58,000 cfs Jan. 25, 1969 (gage height, 24.3 ft, present datum, from floodmarks), from rating curve extended above 19,600 cfs on basis of contracted-opening measurement of maximum flow; no flow at times in many years.

(Combined flow).--Current year: Maximum discharge, 3,130 cfs Dec. 21; minimum daily, 4.4 cfs Oct. 21.

Period of record: Maximum discharge, 58,000 cfs Jan. 25, 1969; minimum daily, 0.10 cfs Sept. 3, 4, 13, 1961.

REMARKS.--Records good. Flow partly regulated since March 1948 by Matilija Reservoir (capacity, 3,800 acre-ft) and since October 1959 by Casitas Reservoir (capacity, 267,000 acre-ft). Water diverted to Casitas Reservoir on Coyote Creek since January 1959. Diversion by city of Ventura for municipal supply began prior to 1911. Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report. AVERAGE DISCHARGE (River only) represents flow to ocean regardless of upstream development. For records of combined discharge of river and Ventura City diversion, see following page.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.07	7.2	17	12	14	15	12	12	2.4	1.8	.69
2	.02	.06	11	19	12	16	15	10	11	2.5	1.9	.77
3	.02	.03	8.6	17	13	18	13	11	8.8	2.7	2.1	1.1
4	.02	0	7.2	18	12	19	13	11	5.8	2.4	2.5	1.0
5	.04	.01	5.9	18	13	18	11	8.3	10	3.9	2.7	.91
6	.27	.41	6.0	16	15	19	8.5	11	14	2.3	2.8	.75
7	.31	.70	6.0	16	13	16	8.7	15	9.6	2.1	2.5	.74
8	.49	.83	6.1	15	11	15	10	13	7.7	1.8	2.5	.92
9	.04	.68	16	15	11	15	9.3	17	7.6	2.6	2.7	1.1
10	0	.37	8.2	15	12	16	5.0	15	4.1	3.0	2.2	1.2
11	0	.12	4.7	21	12	15	9.8	13	8.1	2.5	1.0	.81
12	0	.01	3.3	33	12	17	9.0	15	7.6	2.5	.75	.47
13	0	0	3.4	58	7.4	39	7.3	16	7.0	2.9	1.3	.02
14	0	0	4.1	27	9.3	21	17	14	7.0	2.4	1.8	0
15	0	0	3.8	19	11	16	14	19	7.0	3.2	2.0	.01
16	0	0	7.2	16	17	14	13	14	6.0	2.3	1.9	0
17	0	0	7.2	17	47	16	14	11	6.0	.58	1.7	0
18	0	0	518	16	18	14	12	6.9	6.0	1.2	1.7	0
19	0	0	438	18	13	14	14	7.3	6.0	2.0	1.8	0
20	0	0	62	21	10	14	10	8.6	6.0	3.1	1.8	0
21	0	0	821	22	12	16	7.2	8.0	6.0	2.8	1.6	0
22	0	0	90	22	12	15	11	8.8	6.0	3.2	1.7	0
23	.04	0	36	19	12	15	9.3	9.9	5.0	1.4	1.4	0
24	.04	0	27	18	10	15	7.0	13	5.0	1.1	1.2	0
25	.06	0	24	19	12	15	8.1	12	5.0	1.1	.13	0
26	.08	0	24	20	11	15	10	8.1	5.0	2.2	.47	0
27	.09	.43	23	17	11	17	12	7.7	4.0	2.0	.60	0
28	.09	1.2	20	14	11	17	12	13	4.0	1.6	.74	0
29	.16	870	18	13	-----	14	9.1	17	3.0	1.5	.82	0
30	.13	50	19	13	-----	12	10	20	3.0	1.7	.77	0
31	.09	-----	18	12	-----	14	-----	18	-----	1.7	.69	-----
TOTAL	2.01	924.92	2,253.9	601	371.7	511	324.3	383.6	203.3	68.68	49.57	10.49
MEAN	.065	30.8	72.7	19.4	13.3	16.5	10.8	12.4	6.78	2.22	1.60	.35
MAX	.49	870	821	58	47	39	17	20	14	3.9	2.8	1.2
MIN	0	0	3.3	12	7.4	12	5.0	6.9	3.0	.58	.13	0

CAL YR 1970 TOTAL 7,399.36 MEAN 20.3 MAX 870 MIN 0 AC-FT 14,680  
WTR YR 1971 TOTAL 5,704.47 MEAN 15.6 MAX 870 MIN 0 AC-FT 11,310

## PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0815	9.10	2,750	12-21	0445	9.40	3,120
12-18	2230	8.89	2,540				

## VENTURA RIVER BASIN

11118500 VENTURA RIVER NEAR VENTURA, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF VENTURA RIVER AND VENTURA CITY DIVERSION NEAR VENTURA, CALIF., WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	7.7	14	21	18	17	20	18	20	10	11	9.2
2	8.5	8.8	17	24	17	19	20	17	20	10	11	8.0
3	8.5	8.9	15	24	17	22	19	18	23	10	11	8.5
4	8.5	8.6	12	25	17	22	19	18	19	10	10	9.6
5	5.5	7.5	10	25	18	22	20	18	18	9.7	11	9.2
6	7.3	7.2	10	23	20	24	20	18	20	10	11	9.0
7	7.1	7.5	11	23	18	21	17	21	19	11	11	6.9
8	6.8	7.6	15	20	16	21	16	20	18	11	9.3	6.3
9	7.8	8.5	26	22	16	20	17	21	18	11	9.8	7.1
10	7.8	8.8	14	22	17	24	16	21	16	10	11	8.4
11	7.8	8.4	13	28	17	21	17	22	17	10	12	9.1
12	7.8	7.2	9.9	40	18	21	17	22	16	12	9.8	9.7
13	7.8	6.5	9.4	65	16	41	17	22	17	13	9.1	9.5
14	7.6	7.9	11	34	16	22	23	21	16	9.8	9.6	7.4
15	6.5	6.6	9.4	26	16	20	20	24	14	8.4	9.8	8.8
16	6.9	7.0	13	23	21	20	20	22	14	13	9.9	10
17	7.0	7.8	14	24	52	23	22	20	16	15	9.8	9.6
18	6.2	7.5	526	21	22	21	19	18	15	13	9.9	9.4
19	7.3	7.0	446	18	17	21	19	17	13	13	10	9.3
20	6.8	7.6	70	22	15	21	18	18	13	10	8.5	9.3
21	4.4	7.6	828	22	15	23	18	17	15	10	8.3	9.1
22	7.8	6.3	97	22	21	22	18	18	15	13	8.4	9.0
23	5.5	5.8	42	20	18	22	17	18	13	13	12	8.9
24	4.5	7.7	34	18	15	22	16	16	14	13	12	8.7
25	6.2	8.2	31	23	16	22	17	18	15	11	8.0	8.6
26	8.0	6.2	31	27	16	22	17	17	13	8.7	8.8	8.6
27	7.9	5.8	30	24	16	24	18	17	13	10	6.9	7.6
28	7.1	6.5	27	20	16	24	18	21	10	11	8.6	6.7
29	8.2	877	25	19	-----	21	18	22	10	11	10	7.9
30	7.8	58	27	19	-----	19	17	24	12	9.7	9.7	8.4
31	7.5	-----	26	18	-----	21	-----	23	-----	9.2	9.4	-----
TOTAL	223.0	1,143.7	2,463.7	762	517	685	550	607	472	339.5	306.6	257.8
MEAN	7.19	38.1	79.5	24.6	18.5	22.1	18.3	19.6	15.7	11.0	9.89	8.59
MAX	8.6	877	828	65	52	41	23	24	23	15	12	10
MIN	4.4	5.8	9.4	18	15	17	16	16	10	8.4	6.9	6.3
AC-FT	442	2,270	4,890	1,510	1,030	1,360	1,090	1,200	936	673	608	511

CAL YR 1970 TOTAL 10,573.6 MEAN 29.0 MAX 877 MIN 4.4 AC-FT 20,970  
WTR YR 1971 TOTAL 8,327.3 MEAN 22.8 MAX 877 MIN 4.4 AC-FT 16,520

## 11119500 CARPINTERIA CREEK NEAR CARPINTERIA, CALIF.

LOCATION.--Lat 34°24'05", long 119°29'10", in El Rincon Grant, Santa Barbara County, on right bank at downstream side of bridge on State Highway 150, 235 ft downstream from Gobernador Creek, and 1.8 miles northeast of Carpinteria.

DRAINAGE AREA.--13.1 sq mi.

PERIOD OF RECORD.--January 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 130 ft (from topographic map). Prior to July 1, 1958, at datum 6.00 ft higher. July 2, 1958, to Aug. 27, 1970, at site 35 ft upstream at datum 4.00 ft higher.

AVERAGE DISCHARGE.--30 years, 2.86 cfs (2,070 acre-ft per year); median of yearly mean discharges, 0.5 cfs (360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 215 cfs Nov. 29 (gage height, 4.60 ft); no flow most of year. Period of record: Maximum discharge, 4,560 cfs Jan. 25, 1969 (gage height, 18.9 ft, from floodmark, present datum), from rating curve extended above 2,100 cfs on basis of slope-area measurement of maximum flow; no flow at times in each year.

REMARKS.--Records good. No regulation above station. Gobernador Land and Water Co. diverts from Gobernador Creek 1.8 miles above station. Small lake 0.8 mile southeast of station and outside the drainage area stores storm runoff and surplus water diverted by Gobernador Land and Water Co. from Gobernador Creek. At times this lake is drained by pumping water back into Gobernador Creek 1,000 ft above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	2.6	.78	.10	.56	0	0				
2		0	3.6	.89	.10	.47	0	0				
3		0	1.7	.67	.11	.46	0	0				
4		0	.54	.69	.11	.35	0	0				
5		0	.30	.79	.12	.19	0	0				
6		0	.09	.69	.09	.11	0	0				
7		0	0	.64	.06	.06	0	.08				
8		0	0	.59	.04	.03	0	0				
9		0	0	.52	.02	0	0	0				
10		0	0	.43	.11	.02	0	0				
11		0	0	.39	.10	.10	0	0				
12		0	0	1.4	.05	.27	0	0				
13		0	0	5.1	.02	3.6	0	0				
14		0	0	2.5	.02	.15	.44	0				
15		0	0	1.2	.02	.04	.01	0				
16		0	0	.95	10	0	0	0				
17		0	0	.70	23	0	0	0				
18		0	0	.45	3.0	0	0	0				
19		0	0	.37	1.7	0	0	0				
20		0	5.0	.32	1.4	0	0	0				
21		0	62	.31	1.1	0	0	0				
22		0	16	.30	.97	0	0	0				
23		0	6.1	.32	.81	0	0	0				
24		0	3.3	.28	.61	0	0	0				
25		0	.25	.24	.48	0	0	0				
26		0	.70	.77	.63	0	0	0				
27		0	1.6	.21	.76	0	0	0				
28		.11	2.0	.16	.74	0	0	1.6				
29		55	1.6	.13	-----	0	0	.04				
30		6.9	1.3	.11	-----	0	0	0				
31		-----	1.0	.11	-----	0	-----	0	-----			-----
TOTAL	0	62.01	109.68	23.01	46.27	6.41	.45	1.72	0	0	0	0
MEAN	0	2.07	3.54	.74	1.65	.21	.015	.056	0	0	0	0
MAX	0	55	62	5.1	23	3.6	.44	1.6	0	0	0	0
MIN	0	0	0	.11	.02	0	0	0	0	0	0	0
AC-FT	0	123	218	46	92	13	.9	3.4	0	0	0	0

CAL YR 1970 TOTAL 526.23 MEAN 1.44 MAX 117 MIN 0 AC-FT 1,040  
WTR YR 1971 TOTAL 249.55 MEAN .68 MAX 62 MIN 0 AC-FT 495

PEAK DISCHARGE (BASE, 125 CFS, REVISED).--Nov. 29 (0900) 215 cfs (4.60 ft); Dec. 21 (0730) 207 cfs (4.58 ft).

## FRANKLIN CREEK BASIN

11119530 FRANKLIN CREEK AT CARPINTERIA, CALIF.

LOCATION.--Lat 34°24'15", long 119°31'05", in Pueblo Lands of Santa Barbara, Santa Barbara County, on right bank 300 ft downstream from Malibu Drive bridge, 0.5 mile north of Carpinteria.

DRAINAGE AREA.--1.81 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 136 cfs Dec. 21 (gage height, 2.47 ft); minimum daily, 0.01 cfs Oct. 1 to Nov. 24.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	1.5	.26	.21	.18	.20	.10	.10	.10	.10	.15
2	.01	.01	1.8	.28	.21	.19	.20	.10	.10	.10	.10	.15
3	.01	.01	.60	.27	.21	.19	.20	.10	.10	.10	.10	.15
4	.01	.01	.50	.26	.21	.19	.20	.10	.10	.10	.10	.20
5	.01	.01	.40	.25	.20	.19	.20	.10	.10	.10	.10	.20
6	.01	.01	.35	.21	.20	.18	.15	.10	.15	.10	.10	.20
7	.01	.01	.35	.21	.21	.18	.15	.10	.15	.10	.10	.17
8	.01	.01	.35	.21	.21	.21	.15	.10	.15	.10	.10	.05
9	.01	.01	.35	.21	.18	.21	.15	.10	.15	.10	.10	.14
10	.01	.01	.35	.21	.18	.21	.15	.10	.15	.10	.10	.07
11	.01	.01	.30	.21	.16	.21	.15	.10	.15	.10	.10	.09
12	.01	.01	.30	.28	.16	.64	.15	.10	.15	.10	.10	.12
13	.01	.01	.30	.96	.16	.70	.20	.09	.15	.10	.10	.11
14	.01	.01	.30	.28	.16	.21	.40	.10	.15	.10	.10	.10
15	.01	.01	.30	.28	.21	.20	.40	.10	.15	.10	.10	.12
16	.01	.01	.30	.26	6.4	.20	.20	.08	.20	.10	.10	.19
17	.01	.01	.30	.24	4.1	.20	.20	.05	.20	.10	.10	.31
18	.01	.01	20	.22	.21	.20	.20	.05	.20	.10	.10	.32
19	.01	.01	2.2	.21	.21	.20	.20	.04	.20	.10	.10	.25
20	.01	.01	.31	.22	.21	.20	.20	.07	.20	.10	.10	.25
21	.01	.01	21	.28	.21	.20	.20	.06	.20	.10	.10	.37
22	.01	.01	.29	.24	.21	.20	.15	.07	.20	.10	.10	.26
23	.01	.01	.28	.22	.21	.20	.15	.07	.20	.10	.10	.27
24	.01	.01	.28	.21	.21	.20	.15	.08	.20	.10	.10	.39
25	.01	.04	.28	.21	.19	.20	.15	.07	.20	.10	.10	.38
26	.01	.04	.28	.21	.17	.20	.15	.10	.15	.10	.10	.25
27	.01	.01	.37	.21	.18	.20	.15	.29	.15	.10	.10	.25
28	.01	.29	.28	.21	.21	.20	.15	4.3	.15	.10	.10	.28
29	.01	22	.28	.20	-----	.20	.15	.16	.15	.10	.10	.28
30	.01	2.2	.28	.21	-----	.20	.15	.11	.15	.10	.10	.28
31	.01	-----	.27	.21	-----	.20	-----	.09	-----	.10	.10	-----
TOTAL	.31	24.82	55.05	7.94	15.59	7.09	5.60	7.18	4.75	3.10	3.10	6.35
MEAN	.010	.83	1.78	.26	.56	.23	.19	.23	.16	.10	.10	.21
MAX	.01	22	21	.96	6.4	.70	.40	4.3	.20	.10	.10	.39
MIN	.01	.01	.27	.20	.16	.18	.15	.04	.10	.10	.10	.05
AC-FT	.6	49	109	16	31	14	11	14	9.4	6.2	6.2	13

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 140.88 MEAN .39 MAX 22 MIN .01 AC-FT 279

## 11119700 SYCAMORE CREEK AT SANTA BARBARA, CALIF.

LOCATION.--Lat 34°25'45", long 119°40'35", in Pueblo Lands of Santa Barbara, Santa Barbara County, on left bank at intersection of Sycamore Canyon Road and Alameda Padre Serra in Santa Barbara.

DRAINAGE AREA.--3.41 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 55 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 120 cfs Dec. 21 (gage height, 2.22 ft); minimum daily, 0.01 cfs Dec. 10-13, 15.

REMARKS.--At times Sheffield Reservoir water is wasted to channel.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.04	.10	.21	.24	.18	.26	.30	.55	.34	.24	.30
2	.10	.24	.42	.18	.24	.18	.21	.30	.50	.34	.24	.30
3	.10	.06	.14	.18	.24	.18	.26	.35	.40	.34	.24	.30
4	.12	.04	.04	.18	.21	.16	.26	.35	.35	.24	.24	.30
5	.12	.11	.03	.18	.24	.16	.30	.35	.35	.34	.32	.21
6	.12	.04	.02	.18	.21	.16	.30	.35	.33	.34	.24	.21
7	.12	.04	.03	.18	.21	.16	.22	2.8	.30	.25	.24	.28
8	.14	.06	.02	.18	.21	.16	.30	.70	.45	.25	.24	.25
9	.14	.04	.02	.18	.18	.21	.30	.50	.35	.25	.24	.20
10	.14	.02	.01	.18	.16	1.2	.30	.45	.41	.25	.24	.20
11	.16	.03	.01	.18	.16	1.6	.27	.45	.40	.32	.28	.20
12	.16	.02	.01	1.5	.16	1.9	.27	.45	.30	.25	.30	.20
13	.16	.02	.01	5.2	.16	3.5	.25	.45	.40	.32	.30	.20
14	.16	.02	.03	2.2	.16	1.5	3.8	.45	.30	.30	.30	.20
15	.16	.02	.01	.28	.18	.85	.50	.45	.40	.24	.30	.20
16	.18	.02	.06	.42	1.2	.29	.35	.45	.35	.24	.30	.20
17	.18	.02	.03	.18	2.2	.21	.27	.45	.35	.24	.30	.20
18	.18	.03	3.5	.18	.21	.29	.25	.45	.40	.24	.23	.20
19	.18	.06	14	.18	.24	.27	.25	.45	.40	.24	.25	.20
20	.18	.04	16	.75	.24	.21	.25	.45	.30	.24	.30	.30
21	.24	.04	30	1.5	.24	.27	.23	.45	.28	.24	.23	.28
22	.48	.04	14	.37	.22	.29	.23	.45	.25	.24	.23	.30
23	.18	.04	9.2	.21	.22	.25	.23	.45	.24	.24	.30	.25
24	.06	.04	7.2	.21	.22	.25	.23	.45	.34	.24	.25	.25
25	.04	.08	2.2	.56	.22	.21	.23	.45	.30	.24	.30	.25
26	.32	.24	6.0	.21	.20	.29	.25	.45	.34	.24	.23	.25
27	.10	.06	3.1	.18	.20	.24	.25	.45	.34	.32	.30	.25
28	.08	.18	.56	.18	.20	.24	.28	3.5	.34	.24	.25	.25
29	.24	4.0	.16	.18	-----	.29	.30	.50	.34	.28	.23	.25
30	.06	.48	.28	.18	-----	.30	.30	.46	.34	.32	.23	.25
31	.04	-----	.21	.21	-----	.26	-----	.50	-----	.24	.23	-----
TOTAL	4.74	6.17	107.40	16.89	8.77	16.26	11.70	19.06	10.70	8.41	8.12	7.23
MEAN	.15	.21	3.46	.54	.31	.52	.39	.61	.36	.27	.26	.24
MAX	.48	4.0	30	5.2	2.2	3.5	3.8	3.5	.55	.34	.32	.30
MIN	.04	.02	.01	.18	.16	.16	.21	.30	.24	.24	.23	.20
AC-FT	9.4	12	213	34	17	32	23	38	21	17	16	14

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 225.45 MEAN .62 MAX 30 MIN .01 AC-FT 447

## MISSION CREEK BASIN

11119750 MISSION CREEK NEAR MISSION STREET, AT SANTA BARBARA, CALIF.

LOCATION.--Lat 34°25'35", long 119°43'20", in Pueblo Lands of Santa Barbara, Santa Barbara County, on left bank just south of end of Los Olivos Street in Santa Barbara.

DRAINAGE AREA.--8.38 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Concrete-lined channel. Altitude of gage is 105 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 360 cfs Nov. 29 (gage height, 2.18 ft); no flow most of year.

REMARKS.--No regulation or diversion.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	0	0	0	0				
2		0	0	0	0	0	0	0				
3		0	0	0	0	0	0	0				
4		0	0	0	0	0	0	0				
5		4.0	0	0	0	0	0	0				
6		3.0	0	0	0	0	0	0				
7		2.0	0	0	0	0	0	0				
8		1.0	0	0	0	0	0	0				
9		.50	0	0	0	0	0	0				
10		0	0	0	0	0	0	0				
11		0	0	0	0	0	0	0				
12		0	0	0	0	7.3	0	0				
13		0	0	4.3	0	7.3	0	0				
14		0	0	3.5	0	0	6.3	0				
15		0	0	0	0	0	0	0				
16		0	2.8	0	0	0	0	0				
17		0	1.1	0	7.3	0	0	0				
18		0	44	0	0	0	0	0				
19		0	20	0	0	0	0	0				
20		0	15	0	0	0	0	0				
21		0	80	0	0	0	0	0				
22		0	6.3	0	0	0	0	0				
23		0	.74	0	0	0	0	0				
24		0	0	0	0	0	0	0				
25		0	0	0	0	0	0	0				
26		5.3	0	0	0	0	0	0				
27		1.1	0	0	0	0	0	0				
28		11	0	0	0	0	0	8.5				
29		110	0	0	-----	0	0	2.1				
30		1.0	0	0	-----	0	0	0				
31		-----	0	0	-----	0	-----	0	-----			-----
TOTAL	0	138.90	169.94	7.8	7.3	14.6	6.3	10.6	0	0	0	0
MEAN	0	4.63	5.48	.25	.26	.47	.21	.34	0	0	0	0
MAX	0	110	80	4.3	7.3	7.3	6.3	8.5	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	276	337	15	14	29	13	21	0	0	0	0

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 355.44 MEAN .97 MAX 110 MIN 0 AC-FT 705

## 11119760 VICTORIA STREET DRAIN AT OUTLET NEAR SANTA BARBARA, CALIF.

LOCATION.--Lat 34°25'09", long 119°42'36", in Pueblo Lands of Santa Barbara, Santa Barbara County, on right downstream end of culvert at west end of Victoria Street in Santa Barbara.

DRAINAGE AREA.--0.625 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder and culvert control. Datum of gage is 58.69 ft above mean sea level (Santa Barbara County Flood Control and Water Conservation District bench mark).

EXTREMES.--Current year: Maximum discharge, unknown, probably occurred Nov. 29; no flow most of year. Flood of Jan. 25, 1969, reached a stage of 4.26 ft, from floodmark (discharge, 178 cfs).

REMARKS.--Records poor. Flow is from street drainage (area of 399 acres). During periods of heavy rainfall flood gates on the upper end of this water shed could be closed which would reduce the drainage area by 140 acres.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.15	0	0	0	0	0				
2		0	1.4	0	0	0	0	0				
3		0	.20	0	0	0	0	0				
4		0	0	0	0	0	0	0				
5		.30	0	0	0	0	0	0				
6		.13	0	0	0	0	0	0				
7		0	0	0	0	0	0	.34				
8		0	0	0	0	0	0	0				
9		0	0	0	0	0	0	0				
10		0	0	0	0	0	0	.27				
11		0	0	0	0	0	0	0				
12		0	0	2.0	0	1.0	0	0				
13		0	0	2.5	0	1.0	0	0				
14		0	0	0	0	0	1.8	0				
15		0	0	0	0	0	0	0				
16		0	0	0	1.5	0	0	0				
17		0	0	0	2.8	0	0	0				
18		0	8.0	0	0	0	0	0				
19		0	2.1	0	0	0	0	0				
20		0	.40	0	0	0	0	0				
21		0	8.4	0	0	0	0	0				
22		0	1.1	0	0	0	0	0				
23		0	.40	0	0	0	0	0				
24		0	.24	0	0	0	0	0				
25		0	.10	0	0	0	0	0				
26		1.2	.30	0	0	0	0	0				
27		.25	.20	0	0	0	0	.64				
28		.90	.12	0	0	0	0	2.5				
29		10	.07	0	-----	0	0	0				
30		1.2	0	0	-----	0	0	0				
31		-----	0	0	-----	0	-----	0	-----			-----
TOTAL	0	13.98	23.18	4.5	4.3	2.0	1.8	3.75	0	0	0	0
MEAN	0	.47	.75	.15	.15	.065	.060	.12	0	0	0	0
MAX	0	10	8.4	2.5	2.8	1.0	1.8	2.5	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	28	46	8.9	8.5	4.0	3.6	7.4	0	0	0	0
CAL YR 1970	TOTAL -	MEAN -	MAX -	MIN -	AC-FT -							
WTR YR 1971	TOTAL 53.51	MEAN .15	MAX 10	MIN 0	AC-FT 106							



## 11119780 ARROYO BURRO CREEK AT SANTA BARBARA, CALIF.

LOCATION.--Lat 34°26'13", long 119°44'44", in Pueblo Lands of Santa Barbara, Santa Barbara County, on right bank 0.4 mile south of State Street on Hope Avenue in Santa Barbara.

DRAINAGE AREA.--6.65 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Concrete-lined channel. Altitude of gage is 160 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 680 cfs Dec. 21 (gage height, 3.46 ft); no flow many days.

REMARKS.--Small amount inflow may occur during base flow from large shopping center that empties water from its air conditioning unit directly into the stream.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.18	2.1	.37	.06	0	0	.11	.10	0	.01	
2	0	.19	4.7	1.3	.06	0	0	.06	.09	0	.01	
3	0	.20	8.9	.69	.06	0	0	.06	.08	0	.01	
4	0	.21	.07	.40	.05	0	0	.06	.07	0	.01	
5	0	.25	.08	.26	.03	0	0	.06	.05	0	.01	
6	.15	.50	.07	.20	.03	0	0	.06	.03	0	0	
7	.10	.70	.12	.17	.03	0	0	1.6	.03	0	0	
8	.05	.50	.10	.17	.03	0	0	.74	.03	0	0	
9	.02	.30	.07	.14	.03	0	0	.34	.03	0	0	
10	0	.20	.08	.11	.03	0	0	.11	.03	0	0	
11	0	.16	.06	.11	.03	0	0	.05	.03	0	0	
12	0	.16	.06	2.5	.03	8.5	0	.05	.03	0	0	
13	0	.11	.06	5.7	.03	4.4	0	.05	.03	0	0	
14	0	.07	.06	1.3	.03	.58	5.5	.05	.03	0	0	
15	0	.47	.03	.93	.03	.39	1.0	.05	.03	0	0	
16	0	.74	1.3	.68	1.8	.10	.88	.05	.03	0	0	
17	0	.31	.06	.52	5.4	0	.70	.05	.03	0	0	
18	0	.44	46	.48	1.1	0	.59	.03	.03	0	0	
19	0	.32	6.1	.37	.81	0	.49	.03	.02	0	0	
20	.10	.99	5.5	.28	.62	0	.37	.03	.02	0	0	
21	.21	.85	67	.21	.51	0	.33	0	.02	0	0	
22	.22	.80	4.8	.17	.30	0	.26	0	.02	0	0	
23	.23	2.6	1.7	.16	.10	0	.26	0	.02	0	0	
24	.24	2.1	1.4	.11	0	0	.21	0	.02	0	0	
25	.25	7.4	1.1	.11	0	0	.17	0	.02	0	0	
26	.23	11	1.8	.11	0	0	.17	0	.01	0	0	
27	.18	2.4	1.4	.07	.05	0	.17	4.4	.01	0	0	
28	.10	20	1.1	.06	0	0	.16	16	0	0	0	
29	.10	51	.82	.06	-----	0	.11	1.4	0	.10	0	
30	.14	4.8	.60	.06	-----	0	.11	.90	0	.05	0	
31	.17	-----	.49	.06	-----	0	-----	.30	-----	.02	0	-----
TOTAL	2.49	109.95	157.73	17.86	11.25	13.97	11.48	26.64	.94	.17	.05	0
MEAN	.080	3.67	5.09	.58	.40	.45	.38	.86	.031	.006	.002	0
MAX	.25	51	67	5.7	5.4	8.5	5.5	16	.10	.10	.01	0
MIN	0	.07	.03	.06	0	0	0	0	0	0	0	0
AC-FT	4.9	218	313	35	22	28	23	53	1.9	.3	.1	0

WTR YR 1971 TOTAL 352.53 MEAN .97 MAX 67 MIN 0 AC-FT 699

## ATASCADERO CREEK BASIN

277

11119900 ATASCADERO CREEK AT PUENTE ROAD, NEAR GOLETA, CALIF.

LOCATION.--Lat 34°25'56", long 119°47'00", in Pueblo Lands of Santa Barbara, Santa Barbara County, on right bank on Puente Drive, 0.4 mile south of Hollister Avenue, and 2.4 miles east of Goleta.

DRAINAGE AREA.--3.86 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 470 cfs Nov. 29 (gage height, 2.83 ft); no flow some days.

REMARKS.--No regulation or diversion.

COOPERATION.--Records furnished by Santa Barbara County Flood Control District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	5.1	.10	.04	.04	.14	.41	0	.10	.05	.04
2	.02	.02	8.9	.08	.04	.05	.15	.42	0	.10	.05	.04
3	.02	.02	1.0	.06	.04	.10	.10	.44	.05	.10	.05	.04
4	.02	.10	.70	.05	.03	.10	.07	.44	.05	.10	.05	.04
5	.02	1.1	.20	.04	.03	.08	.07	.48	0	.10	.05	.04
6	.02	.10	.05	.04	.03	.08	.12	.49	0	.10	.05	.04
7	.02	.05	.04	.04	.03	.09	.14	.98	.04	.10	.05	.04
8	.02	.02	.03	.04	.03	.10	.13	.10	.07	.10	.05	.04
9	.02	.02	.02	.04	.03	.10	.13	.10	.05	.10	.05	.04
10	.02	.02	.02	.04	.03	.09	.09	.10	.04	.10	.05	.04
11	.02	.03	.02	.04	.03	.11	.08	.10	.08	.10	.05	.04
12	.02	.04	.02	7.0	.02	2.2	.12	.10	.06	.10	.05	.04
13	.02	.04	.02	12	.02	3.2	.16	.10	.09	.10	.05	.04
14	.02	.03	.01	1.0	.02	.04	1.8	.10	.09	.10	.05	.04
15	.02	.02	.01	.20	.02	.03	.16	.15	.10	.10	.05	.04
16	.03	.01	.70	.12	1.0	.02	.08	.10	.11	.10	.05	.04
17	.03	0	.40	.10	3.5	.05	.09	.10	.13	.10	.05	.04
18	.03	0	64	.08	.10	.06	.07	.10	.16	.10	.05	.04
19	.02	0	11	.06	.05	.07	.15	.10	.16	.10	.05	.04
20	.02	0	8.2	.05	.03	.08	.13	.10	.17	.10	.05	.04
21	.06	.01	57	.05	.02	.12	.14	.10	.21	.10	.05	.04
22	.06	.01	6.9	.04	.02	.12	.14	.10	.21	.10	.05	.04
23	.05	.01	1.0	.04	.02	.15	.14	.10	.22	.10	.05	.04
24	.04	.01	.90	.05	.02	.15	.13	.10	.22	.10	.05	.04
25	.03	8.8	.70	.06	.02	.34	.15	.10	.26	.10	.05	.04
26	.02	14	.50	.05	.02	.13	.57	.50	.26	.10	.05	.04
27	.02	5.0	.60	.05	.02	.15	.28	1.0	.27	.10	.05	.04
28	.02	11	1.0	.05	.02	.33	.34	4.6	.35	.10	.05	.04
29	.02	94	.50	.05	-----	.17	.37	.06	.20	.10	.05	.04
30	.02	8.4	.30	.04	-----	.20	.37	.03	.20	.10	.05	.04
31	.02	-----	.20	.04	-----	.17	-----	0	-----	.10	.05	-----
TOTAL	.79	142.88	170.04	21.70	5.28	8.72	6.61	11.70	3.85	3.10	1.55	1.20
MEAN	.026	4.76	5.49	.70	.19	.28	.22	.38	.13	.10	.050	.040
MAX	.06	94	64	12	3.5	3.2	1.8	4.6	.35	.10	.05	.04
MIN	.02	0	.01	.04	.02	.02	.07	0	0	.10	.05	.04
AC-FT	1.6	283	337	43	10	17	13	23	7.6	6.2	3.1	2.4

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 377.42 MEAN 1.03 MAX 94 MIN 0 AC-FT 749

## ATASCADERO CREEK BASIN

11119940 MARIA YGNACIO AT UNIVERSITY DRIVE, NEAR GOLETA, CALIF.

LOCATION.--Lat 34°26'42", long 119°48'10", in Goleta Grant, Santa Barbara County, on right bank at University Drive, 0.2 mile east of Patterson Avenue, and 1.5 miles northeast of Goleta.

DRAINAGE AREA.--6.35 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 60 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 255 cfs Nov. 29 (gage height, 2.17 ft); no flow most of year.

REMARKS.--No regulation. Some pumping for irrigation.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.50	.05	.04	0	0	0				
2		0	2.8	.05	.04	0	0	0				
3		0	.48	.05	.04	0	0	0				
4		0	.46	.05	.04	0	0	0				
5		.50	.46	.05	.04	0	0	0				
6		.25	.30	.05	.04	0	0	0				
7		.20	.20	.06	.04	0	0	0				
8		.10	.18	.07	.04	0	0	0				
9		0	.17	.09	.04	0	0	0				
10		.05	.18	.10	.04	0	0	0				
11		.11	.19	.47	.04	0	0	0				
12		.08	.18	.68	.04	0	0	0				
13		.05	.17	1.8	.04	0	0	0				
14		.02	.16	.75	.04	0	.50	0				
15		.02	.10	.50	.04	0	.20	0				
16		.02	.20	.20	.55	0	0	0				
17		.02	.30	.10	.75	1.0	0	0				
18		.02	8.3	.09	.10	1.3	0	0				
19		.02	4.8	.08	.05	.05	0	0				
20		.02	.90	.07	.05	0	0	0				
21		.02	16	.09	.03	0	0	0				
22		.02	1.5	.10	.02	0	0	0				
23		.02	.45	.10	0	0	0	0				
24		.02	.45	.09	0	0	0	0				
25		.02	.45	.09	0	0	0	0				
26		.10	.30	.08	0	0	0	.10				
27		.50	.20	.07	0	0	0	.15				
28		.66	.10	.06	0	0	0	0				
29		22	.08	.05	-----	0	0	0				
30		1.6	.07	.04	-----	0	0	0				
31		-----	.06	.04	-----	0	-----	0	-----	-----		
TOTAL	0	26.44	40.69	6.17	2.15	2.35	.70	.25	0	0	0	0
MEAN	0	.88	1.31	.20	.077	.076	.023	.008	0	0	0	0
MAX	0	22	16	1.8	.75	1.3	.50	.15	0	0	0	0
MIN	0	0	.06	.04	0	0	0	0	0	0	0	0
AC-FT	0	52	81	12	4.3	4.7	1.4	.5	0	0	0	0

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 78.75 MEAN .22 MAX 22 MIN 0 AC-FT 156

## 11120000 ATASCADERO CREEK NEAR GOLETA, CALIF.

LOCATION.--Lat 34°25'28", long 119°48'40", in La Goleta Grant, Santa Barbara County, on downstream side of center pier of county road bridge 400 ft downstream from Maria Ygnacio Creek, 1.3 miles upstream from mouth, and 1.3 miles southeast of Goleta.

DRAINAGE AREA.--18.9 sq mi (revised).

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1947, published as Alascadero Creek near Goleta.

GAGE.--Water-stage recorder. Datum of gage is 12.59 ft above mean sea level (Santa Barbara County bench mark). Prior to Dec. 14, 1967, at site 275 ft downstream at same datum.

AVERAGE DISCHARGE.--30 years, 3.91 cfs (2,830 acre-ft per year); median of yearly mean discharges, 1.4 cfs (1,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,500 cfs Nov. 29 (gage height, 11.30 ft); no flow many days. Period of record: Maximum discharge, 5,230 cfs Jan. 25, 1969 (gage height, 13.00 ft), from rating curve extended above 2,300 cfs; no flow many days in each year.

REMARKS.--Records good. No regulation above station. Small diversions for irrigation above station. At times low flow results from return irrigation waste water. At other times Lake Cachuma water is wasted to channel.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.07	2.6	.47	.21	.14	.08	.06	.05		.03	0
2	.02	.07	25	1.1	.18	.22	.08	.07	.02		0	.03
3	.03	.08	3.5	.28	.17	.11	.11	.07	.01		.01	0
4	.02	.07	.67	.24	.22	.12	.08	.05	.01		0	0
5	.04	5.2	.26	.28	.15	.13	.33	.06	.02		.01	0
6	.07	2.3	.10	.23	.17	.11	.12	.08	.06		.07	0
7	.03	.21	.09	.19	.18	.11	.07	.88	.08		.07	0
8	.02	.06	.06	.17	.20	.16	.06	.14	.06		0	0
9	.03	.03	.11	.20	.16	.17	.08	.05	.08		.04	0
10	.03	.08	.09	.17	.13	.07	.06	.02	.13		.06	0
11	.02	.19	.03	.20	.13	.06	.09	.03	.11		.02	0
12	.03	.20	.03	11	.11	6.1	.09	.07	.08		.12	.02
13	.04	.18	.03	30	.11	26	.10	.05	.06		.03	.05
14	.07	.11	.01	6.8	.12	.32	11	.02	.06		.23	.09
15	.07	.01	.03	1.4	.12	.18	.16	.01	.05		0	.09
16	.12	0	3.6	.74	1.8	.19	.07	.05	.04		0	.06
17	.15	.01	.10	.50	18	.20	.03	.08	.07		0	.01
18	.10	0	132	.31	.44	.19	.06	.06	.08		.01	.01
19	.09	0	37	.27	.15	.16	.06	.03	.06		0	0
20	.12	0	6.9	.25	.15	.17	.04	.03	.07		0	0
21	.30	.01	203	.27	.12	.18	.03	.04	.05		.01	0
22	.28	.04	20	.29	.13	.19	.02	.01	.02		.05	0
23	.13	.03	6.9	.34	.28	.20	.01	0	0		.02	0
24	.11	0	3.8	.31	.11	.16	.01	0	0		.01	0
25	.09	2.7	2.3	.29	.08	.28	.03	.02	0		.01	.08
26	.06	22	6.3	.30	.07	.15	.17	.08	.01		.03	.01
27	.06	4.5	4.5	.31	.05	.12	.13	.48	.03		.02	.02
28	.06	17	2.3	.26	.06	.18	.07	14	.02		.01	0
29	.06	512	1.3	.21	-----	.19	.09	.32	.01		.06	0
30	.05	22	.85	.22	-----	.11	.08	.12	0		.01	0
31	.05	-----	.67	.34	-----	.08	-----	.07	-----		0	-----
TOTAL	2.40	589.15	464.13	57.94	23.80	36.75	13.41	17.05	1.34	0	.93	.47
MEAN	.077	19.6	15.0	1.87	.85	1.19	.45	.55	.045	0	.030	.016
MAX	.30	512	203	30	.18	26	11	14	.13	0	.23	.09
MIN	.02	0	.01	.17	.05	.06	.01	0	0	0	0	0
AC-FT	4.8	1,173	921	115	47	73	27	34	2.7	0	1.8	.9

CAL YR 1970 TOTAL 1,830.66 MEAN 5.02 MAX 512 MIN 0 AC-FT 3,630  
WTR YR 1971 TOTAL 1,207.37 MEAN 3.31 MAX 512 MIN 0 AC-FT 2,390

## PEAK DISCHARGE (BASE, 70 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0600	11.30	2,500	12-21	0245	9.31	1,100
12-18	1800	7.19	368	3-13	0045	6.28	171

## SAN JOSE CREEK BASIN

11120500 SAN JOSE CREEK NEAR GOLETA, CALIF.

LOCATION.--Lat 34°27'33", long 119°48'29", in La Goleta Grant, Santa Barbara County, on right bank at Patterson Avenue bridge, 1.1 miles downstream from unnamed tributary, and 1.7 miles northeast of Goleta.

DRAINAGE AREA.--5.51 sq mi.

PERIOD OF RECORD.--January 1941 to current year.

GAGE.--Water-stage recorder. Concrete low-water control since October 1962. Datum of gage is 95.61 ft above mean sea level (Santa Barbara County Road Department bench mark). Prior to Dec. 24, 1955, at datum 5.50 ft higher. Dec. 24, 1955, to Jan. 10, 1960, at datum 1.5 ft higher.

AVERAGE DISCHARGE.--30 years, 1.82 cfs (1,320 acre-ft per year); median of yearly mean discharges, 0.8 cfs (580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 257 cfs Nov. 29 (gage height, 4.07 ft); minimum daily, 0.01 cfs Oct. 1.

Period of record: Maximum discharge, 2,000 cfs Jan. 25, 1969 (gage height, 10.10 ft), from rating curve extended above 400 cfs 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 each year.

REMARKS.--Records good. No regulation above station. Many small diversions for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.15	.61	.73	.54	.60	.28	.32	.48	.24	.05	.03
2	.03	.18	5.9	.73	.54	.59	.28	.32	.48	.19	.05	.03
3	.04	.19	1.1	.69	.54	.54	.28	.35	.48	.20	.05	.03
4	.07	.19	.34	.66	.54	.54	.28	.57	.48	.22	.05	.03
5	.08	.60	.27	.66	.54	.48	.32	.42	.48	.21	.05	.03
6	.13	.69	.18	.66	.60	.47	.32	.42	.48	.20	.05	.03
7	.12	.34	.14	.66	.60	.42	.32	.73	.51	.19	.05	.03
8	.08	.24	.14	.66	.60	.42	.31	.70	.48	.20	.05	.03
9	.04	.22	.14	.66	.60	.42	.25	.47	.48	.18	.04	.03
10	.04	.22	.12	.60	.58	.42	.21	.45	.48	.16	.04	.03
11	.04	.21	.12	.60	.54	.37	.26	.51	.51	.15	.04	.03
12	.04	.13	.12	1.4	.54	.47	.22	.53	.56	.13	.04	.03
13	.04	.08	.12	4.1	.58	2.5	.19	.45	.53	.12	.04	.03
14	.05	.04	.12	3.8	.52	.82	1.1	.48	.55	.11	.04	.03
15	.06	.04	.12	1.6	.48	.57	.72	.48	.43	.10	.04	.03
16	.06	.04	.18	1.3	.49	.48	.48	.47	.22	.09	.04	.03
17	.06	.07	.22	1.2	1.2	.41	.42	.41	.15	.09	.04	.03
18	.06	.20	3.4	1.1	.75	.37	.42	.38	.16	.09	.03	.03
19	.11	.11	6.9	.99	.56	.42	.42	.37	.16	.08	.03	.03
20	.16	.10	1.3	.84	.54	.42	.42	.37	.13	.08	.03	.03
21	.18	.12	36	.81	.54	.42	.42	.39	.15	.07	.03	.03
22	.18	.14	5.4	.73	.54	.43	.41	.37	.14	.07	.03	.03
23	.19	.11	3.0	.73	.54	.45	.28	.40	.14	.06	.03	.03
24	.20	.12	1.8	.70	.54	.48	.32	.42	.12	.06	.03	.03
25	.16	.18	1.3	.66	.54	.48	.32	.42	.12	.06	.03	.03
26	.15	.79	1.3	.56	.54	.51	.32	.42	.14	.06	.03	.03
27	.08	.24	1.7	.48	.60	.54	.35	.44	.23	.06	.03	.03
28	.07	.30	1.5	.48	.60	.56	.37	1.1	.27	.06	.03	.03
29	.14	49	1.2	.48	-----	.54	.36	.81	.29	.06	.03	.03
30	.14	5.5	.93	.54	-----	.54	.32	.75	.22	.06	.03	.03
31	.14	-----	.80	.54	-----	.40	-----	.55	-----	.05	.03	-----
TOTAL	2.95	60.54	76.47	30.35	16.32	17.08	10.97	15.27	10.05	3.70	1.18	.90
MEAN	.095	2.02	2.47	.98	.58	.55	.37	.49	.34	.12	.038	.030
MAX	.20	.49	.36	4.1	1.2	2.5	1.1	1.1	.56	.24	.05	.03
MIN	.01	.04	.12	.48	.48	.37	.19	.32	.12	.05	.03	.03
AC-FT	5.9	126	152	60	32	34	22	30	20	7.3	2.3	1.8

CAL YR 1970 TOTAL 561.97 MEAN 1.54 MAX 106 MIN 0 AC-FT 1,110  
 WTR YR 1971 TOTAL 245.78 MEAN .67 MAX 49 MIN .01 AC-FT 488

PEAK DISCHARGE (BASE, 100 CFS).--Nov. 29 (0600) 257 cfs (4.07 ft); Dec. 21 (0245) 163 cfs (3.60 ft).

NOTE.--Stage-discharge relation indefinite July 15 to Sept. 30.

## 11120510 SAN JOSE CREEK AT GOLETA, CALIF.

LOCATION.--Lat 34°25'49", long 119°49'16", in La Goleta Grant, Santa Barbara County, on right bank south of Hollister Avenue and Kellogg Road, 0.5 mile southeast of Goleta.

DRAINAGE AREA.--9.42 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 300 cfs (estimated) Nov. 29 (gage height, unknown); no flow June 30 to Aug. 11, Aug. 14 to Sept. 30.

REMARKS.--No regulation above station. Diversions for irrigation and domestic use above station.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.26	1.0	.32	.38	.07	.58	1.9	.04		0	
2	.06	.26	6.0	.44	.39	.07	1.5	1.9	.04		0	
3	.07	.27	.50	.39	.39	.11	1.5	1.9	.04		0	
4	.15	.27	.30	.37	.37	.11	1.5	1.9	.04		0	
5	.20	1.1	.20	.37	.40	.12	1.5	1.9	.04		0	
6	.15	.80	.11	.37	.40	.12	1.5	1.9	.04		0	
7	.09	.40	.07	.37	.40	.11	1.5	1.9	.04		0	
8	.07	.30	.06	.31	.43	.09	1.5	1.9	.04		0	
9	.06	.28	.02	.22	.42	.10	1.5	1.9	.03		0	
10	.06	.26	.04	.22	.40	.13	1.5	1.9	.03		0	
11	.06	.22	.04	.23	.42	.14	1.5	1.9	.03		0	
12	.07	.16	.04	2.0	.38	2.3	1.5	1.9	.03		.36	
13	.08	.10	.04	4.0	.38	3.6	1.5	1.9	.02		.24	
14	.09	.08	.02	1.9	.32	.52	3.1	1.9	.02		0	
15	.10	.08	.03	.90	.33	.22	2.0	1.9	.02		0	
16	.11	.06	1.1	.61	1.0	.14	2.0	1.9	.02		0	
17	.11	.09	.40	.47	2.7	.12	2.0	1.9	.02		0	
18	.12	.30	14	.42	.30	.19	2.0	1.9	.03		0	
19	.12	.20	4.4	.37	.16	.13	2.0	1.9	.03		0	
20	.25	.18	1.4	.35	.16	.16	2.0	1.9	.02		0	
21	.26	.18	43	.29	.16	.14	2.0	1.9	.02		0	
22	.27	.16	3.4	.29	.16	.25	2.0	1.9	.02		0	
23	.25	.15	1.4	.29	.16	.16	2.0	1.9	.02		0	
24	.20	.20	.91	.29	.17	.16	2.0	2.6	.02		0	
25	.20	.25	.68	.29	.16	.17	2.0	2.7	.03		0	
26	.16	.80	1.1	.29	.18	.27	2.0	2.6	.03		0	
27	.14	1.1	1.1	.30	.11	.29	2.0	4.2	.03		0	
28	.12	.50	.74	.29	.08	.11	2.0	5.2	.02		0	
29	.18	60	.52	.29	-----	.11	2.0	.16	.01		0	
30	.20	7.0	.43	.33	-----	.11	2.0	.07	0		0	
31	.25	-----	.37	.37	-----	.09	-----	.05	-----		0	-----
TOTAL	4.30	76.01	83.42	17.95	11.31	10.41	53.68	61.28	.82	0	.60	0
MEAN	.14	2.53	2.69	.58	.40	.34	1.79	1.98	.027	0	.019	0
MAX	.27	.60	.43	4.0	2.7	3.6	3.1	5.2	.04	0	.36	0
MIN	.05	.06	.02	.22	.08	.07	.58	.05	0	0	0	0
AC-FT	8.5	151	165	36	22	21	106	122	1.6	0	1.2	0

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 319.78 MEAN .88 MAX 60 MIN 0 AC-FT 634

## SAN PEDRO CREEK BASIN

11120520 SAN PEDRO CREEK AT GOLETA, CALIF.

LOCATION.--Lat 34°26'23", long 119°50'08", in Los Dos Pueblos Grant, Santa Barbara County, on left bank  
0.1 mile north of Highway 101 and 0.6 mile northwest of Goleta.

DRAINAGE AREA.--3.21 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 25 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 240 cfs Dec. 21 (gage height, 3.36 ft); minimum daily, 0.01 cfs  
Sept. 13, 14.

REMARKS.--No regulation or diversion.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.10	.82	.41	.22	.06	1.6	.70	.39	.13	.03	.03
2	.05	.10	2.6	.82	.26	.04	1.6	.80	.32	.17	.03	.03
3	.05	.10	.61	3.2	.24	.06	1.1	.70	.32	.17	.03	.03
4	.05	.10	.35	2.3	.26	.28	.86	.80	.32	.17	.04	.04
5	.05	.10	.32	.39	.30	.43	1.3	1.2	.32	.17	.03	.03
6	.05	.10	.30	.39	.30	.43	1.0	1.0	.32	.17	.04	.03
7	.05	.10	.29	.39	.30	.45	1.1	1.2	.26	.17	.06	.03
8	.05	.10	.30	.39	.31	.48	1.2	.62	.26	.17	.03	.04
9	.05	.10	.28	.41	.29	.27	.79	.46	.26	.17	.03	.18
10	.05	.10	.27	.42	.27	.38	.85	.46	.26	.17	.03	.03
11	.05	.10	.33	.42	.27	.73	.64	.46	.21	.17	.03	.03
12	.05	.10	.40	1.8	.28	2.9	.87	.46	.21	.21	.04	.02
13	.05	.10	.59	3.4	.28	3.6	.80	.39	.21	.21	.05	.01
14	.05	.10	2.4	.79	.29	.78	4.3	.39	.21	.21	.04	.01
15	.05	.10	2.0	.55	.31	.79	.70	.70	.21	.21	.04	.04
16	.05	.10	1.7	.47	.60	.94	.46	.80	.21	.17	.04	.12
17	.05	.10	.46	.46	3.1	.97	.54	.70	.17	.17	.08	.02
18	.05	.10	11	.46	.24	1.2	.62	.70	.17	.17	.03	.05
19	.05	.10	2.3	.46	.25	1.4	.70	.70	.17	.17	.03	.04
20	.05	.10	1.2	.47	.21	1.5	.80	.70	.17	.14	.05	.10
21	.08	.10	24	.49	.21	1.7	.80	.62	.17	.13	.03	.15
22	.08	.10	5.5	.46	.21	1.9	.80	.62	.17	.15	.03	.23
23	.08	.10	5.0	.47	.19	2.2	.39	.62	.17	.12	.02	.12
24	.08	.10	4.8	.49	.06	2.1	.26	.54	.17	.11	.04	.13
25	.08	1.5	4.5	.54	.09	2.1	.80	.54	.17	.10	.04	.06
26	.08	5.0	6.7	.54	.05	2.0	1.9	.54	.17	.10	.03	.10
27	.08	2.6	5.4	.47	.04	1.9	1.7	.46	.17	.07	.03	.07
28	.08	1.8	2.9	.53	.06	1.9	1.7	.46	.13	.09	.02	.07
29	.08	21	.43	.46	-----	1.9	1.4	.46	.13	.09	.02	.07
30	.08	2.7	.40	.49	-----	1.9	.39	.46	.13	.08	.02	.06
31	.08	-----	.44	.31	-----	1.7	-----	.39	-----	.07	.03	-----
TOTAL	1.88	37.00	88.59	23.65	9.49	38.99	31.97	19.65	6.55	4.60	1.09	1.97
MEAN	.061	1.23	2.86	.76	.34	1.26	1.07	.63	.22	.15	.035	.066
MAX	.08	21	24	3.4	3.1	3.6	4.3	1.2	.39	.21	.08	.23
MIN	.05	.10	.27	.31	.04	.04	.26	.39	.13	.07	.02	.01
AC-FT	3.7	73	176	47	19	77	63	39	13	9.1	2.2	3.9

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 265.43 MEAN .73 MAX 24 MIN .01 AC-FT 526

## 11120530 TECOLOTITO CREEK NEAR GOLETA, CALIF.

LOCATION.--Lat 34°26'05", long 119°52'04", in Los Dos Pueblos Grant, Santa Barbara County, on right bank 0.2 mile east of Glen Annie Road and 2.1 miles west of Goleta.

DRAINAGE AREA.--4.42 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 80 cfs Dec. 21 (gage height, 1.96 ft); no flow Oct. 1 to Nov. 25.

REMARKS.--No regulation. Some pumping for irrigation.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.80	.50	.40	.23	.40	.40	.50	.30	.25	.23
2		0	1.7	.50	.40	.23	.40	.40	.50	.30	.25	.23
3		0	.50	.50	.40	.23	.40	.40	.50	.30	.25	.23
4		0	.30	.50	.40	.23	.40	.53	.50	.30	.25	.23
5		0	.20	.50	.40	.23	.40	.40	.50	.30	.25	.23
6		0	.20	.50	.40	.23	.40	.40	.50	.30	.25	.23
7		0	.20	.50	.40	.23	.40	.80	.40	.30	.25	.23
8		0	.20	.50	.40	.23	.40	.70	.40	.30	.25	.23
9		0	.20	.50	.40	.23	.40	.50	.40	.30	.25	.23
10		0	.20	.50	.40	.23	.40	.50	.40	.30	.25	.23
11		0	.20	.50	.40	.23	.40	.50	.40	.30	.25	.23
12		0	.20	.50	.40	.40	.40	.50	.40	.30	.25	.23
13		0	.20	1.5	.40	3.0	.40	.50	.40	.30	.25	.23
14		0	.20	5.0	.40	1.0	1.5	.50	.40	.30	.25	.23
15		0	.20	4.0	.40	.60	1.0	.50	.40	.30	.25	.23
16		0	.80	2.0	.40	.60	.50	.40	.40	.28	.25	.20
17		0	.40	1.5	2.1	.60	.50	.40	.40	.28	.25	.20
18		0	15	1.0	1.0	.60	.50	.40	.33	.28	.23	.20
19		0	4.3	.50	.50	.60	.50	.40	.33	.28	.23	.20
20		0	1.2	.50	.40	.60	.50	.40	.33	.28	.23	.20
21		0	19	.50	.40	.50	.50	.40	.33	.28	.23	.20
22		0	2.9	.50	.40	.50	.50	.40	.33	.28	.23	.20
23		0	1.2	.50	.40	.50	.50	.40	.33	.28	.23	.20
24		0	.80	.50	.40	.50	.50	.40	.33	.25	.23	.20
25		0	.70	.50	.40	.50	.50	.40	.33	.25	.23	.20
26		2.1	.50	.50	.30	.50	.40	.40	.33	.25	.23	.20
27		.18	.50	.50	.30	.50	.40	.40	.33	.25	.23	.20
28		1.4	.50	.50	.30	.50	.40	1.7	.30	.25	.23	.20
29		20	.50	.50	-----	.50	.40	1.0	.30	.25	.23	.20
30		3.3	.50	.50	-----	.50	.40	.80	.30	.25	.23	.20
31		-----	.50	.50	-----	.50	-----	.70	-----	.25	.23	-----
TOTAL	0	26.98	54.80	27.50	13.30	16.03	14.70	16.53	11.60	8.74	7.47	6.45
MEAN	0	.90	1.77	.89	.48	.52	.49	.53	.39	.28	.24	.22
MAX	0	20	19	5.0	2.1	3.0	1.5	1.7	.50	.30	.25	.23
MIN	0	0	.20	.50	.30	.23	.40	.40	.30	.25	.23	.20
AC-FT	0	54	109	55	26	32	29	33	23	17	15	13

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 204.10 MEAN .56 MAX 20 MIN 0 AC-FT 405



## GAVIOTA CREEK BASIN

11120550 GAVIOTA CREEK NEAR GAVIOTA, CALIF.

LOCATION.--Lat 34°29'16", long 120°13'34", in Nuestra Senora Del Refugio Grant, Santa Barbara County, on left bank 1.6 miles upstream from mouth and 1.3 miles northwest of Gaviota.

DRAINAGE AREA.--18.8 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 100 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 4.72 cfs (3,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 141 cfs Dec. 21 (gage height, 4.25 ft); no flow Aug. 14 to Sept. 30.  
Period of record: Maximum discharge, 4,000 cfs Jan. 24, 1967 (gage height, 8.40 ft), from rating curve extended above 1,300 cfs on basis of slope-area measurement of maximum flow; no flow July 10-12, Sept. 10, 24, 25, 1968.

REMARKS.--Records good. No regulation. Small pumping for domestic and resort use.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.06	.75	.65	.96	.69	.53	.56	.35	.17	.03	
2	.02	.06	4.2	2.1	.94	.63	.49	.80	.33	.17	.03	
3	.04	.09	.75	.88	.83	.66	.49	.89	.33	.18	.03	
4	.05	.15	.42	.75	.69	.68	.48	.70	.31	.18	.03	
5	.05	.77	.38	.75	.73	.63	.48	.62	.31	.17	.02	
6	.05	.56	.30	.74	.74	.61	.49	.64	.33	.20	.02	
7	.04	.18	.30	.67	.75	.63	.52	1.8	.34	.18	.02	
8	.04	.16	.30	.69	.74	.65	.52	.69	.32	.15	.01	
9	.03	.14	.33	.72	.68	.65	.48	.55	.28	.12	.01	
10	.03	.14	.25	.68	.67	.65	.47	.52	.32	.09	.02	
11	.05	.14	.25	.72	.68	.65	.46	.52	.33	.08	.04	
12	.05	.12	.25	15	.65	7.3	.46	.53	.31	.09	.01	
13	.05	.10	.22	4.0	.64	3.2	.49	.47	.28	.09	.01	
14	.07	.10	.24	2.1	.64	.90	5.4	.47	.26	.09	0	
15	.06	.10	.20	1.6	.65	.78	.66	.45	.23	.09	0	
16	.06	.10	.54	1.5	6.5	.75	.55	.41	.23	.12	0	
17	.07	.10	.40	1.3	6.6	.71	.60	.35	.23	.14	0	
18	.06	.10	38	1.4	1.3	.65	.54	.32	.25	.12	0	
19	.07	.14	36	1.4	1.1	.65	.49	.31	.18	.09	0	
20	.10	.16	6.8	1.3	.98	.67	.50	.32	.15	.10	0	
21	.17	.19	79	1.2	.91	.65	.53	.31	.15	.07	0	
22	.10	.20	13	1.2	.80	.65	.53	.32	.16	.08	0	
23	.10	.20	4.4	1.2	.75	.65	.55	.33	.18	.14	0	
24	.09	.18	2.4	1.1	.71	.65	.55	.32	.18	.09	0	
25	.06	.48	1.6	1.1	.65	.65	.58	.29	.18	.10	0	
26	.06	1.4	2.2	1.1	.60	.70	.63	.29	.22	.08	0	
27	.05	.34	1.4	.99	.66	.67	.64	.40	.20	.07	0	
28	.05	11	1.1	.96	.71	.62	.57	2.3	.16	.07	0	
29	.05	12	.88	.94	-----	.57	.56	.62	.16	.07	0	
30	.05	3.5	.82	.89	-----	.59	.55	.47	.16	.07	0	
31	.05	-----	.74	.89	-----	.55	-----	.39	-----	.04	0	-----
TOTAL	1.84	32.96	198.42	50.52	33.26	29.69	20.79	17.96	7.42	3.50	.28	0
MEAN	.059	1.10	6.40	1.63	1.19	.96	.69	.58	.25	.11	.009	0
MAX	.17	12	79	15	6.6	7.3	5.4	2.3	.35	.20	.04	0
MIN	.02	.06	.20	.65	.60	.55	.46	.29	.15	.04	0	0
AC-FT	3.7	65	394	100	66	59	41	36	15	6.9	.6	0

CAL YR 1970 TOTAL 457.10 MEAN 1.25 MAX 79 MIN .02 AC-FT 907  
WTR YR 1971 TOTAL 396.64 MEAN 1.09 MAX 79 MIN 0 AC-FT 787

## PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-18	1945	3.59	141	1-12	0630	3.44	112
12-21	0215	4.25	318				

## JALAMA CREEK BASIN

285

11120600 JALAMA CREEK NEAR LOMPOC, CALIF.

LOCATION.--Lat 34°30'50", long 120°29'02", in San Julian Grant, Santa Barbara County, on downstream side of right bridge pier on Jalama Road, 0.6 mile downstream from Gasper Creek, 1.4 miles upstream from mouth, and 8.9 miles southwest of Lompoc.

DRAINAGE AREA.--20.5 sq mi.

PERIOD OF RECORD.--September 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 80 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 2.95 cfs (2,140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 155 cfs Dec. 18 (gage height, 4.39 ft); no flow much of year.

Period of record: Maximum discharge, 1,710 cfs Jan. 24, 1967 (gage height, 8.05 ft); no flow many days in most years.

REMARKS.--Records good. No regulation or diversion above station. Pumping from wells for irrigation of about 400 acres.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.48	.53	.60	.52	.37	.27	.02			
2		0	.37	.54	.60	.51	.37	.31	.01			
3		0	.36	.53	.60	.51	.27	.46	0			
4		0	.31	.52	.60	.52	.26	.37	0			
5		0	.26	.51	.60	.48	.27	.36	0			
6		0	.26	.51	.60	.44	.28	.37	0			
7		0	.26	.52	.60	.44	.31	.34	0			
8		0	.31	.52	.60	.45	.28	.34	0			
9		0	.37	.52	.68	.49	.27	.27	0			
10		0	.40	.52	.68	.49	.26	.25	0			
11		0	.37	.53	.68	.46	.28	.24	0			
12		0	.33	7.2	.63	.67	.28	.22	0			
13		0	.32	2.7	.57	1.9	.24	.19	0			
14		0	.35	1.9	.57	.80	.89	.18	0			
15		0	.33	1.3	.60	.59	.53	.14	0			
16		0	.50	1.1	.66	.56	.35	.10	0			
17		0	.65	.95	1.7	.55	.34	.06	0			
18		0	22	.85	.90	.52	.32	.06	0			
19		0	34	.78	.66	.52	.29	.06	0			
20		0	4.7	.75	.59	.52	.27	.04	0			
21		0	39	.68	.53	.52	.28	.05	0			
22		0	13	.65	.56	.55	.26	.05	0			
23		0	3.3	.64	.58	.56	.20	.04	0			
24		0	.94	.61	.52	.56	.20	.04	0			
25		.12	.78	.60	.49	.52	.23	.02	0			
26		.09	.68	.60	.42	.58	.28	.02	0			
27		0	.60	.60	.44	.56	.28	.02	0			
28		3.0	.59	.60	.51	.48	.29	.19	0			
29		2.1	.58	.59	-----	.44	.26	.10	0			
30		.88	.57	.59	-----	.44	.29	.04	0			
31		-----	.56	.59	-----	.41	-----	.03	-----			
TOTAL	0	6.19	127.53	30.03	17.77	17.56	9.30	5.23	.03	0	0	0
MEAN	0	.21	4.11	.97	.63	.57	.31	.17	.001	0	0	0
MAX	0	3.0	39	7.2	1.7	1.9	.89	.46	.02	0	0	0
MIN	0	0	.26	.51	.42	.41	.20	.02	0	0	0	0
AC-FT	0	12	253	60	35	35	18	10	.06	0	0	0

CAL YR 1970 TOTAL 301.35 MEAN .83 MAX 39 MIN 0 AC-FT 598

WTR YR 1971 TOTAL 213.64 MEAN .59 MAX 39 MIN 0 AC-FT 424

PEAK DISCHARGE (BASE, 150 CFS).--Dec. 18 (2200) 155 cfs (4.39 ft).

## SANTA YNEZ RIVER BASIN

## 11121000 SANTA YNEZ RIVER AT JAMESON LAKE, NEAR MONTECITO, CALIF.

LOCATION.--Lat 34°29'32", long 119°30'25", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.28, T.5 N., R.25 W., Santa Barbara County, on upstream face of Juncal Dam, 6.5 miles north of Carpinteria, and 8 miles northeast of Montecito.

DRAINAGE AREA.--13.9 sq mi, revised (excludes Alder Creek).

PERIOD OF RECORD.--December 1930 to current year. Prior to October 1938, published as "at Juncal Reservoir, near Montecito."

GAGE.--Water-stage recorder on lake; water-stage recorder and sharp-crested weir on outlet conduit. Datum of gage is 2,021.6 ft above mean sea level (Bureau of Reclamation bench mark), or 2,000 ft above arbitrary datum (called sea level) generally used for works in this vicinity.

AVERAGE DISCHARGE.--40 years (1931-71), 6.38 cfs (4,620 acre-ft per year); median of yearly mean discharges, 2.2 cfs (1,600 acre-ft per year).

REMARKS.--Records of total inflow represent all water reaching Jameson Lake including precipitation on the lake. Net discharge computed on basis of records of storage, diversion (draft) to the city of Montecito, spill and release to river, and evaporation. Records of net discharge exclude precipitation on lake surface. Monthly evaporation from lake surface computed on basis of evaporation from Colorado land pan using coefficient of 0.80. Area and capacity tables are based on surveys made in 1961. Lake capacity at spillway level (gage height, 223.82 ft) 6,596 acre-ft. Dead storage, 220 acre-ft, below lowest outlet at gage height 139.0 ft included in these records. There is no regulation or diversion above station. At times flow of Alder Creek, which enters Santa Ynez River 2 miles downstream from Juncal Dam, is diverted at elevation 2,250 ft through a tunnel to Jameson Lake and is included in these records.

COOPERATION.--Reservoir-operation records and related data furnished by Montecito County Water District.

## MONTHLY NET DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Gage height (feet) <sup>a</sup>	Contents (acre-feet)	Change in Contents (acre-feet)	Draft (acre-feet)	Spill and Release (acre-feet)	Evapo-ration (acre-feet)	Total inflow (acre-feet)	Rain on reser-voir (acre-feet)	discharge (acre-feet)
Jameson Lake									
Sept. 30.....	2,209.83	4,772	-	-	-	-	-	-	-
Oct. 31.....	2,207.26	4,473	-299	254	0	24	-21	0	-21
Nov. 30.....	2,211.13	4,936	+463	181	0	10	654	100	554
Dec. 31.....	2,216.98	5,659	+723	97	0	4	824	84	740
CAL YR 1970.....	-	-	+304	2,541	119	412	3,376	344	3,032
Jan. 31.....	2,219.41	5,981	+322	86	0	6	414	9	405
Feb. 28.....	2,220.59	6,141	+160	127	0	17	304	34	270
Mar. 31.....	2,220.58	6,140	-1	164	0	30	193	9	184
Apr. 30.....	2,220.05	6,067	-73	150	0	32	109	9	100
May 31.....	2,219.13	5,943	-124	157	0	36	69	8	61
June 30.....	2,217.63	5,744	-199	205	0	50	56	0	56
July 31.....	2,215.06	5,413	-331	268	0	64	1	0	1
Aug. 31.....	2,212.36	5,077	-336	258	0	58	-20	0	-20
Sept. 30.....	2,209.77	4,765	-312	245	0	39	-28	0	-28
WTR YR 1971.....	-	-	-7	2,192	0	370	2,555	253	2,302

<sup>a</sup> Gage height at 1800.

NOTE.--For months when inflow to the lake was small and other quantities were large, discordant figures of net discharge may appear. This arises primarily from the difficulty of computing net discharge as the residual of several larger quantities, which are not susceptible to measurement with a precision necessary to produce a final answer within desirable limits of accuracy.

## 11122000 SANTA YNEZ RIVER ABOVE GIBRALTAR DAM, NEAR SANTA BARBARA, CALIF.

LOCATION.--Lat 34°31'34", long 119°41'08", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.11, T.5 N., R.27 W., Santa Barbara County, on upstream face of Gibraltar Dam, 7 miles north of Santa Barbara.

DRAINAGE AREA.--216 sq mi.

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 "near Santa Barbara."

GAGE.--Water-stage recorder on reservoir; water-stage recorder and sharp-crested weir on diversion. Spill and release measured at river gaging station below dam (see sta 11123000). Datum of gage is at mean sea level. See WSP 1735 for history of changes prior to Oct. 1, 1955.

REMARKS.--Records of total inflow represent all water reaching Gibraltar Reservoir, including precipitation on reservoir. Total inflow computed on basis of records of storage, diversion (draft) to city of Santa Barbara, spill and release to river, and evaporation. Records of net inflow exclude precipitation on reservoir surface. Monthly evaporation from reservoir surface computed on basis of evaporation from Colorado land pan using coefficient of 0.80. Area and capacity tables are based on surveys made in August 1969. Reservoir capacity at spillway level (elevation, 1,399.82 ft), 9,654 acre-ft. Flashboards were not used in 1971. Silt level of reservoir at elevation 1,344.4 ft. Lowest outlet at elevation 1,333.86 ft. Flow regulated by Jameson Lake since December 1930 (see sta 11121000).

COOPERATION.--Reservoir-operation records and related data furnished by city of Santa Barbara.

## MONTHLY NET INFLOW, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet) <sup>a</sup>	Contents (acre- feet)	Change in contents (acre- feet)	Draft (acre- feet)	Spill and release (acre- feet)	Evapo- ration (acre- feet)	Total inflow (acre- feet)	Rain on reservoir (acre- feet)	Net inflow (acre- feet)
Gibraltar Reservoir									
Sept. 30.....	1,377.39	4,393	-	-	-	-	-	-	-
Oct. 31.....	1,373.64	3,715	-678	724	0	42	88	1	87
Nov. 30.....	1,386.87	6,522	+2,807	682	20	17	3,526	157	3,369
Dec. 31.....	1,399.47	9,549	+3,027	487	3,850	7	7,371	201	7,170
CAL YR 1970.....	-	-	+1,172	7,198	17,485	777	26,632	734	25,898
Jan. 31.....	1,399.60	9,588	+39	607	5,780	18	6,444	29	6,415
Feb. 28.....	1,399.52	9,564	-24	516	2,420	27	2,939	43	2,896
Mar. 31.....	1,399.42	9,534	-30	783	1,040	87	1,880	19	1,861
Apr. 30.....	1,399.32	9,504	-30	813	94	82	959	29	930
May 31.....	1,375.79	4,098	-5,406	841	6,060	b 80	1,575	8	1,567
June 30.....	1,374.39	3,847	-251	419	0	77	245	0	245
July 31.....	1,372.80	3,569	-278	217	0	98	37	0	37
Aug. 31.....	b 1,370.00	3,093	-476	304	58	83	-31	0	-31
Sept. 30.....	1,367.65	2,712	-381	190	152	60	21	0	21
WTR YR 1971.....	-	-	-1,681	6,583	19,474	678	25,054	487	24,567

a Elevation at 1800.

b Estimated.

NOTE.--For months when inflow to the reservoir was small and other quantities were large, discordant figures of net inflow may appear. This arises primarily from the difficulty of computing net inflow as the residual of several larger quantities, which are not susceptible to measurement with a precision necessary to produce a final answer within desirable limits of accuracy.

An exchange of Gibraltar Reservoir water for Lake Cachuma water was made during the current year between city of Santa Barbara and U.S. Bureau of Reclamation so that further repairs could be made at Gibraltar Dam. Releases from Gibraltar Reservoir were made May 3-25 (see sta 11123000) and flowed to Lake Cachuma May 3-25 (see sta 11123500). Repay water from Lake Cachuma via Tecolote tunnel to city of Santa Barbara amounted to 5,580 acre-ft and was delivered during the period June to November 1971. Total water released from Gibraltar Reservoir, 6,020 acre-ft. The difference represents loss in transporation between Gibraltar and Cachuma, 130 acre-ft plus base flow, 160 acre-ft and loss from evaporation while water was stored in Lake Cachuma, 150 acre-ft.

## SANTA YNEZ RIVER BASIN

11123000 SANTA YNEZ RIVER BELOW GIBRALTAR DAM, NEAR SANTA BARBARA, CALIF.

LOCATION.--Lat 34°31'28", long 119°41'11", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.11, T.5 N., R.27 W., Santa Barbara County, on left bank 700 ft downstream from Gibraltar Dam and 7 miles north of Santa Barbara.

DRAINAGE AREA.--216 sq mi.

PERIOD OF RECORD.--April 1920 to current year (monthly discharge only prior to October 1941).

GAGE.--Water-stage recorder; water-stage recorder and combination sharp-crested weir on "release to river" gage. Datum of gage is 1,227 ft above mean sea level. See WSP 1735 for history of changes prior to May 20, 1958.

EXTREMES.--Current year: Maximum discharge, 1,340 cfs May 6 (gage height, 10.65 ft); no flow for long periods. Period of record: Maximum discharge, 54,200 cfs Jan. 25, 1969 (gage height, 25.8 ft), from rating curve extended above 2,100 cfs 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.

REMARKS.--Records good. Flow regulated by Jameson Lake (see sta 11121000) and Gibraltar Reservoir (see sta 11122000). City of Santa Barbara diverted 6,970 acre-ft during year from Gibraltar Reservoir; Montecito County Water District diverted 2,580 acre-ft during year from Jameson Lake.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.12	114	44	29	.12	.12	.02		0	1.6
2		0	.21	122	43	25	.13	.11	0	0	0	2.7
3		0	.11	120	42	22	.13	660	0		.74	4.4
4		0	.08	110	37	22	.15	492	0		1.1	5.8
5		0	.05	71	37	22	.15	478	0		1.1	5.8
6		0	0	38	33	33	.12	547	0		1.1	5.8
7		0	0	86	34	18	.12	560	0		1.1	5.8
8		0	0	84	33	18	.10	85	0		1.1	5.8
9		0	0	75	30	17	.08	26	.06		.96	5.8
10		0	0	67	29	17	.06	8.3	.02		.96	5.8
11		0	0	67	28	16	.06	16	0		.96	7.5
12		0	0	81	28	16	.05	33	0		1.1	9.3
13		0	0	100	27	30	.06	19	0		1.1	8.1
14		0	0	127	25	33	.17	26	0		1.1	2.1
15		0	0	110	25	28	38	9.4	0		1.1	.13
16		0	0	100	32	23	.50	7.0	0		1.4	.01
17		0	0	133	139	23	.71	6.3	0		2.9	0
18		0	11	276	94	23	.96	7.3	0		.96	0
19		0	7.0	210	69	12	1.3	7.6	0		.96	0
20		0	.60	117	62	10	.65	7.6	0		.96	0
21		0	141	98	40	9.5	.65	8.3	0		.96	0
22		0	381	85	44	9.5	.96	8.3	0		.80	0
23		0	228	68	45	12	.77	8.3	0		.80	0
24		0	180	65	37	22	.34	7.6	0		.80	0
25		0	157	70	54	20	.21	6.8	0		.80	0
26		0	144	64	46	4.7	.21	7.1	0		.80	0
27		0	154	47	34	4.0	.21	7.1	0		.80	0
28		0	152	53	31	4.2	.18	5.3	0		.65	0
29		9.2	146	62	-----	2.5	.17	.31	0		.65	0
30		.71	125	51	-----	-----	.12	.12	0		.65	0
31		-----	116	44	-----	.14	-----	.06	-----		.65	-----
TOTAL	0	9.91	1,943.17	2,915	1,222	525.72	47.44	3,055.02	.10	0	29.06	76.44
MEAN	0	.33	62.7	94.0	43.6	17.0	1.58	98.5	.003	0	.94	2.55
MAX	0	9.2	381	276	139	33	38	660	.06	0	2.9	9.3
MIN	0	0	0	38	25	.14	.05	.06	0	0	0	0
AC-FT	0	20	3,850	5,780	2,420	1,040	94	6,060	.2	0	58	152
CAL YR 1970	TOTAL	8,815.01	MEAN	24.2	MAX	795	MIN	0	AC-FT	17,480		
WTR YR 1971	TOTAL	9,823.86	MEAN	26.9	MAX	660	MIN	0	AC-FT	19,490		

11123500 SANTA YNEZ RIVER BELOW LOS LAURELES CANYON, NEAR SANTA YNEZ, CALIF.

LOCATION.--Lat 34°32'37", long 119°51'50", in San Marcos Grant, Santa Barbara County, on left bank 0.3 mile downstream from Los Laureles Canyon Creek and 13.3 miles east of Santa Ynez.

DRAINAGE AREA.--277 sq mi.

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 mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,080 cfs May 7 (gage height, 6.75 ft); no flow Oct. 1 to Nov. 28, June 16, July 1, July 6 to Sept. 30.

Period of record: Maximum discharge, 67,500 cfs Jan. 25, 1969 (gage height, 18.88 ft), from rating curve extended above 11,600 cfs on basis of maximum flow for station below Gibraltar Dam plus tributary inflow; no flow for several months in each year.

REMARKS.--Records good. Flow regulated by Jameson Lake and Gibraltar Reservoir (see sta 11121000, 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.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	22	133	48	34	10	3.4	4.1	0		
2		0	48	133	44	31	9.0	3.4	3.4	.12		
3		0	26	130	42	28	8.5	436	2.8	.19		
4		0	14	116	39	27	7.9	567	2.6	.19		
5		0	11	112	37	26	6.3	442	2.3	.08		
6		0	8.5	43	35	25	4.9	409	1.8	0		
7		0	7.3	55	34	25	4.5	666	1.8	0		
8		0	7.3	91	34	23	4.5	141	1.4	0		
9		0	7.3	80	31	22	4.1	52	.70	0		
10		0	6.3	69	30	21	4.9	28	1.1	0		
11		0	5.8	67	28	21	5.3	19	1.3	0		
12		0	5.8	77	27	22	4.9	35	1.1	0		
13		0	5.8	88	26	31	4.5	31	.95	0		
14		0	5.3	108	26	34	8.5	32	.27	0		
15		0	5.3	112	25	32	7.9	24	.05	0		
16		0	5.8	97	30	31	17	12	0	0		
17		0	6.8	85	101	28	13	9.6	.38	0		
18		0	148	199	126	27	10	9.6	.16	0		
19		0	283	224	88	26	8.5	9.0	.70	0		
20		0	99	161	75	20	7.3	8.5	1.2	0		
21		0	583	69	62	18	6.3	8.5	.51	0		
22		0	604	102	48	18	5.8	8.5	.12	0		
23		0	349	91	48	17	5.8	8.5	.06	0		
24		0	270	75	48	17	5.3	7.9	.06	0		
25		0	218	71	42	21	5.3	6.8	.02	0		
26		0	196	77	53	21	4.9	6.3	.06	0		
27		0	190	62	44	16	4.5	6.8	.43	0		
28		0	196	49	37	14	4.1	11	.43	0		
29		325	180	55	-----	13	4.1	10	.22	0		
30		83	162	62	-----	12	3.1	7.9	.08	0		
31		-----	140	49	-----	12	-----	5.8	-----	0		-----
TOTAL	0	408	3,816.3	2,942	1,308	713	200.7	3,025.5	30.10	.58	0	0
MEAN	0	13.6	123	94.9	46.7	23.0	6.69	97.6	1.00	.019	0	0
MAX	0	325	604	224	126	34	17	666	4.1	.19	0	0
MIN	0	0	5.3	43	25	12	3.1	3.4	0	0	0	0
AC-FT	0	809	7,570	5,840	2,590	1,410	398	6,000	60	1.2	0	0
CAL YR 1970	TOTAL	14,509.13	MEAN	39.8	MAX	2,110	MIN	0	AC-FT	28,780		
WTR YR 1971	TOTAL	12,444.18	MEAN	34.1	MAX	666	MIN	0	AC-FT	24,680		

## SANTA YNEZ RIVER BASIN

11124500 SANTA CRUZ CREEK NEAR SANTA YNEZ, CALIF.

LOCATION.--Lat 34°35'48", long 119°54'28", in San Marcos Grant, Santa Barbara County, on right bank 0.6 mile downstream from Pine Canyon and 9.9 miles east of Santa Ynez.

DRAINAGE AREA.--74.0 sq mi (revised).

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 mean sea level. 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.

AVERAGE DISCHARGE.--30 years, 17.2 cfs (12,460 acre-ft per year); median of yearly mean discharges, 7.2 cfs (5,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,100 cfs Nov. 29 (gage height, 10.42 ft); no flow Oct. 1 to Nov. 28, Aug. 13 to Sept. 30.

Period of record: Maximum discharge, 7,050 cfs Feb. 24, 1969 (gage height, 14.45 ft, from floodmark, present datum), from rating curve extended above 2,500 cfs on basis of slope-area measurement at gage height 14.16 ft; no flow at times since 1953.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	7.1	56	18	11	7.9	6.7	3.0	.65	.09	
2		0	133	54	18	11	8.0	6.7	3.0	.56	.08	
3		0	35	38	17	11	7.7	6.8	3.0	.48	.07	
4		0	12	30	16	10	7.3	7.3	2.6	.47	.06	
5		0	7.1	26	16	9.8	7.4	6.6	2.5	.47	.05	
6		0	4.6	24	14	9.7	7.5	6.6	2.4	.47	.04	
7		0	3.7	22	14	9.7	7.6	6.7	2.2	.35	.04	
8		0	3.1	21	14	9.3	7.6	6.9	2.2	.34	.04	
9		0	2.8	20	13	9.0	7.4	6.2	2.1	.34	.03	
10		0	2.5	19	13	9.5	7.3	5.3	1.9	.34	.03	
11		0	2.4	20	13	9.5	7.2	5.2	2.0	.27	.03	
12		0	2.3	24	13	10	6.8	5.1	1.7	.29	.02	
13		0	2.4	27	12	17	7.0	4.8	1.6	.28	0	
14		0	2.7	31	12	12	13	4.7	1.6	.28	0	
15		0	2.6	27	12	11	11	4.7	1.3	.29	0	
16		0	3.4	26	13	11	8.6	4.6	1.2	.26	0	
17		0	5.2	84	22	11	9.0	4.0	1.2	.27	0	
18		0	32	105	15	9.7	8.8	4.0	1.0	.27	0	
19		0	51	65	13	9.6	8.0	4.1	1.0	.27	0	
20		0	27	48	13	9.5	7.7	4.2	1.0	.27	0	
21		0	197	39	13	9.6	7.4	4.1	.83	.22	0	
22		0	73	31	12	9.7	7.3	4.2	.80	.22	0	
23		0	44	28	11	9.7	6.9	4.2	.82	.21	0	
24		0	33	26	11	9.7	6.7	3.8	.73	.18	0	
25		0	27	25	11	9.6	7.3	3.7	.75	.15	0	
26		0	31	23	11	9.6	7.6	3.7	.75	.15	0	
27		0	47	22	11	9.0	7.4	4.0	.75	.15	0	
28		0	40	21	11	8.8	7.5	5.8	.65	.15	0	
29		378	34	20	-----	8.3	7.4	4.4	.65	.15	0	
30		106	38	19	-----	8.3	7.0	3.7	.65	.12	0	
31		-----	45	19	-----	8.1	-----	3.6	-----	.10	0	-----
TOTAL	0	484	950.9	1,040	382	310.7	235.3	156.4	45.88	9.02	.58	0
MEAN	0	16.1	30.7	33.5	13.6	10.0	7.84	5.05	1.53	.29	.019	0
MAX	0	378	197	105	22	17	13	7.3	3.0	.65	.09	0
MIN	0	0	2.3	19	11	8.1	6.7	3.6	.65	.10	0	0
AC-FT	0	960	1,890	2,060	758	616	467	310	91	18	1.2	0

CAL YR 1970 TOTAL 4,184.20 MEAN 11.5 MAX 378 MIN 0 AC-FT 8,300  
WTR YR 1971 TOTAL 3,614.78 MEAN 9.90 MAX 378 MIN 0 AC-FT 7,170

## PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0815	10.42	1,100	12-21	0515	9.66	377
12- 2	1030	9.79	496	1-17	2100	9.31	185
12-18	2330	9.24	142				

## 11125500 LAKE CACHUMA NEAR SANTA YNEZ, CALIF.

LOCATION.--Lat 34°34'57", long 119°58'47", in Lomas de la Purification Grant, Santa Barbara County, at Cachuma Dam on Santa Ynez River, on upstream face near left end of dam, 6.1 miles east of Santa Ynez.

DRAINAGE AREA.--417 sq mi.

PERIOD OF RECORD.--November 1952 to current year. Prior to October 1960, published as at Cachuma Reservoir near Santa Ynez.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Bureau of Reclamation bench mark). Prior to Oct. 1, 1965, nonrecording gage.

EXTREMES.--Current year: Maximum contents, 187,600 acre-ft Feb. 24 (elevation, 744.22 ft); minimum, 161,300 acre-ft Sept. 30 (elevation, 734.75 ft).

Period of record: Maximum contents, 221,100 acre-ft Feb. 24, 1969 (elevation, 755.11 ft); minimum since initial filling in April 1958, 117,900 acre-ft Nov. 13, 1965 (elevation, 716.63 ft).

REMARKS.--Reservoir is formed by earthfill dam. Storage began November 1952. Capacity table is based on surveys made in January 1953. Dead storage below outlet gate to river (elevation, 600 ft), 3,114 acre-ft, included in contents. Capacity below sill of inlet to Tecolote tunnel (elevation, 660 ft), 32,514 acre-ft; below spillway level (elevation, 720 ft), 125,292 acre-ft; below top of 4 radial gates (elevation, 750 ft), 204,874 acre-ft. Water is released from outlet to Santa Ynez River to satisfy downstream water rights. Water diverted to Tecolote tunnel for use by city of Santa Barbara and nearby communities, to Santa Ynez River Water Conservation District, and to Cachuma recreation area.

COOPERATION.--Reservoir elevation and diversion figures furnished by Bureau of Reclamation.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet) <sup>a</sup>	Contents (acre-feet)	Change in contents (acre-feet)	Total diversions (acre-feet)
Sept. 30.....	740.36	176,400	-	-
Oct. 31.....	739.04	172,900	-3,500	2,220
Nov. 30.....	739.47	174,100	+1,200	1,060
Dec. 31.....	742.07	181,400	+7,300	397
CAL YR 1970.....	-	-	-3,400	25,920
Jan. 31.....	743.91	186,700	+5,300	169
Feb. 28.....	744.20	187,500	+800	750
Mar. 31.....	743.55	185,600	-1,900	1,270
Apr. 30.....	742.44	182,400	-3,200	2,000
May 31.....	742.98	184,000	+1,600	2,450
June 30.....	741.37	179,400	-4,600	2,940
July 31.....	739.21	173,400	-6,000	4,160
Aug. 31.....	736.77	166,700	-6,700	4,190
Sept. 30.....	734.75	161,300	-5,400	3,820
WTR YR 1971.....	-	-	-15,100	25,430

<sup>a</sup> Elevation at 2400.



## SANTA YNEZ RIVER BASIN

11126000 SANTA YNEZ RIVER NEAR SANTA YNEZ, CALIF.

LOCATION.--Lat 34°35'21", long 119°59'16", in Canada de los Pinos Grant, Santa Barbara County, on right bank 0.7 miles downstream from Cachuma Dam and 5.5 miles southeast of Santa Ynez.

DRAINAGE AREA.--422 sq mi.

PERIOD OF RECORD.--December 1928 to September 1931, October 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 545.66 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Oct. 1, 1955, at site 2.5 miles downstream at different datum. Oct. 1, 1955, to Sept. 16, 1969, at site 0.4 mile downstream at datum 7.2 ft higher.

EXTREMES.--Current year: Maximum discharge, 142 cfs Dec. 21 (gage height, 3.59 ft); no flow many days. Period of record: Maximum discharge, 79,000 cfs 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.

REMARKS.--Records good. Flow regulated by Jameson Lake since December 1930, Gibraltar Reservoir, and Lake Cachuma since November 1952 (see sta 11121000, 11122000, 11125500). Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and to the Santa Ynez valley for municipal supply. Some water pumped from wells along river banks for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	0	130	28	29	28	35	7.6	2.0	12	2.6	0
2	2.2	0	130	24	26	33	34	7.9	.64	12	2.4	0
3	2.3	0	120	27	31	34	33	13	.17	13	1.5	0
4	2.4	0	105	27	31	35	32	19	.23	13	1.4	0
5	2.6	0	107	26	32	35	28	19	.25	9.1	1.5	0
6	3.3	0	110	27	34	35	22	20	.25	.44	1.2	0
7	3.5	0	94	26	36	36	21	20	2.5	0	.99	0
8	3.6	0	74	28	37	39	20	21	12	0	.87	0
9	3.2	0	75	28	36	59	18	21	14	0	.88	0
10	3.4	0	76	28	36	69	17	22	15	0	1.7	0
11	3.6	0	76	26	37	68	16	21	15	0	2.0	0
12	2.8	0	75	21	38	51	11	21	15	0	1.8	0
13	.29	0	76	20	37	31	7.0	22	15	0	1.9	0
14	0	0	49	23	36	31	7.0	21	15	0	2.0	0
15	0	0	7.2	19	35	30	7.0	21	14	1.4	2.2	1.1
16	0	0	6.0	27	35	30	7.0	21	14	2.0	4.1	3.8
17	0	0	6.0	23	32	32	7.0	21	14	2.0	12	5.6
18	0	0	20	23	30	35	7.0	21	14	2.3	13	5.6
19	0	0	21	23	30	34	7.0	21	13	2.5	12	5.6
20	0	0	27	23	30	34	8.1	21	13	6.1	12	5.6
21	0	0	47	23	30	47	10	16	15	7.4	15	3.5
22	0	0	9.7	23	27	61	10	13	21	7.7	17	3.3
23	0	0	4.1	23	23	41	10	14	20	7.2	15	3.2
24	0	0	2.4	23	24	41	11	17	20	6.8	2.0	3.2
25	0	0	1.7	26	24	40	11	20	20	6.2	.40	3.1
26	0	0	8.8	26	24	38	8.1	20	20	5.5	0	3.0
27	0	0	44	26	24	39	7.5	19	20	3.3	0	2.0
28	0	0	51	26	24	39	7.0	19	16	2.5	0	1.0
29	0	0	57	28	-----	39	6.5	18	11	2.6	0	0
30	0	62	32	30	-----	37	5.9	18	12	2.7	0	0
31	0	-----	32	29	-----	37	-----	14	-----	2.6	0	-----
TOTAL	35.29	62	1,673.9	780	868	1,238	431.1	569.5	364.04	130.34	127.44	49.6
MEAN	1.14	2.07	54.0	25.2	31.0	39.9	14.4	18.4	12.1	4.20	4.11	1.65
MAX	3.6	62	130	30	38	69	35	22	21	13	17	5.6
MIN	0	0	1.7	19	23	28	5.9	7.6	.17	0	0	0
AC-FT	70	123	3,320	1,550	1,720	2,460	855	1,130	722	259	253	98

CAL YR 1970 TOTAL 3,430.13 MEAN 9.40 MAX 130 MIN 0 AC-FT 6,800  
 WTR YR 1971 TOTAL 6,329.21 MEAN 17.3 MAX 130 MIN 0 AC-FT 12,550

11126500 SANTA AGUEDA CREEK NEAR SANTA YNEZ, CALIF.

LOCATION.--Lat 34°35'42", long 120°01'43", in Canada de los Pinos Grant, Santa Barbara County, on left downstream wingwall of highway bridge, 0.5 mile upstream from mouth, and 3.5 miles southeast of Santa Ynez.

DRAINAGE AREA.--55.8 sq mi.

PERIOD OF RECORD.--October 1940 to September 1971 (discontinued). Monthly discharge only for January 1941 and yearly estimate for water year 1941 (incomplete), published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 520 ft (from topographic map). Prior to Oct. 1, 1955, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--31 years, 3.72 cfs (2,700 acre-ft per year); median of yearly mean discharges, 0.5 cfs (360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 385 cfs Dec. 21 (gage height, 2.75 ft); no flow most of year.

Period of record: Maximum discharge, 7,300 cfs Feb. 24, 1969 (gage height, 6.65 ft), from rating curve extended above 2,300 cfs; no flow at times in most years.

REMARKS.--Records good. Flow partly regulated by several detention dams. Diversions for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0									
2			23									
3			0									
4			0									
5			0									
6			0									
7			0									
8			0									
9			0									
10			0									
11			0									
12			0									
13			0									
14			0									
15			0									
16			0									
17			0									
18			3.7									
19			12									
20			0									
21			123									
22			8.3									
23			0									
24			0									
25			0									
26			0									
27			0									
28			0									
29			0		-----							
30			0		-----							
31		-----	0		-----		-----		-----			-----
TOTAL	0	0	170.0	0	0	0	0	0	0	0	0	0
MEAN	0	0	5.48	0	0	0	0	0	0	0	0	0
MAX	0	0	123	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	337	0	0	0	0	0	0	0	0	0

CAL YR 1970 TOTAL 393.75 MEAN 1.08 MAX 162 MIN 0 AC-FT 781  
WTR YR 1971 TOTAL 170.00 MEAN .47 MAX 123 MIN 0 AC-FT 337

PEAK DISCHARGE (BASE, 50 CFS).--Dec. 2 (1030) 205 cfs (2.55 ft); Dec. 21 (0400) 385 cfs (2.75 ft).

## SANTA YNEZ RIVER BASIN

11128250 ALAMO PINTADO CREEK NEAR SOLVANG, CALIF.

LOCATION.--Lat 34°37'06", long 120°07'11", in SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.11, T.6 N., R.3 W., Santa Barbara County, on right bank at downstream side of bridge on Alamo Pintado Road, 1.5 miles northeast of Solvang.

DRAINAGE AREA.--29.4 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 540.49 ft above mean sea level (Santa Barbara County bench mark).

EXTREMES.--Current year: Maximum discharge, 12 cfs Dec. 21 (gage height, 2.89 ft), result of discharge measurement; no flow except Dec. 21.

Flood of Jan. 25, 1969, reached a stage of 10.32 ft.

REMARKS.--Records poor. No regulation above station. Pumping from wells along stream for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0									
2			0									
3			0									
4			0									
5			0									
6			0									
7			0									
8			0									
9			0									
10			0									
11			0									
12			0									
13			0									
14			0									
15			0									
16			0									
17			0									
18			0									
19			0									
20			0									
21			2.0									
22			0									
23			0									
24			0									
25			0									
26			0									
27			0									
28			0									
29			0									
30			0									
31		-----	0		-----		-----		-----			-----
TOTAL	0	0	2.0	0	0	0	0	0	0	0	0	0
MEAN	0	0	.065	0	0	0	0	0	0	0	0	0
MAX	0	0	2.0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	4.0	0	0	0	0	0	0	0	0	0

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 2.0 MEAN 0.0060 MAX 2.0 MIN 0 AC-FT 4.0

PEAK DISCHARGE (BASE, 10 CFS).--Dec. 21 (1600) 12 cfs (2.89 ft).

## 11128400 ALISAL CREEK NEAR SOLVANG, CALIF.

LOCATION.--Lat 34°34'52", long 120°08'41", in Nojoqui Grant, Santa Barbara County, on right bank at foot-bridge, 0.3 mile upstream from mouth and 1.0 mile southwest of Solvang.

DRAINAGE AREA.--12.3 sq mi (revised).

PERIOD OF RECORD.--October 1954 to September 1955, October 1955 to September 1956 (monthly discharge only), October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 378.73 ft above mean sea level. Prior to Dec. 25, 1955, at site 50 ft upstream at different datum (destroyed by flood). Oct. 1, 1956, to Jan. 23, 1961, at datum 1.0 ft higher.

AVERAGE DISCHARGE.--16 years, (1954-70), 6.53 cfs (4,730 acre-ft per year); median of yearly mean discharges, 2.0 cfs (1,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 438 cfs Dec. 21 (gage height, 3.41 ft); no flow most of year. Period of record: Maximum discharge, 4,960 cfs Jan. 25, 1969 (gage height, 8.50 ft), from rating curve extended above 1,840 cfs on basis of slope-conveyance measurement of maximum flow; no flow for several months in each year.

REMARKS.--Records good. Flow regulated by Alisal Reservoir since December 1970 (capacity, 2,400 acre-ft). At times waste irrigation water pumped from Santa Ynez River causes minor flow.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0		0							
2			0		0							
3			0		0							
4			0		0							
5			0		0							
6			0		0							
7			0		0							
8			0		0							
9			0		0							
10			0		0							
11			0		0							
12			0		0							
13			0		0							
14			0		0							
15			0		0							
16			0		0							
17			0		.08							
18			3.4		.04							
19			.50		0							
20			0		0							
21			43		0							
22			.60		0							
23			.21		0							
24			0		0							
25			0		0							
26			0		0							
27			0		0							
28			0		0							
29			0		-----							
30			0		-----							
31		-----	0		-----		-----		-----			-----
TOTAL	0	0	47.71	0	.12	0	0	0	0	0	0	0
MEAN	0	0	1.54	0	.004	0	0	0	0	0	0	0
MAX	0	0	43	0	.08	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	95	0	.2	0	0	0	0	0	0	0

CAL YR 1970 TOTAL 147.67 MEAN .40 MAX 43 MIN 0 AC-FT 293  
WTR YR 1971 TOTAL 47.83 MEAN .13 MAX 43 MIN 0 AC-FT 95

PEAK DISCHARGE (BASE, 100 CFS).--Dec. 21 (0130) 438 cfs (3.41 ft).

## SANTA YNEZ RIVER BASIN

## 11128500 SANTA YNEZ RIVER AT SOLVANG, CALIF.

LOCATION.--Lat 34°35'06", long 120°08'37", in San Carlos de Jonata Grant, Santa Barbara County, on downstream side of right abutment of Mission bridge, 25 ft downstream from Alisal Creek, and 0.8 mile southwest of Solvang.

DRAINAGE AREA.--579 sq mi.

PERIOD OF RECORD.--October 1928 to November 1936, June 1937 to November 1940 (irrigation seasons only), October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 362.43 ft above mean sea level. Various datums used during period of record. July 29 to Sept. 30, 1953, auxiliary water-stage recorder 750 ft upstream at different datum. Oct. 1, 1953, to Sept. 30, 1968, water-stage recorder at datum 2.00 ft higher.

EXTREMES.--Current year: Maximum discharge, 410 cfs Dec. 21 (gage height, 3.55 ft); no flow Oct. 1 to Dec. 3, July 19 to Sept. 30.  
1928-36, 1946 to current year: Maximum discharge, 82,000 cfs (estimated) Jan. 25, 1969 (gage height, 17.1 ft, from floodmark); no flow for several months in many years.

REMARKS.--Records good. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952 by Lake Cachuma (see sta 11121000, 11122000, 11125500). Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Some water for irrigation pumped from wells along banks of river in valley upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	29	27	22	29	5.1	13	3.0		
2			0	27	28	22	28	5.3	11	2.6		
3			0	26	27	23	28	4.9	6.0	2.3		
4			14	26	30	24	29	5.3	3.5	2.0		
5			33	26	31	24	30	6.1	2.1	1.7		
6			42	26	31	24	25	8.9	1.5	1.6		
7			47	26	31	25	23	10	1.5	1.4		
8			42	27	31	26	21	11	2.0	1.2		
9			47	27	31	29	21	11	4.0	1.1		
10			52	26	31	40	21	12	4.5	1.0		
11			57	26	29	42	21	12	4.3	.80		
12			53	26	29	42	23	12	4.2	.70		
13			48	25	29	31	20	11	4.1	.60		
14			43	24	28	27	19	12	4.0	.50		
15			20	23	28	27	17	11	4.0	.45		
16			14	23	29	27	16	11	4.0	.30		
17			11	24	30	27	16	10	4.0	.20		
18			21	23	25	27	16	10	4.0	.10		
19			42	23	25	28	15	10	4.0	0		
20			39	23	25	29	15	10	4.0	0		
21			297	23	25	29	14	11	4.5	0		
22			110	23	25	44	14	10	5.0	0		
23			39	23	24	35	13	8.5	5.4	0		
24			26	23	23	34	12	7.6	5.4	0		
25			23	23	23	33	11	7.0	5.4	0		
26			21	25	24	32	10	7.3	5.4	0		
27			24	24	22	32	9.0	8.5	5.0	0		
28			32	25	22	32	8.0	12	4.0	0		
29			37	25	-----	33	7.0	14	3.3	0		
30			33	26	-----	32	6.0	14	3.2	0		
31		-----	30	27	-----	30	-----	14	-----	0		-----
TOTAL	0	0	1,297	773	763	932	537.0	302.5	136.3	21.55	0	0
MEAN	0	0	41.8	24.9	27.3	30.1	17.9	9.76	4.54	.70	0	0
MAX	0	0	297	29	31	44	30	14	13	3.0	0	0
MIN	0	0	0	23	22	22	6.0	4.9	1.5	0	0	0
AC-FT	0	0	2,570	1,530	1,510	1,850	1,070	600	270	43	0	0

CAL YR 1970 TOTAL 3,289.14 MEAN 9.01 MAX 297 MIN 0 AC-FT 6,520  
WTR YR 1971 TOTAL 4,762.35 MEAN 13.0 MAX 297 MIN 0 AC-FT 9,450

## 11129800 ZACA CREEK NEAR BUELLTON, CALIF.

LOCATION.--Lat 34°38'55", long 120°11'00", in San Carlos de Jonata Grant, Santa Barbara County, on upstream end of left pier of bridge on frontage road, 0.9 mile upstream from Dry Creek, 2.4 miles north of Buellton, and 4.0 miles upstream from mouth.

DRAINAGE AREA.--32.8 sq mi.

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 471.54 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 1.29 cfs (935 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3.3 cfs Dec. 21 (gage height, 2.25 ft); no flow most of year.  
Period of record: Maximum discharge, 1,390 cfs Feb. 24, 1969 (gage height, 9.20 ft); no flow most of each year.

REMARKS.--Records good. Slight regulation by Zaca Lake. Some pumping from wells along stream for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0									
2			0									
3			0									
4			0									
5			0									
6			0									
7			0									
8			0									
9			0									
10			0									
11			0									
12			0									
13			0									
14			0									
15			0									
16			0									
17			0									
18			.61									
19			.37									
20			0									
21			1.6									
22			.44									
23			0									
24			0									
25			0									
26			0									
27			0									
28			0									
29			0		-----							
30			0		-----							
31		-----	0		-----		-----		-----			-----
TOTAL	0	0	3.02	0	0	0	0	0	0	0	0	0
MEAN	0	0	.097	0	0	0	0	0	0	0	0	0
MAX	0	0	1.6	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	6.0	0	0	0	0	0	0	0	0	0

CAL YR 1970 TOTAL 12.46 MEAN .034 MAX 2.3 MIN 0 AC-FT 25  
WTR YR 1971 TOTAL 3.02 MEAN .0080 MAX 1.6 MIN 0 AC-FT 6.0

PEAK DISCHARGE (BASE, 10 CFS).--No peak above base.

## SANTA YNEZ RIVER BASIN

## 11130500 SANTA YNEZ RIVER NEAR BUELLTON, CALIF.

LOCATION.--Lat 34°36'38", long 120°14'53", in Santa Rosa Grant, Santa Barbara County, on left bank 0.5 mile downstream from Canada de los Palos Blancos and 3 miles west of Buellton.

DRAINAGE AREA.--668 sq mi.

PERIOD OF RECORD.--June 1948 to September 1952 (irrigation seasons only); October 1952 to September 1965; October 1965 to current year (wading stages only).

GAGE.--Water-stage recorder. Datum of gage is 260.68 ft above mean sea level (Bureau of Reclamation bench mark). See WSP 1928 for history of changes prior to Mar. 29, 1962. Mar. 29, 1962, to Oct. 1, 1969, at site 100 ft upstream at datum 1 ft lower.

REMARKS.--Records good. This is a project station. Discharge above wading stages not generally reported herein. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952 by Lake Cachuma (see sta 111210, 11122000, 11125500). Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water pumped from wells along banks of river for irrigation in valley upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	1.2	6.0	35	32	21	24	8.1	2.3	.12		
2	0	1.8	6.6	35	30	20	22	8.4	2.2	.08		
3	0	2.1	6.3	30	31	21	21	9.7	2.4	.05		
4	0	2.4	6.1	29	32	22	22	9.5	3.1	0		
5	0	2.9	6.0	29	33	21	25	9.2	3.0	0		
6	0	3.0	6.3	30	33	21	24	8.9	3.1	0		
7	0	3.0	6.3	31	33	20	20	8.6	4.2	0		
8	0	3.0	6.4	31	33	20	18	7.5	4.8	.01		
9	0	3.1	6.5	32	33	20	16	7.5	4.7	0		
10	0	3.2	7.3	31	31	30	14	8.5	5.2	0		
11	0	3.3	13	32	30	46	14	9.1	4.9	0		
12	0	3.3	20	33	30	53	15	10	4.2	0		
13	0	3.3	28	32	30	53	16	10	4.1	0		
14	0	3.3	35	29	30	36	19	9.9	4.1	0		
15	0	3.3	31	28	30	31	17	8.3	4.1	0		
16	0	3.2	18	26	33	28	14	6.7	3.8	0		
17	0	2.8	14	28	39	25	14	6.6	3.3	0		
18	0	2.8	15	28	34	23	14	6.4	2.9	0		
19	0	2.8	31	28	31	22	14	5.3	2.4	0		
20	0	2.8	35	26	30	23	13	4.8	2.0	0		
21	0	2.8	249	26	29	23	13	4.5	1.8	0		
22	0	2.9	163	25	29	31	12	4.0	1.9	0		
23	0	3.0	57	25	29	49	12	3.4	1.5	0		
24	0	2.9	36	26	26	38	12	2.8	1.3	0		
25	0	3.5	27	25	23	34	12	2.3	.86	0		
26	0	3.7	24	25	25	33	12	2.1	.93	0		
27	0	3.6	20	28	24	30	11	2.2	.92	0		
28	0	4.4	30	29	23	28	10	2.8	.74	0		
29	0	6.9	41	30	-----	28	9.6	2.6	.30	0		
30	0	6.5	46	29	-----	29	9.2	2.5	.12	0		
31	.28	-----	36	31	-----	26	-----	2.4	-----	0		-----
TOTAL	.28	96.8	1,032.8	902	846	905	468.8	194.6	81.17	.26	0	0
MEAN	.009	3.23	33.3	29.1	30.2	29.2	15.6	6.28	2.71	.008	0	0
MAX	.28	6.9	249	35	39	53	25	10	5.2	.12	0	0
MIN	0	1.2	6.0	25	23	20	9.2	2.1	.12	0	0	0
AC-FT	.6	192	2,050	1,790	1,680	1,800	930	386	161	.5	0	0
CAL YR 1970	TOTAL	3,638.19	MEAN	9.97	MAX	249	MIN	0	AC-FT	7,220		
WTR YR 1971	TOTAL	4,527.71	MEAN	12.4	MAX	249	MIN	0	AC-FT	8,980		

## 11131500 SANTA YNEZ RIVER AT COOPER'S REEF, NEAR LOMPOC, CALIF.

LOCATION.--Lat 34°36'48", long 120°21'23", near boundary of Canada de Salsipuedes Grant, Santa Barbara County, on right bank 0.6 mile upstream from Canada de la Vina and 6 miles east of Lompoc.

DRAINAGE AREA.--708 sq mi.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 200 ft (from topographic map). Prior to Sept. 18, 1969, at site 100 ft downstream at datum about 0.6 ft higher (reference marks destroyed by floods of 1969).

EXTREMES.--Current year: Maximum discharge, 407 cfs Dec. 21 (gage height, 4.51 ft); no flow Aug. 2 to Sept. 30.

Period of record: Maximum discharge, 81,000 cfs (estimated) Jan. 25, 1969 (gage height, 22.5 ft, site and datum then in use, from floodmark); no flow for several months in some years.

REMARKS.--Records good. Flow regulated by Jameson Lake, Gibraltar Reservoir, and Lake Cachuma (see sta 11121000, 11122000, 11125500). Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water pumped from wells along banks of river for irrigation in valley upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.05	.08	37	36	20	21	3.4	.86	.14	.01	
2	.06	.05	.10	42	36	17	19	3.6	.74	.14	0	
3	.06	.06	.09	34	36	16	17	3.6	.92	.17	0	
4	.06	.06	.09	33	36	17	17	3.7	.89	.20	0	
5	.07	.06	.10	34	37	18	16	4.2	1.0	.20	0	
6	.07	.06	.08	34	39	18	18	4.8	1.1	.17	0	
7	.06	.06	.10	34	39	17	18	4.3	1.3	.17	0	
8	.06	.06	.10	35	40	17	15	3.8	1.2	.17	0	
9	.06	.06	.11	35	40	18	13	3.6	.82	.17	0	
10	.06	.07	.12	36	39	18	12	3.8	.49	.14	0	
11	.05	.07	.12	35	39	31	9.9	4.1	.31	.14	0	
12	.05	.06	.13	39	37	43	8.6	3.9	.29	.12	0	
13	.05	.06	.13	39	36	56	8.6	4.2	.23	.12	0	
14	.05	.06	.13	35	36	42	14	4.1	.22	.12	0	
15	.05	.05	.13	33	37	30	14	3.8	.22	.12	0	
16	.05	.04	1.6	31	39	25	11	3.4	.17	.12	0	
17	.05	.04	5.5	31	49	22	11	3.1	.16	.10	0	
18	.05	.04	14	32	42	19	10	2.3	.13	.10	0	
19	.05	.04	25	31	37	17	9.3	2.2	.13	.08	0	
20	.05	.04	42	30	34	17	9.3	1.9	.13	.10	0	
21	.04	.04	152	29	30	17	8.7	1.6	.10	.10	0	
22	.04	.04	228	28	29	18	8.0	1.2	.10	.08	0	
23	.05	.04	84	28	28	32	7.5	.90	.07	.08	0	
24	.04	.05	45	28	25	40	7.7	.89	.10	.10	0	
25	.04	.07	35	28	22	32	7.6	.95	.10	.08	0	
26	.04	.07	32	28	18	30	6.5	1.0	.10	.07	0	
27	.04	.06	26	29	20	27	4.9	.76	.12	.07	0	
28	.04	.08	26	31	22	24	4.2	1.5	.10	.07	0	
29	.04	.14	36	32	-----	24	3.5	1.6	.12	.06	0	
30	.04	.09	51	32	-----	23	3.3	1.1	.14	.04	0	
31	.05	-----	42	35	-----	23	-----	.75	-----	.02	0	-----
TOTAL	1.58	1.77	846.71	1,018	958	768	333.6	84.05	12.36	3.56	.01	0
MEAN	.051	.059	27.3	32.8	34.2	24.8	11.1	2.71	.41	.11	.0003	0
MAX	.07	.14	228	42	49	56	21	4.8	1.3	.20	.01	0
MIN	.04	.04	.08	28	18	16	3.3	.75	.07	.02	0	0
AC-FT	3.1	3.5	1,680	2,020	1,900	1,520	662	167	25	7.1	.02	0

CAL YR 1970 TOTAL 3,950.27 MEAN 10.8 MAX 285 MIN 0 AC-FT 7,840  
WTR YR 1971 TOTAL 4,027.64 MEAN 11.0 MAX 228 MIN 0 AC-FT 7,990



## SANTA YNEZ RIVER BASIN

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CALIF.

LOCATION.--Lat 34°35'19", long 120°24'27", in W $\frac{1}{2}$  sec.24, T.6 N., R.34 W., Santa Barbara County, on right bank at bridge on Jalama Road, 0.4 mile downstream from El Jaro Creek, and 4.4 miles southeast of Lompoc.

DRAINAGE AREA.--47.1 sq mi.

PERIOD OF RECORD.--January 1941 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Altitude of gage is 240 ft (from topographic map).

AVERAGE DISCHARGE.--30 years, 8.32 cfs (6,030 acre-ft per year); median of yearly mean discharges, 3.2 cfs (2,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 209 cfs Dec. 18 (gage height, 2.67 ft); minimum daily, 0.04 cfs Aug. 4-8.

Period of record: Maximum discharge, 11,400 cfs Mar. 15, 1952 (gage height, 20.8 ft); no flow at times in some years.

REMARKS.--Records good. No regulation above station. Small diversions for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.13	2.1	2.6	2.7	1.9	1.2	1.2	.86	.27	.06	.06
2	.13	.13	2.4	4.8	2.4	1.9	1.2	.95	.75	.27	.06	.06
3	.13	.13	2.8	3.0	2.4	1.6	1.2	1.2	.72	.27	.05	.06
4	.13	.13	1.5	2.2	2.1	1.8	1.2	1.3	.72	.23	.04	.06
5	.13	.13	1.5	1.9	2.3	1.7	1.2	1.4	.71	.16	.04	.06
6	.13	.14	1.2	1.9	2.4	1.7	1.2	1.4	.72	.17	.04	.06
7	.13	.14	1.4	2.1	2.4	1.8	1.1	1.4	.72	.16	.04	.06
8	.13	.14	1.6	2.2	2.4	1.9	1.1	1.4	.77	.18	.04	.06
9	.13	.14	1.7	2.3	2.4	1.9	1.1	1.3	.76	.19	.05	.06
10	.13	.14	1.9	2.5	2.3	1.9	1.1	1.1	.76	.16	.05	.06
11	.13	.15	2.1	2.5	2.4	1.9	1.1	1.1	.72	.16	.06	.06
12	.13	.15	2.1	15	2.4	2.1	1.0	1.2	.71	.16	.05	.06
13	.13	.15	2.4	6.4	2.3	5.8	1.0	1.2	.63	.16	.05	.06
14	.13	.15	2.5	4.5	2.2	2.3	1.8	1.1	.52	.12	.05	.06
15	.13	.15	2.6	3.0	2.2	1.9	1.6	.99	.47	.12	.05	.06
16	.12	.16	4.2	2.6	2.1	1.9	1.0	.82	.44	.12	.05	.06
17	.12	.16	5.3	2.4	8.9	1.9	1.0	.63	.44	.12	.06	.06
18	.12	.16	39	2.1	3.6	1.9	1.0	.59	.40	.12	.06	.06
19	.12	.16	37	2.4	2.4	1.9	1.0	.59	.27	.12	.06	.06
20	.12	.16	9.6	2.4	2.2	1.9	1.0	.59	.27	.11	.06	.06
21	.12	.17	77	2.4	2.1	1.7	1.0	.59	.27	.12	.06	.06
22	.12	.17	21	2.5	2.1	1.8	1.0	.59	.26	.09	.06	.06
23	.12	.17	8.2	2.4	2.1	1.9	1.0	.59	.26	.09	.06	.06
24	.12	.20	4.7	2.4	2.1	1.6	1.0	.59	.26	.08	.06	.06
25	.12	.50	3.6	2.7	1.9	1.6	1.1	.59	.26	.09	.07	.06
26	.12	.90	3.0	2.7	1.9	1.6	1.2	.58	.26	.09	.07	.06
27	.12	.98	3.0	2.7	1.9	1.6	1.2	.58	.26	.09	.06	.06
28	.12	4.8	3.0	2.7	1.9	1.5	1.3	.72	.26	.09	.06	.06
29	.12	8.6	2.3	2.7	-----	1.4	1.4	1.5	.26	.09	.06	.06
30	.12	3.7	2.1	2.7	-----	1.4	1.4	1.2	.26	.06	.06	.06
31	.12	-----	1.9	2.7	-----	1.3	-----	1.0	-----	.05	.06	-----
TOTAL	3.87	23.09	254.7	97.4	70.5	59.0	34.7	29.99	14.97	4.31	1.70	1.80
MEAN	.12	.77	8.22	3.14	2.52	1.90	1.16	.97	.50	.14	.055	.060
MAX	.13	8.6	77	15	8.9	5.8	1.8	1.5	.86	.27	.07	.06
MIN	.12	.13	1.2	1.9	1.9	1.3	1.0	.58	.26	.05	.04	.06
AC-FT	7.7	46	505	193	140	117	69	59	30	8.6	3.4	3.6

CAL YR 1970 TOTAL 993.74 MEAN 2.72 MAX 118 MIN .06 AC-FT 1,970  
WTR YR 1971 TOTAL 596.03 MEAN 1.63 MAX 77 MIN .04 AC-FT 1,180

PEAK DISCHARGE (BASE, 100 CFS).--Dec. 18 (2215) 209 cfs (2.67 ft); Dec. 21 (0015) 162 cfs (2.45 ft).

## 11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CALIF.

LOCATION.--Lat 34°38'16", long 120°25'32", in Canada de Salsipuedes Grant, Santa Barbara County, on left bank 0.5 mile upstream from State Highway 150, 1.9 miles east of Lompoc, and 1.9 miles downstream from Salsipuedes Creek.

DRAINAGE AREA.--789 sq mi.

PERIOD OF RECORD.--November and December 1906, October 1907 to September 1918, April 1925 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1961, published as "near Lompoc."

GAGE.--Water-stage recorder. Altitude of gage is 90 ft (from topographic map). See WSP 1715 for history of changes prior to Oct. 1, 1961. Since Oct. 1, 1961, at various sites and datums within 0.1 mile of present site and supplementary water-stage recorder at site 0.5 mile downstream at datum 79.25 ft above mean sea level (now used for high-water periods).

EXTREMES.--Current year: Maximum discharge, 444 cfs Dec. 22 (gage height, 6.20 ft, from supplementary gage); no flow Oct. 1 to Dec. 18, June 24 to Sept. 30.  
1952-63, 1964 to current year: Maximum discharge, 80,000 cfs Jan. 25, 1969 (gage height, 24.20 ft, from supplementary gage); no flow at times in each year.

Flood of Jan. 9, 1907, 120,000 cfs (gage height, 22.0 ft, site and datum then in use), from discharge-mean depth study.

REMARKS.--Records good. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952 by Lake Cachuma (see sta 11121000, 11122000, 11125500). Water diverted out of Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water pumped from wells along banks of river for irrigation in valley upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	42	33	21	15	1.8	.96			
2			0	48	33	18	14	1.8	.91			
3			0	41	32	18	13	1.8	.87			
4			0	38	32	18	12	1.8	.87			
5			0	35	32	18	12	1.7	.87			
6			0	34	33	17	11	1.8	.91			
7			0	33	33	17	11	1.6	.90			
8			0	34	32	16	10	1.5	.86			
9			0	35	32	16	9.3	1.4	.84			
10			0	36	31	16	8.4	1.4	.81			
11			0	36	30	16	7.8	1.5	.78			
12			0	47	30	25	7.3	1.4	.75			
13			0	42	29	34	7.1	1.5	.71			
14			0	39	29	34	9.0	1.6	.69			
15			0	35	28	28	8.2	1.3	.62			
16			0	34	29	24	6.6	1.2	.51			
17			0	34	39	22	6.4	1.3	.37			
18			0	35	35	19	6.0	1.3	.28			
19			48	34	31	17	5.8	1.2	.18			
20			11	33	29	16	5.5	1.2	.12			
21			93	32	27	15	5.4	1.1	.04			
22			340	31	26	16	5.2	1.1	.01			
23			122	31	26	17	5.2	1.0	.01			
24			55	32	25	26	4.9	1.0	0			
25			41	32	23	25	4.9	1.0	0			
26			34	31	21	23	4.7	.97	0			
27			29	31	21	22	3.6	1.2	0			
28			25	32	22	20	2.6	2.3	0			
29			29	32	-----	20	2.2	1.7	0			
30			40	32	-----	18	2.0	1.4	0			
31		-----	46	33	-----	16	-----	1.1	-----			-----
TOTAL	0	0	913	1,094	823	628	226.1	43.97	13.87	0	0	0
MEAN	0	0	29.5	35.3	29.4	20.3	7.54	1.42	.46	0	0	0
MAX	0	0	340	48	39	34	15	2.3	.96	0	0	0
MIN	0	0	0	31	21	15	2.0	.97	0	0	0	0
AC-FT	0	0	1,810	2,170	1,630	1,250	448	87	28	0	0	0
CAL YR 1970	TOTAL	3,948.33	MEAN	10.8	MAX	340	MIN	0	AC-FT	7,830		
WTR. YR 1971	TOTAL	3,741.94	MEAN	10.3	MAX	340	MIN	0	AC-FT	7,420		

## SANTA YNEZ RIVER BASIN

11133700 PURISIMA CREEK NEAR LOMPOC, CALIF.

LOCATION.--Lat 34°41'34", long 120°25'51", in La Purisima Grant, Santa Barbara County, on right bank 1.1 miles northeast of junction of Buener Road and Lompoc-Casmalia Road and 4.0 miles northeast of Lompoc.

DRAINAGE AREA.--4.75 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (from topographic map).

EXTREMES.--Current year: No flow during year.

REMARKS.--No flow since Oct. 1, 1970, date of establishment. No regulation or diversion above station.

## 11134500 SANTA YNEZ RIVER AT 13TH STREET, NEAR LOMPOC, CALIF.

LOCATION.--Lat 34°40'06", long 120°28'29", in Lompoc Grant, Santa Barbara County, on right bank at 13th Street crossing, 2.3 miles northwest of Lompoc.

DRAINAGE AREA.--820 sq mi.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 60 ft (from topographic map). Since Oct. 1, 1954, at various sites within 300 ft at different datums.

EXTREMES.--Current year: Maximum discharge, 134 cfs Dec. 22 (gage height, 6.56 ft); no flow most of year.  
Period of record: Maximum discharge, 79,000 cfs (estimated) Jan. 25, 1969 (gage height, not determined); no flow for several months in each year.

REMARKS.--Records good. This is a project station. Discharge above wading stages generally not reported herein. Flow regulated by Jameson Lake, Gibraltar Reservoir, and Lake Cachuma (see sta 11121000, 11122000, 11125500). Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water pumped from wells along bank of river for irrigation in valley upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	12	14	6.5						
2			0	21	15	2.9						
3			0	16	14	2.0						
4			0	11	14	1.5						
5			0	12	15	.05						
6			0	11	16	0						
7			0	11	17	0						
8			0	13	17	0						
9			0	12	17	0						
10			0	12	17	0						
11			0	12	17	0						
12			0	22	15	3.5						
13			0	29	15	20						
14			0	22	14	25						
15			0	17	14	19						
16			0	14	15	12						
17			0	12	25	8.6						
18			0	12	24	5.8						
19			0	12	19	1.3						
20			5.0	12	17	0						
21			75	11	14	0						
22			92	11	14	0						
23			55	9.7	14	0						
24			30	9.1	11	5.5						
25			15	8.8	8.7	9.3						
26			10	8.8	6.2	8.2						
27			8.0	9.5	4.1	6.9						
28			6.0	10	5.8	6.1						
29			6.0	11	-----	6.0						
30			10	11	-----	1.9						
31		-----	15	12	-----	0	-----		-----			-----
TOTAL	0	0	327.0	406.9	408.8	152.05	0	0	0	0	0	0
MEAN	0	0	10.5	13.1	14.6	4.90	0	0	0	0	0	0
MAX	0	0	92	29	25	25	0	0	0	0	0	0
MIN	0	0	0	8.8	4.1	0	0	0	0	0	0	0
AC-FT	0	0	649	807	811	302	0	0	0	0	0	0
CAL YR 1970	TOTAL 2,704.53		MEAN 7.41	MAX 203	MIN 0	AC-FT 5,360						
WTR YR 1971	TOTAL 1,294.75		MEAN 3.55	MAX 92	MIN 0	AC-FT 2,570						

## SANTA YNEZ RIVER BASIN

11134800 MIGUELITO CREEK AT LOMPOC, CALIF.

LOCATION.--Lat 34°37'57", long 120°27'51", in Lompoc Grant, Santa Barbara County, on right bank at upstream end of debris dam and 1,500 ft south of Lompoc Union High School.

DRAINAGE AREA.--11.6 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 97.94 ft above mean sea level (Santa Barbara County bench mark).

EXTREMES.--Current year: Maximum discharge, 33 cfs Dec. 21 (gage height, 2.13 ft, from floodmark); no flow July 21, 22, Sept. 8-17, 19, 21-30.  
Flood of Jan. 25, 1969, reached a stage of 5.83 ft, from floodmark (discharge, 680 cfs).

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	.65	.50	.69	.42	.32	.15	.04	.14	.03	.14
2	.01	.02	.40	1.0	.68	.40	.34	.20	.06	.14	.07	.15
3	.01	.02	.20	.80	.80	.35	.31	.20	.08	.12	.09	.14
4	.01	.02	.10	.40	.58	.50	.30	.17	.08	.11	.12	.10
5	.01	.02	.10	.37	.53	.36	.30	.15	.07	.14	.11	.12
6	.01	.02	.05	.35	.54	.35	.99	.18	.10	.13	.14	.11
7	.01	.02	.06	.35	.51	.37	.27	.18	.11	.08	.10	.07
8	.01	.02	.07	.35	.54	.39	.25	.15	.09	.09	.07	0
9	.01	.02	.08	.37	.53	.38	.43	.15	.10	.11	.09	0
10	.01	.02	.09	.40	.54	.36	.44	.12	.09	.08	.09	0
11	.01	.02	.10	.50	.50	.37	.43	.15	.09	.06	.10	0
12	.01	.02	.11	.70	.51	.74	.31	.17	.09	.09	.11	0
13	.01	.02	.12	1.3	.53	.31	.39	.15	.11	.10	.11	0
14	.01	.02	.13	.90	.55	.15	1.2	.12	.11	.12	.13	0
15	.01	.02	.14	.70	.61	.15	.58	.10	.09	.12	.13	0
16	.01	.03	.15	.60	.65	.12	.61	.10	.10	.12	.17	0
17	.01	.03	.20	.45	1.4	.12	.49	.10	.10	.08	.17	0
18	.01	.03	.40	.35	.62	.12	.37	.10	.10	.08	.18	.02
19	.01	.03	.60	.32	.57	.15	.38	.15	.13	.07	.19	0
20	.01	.03	1.0	.30	.51	.15	.36	.18	.12	.04	.18	.07
21	.02	.04	3.0	.30	.47	.12	.37	.19	.13	0	.11	0
22	.02	.04	6.0	.28	.46	.12	1.2	.15	.12	0	.11	0
23	.02	.04	3.0	.28	.46	.12	.35	.17	.09	.07	.11	0
24	.02	.04	1.0	.26	.44	.12	.24	.20	.10	.04	.10	0
25	.02	.04	.50	.26	.38	.12	.23	.20	.09	.06	.11	0
26	.02	.05	.35	.26	.41	.12	.20	.19	.07	.08	.12	0
27	.02	.08	.35	.27	.39	.10	.16	.19	.11	.10	.13	0
28	.02	.10	.35	.26	.43	.12	.17	.28	.14	.08	.15	0
29	.02	.12	.35	.24	-----	.09	.17	.05	.13	.08	.15	0
30	.02	.15	.35	.25	-----	.12	.15	.04	.13	.08	.14	0
31	.02	-----	.40	.48	-----	.24	-----	.04	-----	.05	.10	-----
TOTAL	.42	1.15	20.40	14.15	15.83	7.65	12.31	4.67	2.97	2.66	3.71	.92
MEAN	.014	.038	.66	.46	.57	.25	.41	.15	.099	.086	.12	.031
MAX	.02	.15	6.0	1.3	1.4	.74	1.2	.28	.14	.14	.19	.15
MIN	.01	.02	.05	.24	.38	.09	.15	.04	.04	0	.03	0
AC-FT	.8	2.3	40	28	31	15	24	9.3	5.9	5.3	7.4	1.8

WTR YR 1971 TOTAL 86.84 MEAN .24 MAX 6.0 MIN 0 AC-FT 172

## 11135000 SANTA YNEZ RIVER AT PINE CANYON, NEAR LOMPOC, CALIF.

LOCATION.--Lat 34°40'20", long 120°29'30", in Lompoc Grant, Santa Barbara County, on right bank at Floradale Avenue bridge, 2.1 miles upstream from Santa Lucia Creek, and 3 miles northwest of Lompoc.

DRAINAGE AREA.--844 sq mi (revised).

PERIOD OF RECORD.--May 1941 to October 1946, August 1964 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 40.78 ft above mean sea level. Prior to Aug. 24, 1964, at different datum. Aug. 24, 1964, to Aug. 20, 1970, at datum 0.91 ft lower.

EXTREMES.--Current year: Maximum discharge, 163 cfs Dec. 21 (gage height, 4.14 ft); minimum daily, 0.01 cfs July 3.

Period of record: Maximum discharge, 78,000 cfs (estimated) Jan. 25, 1969 (gage height, 24.91 ft, present datum, from floodmark); no flow at times in some years.

REMARKS.--Records fair. Flow regulated by Jameson Lake, Gibraltar Reservoir, and Lake Cachuma (see sta 11121000, 11122000, 11125500). Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water pumped from wells along bank for irrigation in valley upstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.82	2.6	11	15	7.2	2.5	2.1	2.5	.11	.21	.93
2	1.7	1.7	6.4	28	16	4.4	2.3	2.3	2.2	.86	.17	.79
3	2.3	1.9	2.4	13	15	3.8	2.0	2.5	1.5	.01	.26	.96
4	1.8	2.1	1.7	11	14	3.3	2.0	2.5	1.8	.06	.26	.97
5	2.0	4.6	1.3	10	15	3.3	2.0	2.3	1.7	.11	.37	.71
6	2.1	2.4	1.0	9.6	16	3.0	2.3	2.4	1.6	.41	.39	.52
7	2.1	2.1	1.0	8.8	17	2.8	2.2	2.3	1.7	.36	.30	.93
8	1.7	2.1	1.0	9.3	17	2.7	2.3	2.3	2.8	.40	.26	1.1
9	1.8	1.9	1.0	10	18	3.1	2.2	2.1	1.3	.70	.24	.79
10	1.8	1.9	1.3	11	17	2.8	2.3	2.1	1.8	.80	.37	1.0
11	1.9	1.5	1.3	11	17	2.7	2.4	2.3	.82	.59	.44	.81
12	1.9	1.5	.80	23	16	3.1	2.3	2.1	.41	.54	.38	.79
13	1.8	1.3	.80	36	14	26	2.5	2.0	.39	.83	.42	.67
14	1.9	1.5	1.3	25	14	29	23	2.0	2.3	.73	.42	1.1
15	1.9	1.7	1.0	19	13	24	3.6	1.5	1.0	.75	.39	.99
16	1.9	1.9	3.0	16	14	16	3.2	1.5	.31	.51	.29	.78
17	1.8	2.1	4.3	14	37	11	4.3	1.5	.45	.56	.41	.82
18	1.7	1.9	26	14	29	7.6	3.2	1.5	.44	.40	.47	.74
19	2.1	1.3	25	15	22	6.5	2.7	1.3	.37	.41	.53	.77
20	2.1	1.5	4.3	14	19	3.6	2.8	1.5	.48	.49	.58	.63
21	2.1	1.7	71	13	15	3.4	2.6	1.5	.44	.37	.78	.86
22	2.2	1.7	81	12	14	3.4	2.7	1.3	1.3	.36	.46	.72
23	2.0	1.9	74	12	13	3.5	2.5	1.0	.50	.36	.47	.71
24	1.3	1.9	28	11	11	3.7	2.5	1.0	.80	.39	.80	.54
25	1.0	11	12	11	9.1	7.8	2.3	1.0	.60	.27	.72	.58
26	1.5	6.2	9.2	11	7.4	7.5	2.6	1.3	.60	.21	.78	.50
27	1.2	1.0	6.9	10	5.3	6.8	2.3	1.7	1.0	.30	.76	.48
28	.80	16	5.5	11	5.9	5.1	2.4	5.0	1.5	.27	.86	.62
29	.54	23	5.5	13	-----	3.8	2.4	3.4	2.6	.24	.63	.57
30	.60	6.9	8.7	13	-----	3.0	2.1	2.6	6.4	.21	.51	.56
31	.54	-----	13	13	-----	2.6	-----	2.1	-----	.24	.83	-----
TOTAL	51.48	109.02	402.30	438.4	435.7	216.5	96.5	62.0	41.61	12.85	14.76	22.94
MEAN	1.66	3.63	13.0	14.1	15.6	6.98	3.22	2.00	1.39	.41	.48	.76
MAX	2.3	23	81	36	37	29	23	5.0	6.4	.86	.86	1.1
MIN	.54	.82	.80	8.8	5.3	2.6	2.0	1.0	.31	.01	.17	.48
AC-FT	102	216	798	870	864	429	191	123	83	25	29	46

CAL YR 1970 TOTAL 3,410.38 MEAN 9.34 MAX 210 MIN .54 AC-FT 6,760  
WTR YR 1971 TOTAL 1,904.06 MEAN 5.22 MAX 81 MIN .01 AC-FT 3,780

## SANTA YNEZ RIVER BASIN

11135200 RODEO-SAN PASQUAL CREEK NEAR LOMPOC, CALIF.

LOCATION.--Lat 34°38'42", long 120°30'57", in Lompoc Grant, Santa Barbara County, on left bank 0.1 mile east of Dewolf Avenue and at Highway 246, 3.3 miles west of Lompoc.

DRAINAGE AREA.--7.80 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971..

GAGE.--Water-stage recorder. Altitude of gage is 55 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 9.0 cfs Dec. 21 (gage height, 1.31 ft); no flow most of year.

REMARKS.--No regulation or diversion.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0								
2			0	.14								
3			0	.03								
4			0	.01								
5			0	0								
6			0	0								
7			0	0								
8			0	0								
9			0	0								
10			0	0								
11			0	0								
12			0	0								
13			0	0								
14			0	0								
15			0	0								
16			0	0								
17			0	0								
18			.58	0								
19			.36	0								
20			.16	0								
21			3.3	0								
22			.88	0								
23			.15	0								
24			.05	0								
25			.03	0								
26			.01	0								
27			0	0								
28			0	0								
29			0	0	-----							
30			0	0	-----							
31		-----	0	0	-----		-----		-----			-----
TOTAL	0	0	5.52	.18	0	0	0	0	0	0	0	0
MEAN	0	0	.18	.006	0	0	0	0	0	0	0	0
MAX	0	0	3.3	.14	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	11	.4	0	0	0	0	0	0	0	0

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 5.70 MEAN .016 MAX 3.3 MIN 0 AC-FT 11

11135800 SAN ANTONIO CREEK AT LOS ALAMOS, CALIF.

LOCATION.--Lat 34°44'36", long 120°16'12", in Los Alamos Grant, Santa Barbara County, on left bank 100 ft upstream from northbound lane of Highway 101 at Los Alamos.

DRAINAGE AREA.--34.9 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 580 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 2.5 cfs (estimated) Dec. 21; no flow Oct. 1 to Dec. 20, Feb. 2-4, 6-8, Mar. 20 to Sept. 30.

REMARKS.--Records poor. No regulation above station. Pumping for irrigation of about 1,000 acres above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.02	.02	.02						
2			0	.04	0	.02						
3			0	.04	0	.02						
4			0	.04	0	.02						
5			0	.04	.01	.02						
6			0	.04	0	.02						
7			0	.04	0	.02						
8			0	.04	0	.02						
9			0	.04	.02	.02						
10			0	.04	.02	.02						
11			0	.04	.02	.02						
12			0	.30	.02	.02						
13			0	.37	.02	.06						
14			0	.30	.02	.20						
15			0	.26	.02	.16						
16			0	.24	.02	.10						
17			0	.22	.60	.07						
18			0	.20	.25	.05						
19			0	.18	.20	.02						
20			0	.16	.18	0						
21			1.5	.14	.16	0						
22			2.0	.10	.14	0						
23			1.4	.08	.12	0						
24			.60	.06	.10	0						
25			.10	.04	.08	0						
26			.08	.04	.06	0						
27			.06	.04	.04	0						
28			.04	.04	.04	0						
29			.02	.04	-----	0						
30			.02	.02	-----	0						
31		-----	.02	.02	-----	0	-----		-----			-----
TOTAL	0	0	5.84	3.27	2.16	.90	0	0	0	0	0	0
MEAN	0	0	.19	.11	.077	.029	0	0	0	0	0	0
MAX	0	0	2.0	.37	.60	.20	0	0	0	0	0	0
MIN	0	0	0	.02	0	0	0	0	0	0	0	0
AC-FT	0	0	12	6.5	4.3	1.8	0	0	0	0	0	0

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 12.17 MEAN .033 MAX 2.0 MIN 0 AC-FT 24

NOTE.--No gage-height record Oct. 1 to Jan. 3.



## SAN ANTONIO CREEK BASIN

## 11136100 SAN ANTONIO CREEK NEAR CASMALIA, CALIF.

LOCATION.--Lat 34°46'56", long 120°31'47", in Jesus Maria Grant, Santa Barbara County, on Vandenberg Military Reservation (revised), on downstream side of left center pile bent of San Antonio Road bridge, 0.7 mile east of junction of San Antonio Road and Lompoc-Casmalia Road, and 3.8 miles south of Casmalia.

DRAINAGE AREA.--135 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Concrete control since August 1970. Altitude of gage is 160 ft (from topographic map). Prior to June 27, 1958, at datum 2.00 ft higher.

AVERAGE DISCHARGE.--16 years, 5.63 cfs (4,080 acre-ft per year); median of yearly mean discharges, 2.9 cfs (2,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 16 cfs Dec. 21 (gage height, 4.80 ft); minimum daily, 0.31 cfs Sept. 28-30.

Period of record: Maximum discharge, 2,300 cfs Feb. 25, 1969 (gage height, 11.79 ft); minimum daily, 0.10 cfs June 19, 20, 1957.

REMARKS.--Records good. No regulation above station. Flow affected by pumping from wells along stream for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.44	2.3	1.9	1.9	1.5	1.2	.81	.76	.59	.40	.43
2	.52	.44	2.3	2.4	1.9	1.5	1.1	.84	.62	.56	.40	.43
3	.47	.46	2.5	2.5	1.8	1.5	1.1	.99	.56	.57	.40	.43
4	.52	.48	2.5	2.2	1.8	1.5	.99	.92	.68	.54	.40	.43
5	.51	.49	2.5	2.0	1.8	1.6	1.1	.94	.58	.53	.40	.42
6	.52	.48	2.5	2.0	1.8	1.5	.91	1.2	.56	.49	.41	.42
7	.52	.46	2.6	1.9	1.7	1.5	1.0	1.2	.60	.48	.42	.42
8	.50	.47	2.7	1.9	1.7	1.5	.92	.89	.59	.48	.41	.41
9	.47	.48	2.8	1.9	1.7	1.6	.87	.74	.56	.48	.41	.41
10	.48	.48	2.8	1.9	1.7	1.6	.83	.85	.51	.46	.40	.40
11	.49	.49	3.0	1.9	1.7	1.6	.72	.83	.48	.43	.42	.40
12	.50	.49	3.1	2.4	1.7	1.7	.70	.80	.37	.42	.42	.40
13	.51	.48	3.2	2.7	1.7	2.5	.77	.80	.35	.41	.42	.40
14	.48	.47	3.3	2.5	1.7	2.4	2.5	.75	.33	.42	.42	.39
15	.48	.46	3.5	2.3	1.8	2.1	3.0	.71	.34	.42	.43	.38
16	.49	.46	3.7	2.1	1.8	1.9	2.5	.62	.34	.41	.43	.39
17	.49	.47	4.6	2.0	1.9	1.9	2.3	.51	.78	.41	.43	.40
18	.49	.46	4.6	2.1	1.9	1.9	2.1	.43	.75	.41	.43	.40
19	.46	.48	5.8	2.0	1.9	1.8	1.9	.49	.72	.41	.44	.39
20	.46	.48	5.1	2.0	1.8	1.8	1.7	.42	.72	.41	.44	.38
21	.46	.50	9.2	2.0	1.8	1.7	1.4	.40	.70	.40	.45	.38
22	.46	.50	11	1.9	1.7	1.8	1.3	.43	.70	.40	.45	.38
23	.46	.50	5.1	1.9	1.7	1.7	1.3	.41	.68	.40	.45	.37
24	.44	.66	3.7	1.9	1.6	1.8	1.1	.41	.67	.40	.45	.32
25	.43	.99	2.9	1.9	1.6	1.8	1.1	.44	.66	.40	.45	.32
26	.43	1.9	2.7	1.9	1.5	1.8	1.0	.46	.64	.40	.46	.32
27	.42	1.7	2.3	1.9	1.5	1.8	.94	.48	.66	.40	.44	.32
28	.42	1.8	1.9	1.9	1.5	1.7	1.1	1.8	.62	.40	.43	.31
29	.42	2.2	1.8	1.9	-----	1.5	.90	2.1	.60	.40	.44	.31
30	.42	2.5	1.8	1.8	-----	1.5	1.2	1.7	.60	.40	.44	.31
31	.44	-----	1.8	1.8	-----	1.1	-----	1.2	-----	.40	.42	-----
TOTAL	14.65	22.67	109.6	63.4	48.6	53.1	39.55	25.57	17.73	13.73	13.19	11.47
MEAN	.47	.76	3.54	2.05	1.74	1.71	1.32	.82	.59	.44	.43	.38
MAX	.52	2.5	11	2.7	1.9	2.5	3.0	2.1	.78	.59	.46	.43
MIN	.42	.44	1.8	1.8	1.5	1.1	.70	.40	.33	.40	.40	.31
AC-FT	29	45	217	126	96	105	78	51	35	27	26	23

CAL YR 1970 TOTAL 747.49 MEAN 2.05 MAX 60 MIN .42 AC-FT 1,480  
WTR YR 1971 TOTAL 433.26 MEAN 1.19 MAX 11 MIN .31 AC-FT 859

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

11136650 ALISO CANYON CREEK NEAR NEW CUYAMA, CALIF.

LOCATION.--Lat 34°59'00", long 119°46'30", in Cuyama Grant, Santa Barbara County, at culvert on State Highway 166, 5.8 miles northwest of New Cuyama.

DRAINAGE AREA.--16.1 sq mi.

PERIOD OF RECORD.--Water years 1960-63 (annual maximum), October 1963 to current year.

GAGE.--Water-stage recorder with rain-gage attachment. Arch-culvert control since July 25, 1963. Altitude of gage is 1,880 ft (from topographic map). Sept. 30, 1959, to July 24, 1963, crest-stage gage at same site at different datum.

AVERAGE DISCHARGE.--8 years, 0.28 cfs (203 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 210 cfs May 11 (gage height, 6.51 ft), from rating curve based on computation of flow through culvert at gage heights 4.20 and 6.48 ft; no flow except May 11.  
Period of record: Maximum discharge, 552 cfs Feb. 24, 1969 (gage height, 10.66 ft), on basis of computation of flow through culvert; no flow most of each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0				
2								0				
3								0				
4								0				
5								0				
6								0				
7								0				
8								0				
9								0				
10								0				
11								6.6				
12								0				
13								0				
14								0				
15								0				
16								0				
17								0				
18								0				
19								0				
20								0				
21								0				
22								0				
23								0				
24								0				
25								0				
26								0				
27								0				
28								0				
29								0				
30								0				
31								0				
TOTAL	0	0	0	0	0	0	0	6.6	0	0	0	0
MEAN	0	0	0	0	0	0	0	.21	0	0	0	0
MAX	0	0	0	0	0	0	0	6.6	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	13	0	0	0	0
(a)	0	1.9	1.0	.2	.1	.1	.3	.5	0	0	0	0
CAL YR 1970	TOTAL 0.00	MEAN .0000	MAX .00	MIN 0	AC-FT .0							
WTR YR 1971	TOTAL 6.60	MEAN .018	MAX 6.6	MIN 0	AC-FT 13							

a Precipitation, in inches.

## SANTA MARIA RIVER BASIN

## 11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CALIF.

LOCATION.--Lat 35°01'19", long 120°13'39", in SW $\frac{1}{4}$  sec.14, T.11 N., R.32 W., San Luis Obispo-Santa Barbara County line, on downstream side of second pier from right abutment of bridge on State Highway 166, 0.7 mile downstream from Buckhorn Canyon, and 13 miles northeast of Santa Maria.

DRAINAGE AREA.--886 sq mi.

PERIOD OF RECORD.--October 1903 to December 1905 (published as Santa Maria River near Santa Maria), October 1959 to current year. Monthly discharge only for October 1903 and July 1904 and yearly estimate for water year 1941 (incomplete), published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 760 ft (from topographic map). Prior to October 1959, nonrecording gage at different site and datum.

AVERAGE DISCHARGE.--14 years, 25.3 cfs (18,330 acre-ft per year); median of yearly mean discharges, 2.2 cfs (1,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,510 cfs Nov. 29 (gage height, 6.92 ft); minimum daily, 0.05 cfs Sept. 12-15.

Period of record: Maximum discharge, 17,800 cfs Feb. 25, 1969 (gage height, 13.70 ft), from rating curve extended above 4,900 cfs on basis of slope-area measurement at gage height 10.85 ft; no flow at times in most years.

REMARKS.--Records good. No regulation above station. Pumping from wells along stream for irrigation in upper Cuyama Valley.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.20	25	13	2.5	.76	1.1	.92	.62	.39	.21	.12
2	.28	.19	23	2.9	2.5	.72	1.1	.96	.62	.38	.21	.13
3	.29	.21	19	2.6	2.4	.70	1.1	1.1	.61	.38	.23	.12
4	.30	.18	14	2.4	2.4	.71	1.1	1.0	.61	.38	.19	.13
5	.30	.22	11	2.1	2.2	.71	1.1	.98	.60	.38	.19	.14
6	.33	.20	14	2.0	2.1	.73	1.2	1.0	.62	.38	.19	.14
7	.32	.17	12	2.0	2.1	.81	1.2	1.0	.62	.38	.19	.11
8	.31	.16	10	1.8	2.2	.82	1.1	1.1	.61	.36	.17	.09
9	.27	.16	9.9	2.3	1.9	.80	1.0	.87	.61	.35	.13	.10
10	.28	.15	9.3	2.2	1.8	.82	1.0	.83	.59	.33	.15	.08
11	.29	.15	9.2	2.1	1.8	.82	1.0	.81	.59	.31	.16	.06
12	.30	.14	8.9	2.4	1.8	1.0	.96	.81	.55	.32	.17	.05
13	.31	.14	9.0	5.3	1.4	1.7	1.0	.83	.54	.27	.14	.05
14	.31	.14	9.2	4.9	1.3	1.1	2.3	.86	.52	.28	.15	.05
15	.31	.14	9.2	3.6	1.3	1.0	1.5	.86	.49	.29	.15	.05
16	.30	.14	11	2.7	1.3	1.0	1.2	.80	.45	.29	.16	.07
17	.30	.14	11	2.1	1.2	1.0	1.4	.76	.44	.28	.16	.10
18	.29	.11	11	2.9	1.1	1.0	1.5	.76	.42	.27	.14	.10
19	.28	.11	12	3.1	1.1	1.0	1.2	.67	.40	.28	.15	.10
20	.30	.12	10	3.0	1.1	1.0	1.1	.67	.44	.29	.15	.11
21	.31	.12	59	2.2	.97	1.0	1.1	.66	.43	.29	.15	.12
22	.30	.11	38	2.5	1.0	1.0	1.1	.63	.44	.29	.15	.13
23	.28	.13	20	2.3	.97	1.1	1.0	.64	.43	.24	.12	.13
24	.27	.12	13	2.5	.94	1.1	1.0	.62	.42	.26	.13	.12
25	.39	.40	9.1	2.7	.81	1.1	1.0	.62	.41	.27	.13	.13
26	.16	.40	6.3	3.0	.80	1.2	.92	.62	.40	.28	.14	.14
27	.19	.30	4.5	2.9	.82	1.2	.93	.73	.39	.27	.13	.13
28	.19	.24	2.8	2.6	.86	1.2	.91	.95	.40	.27	.13	.14
29	.21	175	1.5	2.6	-----	1.1	.91	.70	.39	.28	.14	.14
30	.20	168	1.3	2.7	-----	1.1	.91	.62	.39	.22	.14	.14
31	.21	-----	9.0	2.7	-----	1.1	-----	.61	-----	.21	.14	-----
TOTAL	8.66	347.99	412.2	94.1	42.67	30.40	33.94	24.99	15.05	9.47	4.89	3.22
MEAN	.28	11.6	13.3	3.04	1.52	.98	1.13	.81	.50	.31	.16	.11
MAX	.39	175	59	13	2.5	1.7	2.3	1.1	.62	.39	.23	.14
MIN	.16	.11	1.3	1.8	.80	.70	.91	.61	.39	.21	.12	.05
AC-FT	17	690	818	187	85	60	67	50	30	19	9.7	6.4

CAL YR 1970 TOTAL 2,320.42 MEAN 6.36 MAX 175 MIN .11 AC-FT 4,600  
WTR YR 1971 TOTAL 1,027.58 MEAN 2.82 MAX 175 MIN .05 AC-FT 2,040

PEAK DISCHARGE (BASE, 200 CFS).--Nov. 29 (2145) 1,510 cfs (6.92 ft).

## 11137400 ALAMO CREEK NEAR NIPOMO, CALIF.

LOCATION.--Lat 35°02'55", long 120°18'05", in Huasna Grant, San Luis Obispo County, on right bank 3.2 miles upstream from mouth and 10 miles east of Nipomo.

DRAINAGE AREA.--83.3 sq mi.

PERIOD OF RECORD.--March 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 650 ft (from topographic map). Prior to Oct. 1, 1966, at datum 2.00 ft higher.

AVERAGE DISCHARGE.--12 years, 9.32 cfs (6,750 acre-ft per year); median of yearly mean discharges, 0.01 cfs (7 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 52 cfs Dec. 21 (gage height, 3.00 ft); no flow most of year.  
Period of record: Maximum discharge, 9,020 cfs Jan. 25, 1969 (gage height, 10.51 ft), from rating curve extended above 3,100 cfs on basis of slope-area measurement at gage height 10.30 ft; no flow for all or part of each year.

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0								
2			0	0								
3			0	0								
4			0	0								
5			0	0								
6			0	0								
7			0	0								
8			0	0								
9			0	0								
10			0	0								
11			0	0								
12			0	0								
13			0	.81								
14			0	2.3								
15			0	0								
16			0	0								
17			0	0								
18			0	0								
19			0	0								
20			0	0								
21			17	0								
22			2.3	0								
23			0	0								
24			0	0								
25			0	0								
26			0	0								
27			0	0								
28			0	0								
29			0	0								
30			0	0								
31			0	0								
TOTAL	0	0	19.3	3.11	0	0	0	0	0	0	0	0
MEAN	0	0	.62	.10	0	0	0	0	0	0	0	0
MAX	0	0	17	2.3	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	38	6.2	0	0	0	0	0	0	0	0

CAL YR 1970 TOTAL 28.00 MEAN .077 MAX 17 MIN 0 AC-FT 56  
WTR YR 1971 TOTAL 22.41 MEAN .061 MAX 17 MIN 0 AC-FT 44

PEAK DISCHARGE (BASE, 50 CFS).--Dec. 21 (1600) 52 cfs (3.00 ft).

## SANTA MARIA RIVER BASIN

11137900 HUASNA RIVER NEAR ARROYO GRANDE, CALIF.

LOCATION.--Lat 35°04'40", long 120°22'15", in Huasna Grant, San Luis Obispo County, on right bank 300 ft downstream from Huasna Creek and 12 miles southeast of Arroyo Grande.

DRAINAGE AREA.--103 sq mi (revised).

PERIOD OF RECORD.--June 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 640 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 21.3 cfs (15,430 acre-ft per year); median of yearly mean discharges, 3.4 cfs (2,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 187 cfs Jan. 13 (gage height, 4.58 ft); minimum daily, 0.09 cfs Sept. 10.

Period of record: Maximum discharge, 21,000 cfs Jan. 25, 1969 (gage height, 15.90 ft), from rating curve extended above 1,300 cfs on basis of slope-area measurement of maximum flow; no flow many days in most years.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation above station. Some diversions by pumping for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.28	.33	3.0	6.8	2.6	1.9	1.2	1.1	.51	.12	.12
2	.16	.28	1.7	4.0	6.5	2.6	1.9	1.2	1.1	.45	.12	.12
3	.16	.28	.33	3.0	6.0	2.6	1.8	1.2	1.1	.45	.12	.12
4	.12	.33	.20	2.6	5.8	3.0	1.8	1.2	1.0	.45	.12	.12
5	.12	.45	.20	2.5	5.8	2.8	1.7	1.2	1.1	.45	.12	.12
6	.12	.45	.20	2.5	5.4	2.5	1.7	1.1	1.1	.45	.12	.12
7	.12	.33	.20	2.5	5.2	2.5	1.7	1.1	1.2	.57	.12	.12
8	.12	.33	.20	2.5	5.0	2.6	1.6	1.4	1.0	.57	.12	.12
9	.12	.28	.20	2.6	4.6	2.6	1.6	1.2	.96	.57	.12	.12
10	.09	.28	.56	2.4	4.6	2.6	1.6	1.2	.96	.57	.12	.12
11	.12	.28	.12	2.8	4.4	2.6	1.5	1.2	.85	.57	.12	.12
12	.12	.28	.12	19	4.2	2.8	1.5	1.1	.93	.57	.12	.12
13	.16	.28	.16	132	4.2	5.4	1.5	1.1	.88	.64	.12	.12
14	.16	.28	.20	125	4.2	3.2	1.4	1.1	.86	.87	.12	.12
15	.16	.28	.20	69	4.0	2.8	1.4	1.1	.84	.87	.12	.12
16	.16	.33	.39	50	4.0	2.8	1.4	1.1	.80	.87	.12	.16
17	.16	.33	.33	39	4.0	2.8	1.4	1.1	.77	.96	.12	.16
18	.16	.33	.39	31	3.8	2.6	1.3	1.1	.74	.79	.12	.16
19	.16	.33	.57	25	3.8	2.6	1.3	1.1	.72	.64	.12	.16
20	.16	.33	.33	21	3.8	2.6	1.3	1.1	.57	.45	.12	.16
21	.20	.33	28	17	3.2	2.5	1.3	1.1	.57	.33	.12	.16
22	.20	.33	22	14	3.2	2.5	1.3	1.1	.64	.24	.12	.16
23	.28	.33	6.0	13	3.1	2.4	1.3	1.1	.64	.12	.12	.16
24	.28	.33	2.4	12	3.1	2.4	1.2	1.1	.64	.12	.12	.16
25	.28	.79	2.0	10	3.0	2.4	1.2	1.1	.64	.12	.12	.16
26	.28	.51	2.4	9.9	2.6	2.1	1.2	1.1	.64	.12	.12	.16
27	.28	.24	5.0	9.6	2.6	2.1	1.2	1.1	.64	.12	.12	.16
28	.28	.28	5.0	9.3	2.6	2.0	1.2	1.1	.51	.12	.12	.16
29	.28	.71	4.4	8.4	-----	2.0	1.2	1.1	.51	.12	.12	.16
30	.28	.64	3.8	7.8	-----	2.0	1.2	1.1	.51	.12	.12	.16
31	.28	-----	3.2	7.0	-----	2.0	-----	1.1	-----	.12	.12	-----
TOTAL	5.73	10.83	91.13	659.4	119.5	81.0	43.6	35.2	24.52	13.92	3.72	4.20
MEAN	.18	.36	2.94	21.3	4.27	2.61	1.45	1.14	.82	.45	.12	.14
MAX	.28	.79	.28	132	6.8	5.4	1.9	1.4	1.2	.96	.12	.16
MIN	.09	.24	.12	2.4	2.6	2.0	1.2	1.1	.51	.12	.12	.12
AC-FT	11	21	181	1,310	237	161	86	70	49	28	7.4	8.3

CAL YR 1970 TOTAL 1,571.64 MEAN 4.31 MAX 272 MIN .09 AC-FT 3,120  
WTR YR 1971 TOTAL 1,092.75 MEAN 2.99 MAX 132 MIN .09 AC-FT 2,170

PEAK DISCHARGE (BASE, 40 CFS).--Dec. 21 (2000) 84 cfs (4.34 ft); Jan. 13 (1700) 187 cfs (4.58 ft).

NOTE.--No gage-height record Apr. 1 to May 3.

## SANTA MARIA RIVER BASIN

313

11138100 CUYAMA RIVER BELOW TWITCHELL DAM, CALIF.

LOCATION.--Lat 34°56'40", long 120°17'30", in Suey Grant, Santa Barbara County, on left bank 3.5 miles upstream from mouth, 4 miles northeast of Garey, and 4.4 miles downstream from Twitchell Dam.

DRAINAGE AREA.--1,132 sq mi (revised).

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 92 cfs Nov. 30 (gage height, 2.88 ft); no flow Aug. 2 to Sept. 30.  
Period of record: Maximum discharge, 6,920 cfs Feb. 25, 1969 (gage height, 10.58 ft); no flow at times in each year.

REMARKS.--Records good. Flow regulated since February 1959 by Twitchell Reservoir (capacity, 240,000 acre-ft). Some pumping from wells along stream for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.50	4.6	1.5	19	10	4.2	2.2	2.4	.20	.01	
2	.20	.60	2.5	1.6	19	9.8	4.1	2.4	1.8	.19	0	
3	.20	.70	1.7	1.5	19	9.6	5.0	3.7	1.6	.15	0	
4	.20	.71	1.2	13	16	9.1	3.5	3.6	1.5	.14	0	
5	.20	.73	.95	55	16	9.0	3.6	3.5	1.5	.13	0	
6	.19	.74	.87	55	16	8.5	3.8	3.0	1.4	.13	0	
7	.17	.74	.75	49	15	8.5	4.1	3.7	1.4	.12	0	
8	.17	.75	.74	48	15	8.3	3.8	3.7	1.3	.12	0	
9	.17	.75	4.0	48	15	8.7	3.8	3.0	1.1	.11	0	
10	.17	.76	59	48	13	9.0	3.5	2.4	1.1	.10	0	
11	.16	.76	51	48	14	8.1	3.2	2.3	1.0	.09	0	
12	.16	.76	38	49	13	8.3	3.2	2.4	.99	.13	0	
13	.16	.77	41	49	13	16	2.9	2.2	.88	.15	0	
14	.16	.77	42	49	13	14	10	1.9	.80	.15	0	
15	.16	.78	42	50	13	11	11	1.6	.64	.14	0	
16	.15	.78	43	50	13	9.3	7.4	1.2	.55	.11	0	
17	.15	.78	42	51	16	8.8	7.4	1.1	.51	.10	0	
18	.15	.79	42	51	14	8.0	8.2	1.3	.51	.12	0	
19	.15	.79	41	52	13	7.3	6.8	1.1	.43	.09	0	
20	.15	.80	41	52	13	7.4	5.4	.79	.40	.09	0	
21	.41	.80	51	51	13	7.1	5.1	.71	.31	.09	0	
22	1.2	.81	9.3	51	12	7.2	4.6	.76	.28	.06	0	
23	1.4	.82	3.3	50	12	7.3	3.8	.72	.29	.05	0	
24	1.4	.83	2.4	50	12	7.2	3.7	.83	.27	.06	0	
25	1.2	2.8	2.2	50	11	6.8	3.7	.93	.20	.05	0	
26	1.0	13	2.1	49	11	7.2	3.5	.94	.18	.03	0	
27	.80	6.3	1.7	48	10	9.0	3.7	1.2	.20	.01	0	
28	.55	2.9	1.8	48	11	7.3	3.2	4.6	.20	.02	0	
29	.40	4.0	1.7	46	-----	5.7	3.2	5.7	.24	.02	0	
30	.30	40	1.6	36	-----	5.4	2.8	3.6	.20	.02	0	
31	.40	-----	1.5	20	-----	4.8	-----	2.8	-----	.02	0	-----
TOTAL	12.48	87.02	577.91	1,320.6	390	263.7	142.2	69.88	24.18	2.99	.01	0
MEAN	.40	2.90	18.6	42.6	13.9	8.51	4.74	2.25	.81	.097	.0003	0
MAX	1.4	40	59	55	19	16	11	5.7	2.4	.20	.01	0
MIN	.15	.50	.74	1.5	10	4.8	2.8	.71	.18	.01	0	0
AC-FT	25	173	1,150	2,620	774	523	282	139	48	5.9	.02	0

CAL YR 1970 TOTAL 32,280.59 MEAN 88.4 MAX 228 MIN .15 AC-FT 64,030  
WTR YR 1971 TOTAL 2,890.97 MEAN 7.92 MAX 59 MIN 0 AC-FT 5,730

NOTE.--No gage-height record Oct. 1 to Nov. 24.

## SANTA MARIA RIVER BASIN

## 11138500 SISQUOC RIVER NEAR SISQUOC, CALIF.

LOCATION.--Lat 34°50'23", long 120°10'02", in Sisquoc Grant, Santa Barbara County, on left bank 2.6 miles upstream from La Brea Creek and 7 miles east of Sisquoc.

DRAINAGE AREA.--281 sq mi.

PERIOD OF RECORD.--October 1943 to current year. October 1929 to September 1933, at site 0.2 mile downstream; low-flow records not equivalent owing to diversion immediately upstream. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 624.30 ft above mean sea level (Corps of Engineers bench mark). See WSP 1735 for history of changes prior to Aug. 24, 1951.

AVERAGE DISCHARGE.--28 years, 42.4 cfs (30,720 acre-ft per year); median of yearly mean discharges, 17 cfs (12,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,400 cfs Nov. 29 (gage height, 5.60 ft); minimum daily, 0.50 cfs Nov. 22-28.

Period of record: Maximum discharge, 23,200 cfs Dec. 6, 1966 (gage height, 15.75 ft), from rating curve extended above 1,700 cfs on basis of slope-area measurements at gage heights 10.08 and 15.75 ft; no flow Nov. 11-18, 1967.

Flood of Mar. 2, 1938, 11,000 cfs (gage height, 8.1 ft, from high-water mark in gage well, at site in use 1929-33), from rating curve extended above 2,800 cfs.

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	.62	75	61	38	22	16	13	7.2	3.8	2.1	1.5
2	.80	.62	168	71	37	22	16	13	7.2	3.6	2.1	1.5
3	.80	.62	145	67	35	21	14	13	7.0	3.4	2.0	1.5
4	.80	.60	57	56	33	23	13	13	6.8	3.2	2.0	1.5
5	.80	.60	35	50	33	22	12	12	6.4	3.0	2.0	1.4
6	.76	.60	25	45	31	22	13	12	6.2	3.0	1.9	1.4
7	.74	.60	21	42	31	22	14	12	6.0	3.0	1.9	1.4
8	.72	.58	19	41	30	21	12	11	5.8	2.9	1.9	1.4
9	.72	.58	18	40	30	18	11	11	5.6	2.9	1.8	1.4
10	.72	.58	17	38	30	20	11	11	5.6	2.9	1.8	1.4
11	.70	.56	15	37	29	20	10	11	5.4	2.8	1.8	1.4
12	.70	.56	15	42	28	21	10	11	5.4	2.8	1.8	1.4
13	.70	.56	14	55	27	30	9.9	11	5.4	2.7	1.7	1.4
14	.70	.56	13	70	27	29	20	10	5.2	2.7	1.7	1.4
15	.70	.56	13	60	27	24	26	10	5.2	2.6	1.7	1.4
16	.68	.54	13	55	29	22	20	9.5	5.0	2.6	1.7	1.4
17	.68	.54	17	51	32	21	21	9.0	5.0	2.6	1.7	1.4
18	.68	.52	26	196	46	21	24	8.8	4.8	2.6	1.7	1.4
19	.68	.52	88	193	30	20	21	8.6	4.6	2.5	1.7	1.4
20	.68	.52	71	164	28	20	18	8.4	4.6	2.5	1.6	1.4
21	.68	.52	273	133	28	20	17	8.2	4.4	2.5	1.6	1.4
22	.66	.50	246	100	26	20	16	8.0	4.4	2.4	1.6	1.4
23	.66	.50	144	81	26	20	14	8.0	4.2	2.4	1.6	1.4
24	.66	.50	102	70	25	20	13	7.8	4.2	2.4	1.6	1.4
25	.66	.50	79	63	23	20	13	7.8	4.2	2.3	1.6	1.4
26	.66	.50	74	58	23	19	13	7.6	4.2	2.3	1.5	1.4
27	.64	.50	96	52	23	19	13	7.6	4.2	2.2	1.5	1.4
28	.64	.50	93	48	23	18	13	7.4	4.0	2.2	1.5	1.4
29	.64	692	75	45	-----	16	13	7.4	3.8	2.1	1.5	1.4
30	.64	247	66	41	-----	17	13	7.4	3.8	2.1	1.5	1.4
31	.62	-----	61	41	-----	16	-----	7.4	-----	2.1	1.5	-----
TOTAL	21.82	954.46	2,174	2,166	828	646	449.9	302.9	155.8	83.1	53.6	42.4
MEAN	.70	31.8	70.1	69.9	29.6	20.8	15.0	9.77	5.19	2.68	1.73	1.41
MAX	.90	692	273	196	46	30	26	13	7.2	3.8	2.1	1.5
MIN	.62	.50	13	37	23	16	9.9	7.4	3.8	2.1	1.5	1.4
AC-FT	43	1,890	4,310	4,300	1,640	1,280	892	601	309	165	106	84

CAL YR 1970 TOTAL 10,864.88 MEAN 29.8 MAX 1,090 MIN .50 AC-FT 21,550  
WTR YR 1971 TOTAL 7,877.98 MEAN 21.6 MAX 692 MIN .50 AC-FT 15,630

## PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1130	5.60	2,400	12-21	1415	3.55	500
12- 2	1700	3.51	470	1-18	0845	3.08	233

## 11139000 LA BREA CREEK NEAR SISQUOC, CALIF.

LOCATION.--Lat 34°51'10", long 120°11'55", in SE $\frac{1}{4}$  sec.13, T.9 N., R.32 W., Santa Barbara County, on right bank 2,100 ft upstream from mouth and 5.5 miles east of Sisquoc.

DRAINAGE AREA.--93.6 sq mi (revised).

PERIOD OF RECORD.--October 1943 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 550 ft (from topographic map).

AVERAGE DISCHARGE.--28 years, 7.05 cfs (5,110 acre-ft per year); median of yearly mean discharges, 0.8 cfs (580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 86 cfs Dec. 21 (gage height, 1.58 ft); no flow most of year.

Period of record: Maximum discharge, 11,200 cfs Dec. 6, 1966 (gage height, 8.23 ft), from rating curve extended above 2,000 cfs on basis of slope-area measurement of maximum flow; no flow most of each year.

REMARKS.--Records poor. Perennial low flow from basin above sinks beneath streambed before reaching station. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	3.3	1.9	.32	0					
2			0	3.1	1.7	.29	0					
3			0	2.9	1.5	.26	0					
4			0	2.7	1.4	.25	0					
5			0	2.6	1.3	.20	0					
6			0	2.5	1.2	.18	0					
7			0	2.3	1.2	.15	0					
8			0	2.2	1.2	.14	0					
9			0	2.1	1.1	.12	0					
10			0	2.0	1.1	.11	0					
11			0	2.0	1.1	.07	0					
12			0	2.1	1.1	.14	0					
13			0	2.5	1.1	.95	0					
14			0	3.5	1.1	1.1	.02					
15			0	3.2	1.1	.99	0					
16			0	2.9	1.1	.83	0					
17			0	2.6	1.4	.68	.10					
18			0	10	1.7	.55	.04					
19			0	9.0	1.5	.42	0					
20			0	8.2	1.1	.37	0					
21			32	7.4	.90	.24	.01					
22			47	5.6	.80	.15	0					
23			18	4.5	.70	.13	0					
24			11	3.8	.60	.14	0					
25			6.7	3.1	.50	.02	0					
26			5.6	2.7	.45	0	0					
27			5.8	2.6	.40	0	0					
28			5.9	2.3	.35	0	0					
29			4.5	2.2	-----	0	0					
30			3.7	2.0	-----	0	0					
31		-----	3.5	1.9	-----	0	-----		-----		-----	
TOTAL	0	0	143.7	109.8	30.60	8.80	.17	0	0	0	0	0
MEAN	0	0	4.64	3.54	1.09	.28	.006	0	0	0	0	0
MAX	0	0	47	10	1.9	1.1	.10	0	0	0	0	0
MIN	0	0	0	1.9	.35	0	0	0	0	0	0	0
AC-FT	0	0	285	218	61	17	.3	0	0	0	0	0

CAL YR 1970 TOTAL 595.16 MEAN 1.63 MAX 74 MIN 0 AC-FT 1,180  
WTR YR 1971 TOTAL 293.07 MEAN .80 MAX 47 MIN 0 AC-FT 581

PEAK DISCHARGE (BASE, 30 CFS).--Dec. 21 (1945) 86 cfs (1.58 ft).

NOTE.--No gage-height record Dec. 30 to Jan. 27, Feb. 4 to Mar. 3.



## SANTA MARIA RIVER BASIN

11139350 FOXEN CREEK NEAR SISQUOC, CALIF.

LOCATION.--Lat 34°48'58", long 120°13'26", in La Laguna Grant, Santa Barbara County, on left upstream wingwall to culvert on Foxen Canyon Road, 3.0 miles upstream from mouth, and 3.7 miles southeast of Sisquoc.

DRAINAGE AREA.--16.8 sq mi.

PERIOD OF RECORD.--September 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 650 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 0.53 cfs (384 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1.2 cfs Dec. 21 (gage height, 1.22 ft); minimum daily, 0.03 cfs Sept. 14.

Period of record: Maximum discharge, 271 cfs Feb. 26, 1969 (gage height, 4.91 ft), from rating curve extended above 24 cfs on basis of slope-conveyance measurement of maximum flow; no flow for many days in most years.

REMARKS.--Records good. Small diversion dam for irrigation of about 160 acres above gage. Some pumping from wells along stream above gage.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.19	.16	.18	.22	.22	.23	.13	.18	.15	.06	.07
2	.25	.19	.23	.21	.22	.22	.24	.14	.18	.15	.06	.07
3	.27	.20	.18	.18	.22	.22	.25	.15	.12	.14	.08	.07
4	.23	.20	.18	.19	.23	.22	.23	.18	.07	.14	.08	.05
5	.25	.21	.18	.21	.20	.22	.24	.15	.07	.15	.06	.06
6	.26	.21	.18	.22	.22	.22	.26	.14	.08	.14	.05	.06
7	.25	.19	.18	.22	.21	.22	.25	.16	.08	.14	.05	.05
8	.22	.18	.18	.22	.18	.22	.25	.13	.07	.14	.04	.04
9	.21	.18	.17	.22	.18	.22	.25	.13	.08	.14	.04	.04
10	.21	.18	.17	.22	.18	.22	.25	.13	.08	.14	.04	.05
11	.23	.14	.18	.22	.18	.22	.26	.13	.09	.14	.04	.04
12	.24	.13	.18	.24	.18	.22	.28	.13	.10	.14	.04	.05
13	.24	.12	.14	.24	.18	.22	.30	.13	.11	.14	.05	.04
14	.23	.12	.13	.22	.19	.22	.41	.12	.11	.14	.05	.03
15	.24	.12	.14	.22	.20	.22	.31	.12	.09	.14	.04	.04
16	.25	.13	.17	.22	.23	.22	.28	.12	.08	.14	.04	.05
17	.24	.13	.18	.22	.23	.22	.32	.11	.09	.14	.04	.06
18	.23	.13	.25	.22	.19	.22	.26	.12	.09	.14	.05	.07
19	.23	.12	.20	.22	.22	.22	.21	.13	.09	.14	.05	.06
20	.23	.13	.14	.22	.22	.22	.22	.10	.09	.14	.05	.06
21	.22	.14	.62	.21	.22	.22	.19	.09	.08	.14	.05	.06
22	.23	.13	.23	.22	.22	.22	.18	.09	.10	.14	.05	.05
23	.22	.13	.18	.22	.22	.22	.18	.09	.12	.14	.05	.05
24	.20	.13	.18	.22	.22	.22	.16	.09	.12	.14	.05	.04
25	.20	.26	.18	.22	.22	.22	.16	.09	.13	.14	.06	.04
26	.19	.28	.20	.22	.22	.22	.16	.12	.14	.14	.05	.05
27	.18	.14	.18	.20	.22	.22	.16	.15	.15	.14	.06	.05
28	.18	.14	.18	.21	.22	.24	.16	.23	.14	.14	.06	.06
29	.18	.28	.18	.22	-----	.22	.15	.18	.11	.11	.07	.06
30	.18	.17	.18	.21	-----	.24	.14	.19	.15	.11	.07	.06
31	.18	-----	.19	.22	-----	.22	-----	.18	-----	.11	.07	-----
TOTAL	6.90	5.00	6.02	6.68	5.84	6.86	6.94	4.15	3.19	4.28	1.65	1.58
MEAN	.22	.17	.19	.22	.21	.22	.23	.13	.11	.14	.053	.053
MAX	.27	.28	.62	.24	.23	.24	.41	.23	.18	.15	.08	.07
MIN	.18	.12	.13	.18	.18	.22	.14	.09	.07	.11	.04	.03
AC-FT	14	9.9	12	13	12	14	14	8.2	6.3	8.5	3.3	3.1

CAL YR 1970 TOTAL 144.02 MEAN .39 MAX 1.1 MIN .12 AC-FT 286  
WTR YR 1971 TOTAL 59.09 MEAN .16 MAX .62 MIN .03 AC-FT 117

PEAK DISCHARGE (BASE, 15 CFS).--No peak above base.

## SANTA MARIA RIVER BASIN

317

11139500 TEPUSQUET CREEK NEAR SISQUOC, CALIF.

LOCATION.--Lat 34°52'21", long 120°14'37", in NE $\frac{1}{4}$  sec.9, T.9 N., R.32 W., Santa Barbara County, on downstream wingwall of right bridge abutment, 1.1 miles upstream from mouth, and 3 miles east of Sisquoc.

DRAINAGE AREA.--28.7 sq mi.

PERIOD OF RECORD.--October 1943 to current year.

GAGE.--Water-stage recorder. Concrete control since July 1957. Altitude of gage is 500 ft (from topographic map). Prior to Dec. 9, 1948, at datum 0.9 ft higher.

AVERAGE DISCHARGE.--28 years, 1.52 cfs (1,100 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 32 cfs Dec. 21 (gage height, 2.72 ft); minimum daily, 0.05 cfs Sept. 14.

Period of record: Maximum discharge, 788 cfs Dec. 6, 1966 (gage height, 5.48 ft), from rating curve extended above 220 cfs on basis of computation of maximum flow at contracted opening; no flow at times in some years.

REMARKS.--Records good. No regulation above station. Some diversion by pumping from wells along stream to irrigate about 100 acres above gage.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.11	.32	.39	.76	.77	.73	.50	.54	.27	.15	.14
2	.16	.11	.36	.42	.76	.76	.72	.49	.54	.27	.17	.12
3	.15	.11	.32	.43	.74	.77	.65	.50	.54	.27	.19	.10
4	.14	.11	.32	.42	.72	.78	.64	.48	.53	.26	.13	.09
5	.16	.11	.32	.42	.73	.76	.60	.48	.52	.26	.12	.13
6	.17	.11	.31	.45	.72	.71	.64	.49	.51	.26	.13	.11
7	.19	.11	.31	.45	.72	.70	.60	.53	.50	.27	.12	.07
8	.18	.12	.36	.48	.73	.72	.62	.54	.49	.27	.13	.10
9	.17	.12	.35	.51	.72	.74	.59	.53	.48	.27	.09	.08
10	.16	.12	.33	.50	.73	.74	.61	.48	.48	.27	.11	.07
11	.15	.12	.35	.50	.72	.74	.60	.48	.46	.26	.15	.07
12	.15	.12	.35	.53	.71	.73	.56	.49	.45	.23	.11	.10
13	.15	.12	.37	.53	.73	.77	.54	.48	.44	.22	.12	.09
14	.15	.12	.40	.54	.76	.74	.66	.51	.44	.24	.12	.05
15	.15	.12	.39	.53	.76	.76	.58	.47	.43	.23	.13	.06
16	.14	.13	.45	.55	.80	.79	.58	.49	.42	.22	.17	.09
17	.14	.13	.50	.58	.80	.78	.59	.46	.41	.22	.16	.08
18	.14	.13	.52	.60	.80	.71	.59	.49	.39	.19	.14	.11
19	.14	.13	.56	.64	.81	.69	.56	.48	.38	.18	.14	.06
20	.14	.13	.57	.64	.78	.70	.58	.48	.37	.19	.19	.11
21	.13	.13	11	.68	.76	.72	.55	.49	.36	.20	.18	.09
22	.13	.13	2.4	.72	.77	.75	.57	.52	.35	.18	.17	.08
23	.13	.14	.96	.71	.78	.76	.55	.49	.34	.19	.13	.12
24	.12	.14	.63	.70	.77	.74	.55	.48	.33	.20	.13	.09
25	.12	.29	.56	.67	.78	.75	.51	.49	.32	.17	.13	.08
26	.11	.36	.47	.72	.76	.81	.53	.47	.31	.18	.16	.11
27	.10	.28	.42	.70	.79	.78	.53	.55	.30	.18	.12	.11
28	.10	.28	.38	.69	.76	.73	.54	.58	.29	.20	.17	.08
29	.10	.39	.35	.71	-----	.73	.55	.57	.28	.17	.13	.09
30	.10	.35	.38	.73	-----	.70	.54	.56	.27	.17	.12	.10
31	.10	-----	.35	.76	-----	.72	-----	.54	-----	.19	.12	-----
TOTAL	4.32	4.87	25.66	17.90	21.17	23.05	17.66	15.59	12.47	6.88	4.33	2.78
MEAN	.14	.16	.83	.58	.76	.74	.59	.50	.42	.22	.14	.093
MAX	.19	.39	.11	.76	.81	.81	.73	.58	.54	.27	.19	.14
MIN	.10	.11	.31	.39	.71	.69	.51	.46	.27	.17	.09	.05
AC-FT	8.6	9.7	51	36	42	46	35	31	25	14	8.6	5.5

CAL YR 1970 TOTAL 398.70 MEAN 1.09 MAX 37 MIN .10 AC-FT 791  
WTR YR 1971 TOTAL 156.68 MEAN .43 MAX 11 MIN .05 AC-FT 311

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

NOTE.--No gage-height record June 1 to July 6.

## SANTA MARIA RIVER BASIN

11140000 SISQUOC RIVER NEAR GAREY, CALIF.

LOCATION.--Lat 34°53'38", long 120°18'20", in SW $\frac{1}{4}$  sec.36, T.10 N., R.33 W., Santa Barbara County, on downstream side of county road bridge, 0.6 mile northeast of Garey, and 3.7 miles downstream from Tepusquet Creek.

DRAINAGE AREA.--471 sq mi.

PERIOD OF RECORD.--October 1940 to current year. Records for water year 1941 incomplete, yearly estimate and monthly discharge only for October 1940 and January 1941, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 354.8 ft above mean sea level (Santa Barbara County bench mark). See WSP 1735 for history of changes prior to Oct. 1, 1959. Oct. 1, 1959, to Dec. 30, 1965, at datum 6.00 ft higher. Since Oct. 1, 1959, supplementary gage near left bank at same datum.

AVERAGE DISCHARGE.--31 years, 42.4 cfs (30,720 acre-ft per year); median of yearly mean discharges, 7.1 cfs (5,100 acre-ft, per year).

EXTREMES.--Current year: Maximum discharge, 1,910 cfs Nov. 29 (gage height, 7.26 ft); no flow most of year. Period of record: Maximum discharge, 24,500 cfs Jan. 25, 1969 (gage height, 13.00 ft); no flow for several months in each year.

REMARKS.--Records fair. No regulation above station. Pumping from wells along stream for irrigation of about 7,000 acres above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0								
2		0	85	0								
3		0	75	0								
4		0	0	0								
5		0	0	0								
6		0	0	0								
7		0	0	0								
8		0	0	0								
9		0	0	0								
10		0	0	0								
11		0	0	0								
12		0	0	0								
13		0	0	.08								
14		0	0	13								
15		0	0	16								
16		0	0	16								
17		0	0	13								
18		0	1.9	90								
19		0	.28	115								
20		0	1.8	92								
21		0	273	60								
22		0	282	30								
23		0	86	15								
24		0	35	10								
25		0	24	7.9								
26		0	19	6.4								
27		0	15	5.8								
28		0	14	6.1								
29		367	5.9	7.1	-----							
30		190	0	4.3	-----							
31		-----	0	0	-----		-----		-----		-----	
TOTAL	0	557	917.88	507.68	0	0	0	0	0	0	0	0
MEAN	0	18.6	29.6	16.4	0	0	0	0	0	0	0	0
MAX	0	367	282	115	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	1,100	1,820	1,010	0	0	0	0	0	0	0	0

CAL YR 1970 TOTAL 4,085.88 MEAN 11.2 MAX 601 MIN 0 AC-FT 8,100  
WTR YR 1971 TOTAL 1,982.56 MEAN 5.43 MAX 367 MIN 0 AC-FT 3,930

## PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1730	7.56	1,910	12-21	2100	4.84	544
12- 2	2000	4.67	455				

## 11140600 BRADLEY DITCH NEAR DONOVAN ROAD, AT SANTA MARIA, CALIF.

LOCATION.--Lat 34°58'00", long 120°25'00", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.11, T.10 N., R.34 W., Santa Barbara County, on left bank 0.4 mile south of Donovan Road and 0.2 mile east of U.S. Highway 101, Santa Maria.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 225 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 98 cfs Dec. 21 (gage height, 3.29 ft); no flow many days.

REMARKS.--Runoff affected by urbanization.

COOPERATION.--Records furnished by Santa Barbara County Flood Control and Water Conservation District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	.04	.58	1.0	.17	0	.23	.26	.86
2	0	0	.04	.35	.08	.42	.23	.12	.23	.58	.93	1.2
3	0	.12	0	0	0	.35	.82	.08	.42	.42	.93	.80
4	.05	0	0	0	.02	.04	.28	.42	.23	.35	1.0	.46
5	.10	.02	0	0	.17	.58	.17	.04	0	1.7	.90	.01
6	.12	.23	0	0	.17	.50	.04	.08	.42	2.2	1.0	.43
7	.02	0	0	0	.02	.66	0	.08	.35	2.1	.53	.06
8	.17	0	0	0	.50	.12	.66	.08	.58	1.8	.16	1.2
9	0	0	0	0	.82	.17	.50	.02	.12	1.9	.74	1.1
10	0	0	0	0	.74	0	.42	.02	.17	3.2	1.3	.44
11	0	.12	0	0	.42	.12	0	.02	.82	1.9	1.2	.62
12	.17	.08	0	.08	.02	.35	.58	0	.82	1.8	.92	.01
13	0	.04	0	.23	0	.23	.35	0	.28	1.7	1.4	.52
14	0	.02	0	0	0	.08	2.5	.02	.04	1.2	1.0	.41
15	.08	0	0	0	.50	.04	0	.04	.42	1.1	.68	.35
16	.08	0	.58	0	0	.23	.08	.12	.02	.91	1.2	.74
17	.04	0	1.1	0	0	.17	.23	.12	.28	.84	1.7	.65
18	0	.02	.66	0	0	.58	0	.08	.82	1.3	1.7	.58
19	0	.17	1.7	0	0	.50	0	.04	.66	1.2	1.2	.02
20	0	.02	.42	0	.02	.58	.02	.12	.04	1.7	1.3	0
21	.04	.12	28	.12	0	.08	.04	.23	.12	1.2	1.4	0
22	.04	.08	1.1	0	.50	.28	.04	.23	.28	1.3	1.1	0
23	.04	0	0	.12	.50	.23	.02	.08	.08	.79	.88	.27
24	0	0	0	0	.58	.08	0	.02	.28	.27	.98	.30
25	0	6.2	0	0	.28	.12	.02	.12	.74	.29	1.3	.09
26	0	2.1	0	.23	0	.12	.02	.12	.82	.70	1.3	.01
27	0	0	0	.50	.12	.42	.04	1.2	.23	.97	.79	0
28	0	0	0	.35	0	.35	.04	.50	.28	.96	.84	.06
29	.12	1.9	0	.17	-----	.66	.08	.02	1.3	1.1	.68	.40
30	0	.92	0	.35	-----	.58	.23	0	1.9	1.0	.79	.40
31	.04	-----	0	0	-----	.58	-----	0	-----	.42	.98	-----
TOTAL	1.11	12.16	33.60	2.50	5.50	9.80	8.41	4.19	12.75	37.13	31.09	11.99
MEAN	.036	.41	1.08	.081	.20	.32	.28	.14	.43	1.20	1.00	.40
MAX	.17	6.2	28	.50	.82	.66	2.5	1.2	1.9	3.2	1.7	1.2
MIN	0	0	0	0	0	0	0	0	0	.23	.16	0
AC-FT	2.2	24	67	5.0	11	19	17	8.3	25	74	62	24

WTR YR 1971 TOTAL 170.23 MEAN .47 MAX 28 MIN 0 AC-FT 338

## SANTA MARIA RIVER BASIN

11141000 SANTA MARIA RIVER AT GUADALUPE, CALIF.

LOCATION.--Lat 34°58'35", long 120°34'15", in Guadalupe Grant, Santa Barbara County, on downstream side of bridge on State Highway 1, 0.5 mile north of Guadalupe, and 4.5 miles upstream from mouth.

DRAINAGE AREA.--1,741 sq mi.

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only October 1940 to January 1941, published in WSP 1315-B.

GAGE.--Water-stage recorder and supplementary gage near right bank. Datum of gage is 64.92 ft above mean sea level. Prior to Aug. 11, 1955, at site 100 ft upstream at same datum.

AVERAGE DISCHARGE.--31 years, 34.4 cfs (24,920 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

EXTREMES.--Current year: No flow during year.

Period of record: Maximum discharge, 32,800 cfs Jan. 16, 1952 (gage height, 8.18 ft); no flow for long periods in each year.

REMARKS.--No flow since Mar. 8, 1970. Cuyama River regulated since February 1959 by Twitchell Reservoir (capacity, 240,000 acre-ft). Several small surface diversions and extensive pumping from wells for irrigation along stream above station. AVERAGE DISCHARGE represents flow to ocean, regardless of upstream development. Discharge for the calendar year 1970 is as follows: Maximum daily, 28 cfs; minimum, zero; mean, 0.18 cfs; total, 131 acre-ft.

## 11141150 ARROYO GRANDE ABOVE PHOENIX CREEK NEAR ARROYO GRANDE, CALIF.

LOCATION.--Lat 35°11'03", long 120°26'11", in Arroyo Grande Grant, San Luis Obispo County, on right bank at county road bridge 100 ft upstream from Phoenix Creek, 8.8 miles northeast of Arroyo Grande.

DRAINAGE AREA.--13.5 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 550 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 20 cfs Oct. 2 (gage height, 4.85 ft); minimum daily, 0.16 cfs Aug. 9.

Period of record: Maximum discharge, 1,270 cfs Jan. 25, 1969 (gage height, 6.83 ft in gage well, 6.57 ft, from floodmarks), from rating curve extended above 350 cfs on basis of slope-area measurement of maximum flow; minimum daily, 0.16 cfs Aug. 9, 1971.

REMARKS.--Records fair. No regulation or diversion above station. Records of water temperatures and total sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR.	APR	MAY	JUN	JUL	AUG	SEP
1	.61	1.3	3.2	3.4	2.2	1.7	1.7	1.8	.95	.78	.19	.50
2	2.2	1.3	4.4	3.5	2.2	1.7	1.8	2.1	.89	.77	.19	.48
3	1.2	1.3	3.3	3.3	2.2	1.7	1.9	1.8	.82	.75	.20	.46
4	1.0	1.6	3.2	3.3	2.2	1.7	1.8	1.7	.80	.87	.21	.43
5	1.2	1.8	3.1	3.3	2.2	1.7	2.0	1.7	.77	.85	.18	.48
6	1.2	1.5	2.9	3.3	2.2	1.7	2.1	1.8	.93	.86	.18	.54
7	1.2	1.3	2.8	3.3	2.2	1.7	2.1	1.8	.95	.91	.17	.43
8	1.0	1.3	2.9	3.3	2.2	1.7	2.1	1.7	.90	.92	.17	.43
9	.94	1.2	2.9	3.3	2.2	1.7	2.2	1.6	.84	.88	.16	.45
10	1.0	1.2	2.7	3.3	2.2	1.7	2.0	1.6	.83	.84	.24	.32
11	1.0	1.2	2.7	3.4	2.1	1.7	2.1	1.6	.81	.79	.26	.25
12	1.1	1.1	2.6	4.5	2.0	2.3	1.9	1.6	.80	.79	.27	.29
13	1.3	1.2	2.8	4.0	2.0	2.4	1.5	1.7	.86	.83	.26	.26
14	1.3	1.3	2.8	3.1	2.0	1.9	2.4	1.7	.81	.84	.27	.29
15	1.3	1.3	2.8	2.8	2.0	1.6	1.6	1.6	.75	.75	.29	.32
16	1.4	1.3	2.6	2.6	2.0	1.7	1.5	1.6	.74	.76	.29	.35
17	1.4	1.3	2.4	2.6	1.9	1.5	1.9	1.7	.73	.74	1.3	.42
18	1.4	1.3	2.6	2.6	1.7	1.4	1.7	1.7	.68	.73	1.0	.45
19	1.4	1.5	2.8	2.6	1.8	1.5	1.6	2.0	.61	.55	.70	.40
20	1.5	1.5	2.2	2.5	1.7	1.5	1.6	1.8	.70	.30	.81	.44
21	1.5	1.7	6.0	2.2	1.7	1.3	1.6	1.7	.63	.26	.75	.49
22	1.5	1.7	3.9	2.2	1.8	1.4	1.6	1.7	.64	.26	.72	.46
23	1.5	1.6	3.5	2.2	1.7	1.5	1.7	1.6	.61	.33	.70	.47
24	1.4	1.7	3.5	2.2	1.7	1.5	1.9	1.6	.61	.29	.74	.37
25	1.3	3.8	3.5	2.2	1.7	1.5	1.7	1.6	.61	.29	.78	.42
26	1.3	3.2	3.8	2.2	1.7	1.8	1.7	1.5	.61	.31	.83	.43
27	1.2	2.6	3.7	2.2	1.7	1.7	1.7	1.7	.75	.29	.81	.45
28	1.3	2.5	3.5	2.2	1.7	1.4	1.6	2.1	.74	.31	.76	.43
29	1.3	3.6	3.4	2.2	-----	1.5	1.6	1.3	.76	.24	.74	.45
30	1.3	3.5	3.3	2.2	-----	1.6	1.6	1.1	.79	.23	.90	.69
31	1.3	-----	3.3	2.2	-----	1.5	-----	.98	-----	.21	.84	-----
TOTAL	39.55	52.7	99.1	88.2	54.9	51.2	54.2	51.48	22.92	18.53	15.91	12.65
MEAN	1.28	1.76	3.20	2.85	1.96	1.65	1.81	1.66	.76	.60	.51	.42
MAX	2.2	3.8	6.0	4.5	2.2	2.4	2.4	2.1	.95	.92	1.3	.69
MIN	.61	1.1	2.2	2.2	1.7	1.3	1.5	.98	.61	.21	.16	.25
AC-FT	78	105	197	175	109	102	108	102	45	37	32	25

CAL YR 1970 TOTAL 761.72 MEAN 2.09 MAX 11 MIN .50 AC-FT 1,510  
WTR YR 1971 TOTAL 561.34 MEAN 1.54 MAX 6.0 MIN .16 AC-FT 1,110

PEAK DISCHARGE (BASE, 20 CFS)--Oct. 2 (1345) 20 cfs (4.85 ft).

## ARROYO GRANDE BASIN

11141160 WITTENBERG CREEK NEAR ARROYO GRANDE, CALIF.

LOCATION.--Lat 35°13'02", long 120°27'17", in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.22, T.31 S., R.14 E., San Luis Obispo County, on left bank 0.4 mile upstream from Huffs Hole Creek and 10 miles northeast of Arroyo Grande. Prior to Oct. 8, 1970, at site 0.2 mile downstream.

DRAINAGE AREA.--3.11 sq mi. Area at site used prior to Oct. 8, 1970, 3.28 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 560 ft (from topographic map). Prior to Oct. 8, 1970, at site 0.2 mile downstream at same datum.

EXTREMES.--Current year: Maximum discharge, 20 cfs Dec. 2 (gage height, 2.57 ft); minimum daily, 0.01 cfs Sept. 27, 29.

Period of record: Maximum discharge, 840 cfs Jan. 19, 1969 (gage height, 7.9 ft, from outside gage); no flow many days in 1967-70.

REMARKS.--Records good. No regulation; small diversions above station for domestic use.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.04	5.5	1.0	.48	.33	.61	.41	.13	.05	.07	.26
2	.03	.04	7.6	1.0	.47	.33	.50	.41	.13	.05	.07	.21
3	.03	.04	1.3	1.0	.47	.33	.50	.41	.17	.05	.07	.26
4	.03	.05	.60	1.0	.46	.33	.50	.33	.17	.07	.07	.33
5	.03	.05	.37	1.0	.46	.33	.50	.33	.13	.07	.07	.33
6	.03	.04	.32	.78	.46	.33	.41	.26	.13	.07	.07	.26
7	.03	.04	.29	.78	.46	.33	.41	.33	.13	.07	.10	.33
8	.03	.04	.28	.78	.46	.33	.41	.33	.13	.07	.10	.33
9	.03	.04	.27	.78	.48	.33	.41	.21	.13	.07	.17	.13
10	.03	.04	.27	.60	.50	.33	.41	.21	.17	.07	.21	.13
11	.03	.04	.27	1.0	.50	.26	.33	.21	.17	.10	.21	.13
12	.03	.04	.27	5.1	.50	.50	.26	.21	.17	.10	.21	.10
13	.03	.04	.27	9.7	.41	.61	.28	.26	.17	.13	.13	.05
14	.03	.05	.28	3.2	.41	.33	.92	.26	.17	.13	.10	.05
15	.03	.05	.30	1.2	.41	.26	.50	.33	.17	.17	.07	.02
16	.03	.05	.33	.90	.41	.26	.50	.33	.17	.21	.07	.02
17	.03	.05	.45	.80	.41	.26	.61	.33	.17	.17	.10	.02
18	.03	.06	.78	.72	.41	.33	.50	.26	.17	.17	.10	.07
19	.03	.07	3.6	.68	.41	.33	.50	.26	.17	.17	.10	.05
20	.04	.07	2.0	.66	.41	.33	.50	.26	.13	.17	.10	.05
21	.04	.09	8.1	.63	.41	.33	.50	.26	.07	.17	.13	.05
22	.03	.09	2.6	.60	.41	.41	.50	.21	.07	.17	.13	.05
23	.04	.09	.78	.59	.41	.41	.50	.26	.07	.17	.10	.05
24	.04	.09	.33	.57	.41	.41	.50	.26	.07	.17	.13	.02
25	.04	1.5	.18	.55	.41	.41	.50	.17	.07	.10	.17	.05
26	.04	2.5	.33	.54	.41	.50	.50	.17	.07	.13	.21	.02
27	.04	.20	.78	.53	.41	.50	.41	.21	.07	.13	.21	.01
28	.04	.20	.78	.52	.41	.50	.41	.21	.05	.10	.26	.02
29	.04	1.2	.45	.51	-----	.50	.41	.21	.05	.10	.26	.01
30	.04	3.7	.33	.50	-----	.61	.41	.21	.05	.10	.26	.02
31	.04	-----	.78	.49	-----	.50	-----	.13	-----	.07	.26	-----
TOTAL	1.04	10.60	40.79	38.71	12.26	11.85	14.20	8.24	3.72	3.57	4.31	3.43
MEAN	.034	.35	1.32	1.25	.44	.38	.47	.27	.12	.12	.14	.11
MAX	.04	3.7	8.1	9.7	.50	.61	.92	.41	.17	.21	.26	.33
MIN	.03	.04	.18	.49	.41	.26	.26	.13	.05	.05	.07	.01
AC-FT	2.1	21	81	77	24	24	28	16	7.4	7.1	8.6	6.8

CAL YR 1970 TOTAL 208.03 MEAN .57 MAX 17 MIN 0 AC-FT 413  
WTR YR 1971 TOTAL 152.72 MEAN .42 MAX 9.7 MIN .01 AC-FT 303

PEAK DISCHARGE (BASE, 50 CFS).--No peak above base.

## 11141280 LOPEZ CREEK NEAR ARROYO GRANDE, CALIF.

LOCATION.--Lat 35°13'48", long 120°28'22", in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.16, T.31 S., R.14 E., San Luis Obispo County, on right bank 0.7 mile upstream from small right-bank tributary, 3.2 miles upstream from mouth, and 9.2 miles northeast of Arroyo Grande.

DRAINAGE AREA.--21.6 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 540 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 143 cfs Dec. 21 (gage height, 4.62 ft); minimum daily, 0.65 cfs Sept. 12-15.

Period of record: Maximum discharge, 2,830 cfs Jan. 25, 1969 (gage height, 9.26 ft in gage well, 10.8 ft, from floodmarks), from rating curve extended above 300 cfs on basis of slope-area measurement of maximum flow; minimum daily, 0.65 cfs Sept. 12-15, 1971.

REMARKS.--Records fair. Small diversions above station for domestic use. Records of water temperatures and total sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.5	17	15	6.7	4.7	4.2	3.7	3.5	2.9	1.3	1.1
2	1.9	3.7	43	15	6.7	4.7	4.2	4.2	3.5	2.9	1.3	1.4
3	1.9	3.7	12	15	6.7	4.7	4.2	4.0	3.5	2.7	1.2	1.6
4	6.0	5.3	7.6	14	6.2	4.7	4.4	4.0	3.5	2.1	1.2	1.7
5	2.9	7.7	6.2	14	6.2	4.7	4.4	3.7	3.3	2.1	1.3	1.7
6	2.7	6.2	5.4	14	6.2	4.2	4.4	3.7	3.5	2.3	1.3	1.6
7	2.7	3.1	5.2	13	6.2	4.2	4.4	3.7	3.5	2.1	1.3	1.5
8	2.5	3.7	4.9	13	6.2	4.2	4.4	3.7	3.3	2.1	1.3	1.3
9	2.5	3.1	4.9	13	6.2	4.2	4.4	3.7	3.3	2.1	1.2	1.1
10	2.5	2.9	4.7	13	6.2	4.2	4.2	3.7	3.3	1.9	1.2	.93
11	2.7	2.9	4.7	14	5.7	4.2	4.4	3.7	3.3	1.9	1.2	.79
12	2.9	2.7	4.7	35	5.7	4.9	4.2	3.5	3.3	2.1	1.2	.65
13	3.1	2.7	4.7	67	5.7	5.7	4.3	3.5	3.3	2.1	1.2	.65
14	3.1	2.7	4.7	38	5.7	4.9	5.7	3.5	3.3	1.9	1.3	.65
15	3.1	2.9	4.7	24	5.7	4.7	4.7	3.5	3.1	2.1	1.3	.65
16	3.3	2.9	5.8	18	5.4	4.4	4.2	3.5	3.1	2.1	1.2	.79
17	3.5	3.1	7.0	14	5.4	4.4	4.7	3.5	3.1	2.1	1.1	.92
18	3.5	3.1	8.8	12	5.4	4.2	4.4	3.5	2.9	1.9	1.2	1.1
19	3.5	3.1	22	12	5.2	4.4	4.4	3.5	2.9	1.9	1.2	.92
20	4.0	3.7	14	11	5.2	4.4	4.2	3.5	3.1	1.9	1.1	.79
21	4.2	4.4	72	10	5.2	4.4	4.2	3.5	2.9	1.9	1.1	1.1
22	4.2	4.4	28	9.4	5.2	4.4	4.2	3.5	3.1	1.7	1.1	1.1
23	4.4	4.4	21	9.1	5.2	4.4	4.2	3.5	2.9	1.7	1.1	1.1
24	4.2	4.4	18	8.5	4.9	4.4	4.0	3.5	2.9	1.9	1.1	1.2
25	4.0	12	16	8.5	4.7	4.4	4.0	3.3	2.9	1.9	1.1	1.3
26	4.0	16	18	8.5	4.7	5.2	4.0	3.3	2.9	1.7	1.1	1.3
27	3.7	7.0	24	7.9	4.7	4.9	3.7	3.7	2.9	1.7	1.1	1.3
28	3.5	5.7	21	7.9	4.7	4.4	3.7	4.4	2.9	1.6	.92	1.2
29	3.5	9.8	18	7.3	-----	4.4	3.7	3.7	2.9	1.6	1.1	1.3
30	3.5	17	17	7.3	-----	4.4	4.0	3.7	2.9	1.5	.92	1.3
31	3.5	-----	16	7.3	-----	4.2	-----	3.5	-----	1.3	.93	-----
TOTAL	102.9	157.8	461.0	475.7	157.9	140.2	128.1	112.9	94.8	61.7	36.17	34.04
MEAN	3.32	5.26	14.9	15.3	5.64	4.52	4.27	3.64	3.16	1.99	1.17	1.13
MAX	6.0	17	72	67	6.7	5.7	5.7	4.4	3.5	2.9	1.3	1.7
MIN	1.9	2.7	4.7	7.3	4.7	4.2	3.7	3.3	2.9	1.3	.92	.65
AC-FT	204	313	914	944	313	278	254	224	188	122	72	68

CAL YR 1970 TOTAL 2,496.80 MEAN 6.84 MAX 86 MIN 1.7 AC-FT 4,950  
WTR YR 1971 TOTAL 1,963.21 MEAN 5.38 MAX 72 MIN .65 AC-FT 3,890

## PEAK DISCHARGE (BASE, 20 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-26	0100	3.64	31	12-21	0400	4.62	143
12- 2	0500	4.30	95	1-13	0830	4.33	99



## ARROYO GRANDE BASIN

11141400 TAR SPRING CREEK NEAR ARROYO GRANDE, CALIF.

LOCATION.--Lat 35°07'56", long 120°32'30", in Santa Manuela Grant, San Luis Obispo County, on right bank 0.5 mile upstream from mouth and 2.1 miles northeast of Arroyo Grande.

DRAINAGE AREA.--18.2 sq mi.

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

GAGE.--Water-stage recorder and rain gage. Altitude of gage is 180 ft (from topographic map). Prior to May 20, 1969, at site 0.3 mile upstream at datum 24.00 ft higher.

EXTREMES.--Current year: Maximum discharge, 64 cfs Dec. 21 (gage height, 4.96 ft); minimum daily, 0.02 cfs July 17-21.

Period of record: Maximum discharge, 1,340 cfs Jan. 25, 1969 (gage height, 10.1 ft, from floodmarks), from rating curve extended above 68 cfs on basis of slope-area measurement of maximum flow; no flow at times.

REMARKS.--Records fair. No regulation; some diversion above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.64	1.3	1.8	1.5	.64	.43	.47	.35	.05	.04	.14
2	1.6	.05	2.7	2.0	1.5	.64	.56	.56	.32	.05	.04	.18
3	1.3	.10	1.6	1.6	1.5	.79	.61	.56	.32	.06	.04	.16
4	.93	.42	1.5	1.6	1.1	.53	.56	.56	.32	.04	.03	.16
5	.65	.25	1.5	1.6	1.1	.32	.43	.61	.25	.04	.03	.14
6	.44	.42	1.5	1.6	.93	.19	.39	.52	.47	.03	.04	.14
7	.45	.03	1.8	1.6	.93	.93	.39	.39	.66	.03	.03	.14
8	.34	.05	1.6	1.5	.79	1.3	.32	.43	.52	.04	.03	.11
9	.47	.05	1.5	1.5	.32	.95	.22	.43	.47	.04	.03	.06
10	.53	1.1	1.3	1.3	.42	.73	.32	.52	.52	.16	.03	.06
11	.64	1.5	1.3	1.3	.53	.82	.32	.43	.47	.22	.10	.08
12	.42	2.5	1.3	7.3	.79	.76	.82	.28	.39	.16	.16	.05
13	.64	5.7	1.3	9.3	.64	.82	.76	.28	.43	.04	.16	.03
14	.42	5.4	1.3	6.6	1.3	.88	.71	.35	.47	.04	.18	.04
15	.53	1.6	1.3	4.5	1.8	1.0	.52	.35	.47	.03	.16	.03
16	.64	3.7	1.8	3.2	1.3	1.0	.47	.22	.39	.03	.16	.04
17	.64	4.2	1.8	2.5	1.3	.94	.47	.18	.39	.02	.18	.25
18	.79	4.2	2.5	2.2	1.3	.88	.52	.25	.35	.02	.16	.22
19	1.1	.25	3.2	2.2	1.3	.66	.52	.35	.35	.02	.18	.11
20	.93	.42	1.8	2.2	1.3	.61	.61	.35	.32	.02	.18	.10
21	.79	.53	34	2.0	.93	.61	.61	.39	.32	.02	.22	.10
22	.42	.53	7.3	1.8	.79	.61	.56	.32	.28	.05	.22	.08
23	1.6	1.1	3.2	1.8	.79	.66	.39	.22	.28	.08	.22	.05
24	.64	1.6	2.7	1.8	.64	.71	.39	.25	.22	.06	.22	.06
25	.53	1.8	2.5	1.8	.53	.66	.61	.25	.06	.06	.22	.05
26	.19	1.5	2.9	1.8	.53	.66	.61	.18	.06	.08	.22	.05
27	.19	1.8	2.9	1.6	.53	.61	.52	.16	.04	.08	.16	.05
28	.19	1.3	1.8	1.5	.64	.52	.52	.16	.05	.10	.08	.06
29	.93	1.6	2.0	1.5	-----	.43	.52	.18	.04	.05	.08	.06
30	.79	2.0	1.8	1.5	-----	.52	.47	.25	.05	.05	.08	.04
31	.42	-----	1.8	1.5	-----	.43	-----	.32	-----	.05	.08	-----
TOTAL	21.45	46.34	96.8	76.0	27.03	21.81	15.15	10.77	9.63	1.82	3.76	2.84
MEAN	.69	1.54	3.12	2.45	.97	.70	.51	.35	.32	.059	.12	.095
MAX	1.6	5.7	34	9.3	1.8	1.3	.82	.61	.66	.22	.22	.25
MIN	.19	.03	1.3	1.3	.32	.19	.22	.16	.04	.02	.03	.03
AC-FT	43	92	192	151	54	43	30	21	19	3.6	7.5	5.6
(a)	.2	5.0	4.6	1.8 <sup>a</sup>	0	.8	.9	1.1	0	0	0	0

CAL YR 1970 TOTAL 454.40 MEAN 1.24 MAX 34 MIN .03 AC-FT 901  
WTR YR 1971 TOTAL 333.40 MEAN .91 MAX 34 MIN .02 AC-FT 661

PEAK DISCHARGE (BASE, 20 CFS).--Dec. 21 (0900) 64 cfs (4.96 ft).

a Precipitation, in inches.

## 11141500 ARROYO GRANDE AT ARROYO GRANDE, CALIF.

LOCATION.--Lat 35°07'28", long 120°34'05", in Pismo Grant, San Luis Obispo County, on left bank at Arroyo Grande, 0.7 mile upstream from U.S. Highway 101.

DRAINAGE AREA.--102 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Records for water year 1940 incomplete, yearly estimate published in WSP 1315-B.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 97.77 ft above mean sea level. Prior to July 10, 1947, at datum 0.50 ft higher.

AVERAGE DISCHARGE.--29 years (1939-68), 19.4 cfs (14,060 acre-ft per year); median of yearly mean discharges, 8.0 cfs (5,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 101 cfs Dec. 21 (gage height, 2.56 ft); minimum daily, 1.8 cfs Aug. 8.

Period of record: Maximum discharge, 5,400 cfs Dec. 6, 1966 (gage height, 12.88 ft); no flow for several days in some years. Maximum discharge since construction of Lopez Dam in 1968, 2,990 cfs Feb. 24, 1969 (gage height, 9.48 ft).

REMARKS.--Records good. Flow regulated by Lopez Dam 7.8 miles upstream since 1968 (usable capacity, 47,800 acre-ft). Many small and intermittent diversions by pumping from stream for irrigation of about 4,000 acres above station.

REVISIONS (WATER YEARS).--WSP 931: 1940. WSP 1011: 1941, 1942(M). WSP 1929: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	7.0	9.9	7.9	6.5	3.9	2.5	6.5	8.2	6.5	6.3	4.3
2	4.6	7.9	14	8.5	6.4	3.9	2.5	9.1	7.2	7.3	7.2	6.0
3	5.8	7.4	9.6	7.9	6.6	3.5	2.1	9.1	6.5	3.7	5.8	4.7
4	6.7	8.0	9.1	7.9	6.8	3.1	2.6	9.4	7.2	4.7	3.4	4.7
5	5.8	9.3	8.8	7.9	6.8	3.1	3.1	9.1	7.7	4.3	3.8	4.0
6	5.6	10	9.2	7.7	4.7	2.5	2.4	7.7	8.2	4.4	4.7	5.0
7	5.1	7.9	9.4	7.7	5.5	2.9	2.1	7.7	8.5	4.2	2.6	4.7
8	4.0	7.4	7.4	7.4	4.8	3.3	2.4	8.5	8.8	4.8	1.8	2.2
9	3.7	7.7	7.7	7.2	5.0	2.7	2.7	9.0	8.8	2.9	2.0	2.6
10	3.9	7.4	7.4	7.2	3.4	2.0	1.9	8.1	8.5	3.0	3.0	3.7
11	6.0	7.7	7.4	8.5	3.6	2.1	2.3	7.1	9.4	4.0	3.0	4.0
12	7.2	7.9	7.2	18	4.2	2.6	2.5	6.5	9.1	3.4	4.0	2.6
13	7.0	8.7	7.4	20	4.2	4.0	3.2	5.5	8.2	2.6	4.0	3.1
14	7.9	8.5	7.4	16	5.4	4.2	5.8	4.7	7.7	3.9	4.3	2.6
15	6.8	7.9	7.2	12	5.2	3.0	4.9	3.9	7.2	3.6	5.6	2.4
16	7.9	7.9	8.2	10	5.6	2.8	4.7	3.6	6.8	3.9	5.6	5.3
17	8.4	7.7	10	9.4	4.9	3.3	5.2	3.4	7.5	4.1	5.0	5.6
18	8.4	6.5	10	8.5	4.6	2.6	5.4	2.3	8.2	4.2	4.7	5.3
19	8.4	6.7	12	7.7	4.3	3.3	5.6	5.1	7.6	4.5	3.1	5.3
20	8.8	6.8	8.8	7.9	4.4	3.7	5.9	3.4	6.4	4.1	4.3	5.6
21	10	7.0	62	7.7	4.0	3.1	5.4	3.8	5.4	4.2	4.7	5.0
22	10	6.5	21	7.7	3.6	2.6	5.3	3.6	4.1	3.6	3.1	3.7
23	11	6.8	12	7.7	3.5	2.9	4.6	3.9	5.4	4.6	2.6	4.3
24	9.4	7.4	11	7.2	2.8	3.4	4.2	5.4	7.0	5.6	4.7	4.0
25	9.4	12	10	7.0	3.6	3.4	6.4	5.8	7.0	5.2	5.0	2.8
26	9.0	13	10	6.8	3.8	4.7	6.2	6.1	6.3	5.4	4.7	6.8
27	8.1	9.6	11	6.5	3.7	4.3	5.4	5.4	7.7	5.2	4.3	6.4
28	7.0	8.5	9.1	6.1	3.9	3.8	6.1	8.8	7.9	4.2	5.0	4.3
29	7.4	10	8.5	6.8	-----	3.5	5.8	8.2	6.5	5.6	6.8	4.7
30	7.7	14	7.9	6.3	-----	3.2	6.5	8.2	3.9	5.8	5.6	5.0
31	7.4	-----	7.9	7.0	-----	2.3	-----	8.5	-----	6.5	4.0	-----
TOTAL	223.6	251.1	348.5	272.1	131.8	99.7	125.7	197.4	218.9	140.0	134.7	130.7
MEAN	7.21	8.37	11.2	8.78	4.71	3.22	4.19	6.37	7.30	4.52	4.35	4.36
MAX	11	14	62	20	6.8	4.7	6.5	9.4	9.4	7.3	7.2	6.8
MIN	3.7	6.5	7.2	6.1	2.8	2.0	1.9	2.3	3.9	2.6	1.8	2.2
AC-FT	444	498	691	540	261	198	249	392	434	278	267	259

CAL YR 1970 TOTAL 3,403.8 MEAN 9.33 MAX 100 MIN 1.8 AC-FT 6,750  
WTR YR 1971 TOTAL 2,274.2 MEAN 6.23 MAX 62 MIN 1.8 AC-FT 4,510

## ARROYO GRANDE BASIN

11141600 LOS BERROS CREEK NEAR NIPOMO, CALIF.

LOCATION.--Lat 35°05'17", long 120°30'32", in Nipomo Grant (on boundary), San Luis Obispo County, on left bank at upstream side of bridge, 0.8 mile downstream from Adobe Creek, and 3.7 miles northwest of Nipomo.

DRAINAGE AREA.--15.0 sq mi.

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 312 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 14 cfs Dec. 21 (gage height, 1.81 ft); minimum daily, 0.04 cfs Nov. 3.

Period of record: Maximum discharge, 599 cfs Jan. 25, 1969 (gage height, 5.43 ft), from rating curve extended above 230 cfs on basis of slope-area measurement of maximum flow; minimum daily, 0.02 cfs Aug. 6, 1968.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.05	.43	1.5	1.3	.98	.74	.60	.52	.43	.54	.15
2	.10	.05	.58	1.6	1.3	.98	.71	.64	.54	.38	.52	.15
3	.09	.04	.14	1.4	1.3	.81	.68	.67	.54	.38	.54	.14
4	.08	.05	.14	1.2	1.2	.86	.67	.67	.48	.38	.51	.13
5	.07	.07	.14	1.3	1.2	.85	.67	.48	.48	.38	.38	.14
6	.07	.08	.17	1.2	1.2	.80	.67	.48	.54	.43	.28	.13
7	.06	.07	.17	1.1	1.1	.88	.67	.48	.54	.43	.28	.12
8	.06	.08	.17	1.1	1.1	.81	.67	.49	.48	.43	.25	.12
9	.06	.08	.17	1.3	1.1	.81	.67	.47	.38	.49	.25	.12
10	.07	.08	.20	1.2	1.1	.74	.62	.48	.30	.59	.23	.13
11	.07	.08	.20	1.2	1.1	.74	.67	.50	.30	.55	.23	.12
12	.07	.08	.20	2.6	1.1	.81	.64	.54	.34	.48	.23	.12
13	.06	.07	.20	7.6	1.1	.98	.60	.58	.34	.49	.22	.12
14	.06	.07	.20	10	1.2	.89	.82	.55	.34	.53	.25	.13
15	.06	.09	.21	5.6	1.3	.81	.67	.48	.34	.52	.30	.12
16	.06	.07	.27	4.1	1.3	.81	.67	.39	.30	.54	.30	.12
17	.06	.07	.26	3.3	1.5	.74	.67	.41	.30	.54	.28	.12
18	.06	.07	.31	2.8	1.4	.74	.67	.47	.34	.54	.28	.12
19	.07	.07	.34	2.4	1.4	.74	.67	.48	.34	.54	.28	.11
20	.07	.08	.48	2.1	1.3	.74	.67	.46	.34	.54	.23	.12
21	.07	.08	7.3	1.9	1.2	.74	.62	.43	.34	.54	.25	.12
22	.07	.08	7.2	1.8	1.1	.74	.58	.44	.38	.54	.25	.12
23	.06	.10	4.3	1.7	1.1	.67	.58	.49	.38	.54	.23	.12
24	.06	.11	3.2	1.6	1.1	.74	.60	.48	.38	.53	.22	.11
25	.06	.18	2.5	1.5	1.1	.74	.60	.48	.34	.51	.21	.12
26	.06	.17	2.2	1.5	1.0	.74	.61	.40	.38	.51	.19	.12
27	.06	.14	2.2	1.4	.98	.74	.60	.44	.43	.48	.18	.11
28	.05	.19	1.9	1.3	.98	.74	.60	.49	.43	.53	.18	.12
29	.05	.31	1.7	1.3	-----	.74	.60	.54	.43	.54	.16	.12
30	.05	.53	1.6	1.3	-----	.74	.60	.54	.43	.60	.16	.14
31	.05	-----	1.5	1.3	-----	.74	-----	.48	-----	.58	.16	-----
TOTAL	2.03	3.29	40.58	71.2	33.16	24.59	19.51	15.53	12.00	15.49	8.57	3.73
MEAN	.066	.11	1.31	2.30	1.18	.79	.65	.50	.40	.50	.28	.12
MAX	.10	.53	7.3	10	1.5	.98	.82	.67	.54	.60	.54	.15
MIN	.05	.04	.14	1.1	.98	.67	.58	.39	.30	.38	.16	.11
AC-FT	4.0	6.5	80	141	66	49	39	31	24	31	17	7.4

CAL YR 1970 TOTAL 274.34 MEAN .75 MAX 16 MIN .04 AC-FT 544  
WTR YR 1971 TOTAL 249.68 MEAN .68 MAX 10 MIN .04 AC-FT 495

PEAK DISCHARGE (BASE, 7 CFS).--Dec. 21 (1968) 14 cfs (1.81 ft); Jan. 13 (1945) 13 cfs (1.76 ft).

## MORRO CREEK BASIN

327

11142080 MORRO CREEK AT MORRO BAY, CALIF.

LOCATION.--Lat 35°22'42", long 120°51'12", in Moro Y Cayucos Grant, San Luis Obispo County, on left bank at upstream side of frontage road bridge in town of Morro Bay and 700 ft downstream from Little Morro Creek.

DRAINAGE AREA.--24.0 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 262 cfs Dec. 21 (gage height, 4.05 ft); no flow for long periods.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No regulation; small diversion above station for individual use.

COOPERATION.--One discharge measurement furnished by San Luis Obispo County Flood Control and Water Conservation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.98	5.0	4.7	3.5	2.0	2.2	1.4	.06		
2		0	35	7.0	4.6	3.7	2.0	2.4	.98	0		
3		0	18	5.5	4.6	4.0	1.8	2.4	.79	.01		
4		0	11	5.2	4.6	3.7	1.7	1.8	.63	.02		
5		0	7.5	5.0	4.5	3.2	1.7	1.7	.74	.03		
6		0	6.6	4.8	4.5	3.0	2.2	1.7	.74	0		
7		0	6.2	4.7	4.5	2.8	1.5	1.5	.98	0		
8		0	6.2	4.6	4.5	2.8	1.4	1.4	.86	0		
9		0	6.2	4.5	8.0	2.4	1.4	1.2	.86	0		
10		0	5.8	4.4	4.2	1.8	1.2	1.2	.86	0		
11		0	5.8	4.4	4.2	2.2	1.1	1.2	.74	0		
12		0	5.8	54	4.5	3.0	1.4	1.1	.74	0		
13		0	5.8	25	4.8	4.8	1.6	1.1	.74	0		
14		0	5.4	15	5.4	3.2	3.0	1.2	.63	0		
15		0	5.4	12	5.2	2.8	2.4	.98	.63	0		
16		0	5.4	10	5.4	2.6	2.2	.74	.53	0		
17		0	5.4	8.4	5.4	2.6	2.2	.74	.34	0		
18		0	30	7.4	5.2	2.4	2.2	.63	.08	0		
19		0	31	6.8	5.4	2.2	2.8	.63	.17	0		
20		0	8.5	6.3	5.9	2.2	2.6	.63	.34	0		
21		0	129	6.0	5.9	2.4	2.8	.63	.34	0		
22		0	25	5.7	4.5	2.2	2.6	.63	.34	0		
23		0	13	5.5	4.5	2.0	2.8	.53	.43	0		
24		0	8.0	5.3	4.5	1.8	3.0	.53	.53	0		
25		0	6.2	5.1	4.0	1.8	3.0	.53	.39	0		
26		0	5.4	4.9	4.0	3.0	2.6	.53	.02	0		
27		0	9.2	4.9	3.7	3.0	2.4	1.4	.06	0		
28		0	9.6	4.8	3.7	2.4	2.6	1.7	.09	0		
29		5.6	6.0	4.8	-----	2.2	2.4	1.5	.11	0		
30		3.2	5.5	4.7	-----	2.2	2.2	1.5	.07	0		
31		-----	5.2	4.7	-----	2.0	-----	1.1	-----	0		-----
TOTAL	0	8.8	434.08	256.4	134.9	83.9	64.8	37.03	16.16	.12	0	0
MEAN	0	.29	14.0	8.27	4.82	2.71	2.16	1.19	.54	.004	0	0
MAX	0	5.6	129	54	8.0	4.8	3.0	2.4	1.4	.06	0	0
MIN	0	0	.98	4.4	3.7	1.8	1.1	.53	.02	0	0	0
AC-FT	0	17	861	509	268	166	129	73	32	.2	0	0

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 1,036.19 MEAN 2.84 MAX 129 MIN 0 AC-FT 2,060

PEAK DISCHARGE (BASE, 20 CFS)  
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE  
12- 2 0800 3.73 73 12-21 0815 4.05 262  
12-18 2230 3.90 202 1-12 0445 3.70 137

NOTE.--No gage-height record Oct. 1 to Feb. 9.

## TORO CREEK BASIN

11142100 TORO CREEK NEAR MORRO BAY, CALIF.

LOCATION.--Lat 35°25'31", long 120°51'33", in Moro Y Cayucos Grant, San Luis Obispo County, on left bank at downstream side of county road bridge, 0.3 mile downstream from small right-bank tributary, and 2.3 miles north of town of Morro Bay.

DRAINAGE AREA.--14.0 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 87 cfs Dec. 20 (gage height, 2.23 ft), from rating curve extended above 40 cfs; no flow for several days.

REMARKS.--Records fair prior to May 5, and good thereafter except those for period of no gage-height record, which are poor. No regulation; small diversion above station for individual use.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.10	5.4	1.8	3.6	3.4	2.5	1.2	1.6	1.6	.12	0
2	.10	.10	35	1.6	3.6	3.4	2.5	1.4	1.3	2.2	.10	.03
3	.10	.10	14	1.8	3.4	3.4	2.5	1.5	.98	1.6	.04	0
4	.10	.10	8.0	1.6	3.4	3.2	2.3	1.5	.98	.98	.08	0
5	.10	.10	5.4	1.5	3.4	2.9	2.2	1.6	1.3	.30	.08	.04
6	.10	.10	3.4	1.4	3.4	2.9	2.0	1.9	3.5	.04	.08	.03
7	.10	.10	2.9	1.2	3.2	2.7	1.9	1.5	3.8	.16	.04	0
8	.10	.10	2.3	1.6	3.2	2.5	1.6	1.5	3.5	.30	.03	0
9	.10	.10	2.0	2.0	3.6	2.5	1.6	1.5	4.5	.25	.03	.01
10	.10	.10	2.0	1.6	3.9	2.5	1.6	1.6	12	.20	.01	.03
11	.10	.10	1.9	2.5	3.7	2.5	1.4	1.5	12	.25	0	.03
12	.10	.10	1.9	16	3.2	2.7	1.2	1.3	8.2	.16	.01	.04
13	.10	.10	1.9	13	2.9	3.9	1.2	1.9	2.4	.16	.08	.08
14	.10	.10	1.9	9.6	2.9	3.4	1.6	2.9	2.7	.20	.08	.10
15	.10	.10	1.8	8.0	2.9	3.2	1.1	3.2	2.7	.25	.12	.10
16	.10	.10	1.5	6.1	2.3	3.2	.83	3.5	2.7	.30	.12	.10
17	.10	.14	1.9	5.7	3.7	3.2	.94	3.5	2.4	.25	.10	.08
18	.10	.14	9.5	6.0	3.9	2.9	1.1	3.2	1.9	.20	.08	.08
19	.10	.07	18	5.4	4.2	2.9	1.1	2.9	2.4	.16	.08	.10
20	.10	.07	16	5.2	3.9	2.9	1.1	2.9	3.8	.12	.10	.04
21	.10	.18	28	5.2	3.7	2.9	1.1	2.7	2.7	.20	.10	.01
22	.10	.18	8.6	4.6	3.7	2.9	1.1	2.4	3.2	.20	.08	.03
23	.10	.18	4.6	4.4	3.7	2.9	1.1	2.4	3.2	.25	.08	.03
24	.10	.14	3.4	4.2	3.4	2.9	1.1	2.4	2.4	.25	.12	.03
25	.10	.83	2.3	4.2	3.4	2.7	1.5	2.2	1.6	.25	.30	.01
26	.10	.94	2.2	3.9	3.4	3.7	1.6	2.2	1.6	.25	.25	.04
27	.10	.47	3.9	3.9	3.7	2.9	1.4	2.4	1.9	.20	.25	.03
28	.10	.40	2.3	3.9	3.4	2.5	1.1	3.2	1.6	.20	.12	.04
29	.10	11	1.9	3.9	-----	2.3	1.1	2.7	2.2	.16	.08	.04
30	.10	4.8	1.8	3.6	-----	2.3	1.1	2.2	1.9	.16	.04	0
31	.10	-----	1.9	3.6	-----	2.3	-----	1.9	-----	.12	0	-----
TOTAL	3.10	21.14	197.6	139.0	96.7	90.5	44.47	68.7	96.96	11.92	2.80	1.15
MEAN	.10	.70	6.37	4.48	3.45	2.92	1.48	2.22	3.23	.38	.090	.038
MAX	.10	11	35	16	4.2	3.9	2.5	3.5	12	2.2	.30	.10
MIN	.10	.07	1.5	1.2	2.3	2.3	.83	1.2	.98	.04	0	0
AC-FT	6.2	42	392	276	192	180	88	136	192	24	5.6	2.3

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 774.04 MEAN 2.12 MAX 35 MIN 0 AC-FT 1,540

PEAK DISCHARGE (BASE, 25 CFS)  
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE  
12- 2 0200 2.19 83 1-12 0315 1.81 47  
12-20 2345 2.23 87

NOTE.--No gage-height record Oct. 1 to Nov. 16.

11142200 SANTA ROSA CREEK NEAR CAMBRIA, CALIF.

LOCATION.--Lat 35°34'35", long 120°59'50", in NE $\frac{1}{4}$  sec.21, T.27 S., R.9 E., San Luis Obispo County, on left bank 4.8 miles east of Cambria.

DRAINAGE AREA.--12.5 sq mi.

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 264.03 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 10.5 cfs (7,610 acre-ft per year); median of yearly mean discharges, 7.8 cfs (5,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 636 cfs Nov. 29 (gage height, 6.13 ft); no flow for many days.  
Period of record: Maximum discharge, 3,350 cfs Jan. 25, 1969 (gage height, 12.02 ft), from rating curve extended above 1,300 cfs on basis of slope-area measurement at gage height 10.36 ft; no flow at times in each year.  
Flood of December 1955 reached a stage of 15.2 ft, from floodmarks.

REMARKS.--Records good. No regulation; small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1715: 1958.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.02	72	20	6.8	4.2	4.9	3.0	1.7	.16	.05	
2	0	.03	113	18	6.5	4.2	4.6	3.0	1.6	.16	.05	
3	0	.04	39	16	6.1	4.2	4.2	3.0	1.2	.14	.04	
4	0	.35	26	14	5.8	4.2	3.9	2.3	1.2	.14	.01	
5	0	19	20	12	5.8	4.2	3.6	2.3	1.0	.12	0	
6	0	4.2	15	12	5.5	3.9	3.9	2.3	1.1	.12	0	
7	0	1.6	12	11	5.5	3.6	3.9	2.3	1.1	.10	0	
8	0	.94	15	9.9	5.5	3.6	3.9	2.1	1.0	.10	0	
9	0	.70	15	9.5	4.9	3.6	3.9	1.8	.83	.10	0	
10	0	.55	12	8.7	4.9	3.6	3.9	1.7	.83	.10	0	
11	0	.41	10	20	4.6	3.6	3.6	1.6	.83	.10	0	
12	0	.35	9.5	39	5.2	5.2	3.6	1.5	.83	.08	0	
13	0	.32	8.7	37	5.8	9.5	3.3	1.5	.67	.10	0	
14	0	.32	8.4	30	5.8	5.5	6.8	1.5	.60	.08	0	
15	0	.26	8.1	23	5.8	4.9	5.2	1.5	.54	.08	0	
16	0	.26	21	20	5.8	4.6	4.6	1.6	.48	.10	0	
17	0	.22	19	18	6.1	4.2	5.2	1.7	.37	.08	0	
18	0	.26	84	16	5.8	3.9	4.6	1.5	.37	.08	0	
19	0	.32	70	15	5.5	3.9	4.2	1.4	.37	.10	0	
20	0	.35	70	14	5.5	3.6	4.2	1.3	.33	.10	0	
21	0	.41	176	13	5.2	3.6	3.9	1.1	.29	.12	0	
22	.01	.41	62	12	5.2	3.6	3.6	1.1	.25	.12	0	
23	.02	.41	44	11	5.2	3.6	3.6	1.2	.25	.10	0	
24	.02	.41	34	10	4.9	3.6	3.6	1.1	.25	.12	0	
25	.03	12	28	9.9	4.6	3.6	3.3	1.1	.22	.12	0	
26	.03	23	27	9.1	4.2	18	3.0	1.1	.19	.12	0	
27	.03	3.0	40	8.4	4.2	11	3.0	1.1	.19	.12	0	
28	.03	104	30	8.1	4.2	6.8	3.0	1.2	.19	.12	0	
29	.02	170	26	7.7	-----	5.8	3.0	1.2	.16	.10	0	
30	.03	53	24	7.1	-----	5.2	3.0	1.4	.16	.10	0	
31	.03	-----	22	7.1	-----	4.9	-----	1.6	-----	.06	0	-----
TOTAL	.25	397.14	1,160.7	466.5	150.9	157.9	119.0	52.1	19.10	3.34	.15	0
MEAN	.008	13.2	37.4	15.0	5.39	5.09	3.97	1.68	.64	.11	.005	0
MAX	.03	170	176	39	6.8	18	6.8	3.0	1.7	.16	.05	0
MIN	0	.02	8.1	7.1	4.2	3.6	3.0	1.1	.16	.06	0	0
AC-FT	.5	788	2,300	925	299	313	236	103	38	6.6	.3	0

CAL YR 1970 TOTAL 4,467.50 MEAN 12.2 MAX 625 MIN 0 AC-FT 8,860  
WTR YR 1971 TOTAL 2,527.08 MEAN 6.92 MAX 176 MIN 0 AC-FT 5,010

PEAK DISCHARGE (BASE, 450 CFS).--Nov. 29 (0600) 636 cfs (6.13 ft); Dec. 21 (0030) 625 cfs (6.10 ft).

## ARROYO DE LA CRUZ BASIN

11142500 ARROYO DE LA CRUZ NEAR SAN SIMEON, CALIF.

LOCATION.--Lat 35°43'02", long 121°17'02", in Piedra Blanca Grant, San Luis Obispo County, on right bank 1.7 miles upstream from mouth and 7 miles northwest of San Simeon.

DRAINAGE AREA.--41.2 sq mi.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 22 ft (from topographic map).

AVERAGE DISCHARGE.--21 years, 55.2 cfs (39,990 acre-ft per year); median of yearly mean discharges, 40 cfs (29,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,000 cfs Nov. 28 (gage height, 7.61 ft); no flow for long periods. Period of record: Maximum discharge, 35,200 cfs Dec. 6, 1966 (gage height, 15.27 ft), from rating curve extended above 7,600 cfs on basis of slope-area measurements at gage heights 12.40 and 15.27 ft; no flow for long periods in each year.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1245: 1951.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	554	32	18	7.1	7.6	3.2	.95			
2		0	468	30	17	7.6	7.1	3.6	.95			
3		0	223	23	15	8.1	6.6	4.3	.75			
4		0	120	21	15	8.1	6.1	3.6	.56			
5		27	73	17	15	7.6	5.7	2.9	.75			
6		3.4	45	17	15	7.1	5.7	3.2	.75			
7		3.8	30	15	14	7.1	5.0	2.9	.56			
8		1.8	28	14	12	7.1	4.7	2.9	.39			
9		.68	34	13	12	6.6	4.7	2.5	.39			
10		.32	18	12	12	7.1	4.7	2.5	.45			
11		.14	13	32	11	6.6	4.3	2.3	.45			
12		.02	10	150	11	14	3.9	1.9	.39			
13		0	8.6	148	11	86	3.9	1.9	.28			
14		0	7.6	198	10	22	15	1.7	.22			
15		0	5.7	112	10	12	11	1.3	.06			
16		0	184	77	11	9.5	7.1	1.5	0			
17		0	103	64	12	8.6	7.6	1.5	0			
18		0	550	54	11	7.1	8.6	1.1	0			
19		0	444	47	11	6.6	6.6	1.1	0			
20		0	305	41	9.0	6.1	5.7	.95	0			
21		0	961	37	9.0	6.1	5.0	.50	0			
22		0	311	33	9.5	6.1	4.7	.50	0			
23		0	200	32	9.0	5.7	4.3	.56	0			
24		0	134	29	9.0	5.7	4.3	.50	0			
25		42	101	27	8.1	5.7	3.9	.50	0			
26		195	80	26	7.6	77	3.6	.50	0			
27		17	80	23	7.1	55	3.6	.50	0			
28		1,690	71	23	7.6	22	3.2	.56	0			
29		1,300	54	20	-----	14	3.2	.56	0			
30		420	44	20	-----	11	3.2	.56	0			
31		-----	37	19	-----	9.0	-----	.95	-----			-----
TOTAL	0	3,701.16	5,296.9	1,406	318.9	469.3	170.6	53.04	7.90	0	0	0
MEAN	0	123	171	45.4	11.4	15.1	5.69	1.71	.26	0	0	0
MAX	0	1,690	961	198	18	86	15	4.3	.95	0	0	0
MIN	0	0	5.7	12	7.1	5.7	3.2	.50	0	0	0	0
AC-FT	0	7,340	10,510	2,790	633	931	338	105	16	0	0	0

CAL YR 1970 TOTAL 21,549.66 MEAN 59.0 MAX 4,300 MIN 0 AC-FT 42,740  
WTR YR 1971 TOTAL 11,423.80 MEAN 31.3 MAX 1,690 MIN 0 AC-FT 22,660

PEAK DISCHARGE (BASE, 2,500 CFS).--Nov. 28 (1115) 4,000 cfs (7.61 ft); Dec. 21 (0045) 3,510 cfs (7.26 ft).

## 11143000 BIG SUR RIVER NEAR BIG SUR, CALIF.

LOCATION.--Lat 36°14'45", long 121°46'20", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.29, T.19 S., R.2 E., Monterey County, on right bank at downstream side of bridge, 0.4 mile upstream from Post Creek, and 2.6 miles southeast of town of Big Sur.

DRAINAGE AREA.--46.5 sq mi.

PERIOD OF RECORD.--March 1950 to current year. Prior to October 1959, published as Sur River at Big Sur.

GAGE.--Water-stage recorder. Altitude of gage is 400 ft (from topographic map). Prior to Oct. 1, 1951, nonrecording gage at site 0.9 mile downstream at different datum.

AVERAGE DISCHARGE.--21 years, 93.0 cfs (67,380 acre-ft per year); median of yearly mean discharges, 79 cfs (57,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,600 cfs Nov. 29 (gage height, 6.80 ft); minimum daily, 10 cfs Sept. 26.

Period of record: Maximum discharge, 5,680 cfs Apr. 2, 1958 (gage height, 11.56 ft); minimum, 3.7 cfs Oct. 7, 1961.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1445: 1952(P), 1953(M). WSP 1715: 1951, drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	377	139	74	46	65	43	32	18	13	12
2	13	16	590	131	72	45	62	45	34	18	12	12
3	13	16	361	122	69	44	60	44	33	18	12	12
4	13	45	259	113	67	44	57	43	33	18	12	12
5	13	65	195	108	66	43	55	43	31	17	12	12
6	13	51	161	100	65	42	54	42	30	17	12	12
7	13	62	137	97	63	41	57	42	29	17	12	12
8	13	36	135	91	63	41	54	41	29	18	12	12
9	13	27	125	88	61	41	52	40	29	17	12	12
10	13	24	111	84	59	40	51	39	29	17	12	11
11	13	22	102	91	58	40	50	39	29	16	12	12
12	13	21	94	120	56	152	49	38	28	16	12	12
13	14	20	89	185	55	159	48	37	26	17	12	11
14	14	19	84	180	54	91	72	36	26	16	12	11
15	15	19	79	163	54	77	54	35	25	16	12	12
16	14	19	125	151	54	70	49	34	24	16	12	14
17	14	18	129	142	56	66	68	34	23	16	12	14
18	14	18	167	133	53	62	60	33	23	15	12	13
19	14	18	185	125	58	58	56	33	23	15	12	12
20	15	19	225	118	52	56	54	33	22	15	12	11
21	18	19	560	111	50	55	52	33	22	15	12	11
22	18	19	433	105	50	53	50	33	21	14	12	11
23	20	19	333	102	49	51	49	33	21	14	12	11
24	18	19	271	97	47	50	48	32	20	14	12	11
25	16	35	228	93	46	50	48	31	20	14	12	11
26	16	68	212	89	45	133	47	31	20	14	12	10
27	15	39	202	86	47	111	47	33	20	14	12	11
28	15	888	183	82	47	88	46	36	20	13	12	11
29	15	1,060	171	79	-----	79	45	34	19	13	12	11
30	15	417	161	77	-----	73	44	33	19	13	12	12
31	15	-----	151	75	-----	69	-----	32	-----	13	12	-----
TOTAL	452	3,133	6,635	3,477	1,590	2,070	1,603	1,135	760	484	373	351
MEAN	14.6	104	214	112	56.8	66.8	53.4	36.6	25.3	15.6	12.0	11.7
MAX	20	1,060	590	185	74	159	72	45	34	18	13	14
MIN	13	15	79	75	45	40	44	31	19	13	12	10
AC-FT	897	6,210	13,160	6,900	3,150	4,110	3,180	2,250	1,510	960	740	696

CAL YR 1970 TOTAL 40,633 MEAN 111 MAX 2,330 MIN 12 AC-FT 80,600  
WTR YR 1971 TOTAL 22,063 MEAN 60.4 MAX 1,060 MIN 10 AC-FT 43,760

PEAK DISCHARGE (BASE, 700 CFS).--Nov. 29 (0430) 1,600 cfs (6.80 ft); Dec. 20 (2345) 710 cfs (5.34 ft).



## CARMEL RIVER BASIN

11143200 CARMEL RIVER AT ROBLES DEL RIO, CALIF.

LOCATION.--Lat 36°28'28", long 121°43'40", in Los Laureles Grant, Monterey County, on downstream side of county road bridge at Robles del Rio, 0.2 mile downstream from Hitchcock Canyon, and 11 miles southeast of town of Carmel.

DRAINAGE AREA.--193 sq mi.

PERIOD OF RECORD.--August 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 74.1 cfs (53,690 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,040 cfs Dec. 2 (gage height, 6.33 ft); no flow for several months.

Period of record: Maximum discharge, 7,100 cfs Apr. 2, 1958 (gage height, 10.50 ft); no flow at times in each year.

Flood of Dec. 23, 1955, reached a stage of 11.7 ft, from floodmarks (discharge, 6,930 cfs by slope-area measurement of peak flow).

REMARKS.--Records good. Flow regulated by Los Padres Reservoir 11 miles upstream (capacity, 3,000 acre-ft) and San Clemente Reservoir 4 miles upstream (capacity, 2,150 acre-ft). Small diversion above station.

REVISIONS.--WSP 1715: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	254	130	64	37	37	29	14	2.5	0	0
2	0	0	779	130	59	29	13	29	13	2.5	0	0
3	0	0	398	118	57	7.0	14	28	13	2.2	0	0
4	0	0	236	110	56	7.6	45	28	11	1.6	0	0
5	0	0	158	105	54	7.6	50	28	10	.54	0	0
6	0	0	113	99	51	7.3	38	28	10	.44	0	0
7	0	0	93	97	50	7.6	44	29	12	.48	0	0
8	0	0	83	91	49	7.3	37	28	11	.48	0	0
9	0	0	81	89	47	7.0	36	25	10	.44	0	0
10	0	0	69	85	46	6.6	31	23	9.1	.44	0	0
11	0	0	64	87	45	6.3	28	21	10	.48	0	0
12	0	0	59	118	41	7.6	28	20	13	.40	0	0
13	0	0	56	170	40	125	31	20	13	.40	0	0
14	0	0	53	164	39	72	41	18	9.1	.36	0	0
15	0	0	50	155	39	57	44	20	6.3	.32	0	0
16	0	0	69	148	39	50	38	25	5.0	.29	0	0
17	0	0	97	140	40	46	40	20	4.2	.23	0	0
18	0	0	115	143	37	44	45	17	3.5	.19	0	0
19	0	0	135	140	38	34	41	13	3.1	.08	0	0
20	0	0	130	133	37	27	40	17	2.9	.02	0	0
21	0	0	426	120	36	45	40	18	2.5	0	0	0
22	0	0	370	113	35	44	39	17	2.5	0	0	0
23	0	0	281	105	35	44	37	15	2.4	0	0	0
24	0	0	218	101	32	43	36	16	2.2	0	0	0
25	0	0	173	93	31	67	37	14	2.2	0	0	0
26	0	0	158	89	30	56	35	12	2.2	0	0	0
27	0	0	182	83	30	67	35	14	2.2	0	0	0
28	0	29	170	78	32	59	32	16	2.2	0	0	0
29	0	135	153	72	-----	56	32	18	2.4	0	0	0
30	0	200	145	67	-----	51	27	17	2.5	0	0	0
31	0	-----	135	65	-----	50	-----	15	-----	0	0	-----
TOTAL	0	364	5,503	3,438	1,189	1,174.9	1,071	638	206.5	14.39	0	0
MEAN	0	12.1	178	111	42.5	37.9	35.7	20.6	6.88	.46	0	0
MAX	0	200	779	170	64	125	50	29	14	2.5	0	0
MIN	0	0	50	65	30	6.3	13	12	2.2	0	0	0
AC-FT	0	722	10,920	6,820	2,360	2,330	2,120	1,270	410	29	0	0

CAL YR 1970 TOTAL 29,209.70 MEAN 80.0 MAX 1,810 MIN 0 AC-FT 57,940  
WTR YR 1971 TOTAL 13,598.79 MEAN 37.3 MAX 779 MIN 0 AC-FT 26,970

PEAK DISCHARGE (BASE, 1,000 CFS).--Dec. 2 (1000) 1,040 cfs (6.33 ft).

## 11143250 CARMEL RIVER NEAR CARMEL, CALIF.

LOCATION.--Lat 36°32'20", long 121°52'25", in Canada de la Segunda Grant, Monterey County, on right bank 0.3 mile downstream from Potrero Canyon and 3 miles east of Carmel.

DRAINAGE AREA.--246 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 45 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 96.8 cfs (70,130 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 670 cfs Dec. 2 (gage height, 6.62 ft); no flow for several months.  
Period of record: Maximum discharge, 8,620 cfs Jan. 26, 1969 (gage height, 17.30 ft in gage well, 17.4 ft, from floodmarks); no flow at times in each year.

REMARKS.--Records good. Flow regulated by Los Padres Reservoir (capacity, 3,000 acre-ft) and San Clemente Reservoir (capacity, 2,150 acre-ft). Small diversion above station.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	103	198	79	41	48	25	14	0	.04	.01
2	0	0	443	191	76	42	34	25	14	0	.02	0
3	0	0	351	173	74	31	27	25	13	0	.04	0
4	0	0	242	163	71	23	29	24	11	0	.04	0
5	0	0	190	157	69	19	49	25	8.2	0	.04	0
6	0	0	155	146	66	18	41	29	6.9	0	.06	0
7	0	0	134	142	63	17	41	30	4.5	0	.09	0
8	0	0	122	134	60	16	41	30	3.8	0	.09	0
9	0	0	118	129	60	13	41	29	3.5	0	.09	0
10	0	0	107	123	56	12	41	26	2.4	0	.12	0
11	0	0	99	120	55	10	37	23	1.9	0	.09	0
12	0	0	97	138	50	12	33	21	.93	0	.09	0
13	0	0	91	199	49	82	30	20	.55	.02	.09	0
14	0	0	89	196	47	87	34	20	.45	0	.12	0
15	0	0	83	190	48	71	41	18	.06	0	.12	0
16	0	0	91	176	47	64	41	18	.02	.01	.12	0
17	0	0	131	169	46	61	38	17	0	.01	.06	0
18	0	0	156	173	44	59	45	14	0	.01	.06	0
19	0	0	181	171	45	54	45	11	0	.02	.06	0
20	0	0	180	160	46	36	42	8.2	0	.01	.06	0
21	0	0	460	146	46	41	41	9.2	0	.01	.06	0
22	0	0	441	135	46	43	41	9.6	0	.02	.06	0
23	0	0	336	126	47	42	39	9.6	0	.01	.04	0
24	0	0	278	117	43	42	37	8.2	0	.01	.06	0
25	0	.01	234	110	40	56	36	6.9	0	.02	.06	0
26	0	.21	215	104	39	59	36	6.9	0	.02	.04	0
27	0	.21	228	98	38	67	33	5.6	0	.01	.04	0
28	0	.48	230	93	41	63	31	7.8	0	.01	.04	0
29	0	.86	222	89	-----	58	30	9.6	0	.01	.02	0
30	0	29	212	85	-----	57	29	13	0	.01	.04	0
31	0	-----	208	82	-----	52	-----	13	-----	.04	.02	-----
TOTAL	0	30.77	6,227	4,433	1,491	1,348	1,131	537.6	85.21	.25	1.98	.01
MEAN	0	1.03	201	143	53.3	43.5	37.7	17.3	2.84	.008	.064	.0003
MAX	0	29	460	199	79	87	49	30	14	.04	.12	.01
MIN	0	0	83	82	38	10	27	5.6	0	0	.02	0
AC-FT	0	61	12,350	8,790	2,960	2,670	2,240	1,070	169	.5	3.9	.02

CAL YR 1970 TOTAL 31,533.18 MEAN 86.4 MAX 1,990 MIN 0 AC-FT 62,550  
WTR YR 1971 TOTAL 15,285.82 MEAN 41.9 MAX 460 MIN 0 AC-FT 30,320

PEAK DISCHARGE (BASE, 1,200 CFS).--No peak above base.

## ARROYO DEL REY BASIN

11143300 ARROYO DEL REY AT DEL REY OAKS, CALIF.

LOCATION.--Lat 36°35'47", long 121°50'50", in Noche Buena Grant, Monterey County, on right bank at culvert on Rosita Avenue, at Del Rey Oaks and 1,000 ft upstream from State Highway 1.

DRAINAGE AREA.--14.3 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 15 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 0.68 cfs (493 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14 cfs Dec. 2 (gage height, 2.58 ft); minimum daily, 0.04 cfs on many days.

Period of record: Maximum discharge, 60 cfs Feb. 24, 1969 (gage height, 4.14 ft), from rating curve extended above 26 cfs; no flow at times.

REMARKS.--Records fair. No regulation or diversion above station.

REVISIONS.--Revised figures of discharge, in cubic feet per second, for the water year 1967, superseding figures published in WRD Calif. 1967, are given herewith:

March 31, 1967..... 0.31

Month	Cfs-days	Mean	Maximum	Minimum	Acre-feet
March 1967	11.86	.38	.31	0	24
WTR YR 1967	192.59	.53	20	0	382

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.04	.07	.38	.23	.20	.13	.09	.16	.04	.08	.08
2	.04	.04	.78	.49	.21	.20	.13	.09	.13	.04	.08	.08
3	.04	.06	.06	.36	.19	.20	.13	.14	.13	.04	.08	.06
4	.04	.07	.06	.34	.18	.26	.13	.18	.13	.04	.09	.05
5	.04	.05	.05	.34	.16	.18	.13	.14	.08	.04	.09	.05
6	.04	.06	.05	.34	.14	.16	.14	.14	.08	.04	.09	.05
7	.04	.11	.05	.34	.12	.18	.14	.13	.08	.04	.08	.05
8	.04	.08	.05	.34	.11	.18	.13	.13	.08	.04	.09	.04
9	.04	.08	.04	.34	.13	.18	.13	.08	.08	.04	.09	.04
10	.04	.08	.04	.32	.16	.20	.13	.08	.08	.04	.09	.06
11	.04	.08	.04	.34	.18	.23	.13	.13	.08	.05	.09	.06
12	.04	.08	.04	.61	.18	.66	.13	.13	.04	.05	.08	.07
13	.04	.08	.06	4.3	.23	.61	.23	.13	.04	.05	.09	.07
14	.04	.08	.05	2.7	.23	.26	.29	.13	.04	.05	.08	.07
15	.04	.08	.05	1.8	.23	.23	.16	.08	.04	.06	.07	.06
16	.04	.08	.07	1.2	.29	.20	.13	.52	.08	.06	.06	.06
17	.04	.08	.10	.70	.29	.20	.44	.32	.08	.05	.06	.44
18	.04	.08	.49	.57	.23	.20	.18	.23	.61	.05	.05	.04
19	.04	.08	.08	.61	.29	.20	.16	.20	.16	.06	.06	.04
20	.06	.08	.22	.52	.23	.20	.16	.20	.08	.05	.06	.04
21	.04	.08	2.1	.52	.23	.23	.14	.20	.04	.06	.06	.06
22	.06	.08	.78	.44	.23	.26	.14	.20	.04	.06	.07	.04
23	.04	.08	.40	.40	.23	.26	.14	.16	.04	.07	.07	.04
24	.04	.08	.34	.36	.26	.23	.13	.16	.04	.07	.09	.04
25	.04	.12	.32	.36	.23	.23	.13	.16	.04	.07	.13	.04
26	.04	.08	.78	.36	.23	.44	.13	.13	.04	.06	.09	.04
27	.04	.06	.67	.36	.26	.16	.11	.20	.04	.07	.08	.04
28	.04	.52	.52	.33	.23	.14	.09	.80	.04	.08	.07	.04
29	.04	.86	.38	.30	-----	.14	.09	.40	.04	.08	.07	.08
30	.04	.08	.34	.28	-----	.13	.09	.29	.04	.07	.08	.11
31	.04	-----	.34	.26	-----	.11	-----	.23	-----	.08	.08	-----
TOTAL	1.28	3.51	9.42	20.91	5.91	7.26	4.52	6.20	2.68	1.70	2.45	2.04
MEAN	.041	.12	.30	.67	.21	.23	.15	.20	.089	.055	.079	.068
MAX	.06	.86	2.1	4.3	.29	.66	.44	.80	.61	.08	.13	.44
MIN	.04	.04	.04	.26	.11	.11	.09	.08	.04	.04	.05	.04
AC-FT	2.5	7.0	19	41	12	14	9.0	12	5.3	3.4	4.9	4.1

CAL YR 1970	TOTAL	111.66	MEAN	.31	MAX	13	MIN	.03	AC-FT	221
WTR YR 1971	TOTAL	67.88	MEAN	.19	MAX	4.3	MIN	.04	AC-FT	135

## PEAK DISCHARGE (BASE, 5.0 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	0530	2.25	7.8	12-21	0115	2.12	5.9
12-2	0500	2.58	14	1-13	0800	2.47	11

## SALINAS RIVER BASIN

335

11143500 SALINAS RIVER NEAR POZO, CALIF.

LOCATION.--Lat 35°17'55", long 120°24'10", in NE¼ sec.19, T.30 S., R.15 E., San Luis Obispo County, on right bank at downstream side of county road bridge, 1.0 mile downstream from Pozo Creek, 1.6 miles west of Pozo, and 7.4 miles upstream from Salinas Dam.

DRAINAGE AREA.--70.3 sq mi.

PERIOD OF RECORD.--July 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,347.78 ft above mean sea level. Prior to May 13, 1969, water-stage recorder at site 0.4 mile downstream at same datum. May 13 to July 28, 1969, nonrecording gage at bridge at datum 4.56 ft higher.

AVERAGE DISCHARGE.--29 years, 17.6 cfs (12,750 acre-ft per year); median of yearly mean discharges, 6.7 cfs (4,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 350 cfs Jan. 13 (gage height, 11.82 ft); minimum daily, 0.02 cfs Aug. 18, 31.

Period of record: Maximum discharge, 18,600 cfs Jan. 25, 1969 (gage height, 13.90 ft in gage well, 15.5 ft, site then in use, from floodmarks), from rating curve extended above 7,100 cfs on basis of slope-area measurement of maximum flow; no flow at times.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station. Water is stored in Santa Margarita Lake below station.

REVISIONS (WATER YEARS).--WSP 1565: 1943(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.98	2.8	13	7.3	3.2	3.3	3.0	1.9	1.2	.13	.10
2	.16	.98	34	13	6.6	3.2	3.3	3.2	1.9	1.2	.10	.10
3	.16	1.1	5.3	10	6.2	3.2	3.3	3.2	1.9	1.2	.13	.13
4	.28	1.4	2.4	9.0	5.6	3.2	3.3	3.2	1.9	.98	.10	.08
5	.35	2.0	2.2	8.1	5.6	3.2	3.3	3.2	1.9	.98	.10	.10
6	.58	1.4	1.9	7.3	5.6	3.2	3.3	3.0	1.9	.80	.10	.10
7	.65	1.3	1.7	6.6	5.3	3.2	3.2	2.8	1.9	.80	.08	.10
8	.72	1.2	1.6	5.9	5.0	3.4	3.2	2.6	1.9	.72	.08	.08
9	.65	1.1	1.3	5.6	5.0	3.4	3.2	2.4	1.7	.65	.06	.08
10	.58	1.2	1.4	5.3	5.0	3.4	3.2	2.4	1.7	.58	.06	.10
11	.52	1.2	1.3	5.3	4.7	3.4	3.1	2.6	1.9	.52	.08	.11
12	.65	1.2	1.3	81	4.7	5.0	3.1	2.6	1.9	.46	.04	.12
13	.89	1.2	1.3	241	4.4	15	3.3	2.4	1.9	.41	.08	.13
14	.89	1.3	1.3	142	4.2	11	3.4	2.4	1.9	.36	.08	.14
15	.80	1.3	1.1	77	4.2	7.4	3.2	2.2	1.7	.36	.08	.15
16	.72	1.3	2.2	48	4.4	5.0	3.2	2.0	1.7	.36	.08	.17
17	.72	1.3	2.4	35	4.2	4.0	3.2	2.0	1.7	.36	.08	.19
18	.80	1.3	12	28	3.9	3.8	3.2	2.0	1.9	.36	.02	.21
19	.80	1.3	23	23	3.9	3.6	3.0	1.9	1.9	.31	.04	.23
20	.89	1.3	32	20	3.6	3.6	3.2	1.9	1.9	.27	.10	.25
21	.98	1.3	235	17	3.6	3.6	3.0	1.7	1.7	.23	.10	.27
22	1.1	1.3	105	15	3.6	3.5	3.2	1.7	1.7	.23	.13	.30
23	.89	1.3	52	14	3.6	3.5	3.0	1.7	1.7	.19	.10	.33
24	.80	1.3	35	12	3.4	3.4	3.2	1.6	1.6	.16	.13	.36
25	.72	2.0	25	11	3.4	3.4	3.0	1.7	1.6	.19	.08	.39
26	.72	2.2	24	9.8	3.2	3.4	3.2	1.7	1.6	.19	.06	.43
27	.80	1.6	32	9.4	3.2	3.4	3.0	1.9	1.6	.19	.06	.47
28	.98	1.7	29	9.0	3.2	3.4	3.2	2.2	1.4	.16	.06	.51
29	.98	3.6	22	8.6	-----	3.4	3.0	2.0	1.4	.16	.04	.56
30	1.1	2.8	18	7.7	-----	3.4	3.2	1.9	1.3	.16	.06	.60
31	1.1	-----	15	7.3	-----	3.4	-----	1.9	-----	.13	.02	-----
TOTAL	22.19	44.46	724.5	904.9	126.6	132.2	95.5	71.0	52.6	14.87	2.46	6.89
MEAN	.72	1.48	23.4	29.2	4.52	4.26	3.18	2.29	1.75	.48	.079	.23
MAX	1.1	3.6	235	241	7.3	15	3.4	3.2	1.9	1.2	.13	.60
MIN	.16	.98	1.1	5.3	3.2	3.2	3.0	1.6	1.3	.13	.02	.08
AC-FT	44	88	1,440	1,790	251	262	189	141	104	29	4.9	14

CAL YR 1970 TOTAL 3,080.30 MEAN 8.44 MAX 360 MIN 0 AC-FT 6,110  
WTR YR 1971 TOTAL 2,198.17 MEAN 6.02 MAX 241 MIN .02 AC-FT 4,360

PEAK DISCHARGE (BASE, 300 CFS).--Dec. 21 (0515) 308 cfs (11.86 ft); Jan. 13 (1030) 350 cfs (11.82 ft).

NOTE.--No gage-height record Mar. 11 to Apr. 14.

## 11144200 SALSIPUEDES CREEK NEAR POZO, CALIF.

LOCATION.--Lat 35°17'34", long 120°27'07", in NW¼SW¼ sec.23, T.30 S., R.14 E., San Luis Obispo County, on left bank 1.9 miles upstream from mouth and 4.4 miles west of Pozo.

DRAINAGE AREA.--5.91 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 1,480 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 111 cfs Dec. 21 (gage height, 2.64 ft), from rating curve extended above 37 cfs; no flow for long periods.

Period of record: Maximum discharge, 118 cfs Mar. 4, 1970 (gage height, 2.73 ft), from rating curve extended above 37 cfs; no flow for long periods in each year.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.50	1.6	.68	.08	.19	.06	.02	.01		
2		0	4.6	1.4	.59	.08	.19	.06	.01	.01		
3		0	1.5	.98	.50	.13	.19	.06	.01	.01		
4		0	.45	.77	.43	.13	.19	.06	.01	.01		
5		0	.37	.77	.43	.13	.16	.06	.01	.01		
6		0	.31	.68	.43	.13	.19	.06	.01	.01		
7		0	.26	.50	.37	.13	.19	.08	.01	.01		
8		0	.21	.37	.37	.13	.17	.10	.01	.01		
9		0	.18	.50	.37	.13	.17	.10	.01	0		
10		0	.18	.43	.27	.13	.15	.10	.01	0		
11		0	.19	.59	.23	.12	.15	.08	.01	0		
12		0	.18	28	.22	.78	.15	.07	.01	0		
13		0	.17	39	.19	1.5	.16	.05	.01	0		
14		0	.16	15	.19	.45	.22	.04	.01	0		
15		0	.22	7.7	.16	.33	.12	.04	.01	0		
16		0	.31	4.9	.19	.27	.10	.03	.01	0		
17		0	.45	3.8	.19	.24	.10	.03	.01	0		
18		0	1.5	3.0	.16	.18	.10	.03	.01	0		
19		0	4.5	2.4	.13	.16	.10	.02	.01	0		
20		0	16	1.9	.13	.16	.10	.02	.01	0		
21		0	36	1.6	.13	.19	.08	.02	.01	0		
22		0	8.0	1.4	.13	.19	.08	.02	.01	0		
23		0	2.9	1.2	.13	.19	.06	.02	.01	0		
24		0	1.7	1.1	.13	.19	.06	.02	.01	0		
25		0	1.1	.98	.13	.19	.08	.02	.01	0		
26		.30	6.0	.86	.13	.19	.08	.02	.01	0		
27		.27	11	.86	.13	.20	.06	.02	.01	0		
28		.23	4.9	.86	.13	.18	.06	.02	.01	0		
29		.46	2.7	.86	-----	.18	.06	.02	.01	0		
30		.40	2.1	.77	-----	.19	.06	.02	.01	0		
31		-----	1.9	.68	-----	.19	-----	.02	-----	0		-----
TOTAL	0	1.66	110.54	125.46	7.27	7.47	3.77	1.37	.31	.08	0	0
MEAN	0	.055	3.57	4.05	.26	.24	.13	.044	.010	.003	0	0
MAX	0	.46	36	39	.68	1.5	.22	.10	.02	.01	0	0
MIN	0	0	.16	.37	.13	.08	.06	.02	.01	0	0	0
AC-FT	0	3.3	219	249	14	15	7.5	2.7	.6	.2	0	0

CAL YR 1970 TOTAL 320.16 MEAN .88 MAX 49 MIN 0 AC-FT 635  
WTR YR 1971 TOTAL 257.93 MEAN .71 MAX 39 MIN 0 AC-FT 512

PEAK DISCHARGE (BASE, 25 CFS)  
DATE TIME G.H. DISCHARGE DATE TIME G.H.  
12-21 unknown 2.64 111 1-13 0430 2.24  
12-26 1845 1.43 26

NOTE.--No gage-height record Nov. 26 to Dec. 22.

## 11144500 SANTA MARGARITA LAKE NEAR POZO, CALIF.

LOCATION.--Lat 35°20'14", long 120°30'08", in NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.8, T.30 S., R.14 E., San Luis Obispo County, at left end of dam on Salinas River, 2 miles upstream from Pilitas Creek, and 7.5 miles northwest of Pozo.

DRAINAGE AREA.--112 sq mi.

PERIOD OF RECORD.--December 1941 to current year. Prior to October 1967, published as Salinas Reservoir near Pozo.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Mar. 9, 1942, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 24,200 acre-ft Feb. 16, 17; maximum elevation, 1,298.51 ft Feb. 17; minimum contents, 18,400 acre-ft Nov. 23, 24.

Period of record: Maximum contents, 37,000 acre-ft Jan. 25, 1969 (elevation, 1,313.30 ft); minimum, 1,730 acre-ft Nov. 6-10, 1943.

REMARKS.--Reservoir is formed by concrete-arch dam, outlet closed Dec. 6, 1941. Usable capacity, 26,000 acre-ft between elevations 1,220.3 (bottom of outlet pipe) and 1,301.0 ft (spillway crest) above mean sea level. Water diverted at dam into pipeline to small reservoir 10 miles below, from which it is pumped to Camp San Luis Obispo and city of San Luis Obispo for water supply; water is also released down natural channel of river. Figures given herein represent usable contents.

REVISIONS.--WSP 1715: Drainage area.

## CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

1,220.3	0	1,245	2,100	1,270	8,650	1,295	21,700
1,225	210	1,250	3,000	1,275	10,600	1,300	25,200
1,230	510	1,255	4,100	1,280	12,800	1,310	33,700
1,235	880	1,260	5,400	1,285	15,300	1,320	44,400
1,240	1,400	1,265	6,900	1,290	18,300	1,325	50,400

## CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19,400	18,600	18,700	21,600	24,100	24,100	24,000	23,700	23,100	22,300	21,000	19,800
2	19,400	18,600	18,900	21,700	24,100	24,100	23,900	23,600	23,100	22,200	21,000	19,800
3	19,300	18,600	18,900	21,700	24,100	24,100	23,900	23,600	23,100	22,200	20,900	19,700
4	19,300	18,600	19,000	21,700	24,100	24,100	23,900	23,600	23,100	22,200	20,900	19,700
5	19,300	18,600	19,000	21,700	24,100	24,100	23,900	23,600	23,000	22,100	20,800	19,700
6	19,200	18,600	19,000	21,700	24,100	24,100	23,900	23,600	23,000	22,100	20,800	19,600
7	19,200	18,600	19,000	21,800	24,100	24,100	23,900	23,600	23,000	22,100	20,800	19,600
8	19,200	18,600	19,000	21,800	24,100	24,100	23,800	23,600	23,000	22,000	20,700	19,600
9	19,100	18,600	19,000	21,800	24,100	24,000	23,800	23,600	23,000	22,000	20,700	19,500
10	19,100	18,600	19,000	21,800	24,100	24,000	23,800	23,600	22,900	21,900	20,600	19,500
11	19,100	18,600	19,000	21,800	24,100	24,000	23,800	23,500	22,900	21,900	20,600	19,500
12	19,000	18,600	19,000	22,100	24,100	24,100	23,800	23,500	22,900	21,800	20,600	19,400
13	19,000	18,600	19,000	22,900	24,100	24,100	23,800	23,500	22,900	21,800	20,500	19,400
14	19,000	18,600	19,000	23,300	24,100	24,100	23,800	23,500	22,800	21,800	20,500	19,300
15	19,000	18,500	19,000	23,500	24,100	24,100	23,800	23,500	22,800	21,700	20,400	19,300
16	18,900	18,500	19,000	23,600	24,200	24,100	23,800	23,400	22,800	21,700	20,400	19,200
17	18,900	18,500	19,000	23,700	24,200	24,100	23,800	23,400	22,700	21,600	20,400	19,200
18	18,900	18,500	19,200	23,800	24,100	24,100	23,800	23,400	22,700	21,600	20,300	19,200
19	18,900	18,500	19,300	23,900	24,100	24,100	23,800	23,400	22,700	21,600	20,300	19,200
20	18,800	18,500	19,500	23,900	24,100	24,000	23,800	23,300	22,700	21,500	20,200	19,100
21	18,800	18,500	20,500	23,900	24,100	24,000	23,800	23,300	22,600	21,500	20,200	19,100
22	18,800	18,500	20,800	24,000	24,100	24,000	23,800	23,300	22,600	21,400	20,200	19,000
23	18,800	18,400	21,000	24,000	24,100	24,000	23,700	23,300	22,600	21,400	20,100	19,000
24	18,800	18,400	21,000	24,000	24,100	24,000	23,700	23,200	22,500	21,400	20,100	19,000
25	18,800	18,500	21,100	24,000	24,100	24,000	23,700	23,200	22,500	21,300	20,100	18,900
26	18,700	18,500	21,200	24,000	24,100	24,000	23,700	23,200	22,500	21,300	20,000	18,900
27	18,700	18,500	21,400	24,100	24,100	24,000	23,700	23,200	22,400	21,200	20,000	18,900
28	18,700	18,500	21,500	24,100	24,100	24,000	23,700	23,200	22,400	21,200	20,000	18,800
29	18,700	18,600	21,500	24,100	-----	24,000	23,700	23,200	22,300	21,100	19,900	18,800
30	18,600	18,700	21,600	24,100	-----	24,000	23,700	23,200	22,300	21,100	19,900	18,800
31	18,600	-----	21,600	24,100	-----	24,000	-----	23,100	-----	21,100	19,900	-----
MAX	19,400	18,700	21,600	24,100	24,200	24,100	24,000	23,700	23,100	22,300	21,000	19,800
MIN	18,600	18,400	18,700	21,600	24,100	24,000	23,700	23,100	22,300	21,100	19,900	18,800
(a)	1,290.53	1,290.62	1,294.87	1,298.43	1,298.42	1,298.23	1,297.80	1,297.06	1,295.87	1,294.08	1,292.36	1,290.84
(b)	-900	+100	+2,900	+2,500	0	-100	-300	-600	-800	-1,200	-1,200	-1,100
(c)	450	319	266	296	325	386	407	429	519	582	592	524

CAL YR 1970 b +200 c 4,930  
WTR YR 1971 b -700 c 5,100

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c Diversion, in acre-feet, for municipal supply; furnished by county of San Luis Obispo.

## SALINAS RIVER BASIN

## 11145000 SALINAS RIVER ABOVE PILITAS CREEK, NEAR SANTA MARGARITA, CALIF.

LOCATION.--Lat 35°20'56", long 120°30'42", in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.6, T.30 S., R.14 E., San Luis Obispo County, on downstream side of right bank bridge pier, 200 ft upstream from Pilitas Creek, 2 miles downstream from Salinas Dam, and 6 miles southeast of Santa Margarita.

DRAINAGE AREA.--114 sq mi.

PERIOD OF RECORD.--July 1942 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,148.66 ft above mean sea level.

AVERAGE DISCHARGE.--29 years, 18.6 cfs (13,480 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 50 cfs Dec. 21 (gage height, 1.42 ft); no flow for many days.  
Period of record: Maximum discharge, 16,600 cfs Jan. 25, 1969 (gage height, 14.90 ft); no flow at times.

REMARKS.--Records good except those for periods of backwater from beaver dams, which are poor. Flow regulated by Santa Margarita Lake 2 miles upstream beginning in 1941 and water diverted to Camp San Luis Obispo and city of San Luis Obispo (see sta 11144500).

REVISIONS.--WSP 1715: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	1.3	.70	.31	1.3	.04	.04	.01	0	0	1.3	.27
2	.78	.80	1.2	.30	.66	.03	.06	.02	0	0	1.3	.27
3	.80	.62	.41	.27	.63	.03	.12	.02	.01	0	1.3	.23
4	.84	.62	.41	.21	.71	.04	.11	.02	0	0	.85	.23
5	.86	.90	.48	.17	.56	.04	.05	.02	0	.63	.52	.26
6	.82	1.0	.48	.17	.59	.04	.04	.02	0	1.4	.35	.26
7	.75	1.0	.48	.13	.59	.04	.04	.02	.01	1.5	.17	.26
8	.92	.60	.49	.07	.70	.04	.03	.02	.01	1.7	.12	.26
9	1.3	.35	.50	.07	.29	.04	.03	.02	0	1.3	.04	.26
10	1.3	.21	.50	.07	.07	.04	.03	.02	.01	1.3	.04	.24
11	1.3	.13	.51	.09	.07	.03	.03	.03	.01	1.3	.04	.24
12	1.3	.09	.52	.42	.06	.08	.02	.05	.01	1.3	.02	.24
13	1.3	.09	.52	1.1	.07	.12	.03	.03	.01	1.3	.02	.24
14	1.3	.09	.55	.71	.07	.07	.06	.03	.01	1.3	.04	.24
15	1.3	.09	.55	.50	.07	.07	.02	.02	0	1.3	.04	.24
16	1.3	.09	.70	.41	.10	.07	.02	.03	0	1.3	.04	.24
17	1.3	.09	.80	.36	.08	.06	.04	.01	0	1.3	.04	.24
18	1.3	.09	1.2	.30	.08	.06	.05	.02	0	1.3	.04	.24
19	1.3	.09	1.8	.29	.06	.03	.04	.03	0	1.3	.07	.24
20	1.3	.09	2.1	.26	.07	.02	.03	.03	0	1.3	.12	.24
21	1.3	.09	4.8	.23	.11	.02	.04	.04	0	1.3	.17	.24
22	1.3	.09	1.6	.22	.07	.03	.03	.07	0	1.3	.17	.24
23	1.3	.09	.73	.18	.07	.02	.05	.06	0	1.3	.17	.24
24	1.3	.09	.62	.17	.08	.02	.10	.05	0	1.3	.23	.24
25	1.3	.09	.59	.17	.04	.03	.14	.01	0	1.3	.23	.24
26	1.3	.09	.64	.17	.02	.05	.01	.02	0	1.3	.23	.24
27	1.3	.12	.86	.22	.03	.07	0	.07	0	1.3	.17	.24
28	1.3	.23	.60	.34	.03	.06	.01	.02	0	1.3	.17	.24
29	1.3	.80	.44	.65	-----	.06	.01	.01	0	1.3	.17	.24
30	1.3	.70	.38	.88	-----	.06	0	.02	0	1.3	.12	.24
31	1.3	-----	.34	1.2	-----	.05	-----	0	-----	1.3	.26	-----
TOTAL	36.37	10.73	26.50	10.64	7.28	1.46	1.28	.84	.08	35.13	8.55	7.34
MEAN	1.17	.36	.85	.34	.26	.047	.043	.027	.003	1.13	.28	.24
MAX	1.3	1.3	4.8	1.2	1.3	.12	.14	.07	.01	1.7	1.3	.27
MIN	.70	.09	.34	.07	.02	.02	0	0	0	0	.02	.23
AC-FT	72	21	53	21	14	2.9	2.5	1.7	.2	70	17	15

CAL YR 1970 TOTAL 199.02 MEAN .55 MAX 4.8 MIN 0 AC-FT 395  
WTR YR 1971 TOTAL 146.20 MEAN .40 MAX 4.8 MIN 0 AC-FT 290

NOTE.--Backwater from beaver dams Oct. 1 to Nov. 30, July 4 to Sept. 30.

## SALINAS RIVER BASIN

339

11147000 JACK CREEK NEAR TEMPLETON, CALIF.

LOCATION.--Lat 35°34'00", long 120°48'10", in Paso de Robles Grant, San Luis Obispo County, on left bank 1.4 miles upstream from mouth, 1.8 miles northwest of Oakdale School, and 5.6 miles west of Templeton.

DRAINAGE AREA.--25.3 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 980 ft (from topographic map).

AVERAGE DISCHARGE.--22 years, 14.3 cfs (10,360 acre-ft per year); median of yearly mean discharges, 7.9 cfs (5,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,210 cfs Dec. 21 (gage height, 6.10 ft); no flow for several months.

Period of record: Maximum discharge, 8,160 cfs Feb. 24, 1969 (gage height, 11.28 ft), from rating curve extended above 1,500 cfs on basis of slope-area measurement at gage height 9.56 ft; no flow for several months in each year.

REMARKS.--Records good. No regulation; small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1395: 1950(M), 1952, 1953(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	118	13	6.0	3.0	3.0	1.9	1.1	.14		
2		0	283	13	6.0	2.8	2.8	2.2	.98	.17		
3		0	51	11	5.4	2.8	2.8	1.9	.98	.22		
4		0	21	9.8	5.4	2.8	2.8	1.9	.98	.22		
5		0	16	9.0	5.0	2.8	2.6	1.9	.98	.22		
6		0	13	8.2	5.0	2.6	2.6	1.9	.98	.12		
7		0	11	7.8	4.7	2.6	2.6	1.7	.98	.14		
8		0	10	7.4	4.7	2.6	2.6	1.7	.86	.10		
9		0	12	6.7	4.4	2.6	2.4	1.7	.86	.09		
10		0	10	6.3	4.4	2.6	2.4	1.5	.86	.07		
11		0	10	9.3	4.0	2.6	2.4	1.5	.86	.06		
12		0	10	73	4.0	3.5	2.4	1.5	.77	.06		
13		0	9.8	91	4.0	8.2	2.4	1.5	.77	.05		
14		0	9.5	52	3.7	5.0	3.7	1.5	.68	.04		
15		0	9.3	31	3.7	3.7	3.0	1.4	.59	.03		
16		0	13	24	4.0	3.5	2.6	1.4	.50	.04		
17		0	16	21	4.4	3.3	2.8	1.4	.42	.02		
18		0	130	18	3.7	3.0	2.8	1.2	.36	.02		
19		0	151	16	3.7	2.8	2.6	1.2	.30	.02		
20		0	77	14	3.5	2.8	2.4	1.1	.30	.01		
21		0	384	13	3.5	2.6	2.4	1.2	.26	.01		
22		0	79	12	3.5	2.6	2.4	1.1	.22	.01		
23		0	36	11	3.5	2.6	2.2	1.1	.22	.01		
24		0	25	9.8	3.3	2.6	2.2	1.1	.22	.01		
25		0	20	9.0	3.3	2.6	2.2	1.1	.17	.01		
26		.01	18	8.6	3.0	6.0	2.2	.98	.17	.01		
27		.08	31	8.2	3.0	9.0	2.2	1.1	.17	.01		
28		29	27	7.4	3.0	5.4	2.2	1.2	.14	.01		
29		141	20	7.0	-----	4.4	2.2	1.2	.14	.01		
30		55	17	6.7	-----	3.7	2.2	1.1	.12	0		
31		-----	15	6.3	-----	3.3	-----	1.1	-----	0		
TOTAL	0	225.09	1,652.6	540.5	115.8	110.4	76.1	44.28	16.94	1.93	0	0
MEAN	0	7.50	53.3	17.4	4.14	3.56	2.54	1.43	.56	.062	0	0
MAX	0	141	384	91	6.0	9.0	3.7	2.2	1.1	.22	0	0
MIN	0	0	9.3	6.3	3.0	2.6	2.2	.98	.12	0	0	0
AC-FT	0	446	3,280	1,070	230	219	151	88	34	3.8	0	0

CAL YR 1970 TOTAL 4,541.19 MEAN 12.4 MAX 742 MIN 0 AC-FT 9,010

WTR YR 1971 TOTAL 2,783.64 MEAN 7.63 MAX 384 MIN 0 AC-FT 5,520

PEAK DISCHARGE (BASE, 600 CFS).--Dec. 21 (0045) 1,210 cfs (6.10 ft).



## SALINAS RIVER BASIN

11147040 SANTA RITA CREEK TRIBUTARY NEAR TEMPLETON, CALIF.

LOCATION.--Lat 35°32'03", long 120°50'47", in Asuncion Grant, San Luis Obispo County, near left bank on downstream pier of highway bridge, 0.2 mile downstream from small left-bank tributary, and 8.6 miles west of Templeton.

DRAINAGE AREA.--2.95 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,178.36 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 660 cfs Dec. 21 (gage height, 7.55 ft), from rating curve extended as explained below; no flow for long periods.

Period of record: Maximum discharge, 1,290 cfs Jan. 19, 1969 (gage height, 10.60 ft), from rating curve extended above 320 cfs on basis of slope-area measurement of maximum flow; no flow for long periods in each year.

REMARKS.--Records fair. No regulation; small diversions above station for irrigation. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	39	3.6	.83	.28	.42	.24	.01			
2		0	126	3.6	.76	.26	.42	.25	.01			
3		.19	11	2.6	.71	.26	.38	.25	.01			
4		4.6	6.0	2.5	.61	.28	.34	.26	.01			
5		5.4	3.3	2.4	.61	.26	.28	.32	.01			
6		0	2.2	2.2	.56	.23	.28	.28	.01			
7		0	1.5	2.0	.56	.23	.26	.26	.01			
8		0	2.1	2.0	.51	.26	.26	.26	.01			
9		0	2.1	1.8	.51	.23	.23	.23	.01			
10		0	.91	1.6	.56	.23	.20	.20	0			
11		0	.52	15	.81	.26	.20	.16	0			
12		0	.37	36	.56	1.1	.18	.16	0			
13		0	.25	24	.56	1.8	.20	.16	0			
14		0	.23	13	.51	.56	.90	.13	0			
15		0	.23	8.5	.46	.42	.38	.10	0			
16		0	6.2	6.9	.61	.38	.28	.08	0			
17		0	5.8	5.9	.66	.38	.46	.06	0			
18		0	95	5.3	.46	.28	.46	.06	0			
19		0	51	4.1	.42	.26	.28	.06	0			
20		0	50	3.2	.42	.26	.32	.05	0			
21		0	139	2.6	.38	.23	.26	.05	0			
22		0	21	2.4	.38	.20	.23	.05	0			
23		0	12	2.0	.38	.20	.26	.03	0			
24		0	8.5	1.9	.34	.20	.23	.04	0			
25		33	6.5	1.5	.32	.20	.23	0	0			
26		26	7.7	1.3	.28	4.9	.23	0	0			
27		.08	11	1.1	.28	1.9	.23	.08	0			
28		77	6.9	1.0	.28	.97	.23	.23	0			
29		123	5.9	.90	-----	.76	.23	.08	0			
30		14	5.3	.90	-----	.61	.24	.05	0			
31		-----	5.0	.83	-----	.46	-----	0	-----			-----
TOTAL	0	283.27	632.51	162.63	14.33	18.85	9.10	4.18	.09	0	0	0
MEAN	0	9.44	20.4	5.25	.51	.61	.30	.13	.003	0	0	0
MAX	0	123	139	36	.83	4.9	.90	.32	.01	0	0	0
MIN	0	0	.23	.83	.28	.20	.18	0	0	0	0	0
AC-FT	0	562	1,250	323	28	37	18	8.3	.2	0	0	0

CAL YR 1970 TOTAL 2,008.11 MEAN 5.50 MAX 363 MIN 0 AC-FT 3,980  
WTR YR 1971 TOTAL 1,124.96 MEAN 3.08 MAX 139 MIN 0 AC-FT 2,230

## PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-25	2315	5.90	363	12-18	2045	5.49	293
11-29	0600	6.75	511	12-21	0015	7.55	680
12- 2	0445	5.57	307	1-11	2000	4.92	144

## 11147070 SANTA RITA CREEK NEAR TEMPLETON, CALIF.

LOCATION.--Lat 35°31'26", long 120°45'54", in Asuncion Grant, San Luis Obispo County, on left bank 1.6 miles upstream from mouth and 4 miles west of Templeton.

DRAINAGE AREA.--18.2 sq mi.

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

GAGE.--Water-stage recorder with rain-gage attachment. Altitude of gage is 860 ft (from topographic map). Auxiliary rain gage 5.3 miles west of gage. Altitude of gage is 1,270 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 14.7 cfs (10,650 acre-ft per year); median of yearly mean discharges, 11 cfs (8,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 704 cfs Dec. 21 (gage height, 6.66 ft); no flow for several months. Period of record: Maximum discharge, 6,060 cfs Jan. 19, 1969 (gage height, 11.12 ft in gage well, 11.75 ft, from floodmarks), from rating curve extended above 1,300 cfs on basis of slope-area measurement of maximum flow; no flow for several months in each year.

REMARKS.--Records good. Some regulation and pumping above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	68	15	6.0	2.2	2.5	1.4	.31			
2		0	188	14	5.5	2.2	2.6	1.5	.26			
3		0	48	12	5.5	2.1	2.7	1.6	.24			
4		0	30	10	5.0	2.4	2.7	1.4	.21			
5		0	24	8.8	4.6	2.2	4.6	1.4	.20			
6		0	21	8.2	4.6	1.9	3.8	1.4	.18			
7		0	18	6.5	4.2	2.1	2.4	1.3	.18			
8		0	18	6.0	4.2	2.1	1.8	1.1	.17			
9		0	20	4.3	4.2	2.1	1.4	.98	.17			
10		0	16	.88	3.9	1.9	1.2	.95	.15			
11		0	15	9.0	3.8	1.8	1.2	.88	.14			
12		0	14	76	3.9	4.7	1.0	.87	.13			
13		0	12	86	3.4	13	1.1	.82	.12			
14		0	11	49	3.4	4.0	5.2	.78	.10			
15		0	8.2	31	3.2	2.7	3.3	.72	.09			
16		0	18	24	3.5	2.5	2.3	.61	.09			
17		0	20	25	5.1	2.5	3.0	.52	.08			
18		0	97	21	3.3	2.1	2.7	.45	.07			
19		0	98	18	3.2	1.8	2.2	.43	.07			
20		0	65	16	3.0	1.8	1.8	.43	.06			
21		0	270	14	2.7	1.8	1.8	.47	.05			
22		0	84	12	2.8	1.8	1.6	.47	.04			
23		0	46	12	2.7	1.8	1.6	.45	.02			
24		0	31	10	2.6	1.8	1.6	.37	0			
25		0	24	9.4	2.5	1.8	1.6	.31	0			
26		36	24	8.2	2.2	15	1.5	.26	0			
27		3.4	37	7.7	2.2	11	1.5	.33	0			
28		25	26	7.7	2.3	4.9	1.4	.91	0			
29		97	22	6.5	-----	3.6	1.4	.68	0			
30		22	19	6.0	-----	3.3	1.4	.53	0			
31		-----	17	6.0	-----	2.8	-----	.41	-----			
TOTAL	0	183.4	1,409.2	540.18	103.5	107.7	64.9	24.73	3.13	0	0	0
MEAN	0	6.11	45.5	17.4	3.70	3.47	2.16	.80	.10	0	0	0
MAX	0	97	270	86	6.0	15	5.2	1.6	.31	0	0	0
MIN	0	0	8.2	.88	2.2	1.8	1.0	.26	0	0	0	0
AC-FT	0	364	2,800	1,070	205	214	129	49	6.2	0	0	0
(a)	0	8.1	7.1	2.6	.5	2.3	.9	.3	0	0	0	0
(b)	1.2	11.6	8.7	3.0	.5	3.7	0	1.0	0	0	0	0

CAL YR 1970 TOTAL 5,112.73 MEAN 14.0 MAX 763 MIN 0 AC-FT 10,140  
WTR YR 1971 TOTAL 2,436.74 MEAN 6.68 MAX 270 MIN 0 AC-FT 4,830

PEAK DISCHARGE (BASE, 600 CFS).--Dec. 21 (0200) 704 cfs (6.66 ft).

a Precipitation, in inches.

b Precipitation, in inches, at auxiliary gage.

## SALINAS RIVER BASIN

11147500 SALINAS RIVER AT PASO ROBLES, CALIF.

LOCATION.--Lat 35°37'43", long 120°41'00", in Paso de Robles Grant, San Luis Obispo County, on left bank at upstream side of 13th Street Bridge in Paso Robles, 3.5 miles upstream from Huerhuero Creek.

DRAINAGE AREA.--390 sq mi.

PERIOD OF RECORD.--October 1939 to September 1965, October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 670.61 ft above mean sea level. Prior to June 14, 1951, nonrecording gage, and June 14, 1951, to Sept. 30, 1965, water-stage recorder at same site and datum.

AVERAGE DISCHARGE.--28 years, 85.4 cfs (61,870 acre-ft per year); median of yearly mean discharges, 38 cfs (27,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,000 cfs Dec. 21 (gage height, 8.95 ft); no flow for long periods.

Period of record: Maximum discharge, 14,200 cfs Mar. 9, 1943 (gage height, 16.2 ft, from stage graph), from rating curve extended above 6,000 cfs on basis of velocity-area studies; maximum gage height, 17.24 ft, Apr. 3, 1958; no flow for long periods in each year.

Flood of Jan. 25, 1969, reached a stage of 23.8 ft, from floodmarks (discharge, 28,000 cfs).

REMARKS.--Records good. Flow regulated by Santa Margarita Lake 32 miles upstream beginning in 1941 (see sta 11144500). Small diversions above station.

REVISIONS (WATER YEARS).--WSP 981 1942.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	113	67	19	12					
2			334	110	58	27	9.2					
3			157	82	58	26	10					
4			55	79	50	21	10					
5			40	67	44	21	7.5					
6			34	70	48	26	7.5					
7			32	61	48	26	7.1					
8			27	58	44	24	4.9					
9			29	55	44	21	4.0					
10			34	53	46	21	2.9					
11			30	64	44	16	2.5					
12			32	267	44	19	2.3					
13			27	474	44	46	1.9					
14			24	368	46	41	7.5					
15			22	250	44	29	9.2					
16			32	196	44	19	8.4					
17			44	178	48	16	12					
18			105	160	39	13	10					
19			368	134	37	11	10					
20			196	113	32	11	8.4					
21			1,190	110	26	10	8.4					
22			528	103	29	10	5.3					
23			275	96	30	10	4.0					
24			204	96	26	10	3.1					
25			148	85	24	10	3.1					
26			120	76	30	10	2.3					
27			178	73	34	21	1.5					
28			218	64	29	18	.78					
29			178	61	-----	18	.70					
30			152	61	-----	14	.28					
31		-----	120	61	-----	12	-----		-----			-----
TOTAL	0	0	4,933	3,838	1,157	596	176.76	0	0	0	0	0
MEAN	0	0	159	124	41.3	19.2	5.89	0	0	0	0	0
MAX	0	0	1,190	474	67	46	12	0	0	0	0	0
MIN	0	0	0	53	24	10	.28	0	0	0	0	0
AC-FT	0	0	9,780	7,610	2,290	1,180	351	0	0	0	0	0

CAL YR 1970 TOTAL 17,711.53 MEAN 48.5 MAX 2,020 MIN 0 AC-FT 35,130  
WTR YR 1971 TOTAL 10,700.76 MEAN 29.3 MAX 1,190 MIN 0 AC-FT 21,220

PEAK DISCHARGE (BASE, 1,100 CFS).--Dec. 21 (1215) 2,000 cfs (8.95 ft).

## 11147600 HUERHUERO CREEK NEAR CRESTON, CALIF.

LOCATION.--Lat 35°35'03", long 120°33'14", in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.15, T.27 S., R.13 E., San Luis Obispo County, on right bank 1 mile northwest of Geneseo School, and 4.6 miles northwest of Creston.

DRAINAGE AREA.--101 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Concrete control since Oct. 1, 1969. Altitude of gage is 930 ft (from topographic map). Prior to Oct. 1, 1969, at site 0.2 mile downstream at same datum.

AVERAGE DISCHARGE.--13 years, 6.31 cfs (4,570 acre-ft per year); median of yearly mean discharges, 0.09 cfs (65 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 0.34 cfs Apr. 14 (gage height, 5.80 ft); no flow for long periods. Period of record: Maximum discharge, 13,800 cfs Feb. 24, 1969 (gage height, 13.2 ft, from floodmarks), from rating curve extended above 1,500 cfs on basis of slope-area measurement of maximum flow; no flow for long periods in each year.

REMARKS.--Records poor. No regulation; small diversions above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.12	0	0	.14	.05				
2			0	.14	0	0	.14	.10				
3			0	.12	0	0	.14	.10				
4			0	.12	0	0	.17	.07				
5			0	.12	0	0	.12	.03				
6			0	.12	0	0	.07	.02				
7			0	.12	0	0	.11	.03				
8			0	.12	0	0	.12	.05				
9			0	.12	0	0	.12	.03				
10			0	.12	0	0	.12	.03				
11			0	.12	0	0	.14	.03				
12			0	.20	0	.07	.14	.01				
13			0	.17	0	.07	.18	0				
14			0	.14	0	0	.27	0				
15			0	.11	0	0	.17	0				
16			0	.11	0	.07	.14	0				
17			0	.11	0	.11	.16	0				
18			0	.12	0	.07	.11	0				
19			.11	.12	.07	.09	.11	0				
20			.11	.11	.07	.09	.11	0				
21			.17	.11	.09	.11	.11	0				
22			.12	.11	.09	.11	.09	0				
23			.12	.09	.09	.11	.09	0				
24			.12	.09	0	.12	.10	0				
25			.12	.09	0	.12	.10	0				
26			.12	.09	0	.12	.10	0				
27			.12	.11	.07	.12	.10	0				
28			.12	.09	0	.12	.08	0				
29			.12	.09	-----	.14	.08	0				
30			.12	.07	-----	.14	.09	0				
31		-----	.12	0	-----	.12	-----	0	-----			-----
TOTAL	0	0	1.59	3.47	.48	1.90	3.72	.55	0	0	0	0
MEAN	0	0	.051	.11	.017	.061	.12	.018	0	0	0	0
MAX	0	0	.17	.20	.09	.14	.27	.10	0	0	0	0
MIN	0	0	0	0	0	0	.07	0	0	0	0	0
AC-FT	0	0	3.2	6.9	1.0	3.8	7.4	1.1	0	0	0	0

CAL YR 1970 TOTAL 21.45 MEAN .059 MAX .29 MIN 0 AC-FT 43  
WTR YR 1971 TOTAL 11.71 MEAN .032 MAX .27 MIN 0 AC-FT 23

PEAK DISCHARGE (BASE, 40 CFS).--No peak above base.

## SALINAS RIVER BASIN

11147800 CHOLAME CREEK NEAR SHANDON, CALIF.

LOCATION.--Lat 35°41'20", long 120°20'03", in SE $\frac{1}{4}$  sec.3, T.26 S., R.15 E., San Luis Obispo County, on left bank 500 ft upstream from bridge on State Highway 46, 2.6 miles downstream from White Canyon, and 3.5 miles northeast of Shandon.

DRAINAGE AREA.--227 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,069.0 ft above mean sea level (planetable survey).

AVERAGE DISCHARGE.--13 years, 6.23 cfs (4,510 acre-ft per year); median of yearly mean discharges, 0.60 cfs (430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 18 cfs Dec. 22 (gage height, 1.05 ft); no flow for long periods. Period of record: Maximum discharge, 6,900 cfs Feb. 24, 1969 (gage height, 14.06 ft in gage well, 14.5 ft, from floodmarks); no flow for long periods in each year.

REMARKS.--Records fair. No regulation; small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0					0				
2			0					0				
3			.70					0				
4			1.9					0				
5			.10					0				
6			0					0				
7			0					0				
8			0					0				
9			0					0				
10			0					0				
11			0					0				
12			0					.73				
13			0					3.0				
14			0					.89				
15			0					0				
16			0					0				
17			0					0				
18			.08					0				
19			1.2					0				
20			.09					0				
21			6.6					0				
22			15					0				
23			5.0					0				
24			.68					0				
25			.09					0				
26			.03					0				
27			.02					0				
28			.02					0				
29			.01		-----			0				
30			0		-----			0				
31		-----	0		-----		-----	0	-----			-----
TOTAL	0	0	31.52	0	0	0	0	4.62	0	0	0	0
MEAN	0	0	1.02	0	0	0	0	.15	0	0	0	0
MAX	0	0	15	0	0	0	0	3.0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	63	0	0	0	0	9.2	0	0	0	0

CAL YR 1970 TOTAL 249.65 MEAN .68 MAX 62 MIN 0 AC-FT 495  
WTR YR 1971 TOTAL 36.14 MEAN .099 MAX 15 MIN 0 AC-FT 72

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

## 11148500 ESTRELLA RIVER NEAR ESTRELLA, CALIF.

LOCATION.--Lat 35°43'02", long 120°38'21", in NW $\frac{1}{4}$  sec.36, T.25 S., R.12 E., San Luis Obispo County, on right bank 0.2 mile downstream from mouth of Ranchito Canyon and 1.9 miles northwest of Estrella.

DRAINAGE AREA.--922 sq mi, not including Carrizo Plains.

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1960, published as Estrella Creek near Estrella.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 671.59 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--17 years, 26.4 cfs (19,130 acre-ft per year); median of yearly mean discharges, 3.5 cfs (2,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 43 cfs Dec. 23 (gage height, 2.55 ft); no flow for several months. Period of record: Maximum discharge, 32,500 cfs Feb. 24, 1969 (gage height, 10.4 ft, from floodmarks), by slope-area measurement of maximum flow; maximum gage height, 10.9 ft Jan. 25, 1969, from floodmarks; no flow for several months in each year.

REMARKS.--Records fair. No regulation; pumpage from wells along river for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			5.2	.86	3.6	3.1	1.1	0				
2			9.8	.78	3.3	2.3	1.1	0				
3			8.4	.68	3.6	3.3	1.1	0				
4			6.6	.60	3.6	3.8	1.3	0				
5			5.1	.54	3.6	3.4	.82	0				
6			3.8	.49	4.0	2.9	.50	0				
7			3.3	.45	4.1	2.8	.69	0				
8			3.3	.41	4.0	2.4	1.3	0				
9			2.3	.38	4.0	2.3	1.6	0				
10			1.9	.36	4.1	3.5	1.1	.04				
11			2.3	.35	4.0	4.2	.90	.11				
12			2.3	5.1	4.0	4.4	.70	.05				
13			2.3	5.1	4.2	4.4	.31	.14				
14			2.3	5.9	4.2	4.6	2.1	.23				
15			2.8	5.4	4.0	4.4	1.2	.07				
16			3.3	4.6	4.1	4.3	1.3	0				
17			3.3	4.1	4.8	4.4	1.0	0				
18			5.8	3.6	5.0	3.8	1.4	0				
19			7.5	3.0	4.4	3.3	1.5	0				
20			7.5	3.3	4.8	3.3	1.2	0				
21			7.5	3.1	4.6	2.3	1.0	0				
22			11	2.7	4.3	1.9	.65	0				
23			34	2.8	4.2	1.9	.36	0				
24			13	2.8	3.6	2.8	.10	0				
25			4.4	2.8	3.3	2.8	.06	0				
26			3.3	2.9	3.3	2.3	0	0				
27			2.3	3.6	3.3	2.3	0	0				
28			1.6	3.4	3.3	2.3	0	0				
29			1.1	3.5	-----	2.3	0	0				
30			1.1	3.3	-----	1.9	0	0				
31		-----	1.0	3.3	-----	1.3	-----	0	-----			-----
TOTAL	0	0	169.4	80.20	111.3	95.0	24.39	.64	0	0	0	0
MEAN	0	0	5.46	2.59	3.98	3.06	.81	.021	0	0	0	0
MAX	0	0	34	5.9	5.0	4.6	2.1	.23	0	0	0	0
MIN	0	0	1.0	.35	3.3	1.3	0	0	0	0	0	0
AC-FT	0	0	336	159	221	188	48	1.3	0	0	0	0

CAL YR 1970 TOTAL 935.35 MEAN 2.56 MAX 52 MIN 0 AC-FT 1,860  
WTR YR 1971 TOTAL 480.93 MEAN 1.32 MAX 34 MIN 0 AC-FT 954

PEAK DISCHARGE (BASE, 200 CFS).--No peak above base.

## SALINAS RIVER BASIN

## 11148800 NACIMIENTO RIVER NEAR DRYSON, CALIF.

LOCATION.--Lat 35°48'06", long 121°06'50", in NW¼ sec.33, T.24 S., R.8 E., Monterey County, on right bank 0.6 mile upstream from Turtle Creek, 1.6 miles west of Bryson, and 10 miles southwest of Lockwood.

DRAINAGE AREA.--140 sq mi.

PERIOD OF RECORD.--October 1955 to September 1971 (discontinued). Records for February to April 1901, published in WSP 66 and 75, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Altitude of gage is 860 ft (from topographic map).

AVERAGE DISCHARGE.--16 years, 169 cfs (122,400 acre-ft per year); median of yearly mean discharges, 130 cfs (94,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,400 cfs Nov. 28 (gage height, 15.28 ft); no flow for long periods.

Period of record: Maximum discharge, 39,100 cfs Jan. 25, 1969 (gage height, 24.60 ft), from rating curve extended above 12,000 cfs on basis of slope-area measurement of maximum flow; maximum gage height, 24.63 ft Dec. 23, 1955; no flow at times in each year.

REMARKS.--Records good. No storage or diversion above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--See PERIOD OF RECORD. WRD Calif. 1969: 1967.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1,130	229	86	36	75	35	18	3.1		
2		0	2,500	216	83	36	69	35	18	3.0		
3		0	802	179	80	35	65	36	18	2.8		
4		0	385	161	76	36	61	34	17	2.6		
5		4.6	225	149	72	36	57	33	17	2.3		
6		54	146	140	72	35	54	32	16	2.0		
7		28	92	128	70	35	55	31	15	1.6		
8		20	66	119	68	35	51	30	14	1.5		
9		11	76	113	64	36	49	29	13	1.2		
10		7.8	40	107	62	36	47	28	13	.94		
11		5.9	28	113	60	36	46	27	13	.75		
12		5.5	20	210	56	190	44	26	12	.64		
13		4.0	15	522	54	437	43	25	11	.50		
14		3.7	15	489	54	177	68	25	11	.31		
15		3.5	8.4	369	52	127	57	24	9.5	.10		
16		3.1	104	302	54	104	48	23	8.8	0		
17		3.2	128	256	76	90	56	21	8.3	0		
18		3.2	1,250	229	58	79	73	21	8.1	0		
19		2.8	1,590	203	52	72	57	20	7.9	0		
20		3.2	1,010	185	50	66	52	20	7.8	0		
21		3.2	3,300	170	48	61	47	19	6.2	0		
22		3.2	1,280	152	46	57	45	18	5.7	0		
23		3.2	766	144	46	54	43	18	5.2	0		
24		3.6	530	134	44	53	42	18	4.8	0		
25		6.5	405	122	42	51	40	17	4.2	0		
26		448	365	113	38	132	40	17	3.9	0		
27		92	520	109	36	188	38	17	3.9	0		
28		5,850	417	104	36	128	38	20	3.6	0		
29		4,470	349	98	-----	106	36	21	3.6	0		
30		1,040	298	89	-----	94	35	20	3.1	0		
31		-----	259	87	-----	83	-----	19	-----	0		-----
TOTAL	0	12,083.2	18,119.4	5,741	1,635	2,741	1,531	759	300.6	23.34	0	0
MEAN	0	403	584	185	58.4	88.4	51.0	24.5	10.0	.75	0	0
MAX	0	5,850	3,300	522	86	437	75	36	18	3.1	0	0
MIN	0	0	8.4	87	36	35	35	17	3.1	0	0	0
AC-FT	0	23,970	35,940	11,390	3,240	5,440	3,040	1,510	596	46	0	0
CAL YR 1970	TOTAL	77,123.98	MEAN	211	MAX	9,150	MIN	0	AC-FT	153,000		
WTR YR 1971	TOTAL	42,933.54	MEAN	118	MAX	5,850	MIN	0	AC-FT	85,160		

PEAK DISCHARGE (BASE, 4,000 CFS).--Nov. 28 (1930) 14,400 cfs (15.28 ft); Dec. 21 (0030) 7,110 cfs (11.38 ft).

## RESERVOIRS IN SALINAS RIVER BASIN, CALIF.

11149300 NACIMIENTO RESERVOIR.--Lat 35°45'29", long 120°53'01", in NW $\frac{1}{4}$  sec.15, T.25 S., R.10 E., San Luis Obispo County, at right end of dam on Nacimiento River, 8.6 miles southwest of Bradley, and 12.3 miles upstream from mouth. Drainage area, 319 sq mi. Period of record, February 1957 to current year. Monthend contents prior to October 1970, published in WRD Calif. 1970. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Monterey County Flood Control and Water Conservation District). Extremes for current year: Maximum contents observed, 175,000 acre-ft Apr. 6 (elevation, 760.2 ft); minimum observed, 52,600 acre-ft Sept. 30 (elevation, 715.0 ft). Extremes for period of record: Maximum contents observed, 374,500 acre-ft Apr. 7, 1958 (elevation, 804.7 ft); minimum observed, 10,910 acre-ft Oct. 11, 1960 (elevation, 670.8 ft).

Reservoir is formed by earthfill dam completed in 1957. Total capacity, 350,000 acre-ft; usable capacity, 340,000 acre-ft between elevations 670.0 ft (outlet) and 800.0 ft (crest of spillway). Dead storage, 10,000 acre-ft. Figures given herein represent total contents. Reservoir is used for flood control and water released down Nacimiento River for irrigation. Record of contents furnished by Monterey County Flood Control and Water Conservation District.

11150100 SAN ANTONIO RESERVOIR.--Lat 35°47'55", long 120°53'02", in SW $\frac{1}{4}$  sec.34, T.24 S., R.10 E., Monterey County, at dam on San Antonio River, 0.7 mile upstream from Sulphur Canyon, and 6.4 miles southwest of Bradley. Drainage area, 330 sq mi. Period of record, December 1965 to current year. Monthend contents prior to October 1970, published in WRD Calif. 1970. Water-stage recorder. Datum of gage is at mean sea level (levels by Monterey County Flood Control and Water Conservation District). Extremes for current year: Maximum contents, 278,100 acre-ft Mar. 3 (elevation, 766.8 ft); minimum, 248,900 acre-ft Nov. 25 (elevation, 760.75 ft). Extremes for period of record: Maximum contents, 348,900 acre-ft May 27, 1969 (elevation, 770.8 ft); minimum, 127,100 acre-ft Dec. 10, 1968 (elevation, 727.2 ft).

Reservoir is formed by earthfill dam completed in 1965. Total capacity, 350,000 acre-ft; usable capacity, 330,000 acre-ft between elevations 662.0 ft (minimum pool) and 780.0 ft (crest of spillway). Dead storage, 20,000 acre-ft. Records given herein represent total contents. Reservoir is used for flood control and water released down San Antonio River for irrigation. Record of contents furnished by Monterey County Flood Control and Water Conservation District.

## MONTHEND CONTENTS, IN ACRE-FEET, AT 2400, OCTOBER 1970 TO SEPTEMBER 1971

Date	Nacimiento Reservoir	San Antonio Reservoir
Sept. 30, 1970.	67,840	252,100
Oct. 31.....	54,400	249,100
Nov. 30.....	82,150	249,600
Dec. 31.....	146,800	268,000
Jan. 31, 1971..	163,900	276,000
Feb. 28.....	168,200	278,100
Mar. 31.....	174,700	272,500
Apr. 30.....	167,800	171,500
May 31.....	155,100	266,600
June 30.....	134,100	261,200
July 31.....	106,800	257,400
Aug. 31.....	78,880	253,700
Sept. 30.....	52,600	251,400





## 11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CALIF.

LOCATION.--Lat 35°53'48", long 121°05'14", in Los Ojitos Grant, Monterey County, on downstream side of highway bridge, 0.4 mile upstream from Tule Canyon, and 3.3 miles south of Lockwood.

DRAINAGE AREA.--223 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 800.00 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 103 cfs (74,620 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,020 cfs Dec. 21 (gage height, 3.20 ft); no flow for several months. Period of record: Maximum discharge, 14,000 cfs Jan. 26, 1969 (gage height, 8.25 ft); maximum gage height, 9.2 ft, from floodmarks, Dec. 6, 1966; no flow for several months in each year.

REMARKS.--Records good. No regulation; some pumping above station. Records of water temperatures and total-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	83	158	73	41	46	27	9.8			
2		0	635	145	73	37	37	22	8.6			
3		0	360	150	80	37	30	22	8.6			
4		0	160	158	64	39	34	23	8.0			
5		0	100	129	55	44	36	23	8.0			
6		0	68	121	57	29	33	30	8.0			
7		0	55	102	48	25	33	38	7.6			
8		0	51	102	62	30	36	30	7.0			
9		0	48	133	62	23	30	28	7.6			
10		0	51	97	66	33	32	25	6.6			
11		0	59	97	62	30	32	27	6.6			
12		0	55	145	44	36	30	22	6.0			
13		0	50	212	50	176	29	23	6.0			
14		0	46	273	37	133	39	21	5.2			
15		0	41	223	41	91	41	21	4.4			
16		0	42	176	42	73	31	18	3.3			
17		0	62	158	50	68	30	13	2.7			
18		0	97	150	41	66	31	11	1.7			
19		0	294	141	53	59	27	13	1.3			
20		0	176	121	55	59	27	14	.39			
21		0	1,060	109	33	46	28	16	.26			
22		0	550	97	39	47	21	14	.15			
23		0	331	97	53	42	22	14	.10			
24		0	282	94	48	53	23	13	.06			
25		0	234	97	34	55	23	12	.04			
26		0	228	109	33	42	22	13	.02			
27		0	382	109	30	53	27	12	0			
28		114	308	68	41	48	26	11	0			
29		559	228	62	-----	42	23	11	0			
30		163	190	77	-----	48	25	10	0			
31		-----	172	77	-----	42	-----	9.8	-----			
TOTAL	0	836	6,498	3,987	1,426	1,647	904	586.8	118.02	0	0	0
MEAN	0	27.9	210	129	50.9	53.1	30.1	18.9	3.93	0	0	0
MAX	0	559	1,060	273	80	176	46	38	9.8	0	0	0
MIN	0	0	41	62	30	23	21	9.8	0	0	0	0
AC-FT	0	1,660	12,890	7,910	2,830	3,270	1,790	1,160	234	0	0	0
CAL YR 1970	TOTAL	33,545.28	MEAN	91.9	MAX	2,630	MIN	0	AC-FT	66,540		
WTR YR 1971	TOTAL	16,002.82	MEAN	43.8	MAX	1,060	MIN	0	AC-FT	31,740		

## PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1100	2.26	890	12-21	0715	3.20	2,020
12- 2	1030	2.82	1,520	12-27	0730	1.60	446
12-19	0415	1.73	414	1-13	1515	1.45	352

## SALINAS RIVER BASIN

11150500 SALINAS RIVER NEAR BRADLEY, CALIF.

LOCATION.--Lat 35°55'49", long 120°52'04", in SW¼NW¼ sec.14, T.23 S., R.10 E., Monterey County, on left bank 6 miles northwest of Bradley and 7 miles downstream from San Antonio River.

DRAINAGE AREA.--2,535 sq mi.

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 442.69 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE (unadjusted).--23 years, 436 cfs (315,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,380 cfs Mar. 5 (gage height, 7.20 ft); minimum daily, 17 cfs Apr. 6.

Period of record: Maximum discharge, 117,000 cfs Feb. 24, 1969 (gage height, 20.34 ft, from floodmarks); no flow at times in 1951, 1954-55, 1957.

REMARKS.--Records fair. Flow partly regulated by Santa Margarita Lake (see sta 11144500) Nacimiento Reservoir beginning in February 1957 (see sta 11149300), and San Antonio Reservoir beginning in December 1965 (see sta 11150100). Several small diversions above station.

REVISIONS (WATER YEARS).--WSP 1285: 1950.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	144	94	144	84	40	23	280	280	440	460	520
2	266	144	86	136	84	40	21	280	270	440	460	520
3	279	144	115	127	76	235	20	280	260	440	460	520
4	285	148	70	104	73	1,990	19	280	270	440	450	450
5	292	127	50	89	71	1,740	18	280	300	440	450	420
6	293	81	35	81	68	174	17	280	330	440	490	420
7	312	59	31	73	66	101	90	280	330	440	490	420
8	368	47	28	66	55	78	260	270	330	440	490	420
9	345	38	27	64	61	64	280	270	330	440	490	420
10	330	34	26	61	57	55	280	270	330	440	490	420
11	324	30	25	59	55	53	280	260	330	440	490	420
12	324	30	24	57	55	48	280	260	330	440	490	420
13	324	27	23	204	53	50	280	260	330	440	490	420
14	352	25	23	405	50	50	280	260	330	440	490	420
15	368	24	23	360	50	55	280	260	330	440	490	420
16	345	23	23	291	50	50	280	250	330	440	490	420
17	265	23	23	227	53	44	280	250	330	490	490	420
18	265	23	25	217	50	42	280	260	330	490	490	420
19	278	23	73	192	49	38	280	270	330	480	490	420
20	272	23	176	170	48	34	280	290	330	480	490	420
21	265	23	317	153	48	31	280	310	330	480	520	420
22	250	23	991	131	46	30	280	310	330	480	520	420
23	197	23	473	114	46	29	280	300	330	480	520	420
24	166	23	330	104	45	27	280	300	330	470	520	420
25	153	23	235	101	44	26	280	290	380	470	520	420
26	144	23	179	97	42	26	280	290	440	470	520	420
27	144	25	166	97	40	25	280	290	440	470	520	420
28	144	155	184	84	40	25	280	290	440	460	520	420
29	140	130	202	76	-----	29	280	280	440	460	520	420
30	144	110	170	84	-----	27	280	280	440	460	520	420
31	144	-----	157	84	-----	25	-----	280	-----	460	520	-----
TOTAL	8,067	1,775	4,404	4,252	1,559	5,281	6,628	8,610	10,230	14,140	15,350	12,930
MEAN	260	59.2	142	137	55.7	170	221	278	341	456	495	431
MAX	368	155	991	405	84	1,990	280	310	440	490	520	520
MIN	140	23	23	57	40	25	17	250	260	440	450	420
AC-FT	16,000	3,520	8,740	8,430	3,090	10,470	13,150	17,080	20,290	28,050	30,450	25,650
CAL YR 1970	TOTAL	112,442	MEAN	308	MAX	1,850	MIN	16	AC-FT	223,000		
WTR YR 1971	TOTAL	93,226	MEAN	255	MAX	1,990	MIN	17	AC-FT	184,900		

## 11151300 SAN LORENZO CREEK BELOW BITTERWATER CREEK, NEAR KING CITY, CALIF.

LOCATION.--Lat 36°16'05", long 121°03'55", in NE¼ sec.23, T.19 S., R.8 E., Monterey County, on right bank 1.3 miles downstream from Bitterwater Creek, 5 miles northeast of King City, and 10 miles upstream from mouth.

DRAINAGE AREA.--233 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 431.64 ft above mean sea level. Prior to Apr. 24, 1967, at site 500 ft upstream at datum 5.00 ft higher.

AVERAGE DISCHARGE.--13 years, 12.1 cfs (8,770 acre-ft per year); median of yearly mean discharges, 5.7 cfs (4,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 381 cfs Dec. 21 (gage height, 5.68 ft); minimum daily, 0.27 cfs Sept. 15.

Period of record: Maximum discharge, 10,800 cfs Jan. 25, 1969 (gage height, 15.33 ft in gage well, 16.2 ft, from floodmarks); no flow many days in 1961.

REMARKS.--Records fair. No regulation; small diversions above station.

## DISCHARGE, IN CUBIC FEET PER SECCND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	2.0	38	9.0	4.4	4.7	1.6	1.1	1.0	.46	.40	.40
2	.71	1.9	107	7.4	4.4	3.9	1.4	1.4	.88	.46	.46	.40
3	1.0	1.9	59	5.4	4.4	4.2	1.3	1.3	.72	.40	.40	.40
4	1.2	3.0	17	3.9	4.4	4.7	1.3	1.4	.69	.40	.46	.35
5	1.3	3.2	4.4	3.5	4.4	4.9	1.1	1.5	.61	.30	.46	.35
6	1.3	2.4	3.0	3.5	4.9	4.7	1.2	1.3	.56	.35	.40	.35
7	1.4	2.3	2.0	3.1	5.2	5.2	1.7	1.2	.54	.35	.40	.40
8	1.4	2.1	1.8	3.1	5.4	5.8	1.1	1.4	.57	.30	.40	.40
9	1.4	2.1	2.7	3.1	5.4	5.8	1.0	1.3	1.2	.30	.40	.35
10	1.4	2.1	2.7	3.1	4.5	6.0	.93	1.1	1.1	.30	.40	.35
11	1.4	2.2	1.8	2.7	4.4	6.3	.76	.95	.89	.30	.52	.30
12	1.5	2.1	1.6	3.5	4.4	6.5	.58	.83	.73	.35	.52	.30
13	1.5	2.0	1.6	7.4	4.4	13	2.9	.90	.57	.35	.46	.30
14	1.5	2.1	1.6	18	3.9	12	7.3	.94	.52	.30	.46	.28
15	1.3	2.0	7.4	15	4.7	7.6	9.2	.82	.51	.35	.52	.27
16	1.8	2.0	7.4	8.5	6.3	5.8	5.3	.68	.51	.35	.52	.30
17	1.8	2.1	16	6.5	6.4	5.5	5.1	.59	.52	.40	.46	.33
18	1.8	2.1	36	5.3	5.7	5.2	6.1	.54	.52	.40	.60	.36
19	1.8	2.1	101	4.5	5.2	4.4	5.8	.53	.52	.35	.70	.37
20	1.7	2.1	50	4.3	4.4	4.0	4.1	.54	.52	.35	.70	.33
21	1.7	2.1	167	3.6	4.6	3.9	3.5	.49	.60	.35	.70	.36
22	2.1	4.4	104	3.9	5.0	3.8	3.1	.39	.52	.30	.70	.37
23	2.2	4.4	64	3.9	5.4	3.6	.79	.34	.60	.40	.52	.39
24	2.3	4.4	43	3.9	4.9	4.5	.43	.37	.46	.35	.52	.39
25	1.8	9.0	27	3.9	4.7	4.4	.40	.52	.46	.40	.52	.39
26	1.8	16	23	3.9	4.0	4.0	.38	.29	.60	.40	.52	.41
27	1.7	9.0	68	3.9	4.0	3.2	.88	.40	.60	.40	.52	.37
28	1.8	38	40	3.9	4.5	2.9	1.2	1.9	.60	.40	.46	.37
29	1.8	130	21	3.9	-----	2.2	1.1	4.0	.46	.46	.40	.37
30	1.8	110	16	3.7	-----	1.7	1.2	2.7	.46	.46	.40	.38
31	1.8	-----	10	3.6	-----	1.6	-----	1.7	-----	.40	.40	-----
TOTAL	48.65	371.1	1,045.0	162.9	134.3	158.0	72.75	33.42	19.04	11.44	15.30	10.69
MEAN	1.57	12.4	33.7	5.25	4.80	5.10	2.43	1.08	.63	.37	.49	.36
MAX	2.3	130	167	18	6.4	13	9.2	4.0	1.2	.46	.70	.41
MIN	.64	1.9	1.6	2.7	3.9	1.6	.38	.29	.46	.30	.40	.27
AC-FT	97	736	2,070	323	266	313	144	66	38	23	30	21

CAL YR 1970 TOTAL 3,608.18 MEAN 9.89 MAX 311 MIN .34 AC-FT 7,160  
WTR YR 1971 TOTAL 2,082.59 MEAN 5.71 MAX 167 MIN .27 AC-FT 4,130

PEAK DISCHARGE (BASE, 250 CFS).--Dec. 21 (0845) 381 cfs (5.68 ft).

## SALINAS RIVER BASIN

11151700 SALINAS RIVER AT SOLEDAD, CALIF.

LOCATION.--Lat 36°24'40", long 121°19'06", on boundary between San Vicente and Los Coches Grants, Monterey County, near right bank on upstream end of pier on U.S. Highway 101, 0.9 mile south of Soledad, and 1 mile upstream from Arroyo Seco.

DRAINAGE AREA.--3,563 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 170 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 1,530 cfs Mar. 6 (gage height, 10.46 ft); minimum daily, 9.3 cfs Nov. 19, 21-26.

Period of record: Maximum discharge, 106,000 cfs Feb. 25, 1969 (gage height, 23.31 ft); maximum gage height, 23.39 ft Jan. 26, 1969; minimum daily discharge, 9.3 cfs Nov. 19, 21-26, 1970.

REMARKS.--Records fair. Flow partly regulated by Santa Margarita Lake (see sta 11144500), Nacimiento Reservoir (see sta 11149300), and San Antonio Reservoir (see sta 11150100). Several small diversions above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	120	62	200	138	50	22	97	178	211	125	205
2	145	124	58	205	132	45	22	93	178	225	145	202
3	145	122	62	194	128	42	22	99	178	230	161	199
4	156	120	62	194	120	42	22	100	175	226	135	185
5	161	114	48	156	112	457	22	100	151	215	130	162
6	172	92	42	145	105	1,300	22	100	153	211	145	159
7	150	61	36	130	105	564	22	100	172	197	161	163
8	150	40	36	120	110	238	22	96	176	190	172	161
9	156	27	36	110	107	161	19	90	178	185	166	161
10	172	22	34	100	104	125	18	86	178	164	145	159
11	178	20	36	93	100	93	17	86	178	158	140	152
12	188	18	32	93	97	82	16	82	175	157	125	146
13	205	17	42	93	95	79	15	76	163	137	125	146
14	205	16	30	86	95	72	23	72	149	125	133	150
15	218	15	38	224	95	60	30	65	126	115	138	157
16	224	15	34	348	93	55	38	62	127	120	157	150
17	218	15	34	333	93	50	48	65	118	125	145	150
18	205	11	36	298	90	45	52	65	105	130	140	155
19	205	9.3	50	270	82	42	65	60	94	135	130	177
20	200	9.9	84	244	79	40	76	60	96	125	137	198
21	200	9.3	120	208	76	38	79	65	98	110	158	207
22	224	9.3	298	180	72	36	82	76	92	96	161	222
23	188	9.3	676	164	72	34	82	79	91	86	156	237
24	172	9.3	596	147	65	34	86	96	92	93	167	245
25	145	9.3	428	139	62	30	90	125	108	96	167	247
26	132	9.3	326	130	58	32	93	140	157	120	170	261
27	122	9.9	284	122	55	30	93	145	187	125	169	275
28	120	18	264	117	52	28	96	172	192	120	174	278
29	120	76	224	115	-----	28	96	178	196	120	183	277
30	120	68	218	128	-----	24	98	178	198	130	197	277
31	120	-----	212	135	-----	24	-----	178	-----	130	208	-----
TOTAL	5,241	1,215.9	4,538	5,221	2,592	3,980	1,488	3,086	4,459	4,607	4,765	5,863
MEAN	169	40.5	146	168	92.6	128	49.6	99.5	149	149	154	195
MAX	224	124	676	348	138	1,300	98	178	198	230	208	278
MIN	120	9.3	30	86	52	24	15	60	91	86	125	146
AC-FT	10,400	2,410	9,000	10,360	5,140	7,890	2,950	6,120	8,840	9,140	9,450	11,630

CAL YR 1970 TOTAL 64,187.9 MEAN 176 MAX 1,200 MIN 9.3 AC-FT 127,300  
WTR YR 1971 TOTAL 47,055.9 MEAN 129 MAX 1,300 MIN 9.3 AC-FT 93,340

NOTE.--No gage-height record Jan. 21 to Feb. 26.

## 11151870 ARROYO SECO NEAR GREENFIELD, CALIF.

LOCATION.--Lat 36°14'15", long 121°28'50", in NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.36, T.19 S., R.4 E., Monterey County, on right bank 0.6 mile downstream from Rocky Creek and 14.5 miles southwest of Greenfield.

DRAINAGE AREA.--113 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 780 ft (from topographic map). Prior to Aug. 27, 1970, at datum 2.00 ft higher.

AVERAGE DISCHARGE.--10 years, 141 cfs (102,200 acre-ft per year); median of yearly mean discharges, 120 cfs (86,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,460 cfs Nov. 29 (gage height, 9.47 ft); minimum daily, 0.55 cfs Sept. 22.

Period of record: Maximum discharge, 21,800 cfs Dec. 6, 1966 (gage height, 14.50 ft, present datum), from rating curve extended above 3,100 cfs on basis of slope-area measurement at gage-height 12.65 ft, present datum; no flow at times.

REMARKS.--Records good. No regulation; small diversion for fishponds above station by pumping. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1967: 1966. WRD Calif. 1969: 1967(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	6.4	458	156	86	45	75	40	30	9.8	1.5	1.2
2	1.4	6.6	1,540	148	85	44	72	43	30	9.5	1.5	1.4
3	1.4	6.6	610	129	82	44	67	42	28	8.8	1.4	1.4
4	1.4	17	378	116	78	43	63	41	27	8.0	1.5	1.4
5	1.4	36	257	106	77	42	59	40	25	7.5	1.2	1.5
6	1.4	32	192	98	76	41	57	40	24	7.0	1.2	1.5
7	1.4	30	152	92	75	40	62	40	23	6.6	1.1	1.4
8	1.4	22	139	85	74	38	56	40	22	6.4	1.4	1.2
9	1.4	17	132	81	72	38	54	38	20	6.4	1.6	1.2
10	1.4	15	106	76	69	38	52	36	21	6.4	1.6	1.1
11	1.4	13	94	77	67	38	50	34	21	5.8	1.5	1.1
12	1.4	12	84	160	66	243	48	34	20	5.4	1.6	1.1
13	2.2	12	75	355	64	269	47	33	19	5.7	1.4	1.1
14	2.6	12	72	310	62	141	67	30	18	5.7	1.3	1.1
15	2.7	11	62	251	61	118	56	31	17	5.0	1.3	.96
16	3.0	11	128	215	62	102	49	30	16	4.4	1.0	.77
17	3.0	11	158	215	73	92	69	28	15	3.5	.98	.70
18	3.0	11	179	228	61	84	67	29	15	3.7	.76	.65
19	3.3	11	213	218	61	81	58	29	14	4.2	.75	.63
20	4.2	11	276	197	58	77	54	27	14	3.3	.72	.60
21	6.8	11	970	173	55	72	53	26	13	3.3	.77	.60
22	7.0	11	542	152	54	67	51	29	12	3.2	.83	.55
23	7.5	12	371	144	54	64	49	29	12	2.7	.89	.66
24	7.0	12	283	133	52	63	45	28	12	2.4	1.1	.77
25	6.6	19	225	121	51	61	46	25	11	2.2	1.2	.82
26	6.4	144	222	115	48	160	45	26	11	2.2	1.3	.99
27	5.9	46	271	109	46	139	45	29	11	2.2	1.1	1.2
28	5.9	1,970	232	103	47	105	44	33	11	1.7	1.0	1.5
29	5.9	2,010	206	98	-----	93	42	31	11	1.6	.95	1.8
30	5.9	503	188	93	-----	87	41	30	10	1.7	.96	2.3
31	5.9	-----	171	90	-----	81	-----	29	-----	1.7	1.0	-----
TOTAL	111.6	5,041.6	8,986	4,644	1,816	2,650	1,643	1,020	533	148.0	36.41	33.20
MEAN	3.60	168	290	150	64.9	85.5	54.8	32.9	17.8	4.77	1.17	1.11
MAX	7.5	2,010	1,540	355	86	269	75	43	30	9.8	1.6	2.3
MIN	1.4	6.4	62	76	46	38	41	25	10	1.6	.72	.55
AC-FT	221	10,000	17,820	9,210	3,600	5,260	3,260	2,020	1,060	294	72	66

CAL YR 1970 TOTAL 56,200.00 MEAN 154 MAX 5,330 MIN .90 AC-FT 111,500  
WTR YR 1971 TOTAL 26,662.81 MEAN 73.0 MAX 2,010 MIN .55 AC-FT 52,890

## PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0430	9.47	4,460	12-21	0015	7.17	1,560
12- 2	0615	7.99	2,390				

## SALINAS RIVER BASIN

11152000 ARROYO SECO NEAR SOLEDAD, CALIF.

LOCATION.--Lat 36°16'50", long 121°19'20", in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.16, T.19 S., R.6 E., Monterey County, on right bank just downstream from bridge, 1.5 miles downstream from Vaquero Creek, and 10 miles south of Soledad.

DRAINAGE AREA.--244 sq mi.

PERIOD OF RECORD.--November 1901 to current year. Records for water year 1902 incomplete, yearly estimate published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 342.20 ft above mean sea level (Corps of Engineers bench mark). Prior to June 16, 1929, nonrecording gage, and June 16, 1929, to Dec. 2, 1941, water-stage recorder at site 1 mile upstream at different datum. Dec. 3, 1941, to Sept. 30, 1959, water-stage recorder at datum 2.00 ft higher. Jan. 30 to Mar. 26, 1969, nonrecording gage at bridge at same datum.

AVERAGE DISCHARGE.--70 years, 162 cfs (117,400 acre-ft per year); median of yearly mean discharges, 120 cfs (86,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,300 cfs Nov. 29 (gage height, 8.45 ft); no flow many days. Period of record: Maximum discharge, 28,300 cfs Apr. 3, 1958 (gage height, 16.40 ft, present datum), from rating curve extended above 12,000 cfs on basis of slope-area measurement at gage height 16.30 ft; no flow at times during several years.

REMARKS.--Records good. No regulation or large diversion above station.

REVISIONS (WATER YEARS).--WSP 881: 1902-9 (yearly summary only). WSP 1565: 1916-19, 1920-21(M), 1922, 1926-27, 1928-30(M), 1932, 1934, 1936(M). WSP 1715: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	3.8	503	225	110	60	80	46	27	9.3	.90	
2	0	5.5	1,710	214	106	58	74	46	29	8.4	.60	
3	0	7.5	762	197	103	56	70	48	29	7.6	.49	
4	0	7.5	448	177	99	54	69	48	27	6.3	.39	
5	0	19	312	168	92	54	65	46	26	6.9	.30	
6	0	42	235	156	90	54	65	45	24	6.3	.30	
7	0	24	194	147	90	53	69	45	23	5.8	.23	
8	0	22	165	141	88	51	63	43	22	5.3	.17	
9	0	15	174	133	84	51	61	42	18	4.8	.12	
10	0	12	144	128	82	51	58	40	19	4.3	.09	
11	0	11	131	125	78	50	56	42	19	3.8	.04	
12	0	9.7	120	200	76	53	56	42	21	3.8	.02	
13	0	9.7	112	380	74	405	54	39	20	3.4	0	
14	0	9.1	106	370	72	153	72	37	19	3.1	0	
15	0	8.9	99	312	72	117	72	37	17	3.1	0	
16	.03	8.6	128	270	70	101	60	34	16	2.7	0	
17	.22	8.2	181	258	80	92	63	33	15	2.7	0	
18	.52	8.3	228	270	72	84	78	32	14	2.3	0	
19	.66	8.2	282	262	70	80	67	32	14	2.0	0	
20	.66	8.2	286	246	69	76	63	32	13	1.5	0	
21	1.0	8.5	1,230	221	67	72	60	32	13	1.5	0	
22	2.1	8.9	734	200	65	69	58	32	13	1.3	0	
23	3.8	8.9	486	184	65	67	56	32	12	1.3	0	
24	4.3	9.1	370	171	63	65	53	30	11	1.3	0	
25	4.3	10	304	162	60	63	50	29	10	1.3	0	
26	4.8	118	278	150	60	99	51	27	10	1.5	0	
27	4.3	71	343	139	58	162	50	29	10	1.5	0	
28	4.3	1,720	312	133	60	115	50	32	9.3	1.3	0	
29	4.3	2,460	278	125	-----	101	48	33	9.3	1.3	0	
30	4.3	748	258	120	-----	92	48	32	9.3	1.3	0	
31	4.3	-----	242	115	-----	86	-----	29	-----	1.1	0	-----
TOTAL	43.89	5,410.6	11,155	6,099	2,175	2,744	1,839	1,146	518.9	108.1	3.65	0
MEAN	1.42	180	360	197	77.7	88.5	61.3	37.0	17.3	3.49	.12	0
MAX	4.8	2,460	1,710	380	110	405	80	48	29	9.3	.90	0
MIN	0	3.8	99	115	58	50	48	27	9.3	1.1	0	0
AC-FT	87	10,730	22,130	12,100	4,310	5,440	3,650	2,270	1,030	214	7.2	0

CAL YR 1970 TOTAL 16,609.49 MEAN 45.5 MAX 2,460 MIN 0 AC-FT 32,940

WTR YR 1971 TOTAL 31,243.14 MEAN 95.6 MAX 2,460 MIN 0 AC-FT 61,970

PEAK DISCHARGE (BASE, 2,500 CFS).--Nov. 29 (0745) 4,300 cfs (8.45 ft); Dec. 2 (0900) 2,640 cfs (7.31 ft).

## 11152500 SALINAS RIVER NEAR SPRECKELS, CALIF.

LOCATION.--Lat 36°37'52", long 121°40'17", in Nacional Grant, Monterey County, on right bank on downstream side of bridge on Salinas-Monterey highway, 0.8 mile upstream from El Toro Creek, 1.6 miles northwest of Spreckels, and 2 miles south of Salinas.

DRAINAGE AREA.--4,156 sq mi.

PERIOD OF RECORD.--January 1900 to August 1901, October 1929 to current year. Records for water year 1930 incomplete, yearly estimate published in WSP 1315-B. Published as "near Salinas" 1900-1901.

GAGE.--Water-stage recorder. Datum of gage is 20.56 ft above mean sea level. 1900-1901, May 10 to July 29, 1940, nonrecording gages at site 0.3 mile downstream at different datum. July 29, 1940, to May 22, 1969, water-stage recorder at site 0.3 mile downstream at datum 0.69 ft lower. May 23, 1969, to Jan. 13, 1970, nonrecording gage at same site and datum. Mar. 17, 1941, to June 30, 1961, supplementary nonrecording gages, July 1, 1961, to May 22, 1969, auxiliary water-stage recorder at site 0.3 mile downstream at datum 0.69 ft lower.

AVERAGE DISCHARGE.--42 years (1929-71), 413 cfs (299,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,980 cfs Nov. 30 (gage height, 8.00 ft); minimum daily, 1.4 cfs July 1-3.

Period of record: Maximum discharge, 83,100 cfs Feb. 26, 1969 (gage height, 26.51 ft, site and datum then in use); maximum gage height, 26.85 ft Jan. 18, 1952, site and datum then in use from floodmarks; no flow at times in 1929-40.

REMARKS.--Records fair. Large withdrawals from ground water and small surface-water diversions for municipal use and irrigation of about 95,000 acres above station. Low flow represents waste water from Spreckels sugar refinery and Alisal sewage disposal plant. Flow partly regulated by Nacimiento Reservoir beginning in February 1957 (see sta 11149300) and San Antonio Reservoir beginning in December 1965 (see sta 11150100). Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1565: 1930, 1935, 1945. WSP 1715: 1959.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	9.5	610	202	104	17	8.0	6.5	14	1.4	1.8	2.4
2	2.1	9.0	289	195	99	14	8.0	6.8	21	1.4	1.9	2.4
3	2.1	10	980	181	93	12	8.0	6.8	27	1.4	1.9	2.0
4	2.1	11	660	155	86	12	7.5	8.5	31	1.5	1.9	2.0
5	2.6	9.5	330	136	82	10	7.2	10	33	3.0	1.6	2.0
6	2.6	9.5	190	126	78	25	7.2	12	33	5.5	1.5	2.0
7	2.6	9.5	132	118	76	601	8.0	14	30	6.5	1.9	2.0
8	2.6	9.5	52	111	72	345	7.2	14	33	8.0	2.2	1.9
9	2.6	9.5	27	104	70	200	6.8	12	38	3.9	2.0	2.6
10	4.8	9.5	13	99	66	140	7.2	11	41	2.6	1.9	3.3
11	3.5	10	7.5	96	64	101	6.8	10	38	1.8	2.0	3.5
12	3.9	10	5.1	99	59	78	6.8	9.0	33	1.8	2.0	3.3
13	8.0	10	3.9	108	54	70	7.2	8.5	31	1.9	2.0	3.5
14	13	10	3.0	99	54	54	10	8.0	28	1.9	2.2	3.5
15	19	11	2.4	181	52	48	9.0	8.0	28	1.5	2.2	3.1
16	27	10	2.8	200	48	41	7.2	7.5	19	1.5	2.0	2.6
17	33	10	3.5	247	46	34	7.2	7.2	10	1.8	2.2	2.4
18	38	10	3.7	244	44	30	7.2	7.2	6.1	1.6	1.9	2.2
19	45	10	3.0	233	46	25	7.2	7.2	4.1	1.9	2.0	2.0
20	49	11	2.0	225	40	22	6.8	7.2	3.5	1.6	2.0	1.9
21	56	12	17	212	38	18	6.5	8.5	3.3	1.5	2.2	1.8
22	62	10	378	197	35	15	6.5	8.5	2.8	1.6	2.2	1.9
23	62	10	503	190	33	12	6.5	7.2	2.8	1.8	2.0	1.9
24	54	10	540	177	32	12	6.5	7.2	2.6	1.6	2.0	1.9
25	37	15	439	159	28	10	6.8	7.2	2.6	1.6	1.9	1.9
26	19	12	345	146	25	11	6.5	7.2	2.4	1.8	1.8	1.8
27	10	10	298	138	22	10	6.5	7.2	2.2	1.6	2.0	1.6
28	5.8	17	277	130	20	9.0	7.2	7.2	1.5	1.8	1.6	1.6
29	6.5	19	269	122	-----	8.5	6.8	7.2	1.5	1.8	2.0	1.6
30	7.5	1,260	235	114	-----	8.5	6.5	7.5	1.5	1.6	2.0	4.8
31	8.5	-----	214	109	-----	8.0	-----	6.8	-----	1.8	2.4	-----
TOTAL	593.9	1,573.5	6,834.9	4,853	1,566	2,001.0	216.8	263.1	524.9	71.0	61.2	71.4
MEAN	19.2	52.5	220	157	55.9	64.5	7.23	8.49	17.5	2.29	1.97	2.38
MAX	62	1,260	980	247	104	601	10	14	41	8.0	2.4	4.8
MIN	2.1	9.0	2.0	96	20	8.0	6.5	6.5	1.5	1.4	1.5	1.6
AC-FT	1,180	3,120	13,560	9,630	3,110	3,970	430	522	1,040	141	121	142
CAL YR 1970	TOTAL 67,564.6		MEAN 185	MAX 2,910	MIN 1.3	AC-FT 134,000						
WTR YR 1971	TOTAL 18,630.7		MEAN 51.0	MAX 1,260	MIN 1.4	AC-FT 36,950						





## 11152570 ALISAL CREEK NEAR SALINAS, CALIF.

LOCATION.--Lat 36°41'33", long 121°34'04", in El Alisal (Bernal) Grant, Monterey County, on left bank at upstream side of Old Stage Road bridge, 5.1 miles northeast of Salinas.

DRAINAGE AREA.--14.2 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 200 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 31 cfs Dec. 21 (gage height, 4.32 ft, from recorded range in stage); no flow for most of year.

REMARKS.--Records poor. Small reservoir 200 ft upstream diverts water for irrigation during most flow periods. Reservoir controls all but high flows.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.0	0								
2		0	4.4	0								
3		0	2.9	0								
4		0	4.9	0								
5		0	3.2	0								
6		0	1.5	0								
7		0	.50	0								
8		0	0	0								
9		0	0	0								
10		0	0	0								
11		0	0	.85								
12		0	0	2.0								
13		0	0	4.0								
14		0	0	1.5								
15		0	0	.50								
16		0	0	0								
17		0	9.0	0								
18		0	8.0	0								
19		0	2.0	0								
20		0	5.0	0								
21		0	10	0								
22		0	9.0	0								
23		0	4.0	0								
24		0	2.0	0								
25		0	1.0	0								
26		0	1.5	0								
27		0	1.0	0								
28		1.0	.50	0								
29		5.3	0	0	-----							
30		2.2	0	0	-----							
31		-----	0	0	-----		-----		-----			-----
TOTAL	0	8.5	71.40	8.85	0	0	0	0	0	0	0	0
MEAN	0	.28	2.30	.29	0	0	0	0	0	0	0	0
MAX	0	5.3	10	4.0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	17	142	18	0	0	0	0	0	0	0	0

WTR YR 1971 TOTAL 88.75 MEAN .24 MAX 10 MIN 0 AC-FT 176

NOTE.--No gage-height record Dec. 18-28.

## TEMBLADERO SLOUGH BASIN

11152600 GABILAN CREEK NEAR SALINAS, CALIF.

LOCATION.--Lat 36°45'21", long 121°36'34", in La Natividad Grant, Monterey County, on right bank at downstream side of county road bridge, 0.3 mile downstream from small left-bank tributary, and 6.2 miles northeast of Salinas.

DRAINAGE AREA.--36.7 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 200 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 54 cfs Dec. 21 (gage height, 1.75 ft); no flow for most of year.

REMARKS.--Records poor. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.50	.16	0	.10					
2			0	2.0	.15	0	.05					
3			0	.90	.14	0	0					
4			0	.40	.13	0	0					
5			0	.30	.12	0	0					
6			0	.20	.11	0	.20					
7			0	.15	.10	0	.10					
8			0	.10	.09	0	.05					
9			0	.05	.08	0	0					
10			0	0	.07	0	0					
11			0	2.0	.06	0	0					
12			0	5.0	.05	.10	0					
13			0	9.0	.04	2.0	.10					
14			0	12	.03	.50	4.0					
15			0	10	.02	.20	1.0					
16			0	5.0	.01	.15	.50					
17			0	2.5	0	.10	1.5					
18			9.0	1.5	0	.05	2.5					
19			11	.90	1.5	0	1.0					
20			15	.70	3.0	0	.40					
21			30	.60	1.0	0	.20					
22			26	.50	.30	0	.13					
23			12	.40	.20	0	.10					
24			6.0	.35	.15	0	.05					
25			3.0	.32	.10	.10	0					
26			3.0	.29	.05	4.0	0					
27			8.0	.26	0	.15	0					
28			5.0	.23	0	.50	0					
29			3.0	.21	-----	.30	0					
30			1.5	.19	-----	.20	0					
31		-----	1.0	.18	-----	.15	-----		-----			-----
TOTAL	0	0	133.5	56.73	7.66	9.85	11.98	0	0	0	0	0
MEAN	0	0	4.31	1.83	.27	.32	.40	0	0	0	0	0
MAX	0	0	30	12	3.0	4.0	4.0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	265	113	15	20	24	0	0	0	0	0

WTR YR 1971 TOTAL 219.72 MEAN .60 MAX 30 MIN 0 AC-FT 436

PEAK DISCHARGE (BASE, 60 CFS).--No peak above base.

## 11152650 RECLAMATION DITCH NEAR SALINAS, CALIF.

LOCATION.--Lat 36°42'18", long 121°42'14", in Rincon Del Zanjon Grant, Monterey County, on right bank at upstream side of San Jon Road bridge and 3.4 miles northwest of Salinas.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 30 ft (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 96 cfs Dec. 22, 1970; minimum daily, 0.47 cfs Oct. 12, 1970.

REMARKS.--Records fair. Flow mostly from pumps that drain Carr Lake area for farming.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	3.3	30	12	2.8	3.3	5.0	7.4	4.9	7.9	9.6	13
2	2.0	3.2	33	14	3.3	3.9	6.6	6.8	6.9	10	11	12
3	1.6	4.8	29	10	3.2	5.6	6.4	5.6	8.9	9.2	15	9.4
4	1.4	11	27	7.4	3.0	6.4	3.5	6.2	11	6.2	15	14
5	.70	9.0	21	5.4	2.7	5.4	3.0	5.4	10	5.5	14	12
6	1.4	7.0	17	9.0	2.7	5.9	8.2	6.4	10	9.9	16	7.1
7	3.3	43	17	14	2.2	5.2	14	8.8	9.4	7.9	13	7.2
8	4.3	19	15	14	2.6	6.0	6.0	7.0	8.9	9.7	9.6	10
9	7.6	7.8	13	14	4.3	8.4	4.5	5.9	9.6	8.2	13	11
10	2.6	5.4	12	13	4.3	8.8	4.8	6.0	9.6	8.1	17	9.9
11	.83	4.6	12	14	3.3	7.4	3.7	7.6	9.1	6.7	17	11
12	.47	3.7	11	15	3.7	14	4.2	8.0	9.4	6.2	11	10
13	1.3	3.8	13	20	4.1	17	8.4	8.2	9.1	8.8	6.4	7.5
14	2.1	3.5	1.8	14	2.9	7.4	23	8.6	7.6	9.4	7.1	12
15	1.7	2.8	1.5	12	2.7	11	17	8.4	8.4	9.0	7.5	15
16	1.4	2.3	24	11	3.0	5.9	7.4	8.0	9.4	12	4.2	11
17	1.2	3.4	38	11	3.4	6.4	15	8.8	10	11	9.0	12
18	1.3	3.7	47	11	2.9	5.6	15	12	10	7.4	11	13
19	1.5	3.2	46	11	12	4.8	5.4	11	10	6.9	12	9.0
20	1.6	2.9	35	11	2.6	3.2	5.6	11	7.8	11	9.4	5.4
21	1.8	2.6	70	10	2.9	4.3	3.5	12	7.5	9.4	10	9.2
22	2.0	1.9	96	4.9	2.6	3.3	3.8	9.0	8.4	11	10	9.9
23	2.2	1.5	82	3.2	2.6	5.9	4.8	7.0	8.5	11	5.2	10
24	2.5	3.2	60	3.0	4.1	7.0	3.0	11	9.9	10	8.8	9.4
25	2.8	25	44	2.9	5.8	5.2	4.2	10	9.1	12	9.2	7.8
26	3.2	23	34	2.8	3.5	15	7.4	3.5	7.9	13	11	6.7
27	2.5	5.9	37	3.2	5.6	10	9.0	3.7	7.4	14	12	5.1
28	3.0	48	32	3.9	4.1	8.0	11	4.0	8.8	12	10	7.2
29	4.9	71	26	3.3	-----	6.1	10	4.2	8.5	12	9.6	7.6
30	3.8	41	21	3.3	-----	4.6	9.6	4.4	8.1	11	6.7	11
31	4.2	-----	16	2.8	-----	5.6	-----	4.7	-----	12	10	-----
TOTAL	72.60	370.5	961.3	286.1	102.9	216.6	233.0	230.6	264.1	298.4	330.3	295.4
MEAN	2.34	12.4	31.0	9.23	3.68	6.99	7.77	7.44	8.80	9.63	10.7	9.85
MAX	7.6	71	96	20	12	17	23	12	11	14	17	15
MIN	.47	1.5	1.5	2.8	2.2	3.2	3.0	3.5	4.9	5.5	4.2	5.1
AC-FT	144	735	1,910	567	204	430	462	457	524	592	655	586

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 3,661.80 MEAN 10.0 MAX 96 MIN .47 AC-FT 7,260

## PAJARO RIVER BASIN

## 11152900 CEDAR CREEK NEAR BELL STATION, CALIF.

LOCATION.--Lat 37°03'00", long 121°19'35", in San Luis Gonzaga Grant, Santa Clara County, on left bank 0.5 mile upstream from Hagerman Canyon and 1.3 miles northwest of Bell Station.

DRAINAGE AREA.--12.8 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 4.63 cfs (3,350 acre-ft per year); median of yearly mean discharges, 3.7 cfs (2,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 119 cfs Dec. 18 (gage height, 2.53 ft); no flow for many days.  
Period of record: Maximum discharge, 3,490 cfs Jan. 31, 1963 (gage height, 6.85 ft), from rating curve extended above 560 cfs on basis of slope-area measurement at gage height 4.66 ft; no flow for several months in each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	15	3.0	1.0	.53	1.1	.46	.05	.02		
2		0	44	2.6	1.0	.53	1.0	.51	.05	.01		
3		0	12	2.3	.90	.53	.93	.46	.03	.02		
4		.01	7.1	2.0	.90	.53	.85	.46	.02	.02		
5		.02	5.3	1.8	.80	.53	.79	.46	.02	.02		
6		.01	3.2	1.7	.79	.53	.79	.40	.03	.02		
7		.01	2.2	1.6	.79	.53	.71	.40	.03	.02		
8		.01	1.6	1.5	.79	.53	.69	.40	.03	.02		
9		.01	1.6	1.4	.71	.46	.69	.40	.04	.01		
10		.01	1.3	1.3	.69	.44	.69	.34	.04	.02		
11		.01	1.1	2.0	.79	.40	.69	.34	.03	.01		
12		.01	.94	6.8	.79	1.7	.66	.34	.03	.01		
13		.01	.84	58	.79	5.4	.61	.31	.04	.01		
14		.01	.79	53	.72	1.9	1.0	.24	.03	.01		
15		.01	.80	24	.69	1.4	1.1	.22	.03	.01		
16		.01	24	12	.72	1.2	.86	.20	.03	.01		
17		.01	22	7.6	.87	1.0	.83	.19	.02	.01		
18		.01	33	5.3	.93	.90	.76	.13	.02	.01		
19		.01	48	4.4	.82	.79	.69	.13	.02	.01		
20		.01	25	3.5	.79	.79	.69	.13	.02	.01		
21		0	49	3.0	.71	.79	.64	.13	.02	.01		
22		0	20	2.4	.68	.69	.61	.11	.02	0		
23		.01	10	2.2	.61	.69	.56	.11	.02	0		
24		.01	6.4	1.9	.58	.69	.51	.10	.02	0		
25		.27	4.7	1.7	.53	.69	.50	.08	.02	0		
26		.19	4.2	1.6	.53	14	.46	.07	.02	.01		
27		.05	5.1	1.4	.53	7.2	.46	.07	.02	.01		
28		3.9	6.0	1.3	.50	3.2	.46	.07	.01	.01		
29		21	5.0	1.3	-----	2.2	.46	.07	.01	.01		
30		4.2	4.0	1.1	-----	1.7	.46	.05	.02	.01		
31		-----	3.5	1.1	-----	1.3	-----	.05	-----	0		-----
TOTAL	0	29.81	367.67	214.8	20.95	53.77	21.25	7.43	.79	.34	0	0
MEAN	0	.99	11.9	6.93	.75	1.73	.71	.24	.026	.011	0	0
MAX	0	21	49	58	1.0	14	1.1	.51	.05	.02	0	0
MIN	0	0	.79	1.1	.50	.40	.46	.05	.01	0	0	0
AC-FT	0	59	729	426	42	107	42	15	1.6	.7	0	0

CAL YR 1970 TOTAL 2,120.62 MEAN 5.81 MAX 349 MIN 0 AC-FT 4,210  
WTR YR 1971 TOTAL 716.81 MEAN 1.96 MAX 58 MIN 0 AC-FT 1,420

PEAK DISCHARGE (BASE, 150 CFS).--No peak above base.

REMARKS.--Records good. Flow regulated by Pacheco Lake 9 miles upstream (capacity, 6,150 acre-ft). Small diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	0	112	35	5.8	4.4	4.7		0	15	1.2	4.9
2	4.2	0	306	34	5.3	4.4	4.4		0	11	1.1	4.7
3	3.8	0	174	28	4.7	4.4	4.1		0	9.9	1.0	4.6
4	3.7	0	84	23	4.1	4.7	3.8		0	8.8	.97	4.5
5	3.8	0	57	18	3.8	5.0	3.2		0	8.5	.67	4.0
6	4.3	0	34	15	3.8	5.0	2.5		0	8.1	.77	4.1
7	4.3	0	20	11	3.2	5.3	2.5		0	7.4	.77	3.5
8	3.8	0	13	9.9	3.2	5.3	2.6		13	6.5	.78	3.3
9	3.6	0	9.9	9.1	2.5	4.7	2.1		33	5.6	.48	2.5
10	3.4	0	8.5	8.3	2.5	4.7	1.6		40	5.0	.96	1.8
11	3.3	0	6.5	7.7	2.2	5.0	1.3		22	5.0	1.9	.86
12	3.2	0	5.0	63	2.2	4.7	.90		18	5.0	2.6	1.1
13	2.7	0	4.4	362	2.2	3.5	.40		19	4.7	3.7	1.0
14	1.4	0	3.2	309	2.2	3.2	.84		30	4.4	4.2	1.4
15	1.0	0	2.8	194	2.5	3.2	1.2		28	4.3	4.7	1.1
16	.70	0	57	125	2.8	2.8	1.6		24	4.3	5.0	1.4
17	.50	0	256	90	2.5	2.8	2.0		24	4.0	5.5	1.2
18	.20	0	223	68	2.2	2.5	1.4		23	3.6	5.7	1.3
19	.20	0	529	53	2.8	2.5	.92		24	3.4	5.9	1.4
20	.10	0	229	42	2.2	2.2	.71		20	3.3	5.9	1.7
21	.04	0	388	34	2.5	1.8	.49		17	3.1	6.1	1.7
22	.04	0	236	28	2.8	1.4	.30		16	2.8	6.0	1.7
23	.01	0	148	24	3.2	1.4	.18		16	3.0	6.2	1.9
24	0	0	97	20	3.2	1.4	.08		16	2.8	6.3	2.4
25	0	0	65	16	3.5	1.0	.05		16	2.7	6.5	2.4
26	0	0	53	13	3.5	2.2	.01		16	3.0	6.7	2.1
27	0	0	65	11	4.1	3.5	0		16	2.8	5.9	2.0
28	0	0	76	9.6	4.1	8.5	0		15	2.6	5.7	2.3
29	0	0	60	8.5	-----	7.8	0		15	2.6	5.4	2.6
30	0	.02	51	7.1	-----	6.5	0		15	2.2	5.1	3.1
31	0	-----	42	6.2	-----	5.3	-----		-----	1.4	4.7	-----
TOTAL	52.79	.02	3,415.3	1,682.4	89.6	121.1	43.88	0	476	156.8	118.40	72.56
MEAN	1.70	.0007	110	54.3	3.20	3.91	1.46	0	15.9	5.06	3.82	2.42
MAX	4.5	.02	529	362	5.8	8.5	4.7	0	40	15	6.7	4.9
MIN	0	0	2.8	6.2	2.2	1.0	0	0	0	1.4	.48	.86
AC-FT	105	.04	6,770	3,340	178	240	87	0	944	311	235	144
CAL YR 1970	TOTAL	15,856.75	MEAN	43.4	MAX	1,880	MIN	0	AC-FT	31,450		
WTR YR 1971	TOTAL	6,228.85	MEAN	17.1	MAX	529	MIN	0	AC-FT	12,350		

## PAJARO RIVER BASIN

## RESERVOIRS IN PAJARO RIVER BASIN, CALIF.

11153480 CHESBRO RESERVOIR.--Lat 37°07'00", long 121°41'34", near southwest boundary of Ojo de Agua de la Coche Grant, Santa Clara County, at left end of dam on Llagas Creek, and 2.5 miles west of Morgan Hill. Drainage area, 19.3 sq mi. Period of record, December 1955 to current year. Monthly contents prior to October 1959 published in WSP 1735. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by South Santa Clara Valley Water Conservation District). Extremes for current year: Maximum contents observed, 6,280 acre-ft May 10 (elevation, 519.5 ft); minimum observed, 2,310 acre-ft Nov. 27 (elevation, 497.9 ft). Extremes for period of record: Maximum contents observed, 8,100 acre-ft Feb. 24, 1969 (elevation, 527.4 ft); no contents at times in 1957, 1960-62.

Reservoir is formed by earth- and rockfill dam completed in 1955. Capacity, 7,500 acre-ft between elevations 465 ft (elevation of outlet gates) and 525 ft (crest of spillway). Reservoir is used for flood control and water released down Llagas Creek for irrigation. Record of contents furnished by Santa Clara County Flood Control and Water District.

11154020 UVAS RESERVOIR.--Lat 37°04'02", long 121°41'25", in Las Uvas Grant, Santa Clara County, at center of dam on Uvas Creek, and 4.8 miles southwest of Morgan Hill. Drainage area, 30.4 sq mi. Period of record, December 1957 to current year. Monthly contents prior to October 1959 published in WSP 1735. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by South Santa Clara Valley Water Conservation District). Extremes for current year: Maximum contents observed, 10,180 acre-ft Jan. 17 (elevation, 488.00 ft); minimum observed, 1,580 acre-ft Nov. 25 (elevation, 440.8 ft). Extremes for period of record: Maximum contents observed, 11,030 acre-ft Mar. 16, 1967 (elevation, 490.5 ft); no contents May 18 to Nov. 30, 1961.

Reservoir is formed by earth- and rockfill dam completed in 1957. Capacity, 10,000 acre-ft between elevations 410 ft (hydraulic gate valves) and 487.5 ft (crest of spillway). Water released down Uvas Creek for irrigation; at times, diverted into Llagas Creek 3.6 miles below Chesbro Reservoir for ground-water recharge by percolation. Record of contents furnished by Santa Clara County Flood Control and Water District.

MONTHEND CONTENTS, IN ACRE-FEET (INCLUDING MOMENTARY  
STORAGE ABOVE SPILLWAY CREST), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Chesbro Reservoir	Uvas Reservoir
Sept. 30, 1970..	3,920	2,980
Oct. 31.....	2,490	1,760
Nov. 30.....	2,350	2,880
Dec. 31.....	4,790	8,060
Jan. 31, 1971..	5,510	7,280
Feb. 28.....	5,630	9,070
Mar. 31.....	5,940	10,020
Apr. 30.....	6,230	9,780
May 31.....	6,040	8,740
June 30.....	5,710	7,470
July 31.....	5,420	5,820
Aug. 31.....	4,890	4,030
Sept. 30.....	3,780	2,630

NOTE.--Contents at 0800 on first day of following month.

## 11153500 LLAGAS CREEK NEAR MORGAN HILL, CALIF.

LOCATION.--Lat 37°06'50", long 121°41'25", in Las Uvas Grant, Santa Clara County, on right bank 500 ft upstream from Llagas Avenue Bridge, 0.3 mile downstream from Chesbro Dam, 0.3 mile upstream from small tributary, and 2.3 miles west of Morgan Hill.

DRAINAGE AREA.--19.6 sq mi.

PERIOD OF RECORD.--October 1951 to September 1971 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 445 ft (from topographic map).

AVERAGE DISCHARGE.--20 years, 15.5 cfs (11,230 acre-ft per year); median of yearly mean discharges, 12 cfs (8,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21 cfs Oct. 7-13 (gage height, 1.42 ft); minimum daily, 0.62 cfs Apr. 1.

Period of record: Maximum discharge, 3,190 cfs Apr. 2, 1958 (gage height, 8.45 ft), from rating curve extended above 1,600 cfs on basis of computation of maximum flow over dam; no flow at times in most years.

REMARKS.--Records good. Flow regulated by Chesbro Reservoir 0.3 mile upstream since 1955 (see sta 11153480). No diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	18	8.9	9.1	4.5	4.9	.62	1.2	7.4	4.5	4.3	13
2	19	18	9.6	9.1	4.5	4.9	.65	1.2	7.4	4.5	4.4	13
3	19	18	8.6	9.1	4.5	4.9	.65	1.2	7.4	4.5	4.4	13
4	19	18	8.6	9.1	4.5	4.9	.65	1.4	7.4	4.6	4.4	13
5	19	18	8.6	9.1	4.5	4.9	.65	1.4	7.7	4.5	4.3	13
6	19	18	8.6	9.1	4.5	4.9	.65	1.4	7.7	4.5	4.2	13
7	19	15	8.6	9.1	4.5	4.9	.65	1.4	7.7	4.5	4.1	13
8	21	10	8.6	9.1	4.5	4.9	.65	1.4	7.7	4.5	4.1	13
9	20	8.7	8.6	9.1	4.5	4.9	.75	1.5	7.7	4.5	4.1	13
10	21	8.7	8.6	9.1	4.8	4.6	.75	1.5	7.7	4.5	4.1	13
11	20	8.6	8.6	9.2	4.9	4.5	.75	1.5	7.7	4.5	4.0	13
12	20	8.6	8.6	9.4	4.9	5.0	.75	1.5	6.2	4.5	4.1	13
13	20	8.6	8.6	9.6	4.9	4.3	.75	1.5	4.7	4.5	4.1	13
14	20	8.4	8.8	9.1	4.9	4.3	.85	1.5	4.6	4.5	4.1	13
15	20	8.2	9.1	9.1	4.9	3.8	.75	1.5	4.7	4.5	4.3	15
16	20	8.2	9.1	9.1	4.9	3.6	.85	1.5	4.9	4.5	4.3	17
17	20	8.1	9.1	9.1	4.9	3.1	.97	4.8	4.9	4.5	4.3	17
18	20	8.1	9.2	9.1	4.9	2.7	.97	8.1	4.9	4.5	4.3	17
19	20	8.1	9.1	9.1	4.9	2.3	.97	8.1	4.9	4.5	4.4	17
20	20	8.2	9.3	7.0	4.9	1.8	.97	8.1	4.8	4.5	8.6	17
21	20	8.6	8.7	5.2	4.9	1.7	.85	8.1	4.9	4.5	12	17
22	20	8.6	8.6	4.5	4.9	1.3	.97	8.1	5.1	4.5	12	17
23	20	8.6	8.6	4.5	4.9	1.1	.97	8.1	5.2	4.5	12	19
24	20	8.6	8.6	4.5	4.9	1.1	.97	8.1	5.2	4.2	12	21
25	19	8.6	8.6	4.5	4.9	1.2	.97	7.9	5.2	4.5	12	21
26	19	8.5	8.7	4.5	4.9	1.2	1.1	7.7	5.0	4.2	13	21
27	19	8.6	9.0	4.5	4.9	1.1	1.1	7.5	4.9	4.2	13	21
28	19	8.8	8.9	4.5	4.9	.80	1.1	7.4	4.8	4.2	13	21
29	19	8.8	9.1	4.5	-----	.79	1.2	7.4	4.7	4.2	13	21
30	19	8.7	9.1	4.5	-----	.79	1.2	7.4	4.7	4.3	13	21
31	18	-----	9.1	4.5	-----	.72	-----	7.4	-----	4.3	13	-----
TOTAL	607	319.9	273.8	231.0	133.5	95.90	25.68	136.8	177.8	137.7	226.9	482
MEAN	19.6	10.7	8.83	7.45	4.77	3.09	.86	4.41	5.93	4.44	7.32	16.1
MAX	21	18	9.6	9.6	4.9	5.0	1.2	8.1	7.7	4.6	13	21
MIN	18	8.1	8.6	4.5	4.5	.72	.62	1.2	4.6	4.2	4.0	13
AC-FT	1,200	635	543	458	265	190	51	271	353	273	450	956

CAL YR 1970 TOTAL 5,072.20 MEAN 13.9 MAX 91 MIN 2.8 AC-FT 10,060  
WTR YR 1971 TOTAL 2,847.98 MEAN 7.80 MAX 21 MIN .62 AC-FT 5,650

NOTE.--No gage-height record May 5 to June 6.



## PAJARO RIVER BASIN

11153700 PAJARO RIVER NEAR GILROY, CALIF.

LOCATION.--Lat 36°56'54", long 121°30'39", on boundary between Las Animas and Llano del Tequisquita Grants, Santa Clara County, on center pier on downstream side of highway bridge on Bolsa Road, 0.9 mile downstream from Llagas Creek, and 4.7 miles southeast of Gilroy.

DRAINAGE AREA.--399 sq mi.

PERIOD OF RECORD.--March 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 123.88 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--12 years, 57.3 cfs (41,510 acre-ft per year); median of yearly mean discharges, 24 cfs (17,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 800 cfs Dec. 20 (gage height, unknown); minimum daily, 1.1 cfs Sept. 30.

Period of record: Maximum discharge, 12,900 cfs Jan. 25, 1969 (gage height, 14.63 ft), from rating curve extended above 4,800 cfs; no flow for many days in 1961-62.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Flow regulated by Pacheco Lake (capacity, 6,150 acre-ft), Chesbro Reservoir 21 miles upstream (see sta 11153480) and San Felipe Lake. Many diversions above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	1.6	28	31	26	24	19	19	11	15	2.8	4.6
2	6.2	1.6	67	28	25	23	18	19	14	18	3.8	5.1
3	6.2	1.6	40	26	24	24	17	18	13	15	4.8	6.4
4	6.2	2.4	25	24	24	24	18	18	11	14	4.6	6.9
5	6.2	3.6	30	22	24	23	19	18	9.1	13	3.5	5.1
6	4.1	3.5	30	20	23	22	18	17	8.0	14	6.6	4.0
7	5.7	3.0	27	19	23	21	19	18	8.4	13	6.9	3.6
8	5.5	2.7	24	18	22	21	19	19	9.1	6.6	6.0	4.8
9	6.2	2.8	20	18	22	22	19	16	11	6.8	5.0	4.0
10	5.1	3.0	17	17	22	22	18	16	13	7.3	6.0	5.1
11	6.6	3.2	15	18	22	22	18	16	13	6.6	7.3	5.1
12	4.6	3.3	14	80	22	23	18	19	13	5.0	6.0	5.7
13	6.2	3.5	13	220	22	25	19	20	14	7.3	7.3	5.7
14	4.1	3.8	13	530	23	19	28	19	9.8	7.7	7.5	4.8
15	6.4	4.6	12	344	23	19	22	20	7.7	10	7.3	2.0
16	4.8	4.3	24	242	23	20	21	19	8.4	12	7.8	5.0
17	6.8	4.3	34	174	23	20	22	19	11	5.9	5.5	2.0
18	5.3	4.5	90	123	22	20	20	21	12	7.1	4.6	2.6
19	4.6	4.7	270	90	22	20	19	21	13	4.3	5.0	4.8
20	4.4	4.9	740	70	22	20	20	20	13	6.4	5.3	4.8
21	4.4	5.0	660	54	23	20	19	18	13	6.4	4.8	5.9
22	4.6	5.0	440	45	23	20	19	18	13	6.2	4.0	5.7
23	4.3	5.0	250	39	23	19	22	17	12	6.2	4.0	5.9
24	4.0	5.1	100	35	22	19	21	15	12	5.5	5.3	4.8
25	4.8	6.2	60	32	21	19	22	15	11	3.3	5.3	4.8
26	4.1	13	45	30	21	20	20	15	13	3.0	6.0	4.8
27	3.8	7.5	56	29	22	20	19	15	12	6.6	5.1	5.0
28	3.8	25	48	28	24	19	19	18	9.5	5.1	4.0	5.1
29	4.0	68	43	27	-----	20	19	17	10	4.8	3.8	2.2
30	2.8	27	38	27	-----	20	19	15	13	2.8	3.6	1.1
31	2.1	-----	34	26	-----	19	-----	13	-----	1.5	3.3	-----
TOTAL	152.7	233.7	3,307	2,486	638	649	590	548	341.0	246.4	162.8	137.4
MEAN	4.93	7.79	107	80.2	22.8	20.9	19.7	17.7	11.4	7.95	5.25	4.58
MAX	6.8	68	740	530	26	25	28	21	14	18	7.8	6.9
MIN	2.1	1.6	12	17	21	19	17	13	7.7	1.5	2.8	1.1
AC-FT	303	464	6,560	4,930	1,270	1,290	1,170	1,090	676	489	323	273

CAL YR 1970 TOTAL 33,361.7 MEAN 91.4 MAX 2,250 MIN 1.6 AC-FT 66,170  
WTR YR 1971 TOTAL 9,492.0 MEAN 26.0 MAX 740 MIN 1.1 AC-FT 18,830

PEAK DISCHARGE (BASE, 300 CFS).--Dec. 20 (time unknown) 800 cfs; Jan. 14 (1200) 542 cfs (5.24 ft).

NOTE.--No gage-height record Dec. 18 to Jan. 14.

## 11153900 UVAS CREEK ABOVE UVAS RESERVOIR, NEAR MORGAN HILL, CALIF.

LOCATION.--Lat 37°05'34", long 121°43'02", in Las Uvas Grant, Santa Clara County, on left bank 0.6 mile downstream from Little Uvas Creek, 0.9 mile upstream from Hay Canyon, and 4.4 miles southwest of Morgan Hill.

DRAINAGE AREA.--21.0 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 486.47 ft above mean sea level.

AVERAGE DISCHARGE.--10 years, 28.4 cfs (20,580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,470 cfs Dec. 2 (gage height, 7.31 ft); minimum daily, 0.07 cfs Oct. 2.  
Period of record: Maximum discharge, 6,580 cfs Oct. 13, 1962 (gage height, 13.18 ft); no flow July 12 to Oct. 22, 1961, Oct. 1, 1964.

REMARKS.--Records fair. Minor regulation and diversion above station affects low flows. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.84	147	39	19	9.1	20	9.8	4.6	1.9	1.1	.11
2	.07	.82	347	38	17	9.0	19	10	4.4	1.6	.31	.62
3	.15	.478	64	32	17	9.0	18	10	3.5	1.7	.90	.57
4	.30	3.8	89	29	16	9.0	17	9.8	3.0	1.7	.67	.42
5	.49	7.7	56	28	16	8.9	16	9.6	3.4	1.6	.46	.46
6	.29	8.5	37	26	15	8.4	15	9.5	4.0	1.4	.71	.27
7	.25	6.3	28	24	15	8.7	16	8.9	3.6	1.6	.67	.76
8	.19	2.7	29	23	15	8.7	15	8.7	3.7	1.5	.42	.31
9	.35	2.0	27	21	14	8.7	14	8.2	3.4	1.4	.19	.61
10	.08	1.8	22	20	14	8.7	15	8.3	3.2	1.6	.38	.46
11	.31	1.7	19	37	13	8.8	13	8.0	3.2	1.2	.10	.24
12	.46	1.8	17	65	13	146	13	8.0	3.0	1.1	.46	.36
13	.37	1.5	15	114	13	67	13	7.5	3.4	.68	.67	.13
14	.43	1.4	14	144	12	29	22	7.1	2.6	.50	.46	.36
15	.35	1.4	15	90	12	23	15	7.0	2.9	.87	.42	.32
16	.44	1.3	72	69	12	20	14	6.7	2.1	1.4	.12	.39
17	.46	1.3	69	57	13	18	17	6.5	2.1	.95	.50	.36
18	.36	1.4	88	50	12	16	14	6.0	1.9	1.1	.75	.32
19	.56	1.3	108	43	12	15	14	5.3	2.5	.52	.67	.47
20	.66	1.3	159	39	12	14	13	5.7	2.1	1.2	.75	.54
21	1.2	1.3	199	34	11	13	13	5.5	1.7	.96	.50	.49
22	.99	1.4	94	32	11	13	12	5.1	1.9	1.2	.67	.17
23	1.2	1.4	69	30	11	13	12	5.3	1.9	1.2	.12	.60
24	1.0	1.4	54	28	10	13	12	5.1	2.3	1.2	.63	.62
25	1.1	2.2	45	26	9.6	14	12	4.1	2.0	1.2	.12	.46
26	.80	6.5	44	24	9.6	86	11	4.1	2.4	.93	.60	.82
27	.53	3.3	61	23	10	45	11	4.3	2.6	1.3	.68	1.1
28	.74	153	51	22	9.6	33	11	4.5	2.1	1.2	.41	.81
29	.52	261	52	21	-----	28	11	4.6	2.0	1.2	.50	.89
30	.73	71	47	20	-----	25	11	4.4	1.8	1.3	.41	.81
31	.78	-----	42	20	-----	23	-----	4.6	-----	1.0	.69	-----
TOTAL	16.33	552.14	2,180	1,268	363.8	751.0	429	212.2	83.3	38.21	16.04	14.85
MEAN	.53	18.4	70.3	40.9	13.0	24.2	14.3	6.85	2.78	1.23	.52	.50
MAX	1.2	261	347	144	19	146	22	10	4.6	1.9	1.1	1.1
MIN	.07	.78	14	20	9.6	8.4	11	4.1	1.7	.50	.10	.11
AC-FT	32	1,100	4,320	2,520	722	1,490	851	421	165	76	32	29
CAL YR 1970	TOTAL	12,175.84	MEAN	33.4	MAX	973	MIN	.07	AC-FT	24,150		
WTR YR 1971	TOTAL	5,924.87	MEAN	16.2	MAX	347	MIN	.07	AC-FT	11,750		

## PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0415	6.32	871	12-20	2115	6.33	876
12- 2	0315	7.31	1,470				

## PAJARO RIVER BASIN

11154100 BODFISH CREEK NEAR GILROY, CALIF.

LOCATION.--Lat 37°00'15", long 121°39'58", in Las Animas Grant, Santa Clara County, on left bank just upstream from Whitehurst Creek, 2.7 miles upstream from mouth, and 5.1 miles west of west city limits of Gilroy.

DRAINAGE AREA.--7.40 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 360 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 3.68 cfs (2,670 acre-ft per year); median of yearly mean discharges, 2.2 cfs (1,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 57 cfs Nov. 29 (gage height, 3.84 ft); no flow Sept. 10-20.

Period of record: Maximum discharge, 1,240 cfs Jan. 31, 1963 (gage height, 8.25 ft), from rating curve extended above 580 cfs; no flow at times.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.44	15	3.5	1.7	.81	1.3	1.1	.36	.21	.06	.02
2	.18	.44	18	3.2	1.6	.73	1.2	1.1	.34	.27	.05	.02
3	.30	.52	7.8	2.8	1.5	.74	1.2	1.2	.31	.25	.05	.02
4	.10	1.4	12	2.4	1.4	.81	1.1	1.2	.30	.25	.05	.02
5	.05	3.9	7.1	2.2	1.4	.81	1.0	1.2	.28	.25	.10	.01
6	.05	1.7	4.8	2.0	1.4	.80	.98	1.2	.27	.25	.04	.01
7	.06	.61	3.7	1.8	1.4	.81	1.2	1.1	.24	.20	.03	.01
8	.04	.30	4.6	1.8	1.4	.81	1.1	1.0	.25	.20	.03	.01
9	.04	.24	4.8	1.8	1.2	.81	1.1	.93	.30	.11	.02	.01
10	.04	.24	3.2	1.7	1.2	.81	1.4	.93	.31	.11	.02	0
11	.07	.24	2.8	4.0	1.2	.81	1.2	.93	.29	.17	.02	0
12	.10	.24	2.6	11	1.2	2.9	.93	.81	.27	.16	.04	0
13	.13	.24	2.4	11	1.2	3.5	.93	.81	.27	.14	.04	0
14	.13	.18	2.4	15	1.2	1.7	4.5	.81	.25	.13	.05	0
15	.12	.18	2.2	9.2	1.2	1.5	2.0	.81	.25	.17	.05	0
16	.12	.18	8.1	6.0	1.3	1.4	1.7	.76	.21	.24	.04	0
17	.14	.18	7.1	5.1	1.3	1.2	2.2	.64	.26	.12	.02	0
18	.14	.18	9.1	4.3	.96	1.1	1.7	.62	.25	.11	.03	0
19	.14	.18	12	3.7	1.5	1.1	1.5	.61	.24	.10	.04	0
20	.30	.18	11	3.5	.93	1.1	1.5	.61	.24	.09	.04	0
21	.36	.18	18	3.0	.88	1.1	1.5	.66	.23	.09	.04	.06
22	.30	.18	7.8	2.8	.71	.93	1.4	.57	.27	.07	.04	.08
23	.30	.18	5.1	2.6	.78	1.1	1.3	.57	.25	.08	.04	.08
24	.24	.18	4.0	2.3	.73	.93	1.2	.58	.32	.09	.04	.04
25	.24	1.5	3.2	2.1	.70	1.2	1.2	.56	.31	.07	.04	.04
26	.18	2.6	3.5	2.0	.70	9.2	1.2	.53	.33	.08	.03	.04
27	.14	.70	8.1	1.8	.82	6.0	1.1	.51	.28	.08	.03	.03
28	.18	9.7	6.0	1.8	.81	3.2	1.1	.54	.22	.09	.03	.02
29	.14	28	5.7	1.8	-----	2.0	1.1	.55	.21	.10	.03	.02
30	.24	10	4.5	1.7	-----	1.7	1.1	.49	.21	.09	.03	.01
31	.36	-----	3.7	1.7	-----	1.5	-----	.42	-----	.07	.02	-----
TOTAL	5.11	64.99	210.3	119.6	32.32	53.11	41.94	24.35	8.12	4.44	1.19	.55
MEAN	.16	2.17	6.78	3.86	1.15	1.71	1.40	.79	.27	.14	.038	.018
MAX	.36	.28	.18	.15	1.7	9.2	4.5	1.2	.36	.27	.10	.08
MIN	.04	.18	2.2	1.7	.70	.73	.93	.42	.21	.07	.02	0
AC-FT	10	129	417	237	64	105	83	48	16	8.8	2.4	1.1

CAL YR 1970 TOTAL 2,052.02 MEAN 5.62 MAX 266 MIN .04 AC-FT 4,070  
WTR YR 1971 TOTAL 566.02 MEAN 1.55 MAX 28 MIN 0 AC-FT 1,120

PEAK DISCHARGE (BASE, 150 CFS).--No peak above base.

## 11154200 UVAS CREEK NEAR GILROY, CALIF.

LOCATION.--Lat 36°59'32", long 121°34'21", in Las Animas Grant, Santa Clara County, on left bank 400 ft upstream from county road bridge, 0.4 mile southwest of Gilroy, and 3.9 miles downstream from Bodfish Creek.

DRAINAGE AREA.--71.2 sq mi.

PERIOD OF RECORD.--January 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 190 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 38.1 cfs (27,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 239 cfs Dec. 21 (gage height, 5.27 ft); no flow for many days.  
Period of record: Maximum discharge, 9,490 cfs Feb. 1, 1963 (gage height, 17.66 ft), from rating curve extended above 3,300 cfs; no flow for many days in each year.

REMARKS.--Records good. Flow regulated by Uvas Reservoir 10 miles upstream (see sta 11154020). Diversion above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	.99	78	46	13	3.3	20	1.0	3.2	0	3.8	3.3
2	6.9	.29	113	44	12	3.1	17	.66	3.2	0	4.2	3.2
3	5.6	.09	81	38	12	3.0	16	.33	2.7	0	4.2	3.3
4	6.9	.32	65	33	12	2.7	14	0	2.4	0	4.2	3.1
5	6.9	.77	53	30	11	2.5	12	0	1.7	0	3.7	3.0
6	7.6	.35	37	27	10	2.3	11	0	1.0	0	3.1	3.2
7	6.9	.22	28	24	9.6	2.1	11	0	.50	0	2.5	3.2
8	5.6	.01	20	23	8.7	1.9	11	0	.02	0	2.4	3.2
9	6.3	0	21	21	8.4	1.7	9.6	0	0	0	2.6	2.9
10	14	0	13	19	7.7	1.7	8.4	0	0	0	2.8	2.8
11	10	0	9.0	20	7.3	1.5	8.2	0	0	0	3.6	2.5
12	3.8	0	4.9	53	6.7	2.6	7.0	0	0	0	6.0	1.7
13	4.6	0	3.1	93	6.1	1.7	5.6	0	0	0	6.4	.50
14	4.5	0	1.8	129	5.8	9.6	11	0	0	0	5.7	.01
15	4.5	0	.87	103	5.5	6.4	11	0	0	0	6.3	0
16	4.5	0	16	87	5.6	5.0	7.5	0	0	0	6.5	0
17	4.2	0	32	80	5.8	4.0	7.7	0	0	0	6.1	0
18	5.6	0	39	94	5.2	3.3	9.2	0	0	0	5.6	0
19	5.6	0	88	108	5.0	2.8	7.9	0	0	2.2	5.6	0
20	5.6	0	63	134	4.7	2.4	6.0	0	0	3.5	6.1	0
21	6.9	0	157	129	4.7	2.0	6.0	0	0	4.0	4.3	0
22	7.6	0	102	127	4.5	1.8	5.5	0	0	4.4	4.2	0
23	8.3	0	76	112	5.1	1.7	4.4	0	0	4.3	4.4	0
24	7.6	0	65	52	4.5	1.4	3.7	0	0	4.4	4.0	0
25	5.6	0	58	38	3.8	1.3	3.5	0	0	4.4	4.2	0
26	6.3	0	53	30	3.6	1.2	3.1	0	0	4.5	3.3	0
27	5.6	0	63	24	3.6	3.6	2.6	1.1	0	4.6	3.2	0
28	5.6	0	77	22	3.6	4.0	2.2	2.2	0	4.3	3.2	0
29	5.2	76	66	19	-----	32	1.9	2.5	0	4.0	3.2	0
30	4.9	63	60	17	-----	28	1.5	2.8	0	4.0	3.2	0
31	3.8	-----	51	15	-----	24	-----	3.0	-----	3.9	3.2	-----
TOTAL	193.3	142.04	1,594.67	1,791	195.5	259.1	245.5	13.59	14.72	52.5	131.8	35.91
MEAN	6.24	4.73	51.4	57.8	6.98	8.36	8.18	.44	.49	1.69	4.25	1.20
MAX	14	76	157	134	13	40	20	3.0	3.2	4.6	6.5	3.3
MIN	3.8	0	.87	15	3.6	1.3	1.5	0	0	0	2.4	0
AC-FT	383	282	3,160	3,550	388	514	487	27	29	104	261	71
CAL YR 1970	TOTAL	24,009.17	MEAN	65.8	MAX	1,770	MIN	0	AC-FT	47,620		
WTR YR 1971	TOTAL	4,669.63	MEAN	12.8	MAX	157	MIN	0	AC-FT	9,260		

## PAJARO RIVER BASIN

11156500 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL, CALIF.

LOCATION.--Lat 36°36'34", long 121°12'07", in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.21, T.15 S., R.7 E., San Benito County, on left bank 1.3 miles downstream from Willow Creek, 0.9 mile northwest of Willow Creek School, and 10 miles northwest of San Benito.

DRAINAGE AREA.--249 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 925.52 ft (revised) above mean sea level, unadjusted. Prior to Jan. 28, 1948, and Nov. 11, 1955, to Sept. 30, 1965, at site 0.9 mile downstream at different datum. Jan. 28, 1948, to Nov. 10, 1955, and Oct. 1, 1965, to Oct. 22, 1970 at present site at datum 2.37 ft higher.

AVERAGE DISCHARGE.--32 years, 24.0 cfs (17,390 acre-ft per year); median of yearly mean discharges, 13 cfs (9,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 120 cfs Nov. 29 (gage height, 4.15 ft); minimum daily, 0.22 cfs Sept. 13, 14.

Period of record: Maximum discharge, 8,210 cfs Apr. 3, 1958 (gage height, 8.35 ft, site and datum then in use), from rating curve extended above 600 cfs on basis of slope-area measurement of maximum flow; no flow at times.

Flood of February 1938, reached a stage of about 9.0 ft (former datum) from floodmarks.

REMARKS.--Records good. Flow regulated by Hernandez Reservoir 40 miles upstream beginning in December 1961 (capacity, 18,700 acre-ft). Small diversion above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1565: 1948(M), 1949.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	2.3	34	19	4.0	2.6	2.6	33	46	43	.39	.28
2	.77	2.3	33	18	4.8	2.5	2.6	36	46	40	.39	.28
3	.76	2.3	48	17	4.1	2.5	2.3	36	46	26	.44	.24
4	.76	2.8	27	15	4.4	2.4	2.0	36	46	17	.39	.24
5	.76	3.2	20	14	4.0	2.4	1.8	37	45	12	.39	.24
6	.75	3.5	17	13	4.4	2.4	1.8	37	44	8.0	.39	.28
7	.75	5.2	14	12	4.0	2.4	2.0	37	44	6.0	.39	.24
8	.74	3.2	14	11	4.4	2.4	1.8	39	44	4.4	.34	.24
9	.74	2.8	20	10	4.0	2.4	1.8	38	44	3.5	.34	.24
10	.73	2.3	21	10	4.0	2.4	1.5	37	45	2.8	.34	.24
11	.73	2.3	20	10	3.5	3.5	1.3	36	44	2.3	.34	.24
12	.72	2.3	18	13	3.2	4.4	1.3	36	43	2.0	.34	.24
13	.72	2.3	17	17	3.5	7.2	1.3	36	43	1.8	.34	.22
14	.71	2.3	17	12	3.2	3.5	4.8	36	42	1.3	.34	.22
15	.71	2.3	15	10	3.2	3.2	3.5	36	41	1.2	.34	.24
16	.70	2.4	14	9.0	4.0	2.8	2.3	36	40	.96	.34	.24
17	.70	2.4	17	8.0	4.4	2.6	4.4	35	39	.96	.34	.28
18	.70	2.5	20	7.2	3.5	2.6	5.2	36	39	.86	.34	.28
19	.70	2.6	34	6.4	3.5	2.3	18	36	40	.76	.34	.28
20	.70	2.6	22	6.0	3.5	2.3	21	36	39	.58	.34	.24
21	.95	2.6	60	5.6	3.2	2.3	24	36	38	.53	.34	.28
22	1.5	2.6	84	5.4	3.2	2.3	24	37	38	.53	.34	.24
23	2.6	2.6	54	5.4	3.1	2.6	25	37	38	.53	.28	.24
24	2.6	2.6	36	5.4	3.1	2.8	25	36	38	.58	.34	.24
25	2.6	3.2	28	5.0	3.0	3.2	26	36	39	.58	.28	.28
26	2.3	4.4	24	4.8	2.9	4.0	27	35	43	.68	.28	.24
27	2.6	3.2	26	4.8	2.8	4.4	28	38	44	.58	.28	.24
28	2.6	44	29	4.8	2.7	3.2	29	46	44	.58	.28	.24
29	2.6	96	26	4.7	-----	2.8	31	46	44	.53	.28	.24
30	2.6	71	23	4.7	-----	2.6	37	45	44	.44	.28	.24
31	2.6	-----	20	4.4	-----	2.8	-----	45	-----	.39	.28	-----
TOTAL	40.18	286.1	852	292.6	101.6	91.8	354.3	1,162	1,270	181.37	10.46	7.48
MEAN	1.30	9.54	27.5	9.44	3.63	2.96	11.8	37.5	42.3	5.85	.34	.25
MAX	2.6	96	84	19	4.8	7.2	32	46	46	43	.44	.28
MIN	.70	2.3	14	4.4	7.7	2.3	1.3	33	38	.39	.28	.22
AC-FT	80	567	1,690	580	202	182	703	2,300	2,520	360	21	15

CAL YR 1970 TOTAL 5,566.30 MEAN 15.3 MAX 96 MIN .70 AC-FT 11,040  
WTR YR 1971 TOTAL 4,649.89 MEAN 12.7 MAX 96 MIN .22 AC-FT 9,220

## 11157500 TRES PINOS CREEK NEAR TRES PINOS, CALIF.

LOCATION.--Lat 36°45'13", long 121°17'03", in Santa Ana y Quien Sabe Grant, San Benito County, on right bank 3.5 miles southeast of Tres Pinos and 6.2 miles upstream from mouth.

DRAINAGE AREA.--206 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Yearly estimate only for 1940 and monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Concrete control since June 3, 1954 (control ineffective since 1955 due to gravel fill). Altitude of gage is 570 ft (from topographic map).

AVERAGE DISCHARGE (unadjusted).--32 years, 13.4 cfs (9,710 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 206 cfs Dec. 21 (gage height, 4.99 ft); minimum daily, 0.13 cfs Apr. 6.

Period of record: Maximum discharge, 8,060 cfs Apr. 4, 1941 (gage height, 7.75 ft), from rating curve extended above 3,500 cfs; maximum gage height, 9.49 ft Feb. 24, 1969; no flow at times in 1952, 1957-61, 1965. Flood in February 1938 reached a stage of about 9.0 ft, from floodmarks.

REMARKS.--Records good. No regulation; diversions above station for irrigation can divert total flow in summer months, and since 1962, diversions into basin above station from San Benito River for percolation and irrigation.

REVISIONS.--WSP 1715: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.0	4.7	8.2	2.0	4.7	.54	6.4	3.3	.80	2.2	.90
2	1.2	2.0	8.2	7.2	2.7	4.7	2.0	6.4	3.0	2.0	2.2	.90
3	.62	2.0	22	5.9	3.3	4.7	2.0	5.9	1.6	2.0	2.2	1.0
4	.54	2.2	8.2	4.3	3.3	4.7	1.4	5.9	.80	2.0	2.2	.90
5	.46	2.2	2.7	3.0	3.6	4.7	.15	5.9	.54	1.8	2.2	.80
6	.46	2.4	2.4	3.0	3.6	4.7	.13	5.9	.54	1.8	2.2	.80
7	.46	3.0	2.4	2.7	4.0	4.7	1.0	5.9	1.4	1.8	2.2	.70
8	1.2	3.0	2.4	2.7	4.3	4.7	2.4	5.9	.62	2.0	2.4	.70
9	2.4	3.0	2.4	2.7	4.3	4.7	2.2	5.5	2.4	2.0	2.4	.90
10	2.4	3.0	2.2	2.7	4.3	4.3	2.2	5.5	2.4	1.8	2.4	.80
11	2.4	3.0	2.2	3.0	4.3	4.3	2.2	5.5	2.4	1.8	2.4	.70
12	2.4	3.0	2.2	3.3	4.3	4.7	2.0	5.5	2.4	1.8	2.4	.70
13	2.4	3.0	2.4	95	4.7	4.3	2.2	5.5	2.2	1.8	2.2	.70
14	2.2	2.7	2.2	87	4.7	4.3	6.8	5.5	2.2	2.0	2.2	.90
15	2.2	2.4	2.2	45	5.1	4.3	8.0	5.5	2.0	2.0	2.4	1.0
16	2.2	2.4	2.4	29	5.1	4.3	6.8	5.5	2.0	2.0	2.4	1.2
17	2.2	2.4	3.3	19	5.1	4.0	7.7	5.5	2.0	2.0	2.2	1.2
18	2.2	2.2	24	10	4.7	4.0	7.2	5.9	2.2	2.0	2.2	1.4
19	2.2	2.2	117	5.9	4.7	4.0	7.2	5.9	2.2	2.0	2.2	1.2
20	2.0	2.2	40	3.6	4.3	4.0	7.2	5.9	2.0	2.0	2.2	1.4
21	2.0	2.4	125	4.7	4.3	4.0	7.2	5.9	1.8	2.0	2.2	1.4
22	1.6	2.4	78	4.3	4.3	4.0	6.8	8.6	1.8	2.0	1.8	1.2
23	1.4	2.4	33	3.6	4.3	4.3	6.8	11	.90	2.0	1.8	1.2
24	1.6	2.4	17	3.0	4.3	4.3	6.4	10	.54	2.0	1.8	1.2
25	1.6	3.0	16	2.4	4.7	4.0	6.8	10	.46	2.2	1.6	1.2
26	1.4	3.0	10	2.2	4.7	4.0	6.4	8.2	.46	2.2	1.4	1.4
27	1.4	3.0	13	2.0	4.7	4.0	6.4	6.8	.46	2.0	1.2	1.2
28	1.4	4.3	30	1.6	4.7	3.3	6.8	5.1	.62	2.0	1.2	1.2
29	1.4	55	19	1.6	-----	3.0	6.4	4.3	.54	2.2	1.4	1.4
30	1.6	24	12	1.6	-----	2.7	6.4	4.0	.54	2.0	1.2	1.4
31	1.8	-----	10	1.8	-----	.90	-----	3.3	-----	2.0	1.2	-----
TOTAL	51.54	152.2	618.5	372.0	118.4	127.30	137.72	192.6	46.32	60.00	62.2	31.60
MEAN	1.66	5.07	20.0	12.0	4.23	4.11	4.59	6.21	1.54	1.94	2.01	1.05
MAX	2.4	55	125	95	5.1	4.7	8.0	11	3.3	2.2	2.4	1.4
MIN	.46	2.0	2.2	1.6	2.0	.90	.13	3.3	.46	.80	1.2	.70
AC-FT	102	302	1,230	738	235	253	273	382	92	119	123	63

CAL YR 1970 TOTAL 3,337.24 MEAN 9.14 MAX 390 MIN .46 AC-FT 6,620  
WTR YR 1971 TOTAL 1,970.38 MEAN 5.40 MAX 125 MIN .13 AC-FT 3,910

PEAK DISCHARGE (BASE, 450 CFS).--No peak above base.

## PAJARO RIVER BASIN

11158500 SAN BENITO RIVER NEAR HOLLISTER, CALIF.

LOCATION.--Lat 36°47'17", long 121°22'11", in SW $\frac{1}{4}$  sec.24, T.13 S., R.5 E., San Benito County, on left bank 1,500 ft downstream from Bird Creek, 0.9 mile downstream from Tres Pinos Creek, 2.7 miles west of Tres Pinos, and 4.8 miles southeast of Hollister.

DRAINAGE AREA.--586 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 370 ft (from topographic map).

AVERAGE DISCHARGE.--22 years, 27.8 cfs (20,140 acre-ft per year); median of yearly mean discharges, 9.9 cfs (7,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 521 cfs Nov. 29 (gage height, 6.09 ft); no flow Sept. 2-30.

Period of record: Maximum discharge, 11,600 cfs Apr. 3, 1958 (gage height, 16.30 ft), from rating curve extended above 1,200 cfs on basis of flood-routing study; no flow at times.

REMARKS.--Records good. Flow regulated by Hernandez Reservoir 65 miles upstream beginning in December 1961 (capacity, 18,700 acre-ft). Several small diversions above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	52	1.6	7.4	4.3	1.5	19	28	29	.10	.01
2	.01	.02	24	1.6	8.9	4.3	1.3	22	33	30	.10	0
3	.01	.02	36	1.1	9.1	6.3	1.6	19	32	28	.09	0
4	.01	.02	24	.88	9.1	4.3	1.8	18	32	13	.08	0
5	.01	.03	10	.77	9.6	3.9	1.1	16	31	5.7	.07	0
6	.01	.03	7.8	.72	9.8	4.1	.78	17	29	3.3	.07	0
7	.01	.05	6.2	.67	10	3.7	.70	22	27	1.8	.08	0
8	.01	.05	5.4	.63	8.9	3.6	.98	29	28	1.0	.05	0
9	.01	.04	5.9	.63	7.0	3.8	.97	27	29	.63	.04	0
10	.01	.04	4.9	.59	7.0	4.0	.96	26	29	.45	.03	0
11	.01	.04	3.6	.88	8.2	4.1	.99	23	31	.45	.03	0
12	.01	.04	3.3	2.8	7.0	6.3	1.0	22	30	.45	.02	0
13	.01	.04	3.4	.99	5.7	7.0	.99	21	30	.38	.03	0
14	.01	.04	3.7	144	5.1	5.0	1.4	20	30	.32	.03	0
15	.01	.03	3.3	66	7.8	4.1	1.0	17	32	.32	.03	0
16	.01	.03	3.9	41	7.0	3.4	1.2	18	30	.33	.03	0
17	.01	.03	9.8	25	7.0	3.2	1.4	18	27	.31	.03	0
18	.01	.03	13	16	6.6	2.9	3.4	18	24	.28	.04	0
19	.01	.03	140	12	4.9	2.7	4.4	17	24	.25	.04	0
20	.01	.03	36	11	6.3	2.6	1.5	14	22	.22	.04	0
21	.01	.03	179	11	7.4	2.5	3.9	14	22	.21	.03	0
22	.01	.03	208	11	7.0	2.3	5.7	13	21	.18	.02	0
23	.01	.03	64	11	6.6	2.2	8.5	13	20	.19	.02	0
24	.01	.03	11	10	6.6	2.5	11	14	19	.18	.02	0
25	.01	.05	6.0	9.8	6.0	3.1	15	14	20	.18	.04	0
26	.02	.05	3.7	9.8	5.4	4.2	18	13	22	.19	.03	0
27	.02	.03	2.9	9.4	4.6	5.0	17	11	28	.17	.02	0
28	.02	.32	12	9.4	2.4	3.9	70	15	27	.15	.02	0
29	.02	219	7.4	8.9	-----	3.0	20	23	26	.14	.01	0
30	.02	213	2.8	8.5	-----	2.5	19	25	30	.12	.01	0
31	.02	-----	2.0	7.0	-----	2.1	-----	26	-----	.11	.01	-----
TOTAL	.37	424.23	995.0	532.67	198.4	116.9	167.07	584	813	118.01	1.26	.01
MEAN	.012	14.1	28.9	17.2	7.09	3.77	5.57	18.8	27.1	3.81	.041	.0003
MAX	.02	213	208	144	10	7.0	20	29	33	30	.10	.01
MIN	.01	.02	2.0	.59	2.4	2.1	.70	11	19	.11	.01	0
AC-FT	.7	841	1,780	1,060	394	232	331	1,160	1,610	234	2.5	.02

CAL YR 1970 TOTAL 6,550.43 MEAN 17.9 MAX 527 MIN .01 AC-FT 12,990  
 WTR YR 1971 TOTAL 3,850.92 MEAN 10.6 MAX 213 MIN 0 AC-FT 7,640

## 11158600 SAN BENITO RIVER AT STATE HIGHWAY 156, NEAR HOLLISTER, CALIF.

LOCATION.--Lat 36°51'07", long 121°25'44", in San Justo Grant, San Benito County, on right bank at downstream side of bridge on State Highway 156 and 1.6 miles west of Hollister.

DRAINAGE AREA.--607 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 260 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 514 cfs Dec. 22 (gage height, 4.23 ft); no flow Feb. 1, July 19, Aug. 2, 3.

REMARKS.--Records poor. Flow regulated by Hernandez Reservoir 75 miles upstream (capacity, 18,700 acre-ft). Some small diversions above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.6	33	6.4	0	.19	.95	1.1	13	30	.02	.72
2	3.6	3.6	14	5.9	4.4	.46	2.0	.11	14	37	0	2.6
3	3.6	3.6	26	4.4	4.6	.78	.18	.03	14	48	0	4.0
4	3.6	3.6	17	4.4	4.9	.95	.02	.24	15	44	.03	4.0
5	3.6	4.8	9.0	3.0	5.8	.31	.01	1.8	12	22	.18	2.6
6	3.6	6.4	4.4	2.2	4.0	.24	.01	2.3	11	6.8	.16	.09
7	3.6	7.8	3.4	4.0	3.0	.15	.63	2.6	12	4.9	.16	.03
8	3.6	7.2	2.9	4.0	3.5	.36	2.3	4.9	12	4.0	.18	.02
9	3.6	6.4	3.1	3.0	4.4	1.0	1.8	7.3	13	1.1	.42	.10
10	3.6	6.4	2.8	3.0	3.0	1.6	.14	10	15	1.4	.72	5.4
11	3.6	6.4	2.3	4.4	3.0	3.5	.02	11	16	2.6	.55	5.9
12	3.6	6.4	1.9	7.8	4.9	.07	.01	10	17	1.1	.81	4.4
13	3.6	6.4	1.8	18	3.0	.02	.02	11	14	.27	.42	.31
14	3.6	6.0	2.0	178	.63	.14	2.0	11	18	.36	.24	2.3
15	3.6	4.4	1.8	57	2.0	.60	1.4	12	23	.81	.18	4.4
16	3.6	2.8	4.0	29	3.5	1.2	4.9	11	25	1.2	.31	4.9
17	3.6	2.0	9.9	15	3.5	7.3	1.2	12	24	.36	.63	5.9
18	3.6	2.0	12	4.4	4.4	1.6	.02	12	21	.03	.21	4.9
19	3.6	2.0	141	2.0	4.4	2.0	.36	12	17	0	.55	.55
20	3.6	2.0	78	1.1	1.4	.12	7.3	12	17	.81	.55	.05
21	3.6	2.0	212	.11	2.6	.02	6.8	11	17	.63	1.1	.27
22	3.6	2.0	361	.12	4.9	.01	.63	11	20	.21	.55	1.4
23	3.6	3.3	126	.34	4.4	.12	.55	7.3	22	.24	.08	4.4
24	3.6	5.6	30	.09	2.8	.12	.24	8.3	21	.08	.09	4.9
25	3.6	7.8	16	.06	.67	.24	.09	9.9	20	.06	.55	5.4
26	3.6	8.0	14	.37	.92	.72	.02	9.9	18	.42	1.6	.81
27	3.6	5.0	11	.45	.17	.18	.36	8.8	14	.63	16	.11
28	3.6	5.4	14	.26	.40	.05	.18	9.4	22	.48	1.4	.72
29	3.6	270	21	.28	-----	.05	.63	10	26	.81	.48	4.9
30	3.6	310	11	.12	-----	.04	.95	11	28	.42	.04	5.9
31	3.6	-----	8.8	.01	-----	.36	-----	11	-----	.12	.21	-----
TOTAL	111.6	712.9	1,195.1	359.21	85.19	24.50	35.72	251.98	531	210.84	28.42	81.98
MEAN	3.60	23.8	38.6	11.6	3.04	.79	1.19	8.13	17.7	6.80	.92	2.73
MAX	3.6	310	361	178	5.8	7.3	7.3	12	28	48	16	5.9
MIN	3.6	2.0	1.8	.01	0	.01	.01	.03	11	0	0	.02
AC-FT	221	1,410	2,370	712	169	49	71	500	1,050	418	56	163

WTR YR 1971 TOTAL 3,628.44 MEAN 9.94 MAX 361 MIN 0 AC-FT 7,200

NOTE.--No gage-height record Oct. 1 to Dec. 14.



## PAJARO RIVER BASIN

11158900 PESCADERO CREEK NEAR CHITTENDEN, CALIF.

LOCATION.--Lat 36°54'28", long 121°35'04", on west boundary of Juristac Grant, Santa Clara County, on left bank 0.2 mile downstream from small left-bank tributary, 0.6 mile upstream from mouth, and 1.2 miles northwest of Chittenden.

DRAINAGE AREA.--10.2 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder and rain gage. Datum of gage is 124.13 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 59 cfs Jan. 14 (gage height, 4.25 ft), from rating curve extended above 19 cfs; no flow for many days.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.09	15	4.6	2.4	1.4	1.2	1.1	.76	.25	.01	
2	0	.09	22	4.6	2.4	1.4	1.2	1.1	.65	.31	.01	
3	0	.16	11	3.7	2.2	1.4	1.2	1.1	.65	.31	.01	
4	.01	.38	15	3.4	2.2	1.4	1.1	1.1	.65	.25	.01	
5	.02	.54	9.4	3.4	2.2	1.4	1.1	1.1	.65	.20	0	
6	.02	.31	6.6	3.1	2.0	1.4	1.1	1.1	.65	.20	0	
7	.01	.31	5.2	2.8	2.0	1.4	1.2	.98	.65	.20	0	
8	.01	.20	4.9	2.8	2.0	1.4	1.1	.98	.65	.20	0	
9	0	.16	5.2	2.8	2.0	1.2	1.1	.98	.65	.16	0	
10	.01	.20	4.0	2.6	1.8	1.2	1.2	.98	.65	.12	0	
11	.02	.20	3.7	3.4	1.8	1.2	1.1	.98	.65	.12	0	
12	.04	.20	3.4	10	1.8	2.2	1.1	.98	.54	.12	0	
13	.09	.20	3.4	19	1.8	3.7	1.2	.98	.54	.12	0	
14	.09	.16	3.1	25	1.8	1.8	2.4	.76	.54	.12	0	
15	.09	.16	3.1	11	1.6	1.6	1.6	.76	.38	.16	0	
16	.09	.12	7.8	7.8	1.8	1.4	1.2	.65	.31	.16	0	
17	.09	.16	9.4	6.2	1.8	1.2	1.6	.65	.31	.16	0	
18	.09	.16	13	5.2	1.6	1.1	1.4	.65	.25	.12	0	
19	.06	.20	23	4.9	1.8	1.1	1.2	.65	.31	.09	0	
20	.16	.16	14	4.3	1.6	1.1	1.2	.76	.31	.09	0	
21	.20	.16	19	4.0	1.4	1.1	1.2	.65	.31	.06	0	
22	.16	.16	8.2	3.7	1.4	.98	1.1	.65	.31	.06	0	
23	.20	.16	5.8	3.4	1.6	1.1	1.1	.65	.31	.06	0	
24	.16	.16	4.9	3.1	1.4	.98	1.1	.65	.25	.09	0	
25	.12	2.0	4.3	2.8	1.4	1.1	1.1	.65	.25	.12	0	
26	.12	2.8	4.3	2.8	1.4	6.6	.98	.76	.25	.12	0	
27	.09	.87	12	2.6	1.6	3.7	1.1	.76	.25	.12	0	
28	.06	8.2	8.2	2.6	1.6	2.2	1.1	.76	.25	.09	0	
29	.06	19	7.0	2.6	-----	1.8	1.1	.76	.25	.09	0	
30	.09	9.0	5.8	2.4	-----	1.6	1.1	.76	.25	.04	0	
31	.09	-----	4.9	2.4	-----	1.4	-----	.65	-----	.02	0	-----
TOTAL	2.25	46.67	266.6	163.0	50.4	52.56	36.48	26.04	13.43	4.33	.04	0
MEAN	.073	1.56	8.60	5.26	1.80	1.70	1.22	.84	.45	.14	.001	0
MAX	.20	19	23	25	2.4	6.6	2.4	1.1	.76	.31	.01	0
MIN	0	.09	3.1	2.4	1.4	.98	.98	.65	.25	.02	0	0
AC-FT	4.5	93	529	323	100	104	72	52	27	8.6	.08	0
(a)	.3	.9	5.1	-	.6	1.7	1.8	.2	-	-	0	.1
WTR YR 1971	TOTAL 661.80	MEAN 1.81	MAX 25	MIN 0	AC-FT 1,310							

PEAK DISCHARGE (BASED 25 CFS)						a Precipitation, in inches.	
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1045	3.87	29	12-27	1645	3.85	28
12- 2	0715	3.98	37	1-14	0445	4.25	59
12-20	2245	4.16	51				

## 11159000 PAJARO RIVER AT CHITTENDEN, CALIF.

LOCATION.--Lat 36°54'01", long 121°35'48", in Salsipuedes Grant, Santa Cruz County, on downstream side of right bank pier of bridge on State Highway 129, 0.6 mile downstream from Pescadero Creek, 0.6 mile southeast of Chittenden, and 2.3 miles downstream from San Benito River.

DRAINAGE AREA.--1,186 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1954, published as "near Chittenden."

GAGE.--Water-stage recorder. Datum of gage is 82.28 ft above mean sea level. Prior to May 13, 1949, nonrecording gage on former bridge 100 ft downstream at same datum except that water-stage recorder, also 100 ft downstream and at same datum, was used Dec. 20, 1946, to June 11, 1947, June 21 to Sept. 23, 1947, and Dec. 19, 1947, to May 6, 1948.

AVERAGE DISCHARGE.--32 years, 148 cfs (107,200 acre-ft per year); median of yearly mean discharges, 78 cfs (56,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 874 cfs Dec. 21 (gage height, 6.51 ft); minimum daily, 3.2 cfs Aug. 3.

Period of record: Maximum discharge, 24,000 cfs Dec. 24, 1955 (gage height, 32.46 ft), from rating curve extended above 8,300 cfs on basis of slope-conveyance study; maximum gage height, 33.11 ft Apr. 3, 1958; no flow at times in July, August 1948.

Flood in February 1938, reached a stage of 31.3 ft, from floodmarks.

REMARKS.--Records fair. Flow regulated by Hernandez Reservoir (capacity, 18,700 acre-ft), Pacheco Lake (capacity, 6,150 acre-ft), Chesbro Reservoir (see sta 11153480), Uvas Reservoir (see sta 11154020), and San Felipe Lake. Many diversions above station for irrigation. Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	6.0	166	113	55	35	54	29	17	9.2	3.7	4.3
2	5.6	5.8	198	108	54	34	46	29	17	11	3.3	4.0
3	6.5	6.0	194	96	51	33	41	29	18	11	3.2	4.0
4	6.5	6.3	116	86	50	34	38	28	17	11	3.3	4.2
5	6.5	7.2	104	80	49	33	34	26	16	11	3.3	4.7
6	6.7	7.4	77	74	47	31	32	26	14	9.7	3.3	4.9
7	6.1	7.4	64	70	46	31	32	26	12	10	3.3	4.6
8	5.8	7.4	55	66	44	32	34	26	10	9.5	3.4	3.9
9	6.1	7.4	51	64	42	31	32	26	13	8.0	3.4	3.9
10	6.3	7.6	44	61	41	31	30	24	14	7.8	3.4	4.2
11	6.5	7.8	38	60	40	31	28	24	15	8.3	3.4	4.0
12	6.9	8.0	35	90	38	33	27	24	14	7.2	3.4	3.9
13	6.3	8.0	32	201	37	49	27	24	16	6.5	6.3	3.9
14	6.7	8.0	31	570	37	47	46	24	15	6.9	6.9	4.2
15	6.3	8.3	28	505	36	44	51	24	13	7.8	8.7	4.4
16	6.7	8.7	42	348	36	38	42	24	12	8.5	7.4	4.4
17	6.7	9.0	85	272	36	38	41	24	9.7	9.0	6.9	4.2
18	7.2	9.2	131	235	37	36	39	23	10	7.4	6.7	4.3
19	7.2	9.7	328	219	38	36	39	24	13	6.7	6.0	3.8
20	6.9	10	415	233	36	36	38	23	14	6.7	5.6	3.4
21	6.7	10	700	215	36	36	36	21	14	7.6	5.6	3.9
22	6.5	10	661	201	36	35	36	18	12	7.6	6.1	4.3
23	6.7	11	427	190	36	32	35	17	11	7.6	6.1	4.6
24	6.7	13	287	114	34	32	35	18	11	7.2	5.4	4.7
25	6.3	16	215	85	33	33	32	18	11	6.3	5.4	4.0
26	6.7	20	173	73	31	45	33	18	11	6.1	5.4	4.2
27	6.5	25	166	69	32	55	32	19	11	6.1	5.4	4.3
28	6.3	34	187	65	35	74	30	20	10	6.3	6.3	4.7
29	6.3	120	160	61	-----	73	32	20	9.0	6.5	5.4	4.6
30	6.3	176	142	58	-----	67	31	19	8.5	6.1	4.9	4.4
31	6.1	-----	124	56	-----	59	-----	18	-----	5.2	4.7	-----
TOTAL	200.6	590.2	5,476	4,738	1,123	1,254	1,083	713	388.2	245.8	155.6	126.9
MEAN	6.47	19.7	177	153	40.1	40.5	36.1	23.0	12.9	7.93	5.02	4.23
MAX	7.2	176	700	570	55	74	54	29	18	11	8.7	4.9
MIN	5.6	5.8	28	56	31	31	27	17	8.5	5.2	3.2	3.4
AC-FT	398	1,170	10,860	9,400	2,230	2,490	2,150	1,410	770	488	309	252
CAL YR 1970	TOTAL	71,312.7	MEAN	195	MAX	5,140	MIN	1.7	AC-FT	141,400		
WTR YR 1971	TOTAL	16,094.3	MEAN	44.1	MAX	700	MIN	3.2	AC-FT	31,920		

## PAJARO RIVER BASIN

11159150 CORRALITOS CREEK NEAR CORRALITOS, CALIF.

LOCATION.--Lat 37°00'20", long 121°48'25", in Los Corralitos Grant, Santa Cruz County, on left bank 0.5 mile downstream from Mormon Gulch, 1.2 miles upstream from Corralitos, and 7 miles northwest of Watsonville.

DRAINAGE AREA.--10.6 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Concrete control since July 24, 1969. Altitude of gage is 310 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 9.14 cfs (6,620 acre-ft per year); median of yearly mean discharges, 6.6 cfs (4,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 247 cfs Nov. 29 (gage height, 3.72 ft); minimum daily, 0.04 cfs Sept. 26.

Period of record: Maximum discharge, 1,970 cfs Apr. 2, 1958 (gage height, 7.55 ft), from rating curve extended above 450 cfs on basis of estimate of maximum flow over dam; maximum gage height, 7.62 ft Jan. 31, 1963; no flow at times.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation; Watsonville Water Works can divert up to 8.0 cfs daily above station for municipal supply, domestic use, and irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.50	42	15	5.6	2.2	6.7	.88	.56	.43	.15	.07
2	.14	.19	91	17	5.6	2.1	6.0	.80	.66	.46	.14	.06
3	.18	1.1	31	12	5.5	2.0	5.6	.74	.55	.43	.12	.05
4	.18	4.6	54	9.8	5.3	1.9	5.2	.72	.55	.44	.10	.05
5	.14	5.6	33	9.1	5.0	1.9	4.8	.76	.44	.36	.12	.05
6	.27	9.1	23	8.4	4.5	1.8	4.5	.84	.23	.45	.10	.07
7	.08	5.1	17	7.8	4.4	1.8	4.3	1.2	.30	.32	.12	.07
8	.08	2.8	18	7.3	4.1	1.7	4.1	.96	.41	.29	.12	.07
9	.08	2.4	22	7.0	3.9	1.6	3.9	.78	.34	.39	.11	.08
10	.11	1.2	16	6.7	3.9	1.6	3.7	.71	.35	.45	.11	.05
11	.11	1.0	12	14	3.7	1.6	3.5	.71	.42	.36	.11	.06
12	.10	1.5	9.1	34	3.6	1.0	3.4	.71	.27	.26	.11	.06
13	.12	.71	7.9	27	3.7	44	3.3	.62	.28	.27	.17	.06
14	.16	.11	7.5	44	3.6	25	11	.62	.26	.29	.16	.07
15	.18	.11	6.7	43	3.4	10	3.5	.45	.40	.21	.17	.09
16	.22	.14	14	32	3.6	8.1	3.5	.38	.56	.20	.16	.09
17	.18	.45	21	27	5.0	6.3	7.0	.53	.24	.20	.13	.08
18	.22	.27	26	17	4.1	5.6	4.0	.53	.29	.17	.09	.08
19	.22	.32	33	16	3.6	5.0	3.5	.53	.35	.17	.10	.07
20	.32	.45	44	14	3.4	4.4	3.0	.53	.44	.18	.10	.07
21	.27	.14	65	12	3.1	3.9	2.5	.53	.36	.19	.11	.06
22	.32	.09	39	10	3.1	3.6	2.5	.62	.33	.20	.11	.06
23	.32	.27	30	9.0	2.9	3.4	2.0	.62	.23	.15	.13	.05
24	.32	.27	22	8.3	2.9	3.4	2.0	.53	.33	.14	.14	.05
25	.27	8.7	16	7.9	2.6	3.4	1.5	.45	.38	.11	.16	.05
26	.27	13	17	7.5	2.6	42	1.5	.62	.49	.12	.15	.04
27	.16	5.3	27	7.1	2.4	22	1.4	1.5	.42	.13	.16	.06
28	.07	73	23	7.1	2.3	13	1.2	2.0	.47	.12	.16	.06
29	.06	93	26	6.7	-----	8.3	1.1	.61	.45	.12	.11	.05
30	.19	30	23	6.3	-----	7.5	1.0	.56	.42	.15	.11	.05
31	.37	-----	17	5.8	-----	7.1	-----	.42	-----	.14	.07	-----
TOTAL	5.85	261.42	833.2	455.8	107.4	256.2	111.2	22.46	11.78	7.90	3.90	1.88
MEAN	.19	8.71	26.9	14.7	3.84	8.26	3.71	.72	.39	.25	.13	.063
MAX	.37	93	91	44	5.6	44	11	2.0	.66	.46	.17	.09
MIN	.06	.09	6.7	5.8	2.3	1.6	1.0	.38	.23	.11	.07	.04
AC-FT	12	519	1,650	904	213	508	221	45	23	16	7.7	3.7

CAL YR 1970 TOTAL 5,160.81 MEAN 14.1 MAX 373 MIN .04 AC-FT 10,240  
WTR YR 1971 TOTAL 2,078.99 MEAN 5.70 MAX 93 MIN .04 AC-FT 4,120

PEAK DISCHARGE (BASE, 300 CFS).--No peak above base.

NOTE.--No gage-height record Apr. 2 to May 10.

## 11159200 CORRALITOS CREEK AT FREEDOM, CALIF.

LOCATION.--Lat 36°56'22", long 121°46'10", in Los Corralitos Grant, Santa Cruz County, on right bank just upstream from Green Valley Road bridge, 0.2 mile north of Freedom, and 2.3 miles north of Watsonville.

DRAINAGE AREA.--27.8 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 80 ft (from topographic map).

AVERAGE DISCHARGE.--15 years, 14.1 cfs (10,220 acre-ft per year); median of yearly mean discharges, 8.0 cfs (5,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 428 cfs Nov. 29 (gage height, 5.07 ft); no flow Sept. 14-16.  
Period of record: Maximum discharge, 2,680 cfs Apr. 2, 1958 (gage height, 12.59 ft); no flow at times.  
Flood of Dec. 22, 1955, reached a stage of 15.6 ft, from floodmarks (discharge, 3,620 cfs on basis of contracted-opening measurement of maximum flow).

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No regulation; Watsonville Water Works can divert up to 8.0 cfs daily above station for municipal supply, domestic use, and irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.11	64	20	10	4.0	5.6	.62	.51	.23	.18	.04
2	.03	.13	125	18	9.8	3.9	3.1	.52	.44	.23	.12	.05
3	.03	.13	52	16	9.3	3.8	2.7	.42	.44	.22	.12	.05
4	.03	1.2	86	15	8.9	3.7	2.5	.35	.44	.22	.10	.02
5	.05	3.2	56	13	8.5	3.6	2.3	.28	.44	.22	.12	.05
6	.06	5.0	36	12	8.2	3.5	2.2	.50	.44	.21	.10	.06
7	.04	6.6	28	11	7.9	3.5	2.2	.94	.44	.24	.12	.04
8	.03	.90	33	10	7.6	3.5	2.1	.74	.44	.24	.14	.02
9	.03	.44	34	9.8	7.3	3.5	2.1	.58	.44	.16	.08	.05
10	.03	.22	26	9.6	7.1	3.6	2.1	.44	.44	.14	.10	.05
11	.05	.13	21	20	6.9	3.8	2.1	.40	.44	.12	.10	.02
12	.08	.13	17	33	6.6	14	2.2	.44	.44	.12	.12	.02
13	.08	.19	15	28	6.5	48	2.4	.44	.40	.12	.18	.01
14	.08	.13	16	70	6.3	30	12	.51	.36	.12	.14	0
15	.06	.13	15	52	6.2	15	6.0	.44	.32	.14	.14	0
16	.06	.19	33	40	6.1	7.2	4.8	.40	.28	.16	.14	0
17	.06	.22	34	32	6.3	3.9	8.0	.44	.24	.14	.12	.02
18	.08	.30	43	30	7.4	3.1	6.0	.40	.24	.10	.14	.05
19	.08	.92	59	23	7.0	2.8	4.5	.44	.24	.18	.16	.08
20	.26	.80	66	21	6.4	2.5	3.5	.44	.21	.24	.16	.02
21	.11	.90	103	18	6.0	2.0	2.7	.40	.21	.21	.14	.04
22	.11	.90	61	17	5.6	2.1	2.5	.44	.28	.24	.12	.04
23	.11	1.0	45	16	5.2	1.6	2.1	.44	.28	.21	.10	.05
24	.13	.64	34	15	5.0	1.6	2.0	.44	.27	.21	.12	.06
25	.11	5.0	39	14	4.8	2.1	1.8	.51	.27	.24	.14	.02
26	.09	20	42	13	4.5	43	1.6	.44	.26	.21	.12	.01
27	.09	4.1	33	13	4.3	28	1.4	.44	.25	.21	.12	.02
28	.08	96	28	12	4.2	17	1.1	1.8	.25	.21	.08	.01
29	.08	171	28	12	-----	7.4	.92	1.3	.24	.21	.05	.02
30	.09	43	21	11	-----	2.8	.76	.98	.24	.16	.05	.05
31	.11	-----	23	11	-----	6.8	-----	.74	-----	.18	.06	-----
TOTAL	2.36	363.61	1,316	635.4	189.9	281.3	95.28	17.67	10.19	5.84	3.68	.97
MEAN	.076	12.1	42.5	20.5	6.78	9.07	3.18	.57	.34	.19	.12	.032
MAX	.26	171	125	70	10	48	12	1.8	.51	.24	.18	.08
MIN	.03	.11	15	9.6	4.2	1.6	.76	.28	.21	.10	.05	0
AC-FT	4.7	721	2,610	1,260	377	558	189	35	20	12	7.3	1.9

CAL YR 1970 TOTAL 8,675.42 MEAN 23.8 MAX 894 MIN .02 AC-FT 17,210  
WTR YR 1971 TOTAL 2,922.20 MEAN 8.01 MAX 171 MIN 0 AC-FT 5,800

PEAK DISCHARGE (BASE, 600 CFS).--No peak above base.

NOTE.--No gage-height record Jan. 22 to Mar. 15.

## APTOS CREEK BASIN

11159700 APTOS CREEK AT APTOS, CALIF.

LOCATION.--Lat 36°58'33", long 121°54'05", in Aptos Grant, Santa Cruz County, on left bank at Aptos 0.6 mile upstream from mouth.

DRAINAGE AREA.--12.2 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 8.09 cfs (5,860 acre-ft per year); median of yearly mean discharges, 5.3 cfs (3,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 400 cfs Nov. 29 (gage height, unknown); minimum daily, 0.70 cfs Aug. 30.

Period of record: Maximum discharge, 2,110 cfs Jan. 31, 1963 (gage height, 10.82 ft), from rating curve extended above 980 cfs; no flow July 1-3, 1966.

REMARKS.--Records fair. No regulation; small diversions above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.4	20	10	5.9	3.7	4.0	2.7	2.0	1.6	1.1	.74
2	1.5	2.8	60	9.9	5.9	3.6	4.1	2.9	2.0	1.6	1.1	.76
3	1.5	2.8	18	8.7	5.6	3.6	3.9	2.7	2.0	1.6	1.1	.78
4	1.7	6.9	40	8.3	5.3	3.7	3.9	2.4	2.0	1.6	1.2	.75
5	1.7	5.9	15	8.1	5.1	3.5	3.7	2.0	2.0	1.6	1.1	.77
6	1.6	7.2	12	7.7	5.1	3.5	3.7	2.5	2.0	1.5	1.1	.79
7	1.6	5.3	8.9	7.4	4.8	3.3	3.9	2.9	2.0	1.5	1.1	.75
8	1.5	3.1	11	7.1	4.4	3.4	3.3	2.8	2.0	1.5	1.0	.74
9	1.6	2.6	10	6.8	4.6	3.7	2.9	2.7	2.0	1.5	1.0	.77
10	1.7	2.7	8.3	6.6	4.3	3.9	4.1	2.4	2.0	1.4	.91	.76
11	1.7	2.7	6.9	19	4.3	3.6	3.1	2.4	1.8	1.4	.92	.74
12	1.9	3.0	6.3	29	4.3	9.7	2.7	2.4	1.8	1.4	.94	.77
13	2.0	2.7	6.0	22	4.1	9.6	3.1	2.4	1.8	1.4	1.0	.75
14	2.1	2.5	5.8	23	4.1	5.5	6.4	2.4	1.8	1.4	.92	.73
15	2.1	2.5	6.3	22	4.1	5.0	4.1	2.3	1.8	1.4	.91	.71
16	2.1	2.5	12	15	4.2	4.1	3.3	2.3	1.8	1.4	.90	.77
17	2.1	2.5	15	13	4.2	3.9	4.3	2.3	1.8	1.4	.81	.84
18	2.1	2.5	18	12	4.0	4.2	3.5	2.2	1.8	1.3	.82	.92
19	2.1	2.5	21	10	4.3	3.8	3.1	2.3	1.8	1.2	.85	1.0
20	3.2	2.2	27	9.4	3.9	3.2	3.1	2.1	1.8	1.2	.88	1.0
21	2.8	2.2	67	8.8	3.9	3.1	3.3	2.1	1.8	1.2	.78	1.0
22	2.8	2.2	29	8.4	3.9	2.9	3.3	2.1	1.8	1.2	.77	1.0
23	2.8	2.2	17	8.1	3.9	3.0	3.3	2.1	1.8	1.2	.78	1.1
24	2.7	2.2	12	7.8	3.7	3.0	2.9	2.1	1.8	1.2	.72	1.1
25	2.6	4.0	9.8	7.5	3.7	3.4	2.9	2.1	1.8	1.2	.77	1.0
26	2.3	4.5	11	7.2	3.6	15	2.9	2.0	1.6	1.3	.75	1.1
27	2.4	4.0	16	6.9	3.9	8.9	2.9	2.2	1.6	1.3	.77	1.1
28	2.4	50	13	6.6	3.8	6.3	2.9	2.3	1.6	1.3	.72	1.2
29	2.3	75	19	6.4	-----	5.3	2.7	2.3	1.6	1.2	.72	1.0
30	2.3	15	16	6.4	-----	4.7	2.7	2.0	1.6	1.2	.70	1.3
31	2.4	-----	12	6.1	-----	4.3	-----	1.9	-----	1.2	.74	-----
TOTAL	65.1	228.6	549.3	335.2	122.9	148.4	104.0	72.3	55.0	42.4	27.88	26.74
MEAN	2.10	7.62	17.7	10.8	4.39	4.79	3.47	2.33	1.83	1.37	.90	.89
MAX	3.2	75	67	29	5.9	15	6.4	2.9	2.0	1.6	1.2	1.3
MIN	1.5	2.2	5.8	6.1	3.6	2.9	2.7	1.9	1.6	1.2	.70	.71
AC-FT	129	453	1,090	665	244	294	206	143	109	84	55	53

CAL YR 1970 TOTAL 5,017.80 MEAN 13.7 MAX 444 MIN 1.1 AC-FT 9,950  
WTR YR 1971 TOTAL 1,777.82 MEAN 4.87 MAX 75 MIN .70 AC-FT 3,530

PEAK DISCHARGE (BASE, 100 CFS)  
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE  
11-29 unknown - 400 12-21 0015 4.44 110  
12- 2 unknown 4.95 202

NOTE.--No gage-height record Nov. 13 to Dec. 5.

## 11159800 WEST BRANCH SOQUEL CREEK NEAR SOQUEL, CALIF.

LOCATION.--Lat 37°03'03", long 121°56'17", in NW¼ sec.23, T.10 S., R.1 W., Santa Cruz County, on left bank 0.5 mile upstream from Soquel Creek and 4.5 miles north of Soquel.

DRAINAGE AREA.--12.2 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 220 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 13.1 cfs (9,490 acre-ft per year); median of yearly mean discharges, 9.8 cfs (7,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 620 cfs Nov. 28 (gage height, 5.30 ft); minimum daily, 0.95 cfs Sept. 16.

Period of record: Maximum discharge, 4,530 cfs Jan. 24, 1967 (gage height, 11.47 ft, from high-water mark in well), from rating curve extended above 740 cfs on basis of slope-area measurement at gage height 7.96 ft; minimum daily, 0.50 cfs July 14, 1961.

REMARKS.--Records good. No regulation; small diversions above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.5	60	22	8.0	4.5	7.3	4.8	3.5	2.1	1.5	1.3
2	1.4	1.6	140	18	8.0	4.3	7.0	5.1	3.5	2.1	1.5	1.4
3	1.4	1.8	40	16	7.7	4.3	6.7	4.8	3.3	2.1	1.5	1.4
4	1.5	8.8	80	14	7.3	4.3	6.5	4.8	3.3	2.1	1.5	1.4
5	1.5	12	35	13	7.3	4.3	6.2	4.8	3.3	2.1	1.5	1.4
6	1.5	14	25	13	7.0	4.1	6.5	4.8	3.1	2.0	1.4	1.4
7	1.5	6.7	18	12	7.0	3.9	7.0	4.8	3.1	2.0	1.4	1.3
8	1.5	3.7	22	11	6.7	4.1	5.9	4.5	2.9	2.0	1.3	1.2
9	1.4	2.9	18	11	6.5	3.9	5.9	4.1	2.9	1.8	1.3	1.2
10	1.5	2.7	15	9.9	6.5	4.1	7.0	4.1	2.9	1.8	1.2	1.2
11	1.5	2.7	14	27	6.2	4.1	5.9	4.1	2.9	1.8	1.3	1.2
12	1.6	2.7	13	31	6.2	70	5.6	4.1	2.9	2.0	1.2	1.2
13	1.7	2.3	12	31	5.9	27	6.5	4.1	2.7	1.8	1.4	1.2
14	1.6	2.5	11	31	5.6	12	22	4.1	2.5	2.0	1.4	1.1
15	1.6	3.1	15	23	5.6	10	8.8	3.9	2.5	2.0	1.4	1.1
16	1.5	3.3	25	20	5.6	8.8	7.7	3.7	2.1	2.0	1.4	.95
17	1.5	3.3	30	19	5.9	8.0	9.2	3.7	2.1	2.0	1.3	1.1
18	1.5	3.3	50	17	5.3	7.3	7.3	3.7	2.0	2.0	1.3	1.2
19	1.5	3.5	60	16	5.9	7.0	6.7	3.7	2.0	2.0	1.4	1.2
20	2.1	3.5	100	15	5.3	6.7	6.5	3.7	2.0	2.0	1.4	1.1
21	1.8	3.5	180	13	5.1	6.2	6.5	3.5	2.0	2.0	1.4	1.2
22	2.3	3.7	70	13	5.1	6.2	5.9	3.3	2.0	1.8	1.4	1.2
23	2.1	3.9	45	12	5.1	6.2	5.9	3.1	2.1	1.8	1.4	1.2
24	2.0	3.9	32	11	4.8	5.9	5.6	3.5	2.1	1.8	1.4	1.2
25	1.8	9.5	25	10	4.5	6.7	5.3	3.5	2.1	1.8	1.4	1.1
26	1.7	9.2	30	9.9	4.5	32	5.1	3.5	2.1	1.7	1.3	1.2
27	1.6	6.5	35	9.5	5.1	14	5.1	3.7	2.1	1.7	1.4	1.3
28	1.5	118	30	9.2	4.8	10	4.8	3.5	2.1	1.7	1.3	1.2
29	1.5	162	40	9.2	-----	9.2	4.8	3.7	2.1	1.7	1.3	1.2
30	1.5	35	30	8.8	-----	8.4	4.8	3.7	2.1	1.6	1.3	1.4
31	1.6	-----	25	8.4	-----	7.7	-----	3.5	-----	1.5	1.3	-----
TOTAL	50.1	441.1	1,325	483.9	168.5	315.2	206.0	123.9	76.3	58.8	42.5	36.75
MEAN	1.62	14.7	42.7	15.6	6.02	10.2	6.87	4.00	2.54	1.90	1.37	1.23
MAX	2.3	162	180	31	8.0	70	22	5.1	3.5	2.1	1.5	1.4
MIN	1.4	1.5	11	8.4	4.5	3.9	4.8	3.1	2.0	1.5	1.2	.95
AC-FT	99	875	2,630	960	334	625	409	246	151	117	84	73

CAL YR 1970 TOTAL 8,018.70 MEAN 22.0 MAX 555 MIN 1.3 AC-FT 15,910  
WTR YR 1971 TOTAL 3,328.05 MEAN 9.12 MAX 180 MIN .95 AC-FT 6,600

PEAK DISCHARGE (BASE, 400 CFS).--Nov. 28 (0500) 620 cfs (5.30 ft); Dec. 21 (time unknown) 430 cfs (4.91 ft).

## SOQUEL CREEK BASIN

11159940 SOQUEL CREEK NEAR SOQUEL, CALIF.

LOCATION.--Lat 37°02'02", long 121°56'35", in NW $\frac{1}{4}$  sec.26, T.10 S., R.1 W., Santa Cruz County, on right bank 30 ft downstream from private road bridge, 1.1 miles downstream from West Branch, and 3.4 miles north of town of Soquel.

DRAINAGE AREA.--32.0 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 140 ft (from topographic map). Prior to June 5, 1970, at datum 1.00 ft higher.

EXTREMES.--Current year: Maximum discharge, 1,000 cfs Nov. 29 (gage height, unknown); minimum daily, 0.74 cfs Oct. 1, Sept. 15, 16.

Period of record: Maximum discharge, 2,700 cfs Feb. 15, 1969 (gage height, 9.03 ft, present datum); minimum daily, 0.65 cfs Sept. 30, 1970.

REMARKS.--Records poor. No regulation; small diversion above station for irrigation and mill pond.

REVISIONS.--Revised figures of discharge, in cubic feet per second, for highwater period in the water year 1970, superseding figures published in WRD Calif. 1970, are given herewith:

1969  
Dec. 20..... 400  
24..... 250  
25..... 300

Month	Cfs-days	Mean	Maximum	Minimum	Acre-feet
December 1969	1,851.4	59.7	400	3.9	3,670
CAL YR 1969	28,512.70	78.1	1,470	1.8	56,550
WTR YR 1970	15,267.45	41.8	826	.65	30,280

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.74	2.6	178	51	25	12	20	12	7.6	2.6	2.6	1.3
2	.84	2.7	258	48	24	11	20	12	7.2	1.9	2.6	1.3
3	.98	3.5	94	45	22	10	18	12	7.2	2.4	2.4	1.3
4	1.4	30	177	32	22	10	18	12	6.6	2.9	2.4	1.2
5	1.8	50	89	32	21	10	18	12	6.4	3.7	2.4	1.2
6	2.4	70	52	30	21	10	18	12	6.4	4.0	2.4	1.2
7	2.0	40	41	28	20	10	19	12	6.4	4.0	2.4	1.1
8	1.9	15	48	28	20	10	18	12	6.4	3.7	2.3	1.1
9	1.9	7.0	46	26	19	10	17	12	6.4	3.3	2.3	1.0
10	1.9	6.0	30	25	19	10	19	12	6.4	3.7	2.1	.98
11	1.8	5.5	28	82	18	12	17	11	6.4	4.2	2.1	.98
12	1.6	5.5	26	128	17	130	16	11	5.8	4.4	2.0	.98
13	1.9	5.0	24	125	17	70	17	11	5.2	4.2	2.1	.91
14	1.9	5.0	20	151	16	50	49	11	4.4	4.0	2.1	.79
15	2.0	4.5	25	106	16	25	21	9.9	3.5	3.7	2.1	.74
16	2.0	4.5	71	74	15	20	17	9.1	2.9	3.7	2.1	.74
17	2.0	4.0	70	56	16	18	20	9.1	2.3	4.4	2.0	.98
18	2.0	4.0	111	48	15	15	18	8.3	2.3	4.0	1.9	.98
19	2.1	4.0	130	46	15	12	16	8.3	2.1	3.7	1.9	.91
20	2.9	4.0	143	43	15	10	14	8.3	2.4	3.5	1.9	.91
21	3.5	3.5	276	40	14	10	14	8.3	3.1	3.5	1.6	.98
22	3.5	3.5	161	38	14	10	13	8.3	2.8	3.1	1.6	1.0
23	3.5	4.0	108	37	13	10	13	7.2	2.9	2.9	1.6	1.0
24	3.5	4.0	73	37	13	10	12	7.6	2.9	2.9	1.6	1.0
25	3.5	10	58	36	12	10	12	6.9	3.7	2.9	1.6	1.0
26	3.1	40	60	35	12	100	12	6.6	3.7	3.1	1.6	1.0
27	2.8	15	115	34	12	80	12	6.9	4.4	2.4	1.6	1.1
28	2.8	150	80	32	14	40	12	8.3	3.5	2.6	1.6	1.2
29	2.6	400	136	29	-----	25	12	8.0	3.5	2.3	1.4	1.3
30	2.6	85	89	27	-----	22	12	7.6	3.5	2.4	1.3	1.3
31	2.6	-----	62	26	-----	22	-----	7.6	-----	2.3	1.3	-----
TOTAL	70.06	987.8	2,879	1,575	477	804	514	300.3	138.3	102.4	60.9	31.48
MEAN	2.26	32.9	92.9	50.8	17.0	25.9	17.1	9.69	4.61	3.30	1.96	1.05
MAX	3.5	400	276	151	25	130	49	12	7.6	4.4	2.6	1.3
MIN	.74	2.6	20	25	12	10	12	6.6	2.1	1.9	1.3	.74
AC-FT	139	1,960	5,710	3,120	946	1,590	1,020	596	274	203	121	62

CAL YR 1970 TOTAL 17,079.81 MEAN 46.8 MAX 826 MIN .65 AC-FT 33,880  
WTR YR 1971 TOTAL 7,940.24 MEAN 21.8 MAX 400 MIN .74 AC-FT 15,750

PEAK DISCHARGE (BASE, 750 CFS).--Nov. 29 (0100) 1,000 cfs.

SOQUEL CREEK BASIN

379

11160000 SOQUEL CREEK AT SOQUEL, CALIF.

LOCATION.--Lat 36°59'29", long 121°57'17", in NE¼ sec.10, T.11 S., R.1 W., Santa Cruz County, on left bank 0.2 mile upstream from highway bridge in town of Soquel and 0.4 mile downstream from Bates Creek.

DRAINAGE AREA.--40.2 sq mi.

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 21.38 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 44.3 cfs (32,100 acre-ft per year); median of yearly mean discharges, 31 cfs (22,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,300 cfs Nov. 29 (gage height, 7.06 ft); minimum daily, 0.23 cfs Sept. 14.

Period of record: Maximum discharge, 15,800 cfs Dec. 23, 1955 (gage height, 22.33 ft), from rating curve extended above 2,900 cfs on basis of slope-area measurement of maximum flow; minimum daily, 0.10 cfs Aug. 12, 19, 1964.

REMARKS.--Records fair. No regulation; small diversion above station for irrigation. Records of water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	5.8	222	90	29	16	28	15	7.3	3.9	2.2	1.0
2	1.8	6.1	439	70	28	16	23	16	7.8	3.3	1.9	1.3
3	1.9	8.2	107	60	27	16	21	15	7.4	3.3	2.1	1.0
4	2.1	48	250	50	24	15	20	15	7.0	4.0	1.8	.90
5	2.8	67	118	44	24	15	20	15	7.0	6.1	1.7	1.2
6	4.6	82	79	39	23	15	21	15	6.3	6.5	1.6	1.4
7	3.0	58	52	35	24	14	24	15	6.6	6.2	1.3	1.3
8	2.3	20	60	32	23	14	19	13	6.5	5.4	1.7	1.6
9	2.2	12	45	30	22	14	18	12	6.0	4.6	2.8	1.9
10	2.2	9.3	40	28	21	14	23	14	6.0	3.9	.79	2.0
11	2.5	8.4	34	128	20	14	18	13	6.4	3.3	1.4	1.4
12	3.4	9.0	30	202	19	199	16	12	6.0	3.5	1.1	1.5
13	4.0	7.6	28	179	19	157	18	10	5.3	3.5	1.5	.49
14	4.5	6.4	26	213	20	54	94	9.2	5.8	3.5	2.3	.23
15	4.3	5.5	30	157	20	39	36	9.9	5.4	3.7	3.3	.52
16	4.2	5.5	50	120	21	27	27	12	4.1	3.7	2.9	.64
17	4.3	5.5	80	98	22	22	32	10	3.9	3.6	2.3	.94
18	4.5	5.4	150	86	19	19	26	9.6	3.6	3.2	2.5	.69
19	4.9	5.0	200	77	21	17	23	9.2	3.3	3.0	2.9	.93
20	10	4.7	220	68	18	15	22	9.8	3.6	2.9	2.4	1.4
21	8.1	4.8	500	60	17	14	21	9.3	4.4	2.6	1.7	1.5
22	10	5.3	200	55	18	13	20	8.8	3.7	2.6	1.4	1.4
23	9.6	5.5	150	54	17	13	19	8.2	4.3	2.0	1.5	1.6
24	9.0	5.5	120	50	17	12	18	8.9	3.7	2.1	2.3	1.6
25	7.2	27	100	47	16	14	18	7.6	3.8	2.6	2.6	1.6
26	6.4	53	130	44	15	192	17	6.2	4.2	3.4	2.3	2.2
27	5.8	19	170	43	18	105	16	8.4	4.4	3.4	1.3	2.4
28	5.6	391	130	39	17	60	16	9.9	3.9	2.9	1.4	2.7
29	5.5	585	180	36	-----	45	16	8.0	4.5	2.9	.73	1.9
30	5.5	106	120	34	-----	36	15	8.0	4.5	2.8	.76	3.2
31	5.7	-----	100	31	-----	30	-----	6.9	-----	2.4	.86	-----
TOTAL	149.4	1,581.5	4,160	2,299	579	1,246	705	339.9	156.7	110.8	57.34	42.44
MEAN	4.82	52.7	134	74.2	20.7	40.2	23.5	11.0	5.22	3.57	1.85	1.41
MAX	10	585	500	213	29	199	94	16	7.8	6.5	3.3	3.2
MIN	1.5	4.7	26	28	15	12	15	6.2	3.3	2.0	.73	.23
AC-FT	296	3,140	8,250	4,560	1,150	2,470	1,400	674	311	220	114	84

CAL YR 1970 TOTAL 23,753.50 MEAN 65.1 MAX 1,470 MIN 1.4 AC-FT 47,120  
WTR YR 1971 TOTAL 11,427.08 MEAN 31.3 MAX 585 MIN .23 AC-FT 22,670

PEAK DISCHARGE (BASE, 1,000 CFS).--Nov. 29 (0215) 1,300 cfs (7.06 ft).



## SAN LORENZO RIVER BASIN

## 11160020 SAN LORENZO RIVER NEAR BOULDER CREEK, CALIF.

LOCATION.--Lat 37°12'24", long 122°08'38", in NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.25, T.8 S., R.3 W., Santa Cruz County, on right bank 22 ft upstream from culvert on State Highway 9, 100 ft upstream from small right-bank tributary, and 5.8 miles north of town of Boulder Creek.

DRAINAGE AREA.--6.17 sq mi.

PERIOD OF RECORD.--July 1968 to current year.

GAGE.--Water-stage recorder. Concrete control since Sept. 1, 1971. Altitude of gage is 710 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 183 cfs Nov. 29 (gage height, 4.83 ft); minimum daily, 0.32 cfs Sept. 13-15.

Period of record: Maximum discharge, 600 cfs Jan. 26, 1969 (gage height, 8.48 ft), from rating curve extended above 200 cfs on basis of computation of maximum flow through culvert; minimum daily, 0.32 cfs Sept. 13-15, 1971.

REMARKS.--Records poor. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WRD Calif. 1970: 1969(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.74	10	10	4.7	3.4	3.7	3.3	1.7	1.1	.62	.48
2	.53	.57	35	10	4.7	3.5	3.7	3.1	1.6	1.2	.58	.48
3	.68	.92	15	9.0	4.3	3.5	3.4	2.9	1.6	1.2	.63	.48
4	.70	3.5	40	8.0	4.4	3.5	3.3	2.8	1.6	1.2	.64	.40
5	.64	3.9	20	7.0	4.4	3.5	3.2	2.7	1.6	1.1	.69	.48
6	.62	4.5	10	6.5	4.1	3.2	3.2	2.6	1.6	1.1	.68	.48
7	.60	4.0	9.0	6.0	4.1	3.2	3.1	2.6	1.6	1.1	.70	.48
8	.62	2.0	10	6.0	4.1	3.2	2.9	2.5	1.6	1.1	.73	.48
9	.64	1.5	8.0	5.5	3.8	3.2	2.9	2.5	1.7	1.1	.70	.48
10	.67	1.5	7.0	5.5	4.1	3.2	3.5	2.5	1.8	1.1	.73	.48
11	.67	1.4	6.0	6.0	3.9	3.2	3.2	2.4	1.8	.90	.72	.48
12	.75	1.4	5.5	9.0	3.9	23	3.2	2.4	1.7	.73	.79	.40
13	.79	1.4	5.0	12	4.1	10	3.6	2.4	1.6	.68	.87	.32
14	.82	1.2	4.5	12	4.1	7.3	5.3	2.3	1.3	.67	.82	.32
15	.77	1.2	5.0	12	3.7	6.6	3.7	2.3	1.4	.83	.73	.32
16	.67	1.2	12	10	3.3	6.0	3.5	2.3	1.3	.86	.68	.40
17	.78	1.0	10	10	3.6	5.4	4.7	2.2	1.4	.87	.66	.48
18	.74	1.0	25	9.5	3.2	5.0	3.8	2.2	1.5	.85	.65	.48
19	.78	1.0	22	9.0	3.9	4.6	3.4	2.2	1.5	.83	.57	.48
20	1.2	1.0	25	8.2	3.3	4.3	3.2	2.1	1.4	.80	.62	.48
21	.82	1.0	50	7.4	3.2	4.1	3.2	2.1	1.3	.84	.68	.48
22	1.0	1.0	30	7.1	3.5	3.9	3.1	2.0	1.3	.76	.70	.48
23	1.1	1.0	15	6.8	3.4	3.8	3.0	2.0	1.4	.76	.64	.56
24	1.2	1.0	12	6.5	3.2	3.8	2.9	1.9	1.3	.78	.58	.56
25	1.1	3.0	10	6.1	3.2	8.9	2.8	1.9	1.3	.81	.69	.56
26	1.0	2.5	12	5.8	3.2	14	2.8	1.9	1.3	.76	.60	.70
27	.87	2.5	15	5.5	3.3	8.9	2.7	1.8	1.0	.69	.56	.56
28	.88	40	12	5.3	3.5	7.0	2.6	1.8	.89	.65	.52	.64
29	.77	60	15	5.0	-----	6.9	2.6	1.8	.99	.76	.52	.73
30	.78	12	12	4.9	-----	6.4	2.5	1.7	1.2	.72	.50	.87
31	.76	-----	10	4.7	-----	4.4	-----	1.7	-----	.66	.50	-----
TOTAL	24.45	158.93	477.0	236.3	106.2	180.9	98.7	70.9	43.28	27.51	20.30	15.02
MEAN	.79	5.30	15.4	7.62	3.79	5.84	3.29	2.29	1.44	.89	.65	.50
MAX	1.2	60	50	12	4.7	23	5.3	3.3	1.8	1.2	.87	.87
MIN	.50	.57	4.5	4.7	3.2	3.2	2.5	1.7	.89	.65	.50	.32
AC-FT	49	315	946	469	211	359	196	141	86	55	40	30

CAL YR 1970 TOTAL 3,104.95 MEAN 8.51 MAX 168 MIN .50 AC-FT 6,160

WTR YR 1971 TOTAL 1,459.49 MEAN 4.00 MAX 60 MIN .32 AC-FT 2,890

PEAK DISCHARGE (BASE, 70 CFS).--Nov. 29 (0330) 183 cfs (4.83 ft); Dec. 20 (2145) 102 cfs (3.90 ft).

## 11160300 ZAYANTE CREEK AT ZAYANTE, CALIF.

LOCATION.--Lat 37°05'10", long 122°02'45", in SE $\frac{1}{4}$  sec.2, T.10 S., R.2 W., Santa Cruz County, on left bank at downstream side of bridge on Zayante Road in town of Zayante, 0.4 mile upstream from Lompico Creek, 2.0 miles east of Ben Lomond, and 3.2 miles upstream from mouth.

DRAINAGE AREA.--11.1 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 11.5 cfs (8,330 acre-ft per year); median of yearly mean discharges, 7.6 cfs (5,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 470 cfs Dec. 2 (gage height, 3.90 ft); minimum daily, 0.04 cfs Sept. 15.

Period of record: Maximum discharge, 3,700 cfs Apr. 2, 1958 (gage height, 7.70 ft), from rating curve extended above 1,200 cfs on basis of slope-area measurement of maximum flow; no flow at times, caused by filling of pools upstream.

REMARKS.--Records good. No known regulation; only small diversion above station for individual use. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.84	55	16	6.5	3.9	5.8	4.2	2.0	1.1	.64	.30
2	.47	.84	143	14	6.3	4.1	5.8	4.4	2.0	1.1	.64	.36
3	.47	1.2	20	13	6.0	3.9	5.6	4.1	1.9	1.1	.64	.36
4	.47	5.5	54	12	5.6	3.9	5.5	4.1	1.8	1.1	.60	.28
5	.47	5.3	21	11	5.6	3.8	5.3	4.1	1.8	1.1	.60	.30
6	.41	6.3	14	10	5.6	3.8	5.3	4.1	1.7	1.1	.57	.36
7	.41	3.9	11	9.8	5.6	3.7	5.3	4.1	1.6	1.1	.50	.33
8	.47	2.2	14	9.4	5.5	3.7	5.1	3.8	1.6	.96	.50	.28
9	.47	1.9	11	8.6	5.3	3.7	4.7	3.8	1.6	.96	.33	.25
10	.52	1.6	9.0	8.3	5.1	3.6	5.1	3.7	1.6	.82	.36	.25
11	.58	1.6	8.3	12	5.1	3.6	4.7	3.6	1.5	.82	.41	.23
12	.71	1.7	7.8	14	4.9	4.5	4.6	3.3	1.5	.78	.41	.25
13	.84	1.5	7.3	16	4.9	19	5.7	3.0	1.4	.78	.46	.20
14	.84	1.4	6.8	19	4.7	10	15	2.8	1.3	.71	.50	.13
15	.77	1.3	7.5	17	4.7	8.6	6.5	2.7	1.2	.71	.50	.04
16	.64	1.3	16	15	4.7	7.8	5.8	2.6	1.2	.71	.46	.33
17	.64	1.3	16	14	4.9	7.3	6.5	2.5	1.1	.68	.38	.41
18	.64	1.2	35	14	4.6	6.8	5.6	2.3	1.1	.12	.36	.43
19	.64	1.2	32	12	4.9	6.3	5.3	2.3	1.1	.44	.43	.38
20	.97	1.2	65	11	4.6	6.0	5.3	2.3	1.2	.78	.46	.38
21	.84	1.2	112	11	4.4	5.8	5.1	2.3	1.2	.71	.43	.43
22	.77	1.3	37	9.8	4.4	5.6	4.9	2.2	1.2	.71	.41	.46
23	.90	1.3	25	9.8	4.4	5.6	4.9	2.1	1.2	.64	.41	.46
24	.90	1.3	19	9.0	4.1	5.5	4.7	2.1	1.2	.57	.41	.50
25	.71	3.6	16	8.6	4.1	6.0	4.7	2.0	1.1	.68	.50	.46
26	.64	3.3	18	8.1	3.9	14	4.6	2.0	1.1	.71	.46	.43
27	.58	2.6	19	7.8	4.2	8.3	4.6	2.1	1.2	.53	.41	.60
28	.64	88	16	7.6	4.1	7.6	4.6	2.2	1.1	.53	.38	.57
29	.58	123	26	7.3	-----	7.0	4.4	2.2	1.1	.53	.38	.57
30	.64	18	21	7.0	-----	6.5	4.2	2.1	1.1	.50	.38	.64
31	.77	-----	18	6.8	-----	6.0	-----	2.0	-----	.46	.38	-----
TOTAL	19.98	286.88	880.7	348.9	138.7	236.4	165.2	91.1	41.7	23.54	14.30	10.97
MEAN	.64	9.56	28.4	11.3	4.95	7.63	5.51	2.94	1.39	.76	.46	.37
MAX	.97	123	143	19	6.5	45	15	4.4	2.0	1.1	.64	.64
MIN	.41	.84	6.8	6.8	3.9	3.6	4.2	2.0	1.1	.12	.33	.04
AC-FT	40	569	1,750	692	275	469	328	181	83	47	28	22

CAL YR 1970 TOTAL 6,203.71 MEAN 17.0 MAX 570 MIN .41 AC-FT 12,310  
WTR YR 1971 TOTAL 2,258.37 MEAN 6.19 MAX 143 MIN .04 AC-FT 4,480

PEAK DISCHARGE (BASE, 450 CFS).--Dec. 2 (0030) 470 cfs (3.90 ft).

## SAN LORENZO RIVER BASIN

11160500 SAN LORENZO RIVER AT BIG TREES, CALIF.

LOCATION.--Lat 37°01'49", long 122°03'24", in Canada del Rincon Grant, Santa Cruz County, on right bank 0.5 mile south of Big Trees station on Southern Pacific Railroad, 1.6 miles downstream from Zayante Creek, and 4 miles north of Santa Cruz.

DRAINAGE AREA.--111 sq mi.

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 217.0 ft above mean sea level (levels by Topographic Division).

AVERAGE DISCHARGE.--35 years, 137 cfs (99,260 acre-ft per year); median of yearly mean discharges, 90 cfs (65,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,530 cfs Nov. 29 (gage height, 7.12 ft); minimum daily, 12 cfs Sept. 15, 16.

Period of record: Maximum discharge, 30,400 cfs Dec. 23, 1955 (gage height, 22.55 ft), from rating curve extended above 11,000 cfs on basis of slope-area measurement of maximum flow; minimum, 0.8 cfs (regulated) June 25, 1939; minimum daily, 7.5 cfs July 1, 1939.

REMARKS.--Records good. Flow regulated by Loch Lomond Reservoir since 1961 (capacity, 8,400 acre-ft). Many small diversions above station for domestic supply. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1315-B: 1938(M). WSP 1715: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	20	338	214	98	60	94	58	37	29	17	13
2	17	20	834	201	96	58	89	57	38	29	17	13
3	18	27	299	176	92	58	86	56	37	28	16	14
4	18	93	934	163	89	59	81	55	36	28	16	13
5	17	97	409	154	88	57	78	56	34	25	16	16
6	17	119	246	143	87	55	77	55	33	23	14	14
7	17	77	185	133	86	55	77	53	34	23	15	16
8	16	41	208	127	83	54	72	51	33	22	15	13
9	17	33	169	123	80	53	71	49	33	21	15	16
10	17	30	141	119	78	53	81	50	33	20	15	14
11	16	30	125	160	76	54	70	49	33	20	15	13
12	17	31	114	202	73	552	67	48	32	20	14	13
13	17	29	107	286	73	363	85	47	32	19	14	14
14	17	27	99	280	72	170	148	47	31	19	15	13
15	17	26	103	247	71	145	83	46	29	19	13	12
16	18	25	278	212	71	117	75	45	26	19	14	12
17	18	25	256	194	75	103	93	43	25	19	18	13
18	19	25	596	181	69	94	77	43	24	22	23	15
19	17	25	469	171	81	86	72	41	24	26	18	14
20	25	25	586	160	69	83	71	41	26	31	15	14
21	23	25	1,270	148	66	77	68	37	25	43	14	14
22	30	25	567	141	65	74	66	38	24	42	14	14
23	31	25	374	134	65	74	65	39	24	32	14	15
24	25	25	276	128	63	73	63	38	23	17	14	15
25	23	67	229	124	62	82	61	38	23	17	15	14
26	23	62	262	120	60	287	60	38	23	17	15	15
27	20	46	293	115	66	167	59	40	31	17	15	15
28	19	1,010	244	111	65	128	58	43	44	17	15	15
29	20	1,370	352	107	-----	114	56	42	40	17	14	14
30	19	350	284	104	-----	106	56	39	33	17	14	17
31	21	-----	241	98	-----	99	-----	36	-----	18	14	-----
TOTAL	606	3,830	10,888	4,976	2,119	3,610	2,259	1,418	920	716	473	423
MEAN	19.5	128	351	161	75.7	116	75.3	45.7	30.7	23.1	15.3	14.1
MAX	31	1,370	1,270	286	98	552	148	58	44	43	23	17
MIN	16	20	99	98	60	53	56	36	23	17	13	12
AC-FT	1,200	7,600	21,600	9,870	4,200	7,160	4,480	2,810	1,820	1,420	938	839

CAL YR 1970 TOTAL 67,989 MEAN 186 MAX 3,740 MIN 16 AC-FT 134,900  
WTR YR 1971 TOTAL 32,238 MEAN 88.3 MAX 1,370 MIN 12 AC-FT 63,940

## PEAK DISCHARGE (BASE, 1,400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0445	7.12	2,530	12-21	0045	6.70	2,240
12-4	1000	5.68	1,560	3-12	1815	5.78	1,620

## 11161570 MAJORS CREEK NEAR SANTA CRUZ, CALIF.

LOCATION.--Lat 36°59'55", long 122°07'13", in Refugio Grant, Santa Cruz County, on left bank 1.5 miles downstream from small left-bank tributary, 1.7 miles upstream from State Highway No. 1, and 5.5 miles northwest of Santa Cruz Post Office.

DRAINAGE AREA.--3.77 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 348 ft above mean sea level (levels by city of Santa Cruz).

EXTREMES.--Current year: Maximum discharge, 100 cfs Nov. 28 (gage height, unknown); minimum daily, 1.1 cfs Sept. 23-27.

Period of record: Maximum discharge, 363 cfs Jan. 21, 1970 (gage height, 5.92 ft), from rating curve extended above 160 cfs on basis of slope-area measurement of maximum flow; minimum daily, 1.1 cfs Sept. 23-27, 1971.

REMARKS.--Records good. No regulation or diversion above station. Records of discharge include flow diverted through pipeline from pool for municipal supply of city of Santa Cruz as determined by spalling-meter readings furnished by city of Santa Cruz.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.4	10	5.1	2.5	2.0	2.6	2.1	1.8	1.5	1.4	1.2
2	1.3	1.4	15	4.8	2.9	1.9	2.7	2.3	1.8	1.5	1.4	1.2
3	1.3	1.8	8.5	4.1	2.8	2.0	2.5	2.1	1.8	1.5	1.4	1.2
4	1.3	3.2	25	4.0	2.3	1.9	2.4	2.1	1.8	1.5	1.4	1.2
5	1.3	2.2	10	3.6	2.6	2.0	2.2	2.1	1.8	1.5	1.3	1.2
6	1.3	5.1	8.0	3.4	2.4	1.9	2.2	2.1	1.8	1.5	1.3	1.2
7	1.3	2.5	6.0	3.3	2.4	1.9	2.2	2.0	1.8	1.5	1.3	1.2
8	1.3	1.8	8.4	3.2	2.3	1.9	2.1	1.9	1.8	1.5	1.3	1.2
9	1.3	1.7	8.1	3.1	2.2	1.9	2.1	1.9	1.8	1.5	1.3	1.2
10	1.3	1.7	6.5	3.1	2.1	1.8	2.5	1.9	1.7	1.5	1.3	1.2
11	1.3	1.7	5.0	9.9	2.0	1.9	2.1	1.9	1.7	1.5	1.3	1.2
12	1.3	1.6	3.9	9.5	1.9	7.7	2.0	1.9	1.7	1.5	1.3	1.2
13	1.3	1.6	3.8	7.6	2.0	6.3	2.8	2.0	1.7	1.5	1.3	1.2
14	1.3	1.6	3.5	8.1	2.0	3.8	5.5	2.0	1.7	1.5	1.3	1.2
15	1.4	1.6	3.3	6.3	1.9	4.8	3.0	1.9	1.7	1.4	1.3	1.2
16	1.4	1.6	6.2	5.3	2.0	3.0	2.6	1.8	1.7	1.4	1.3	1.2
17	1.4	1.6	6.2	4.8	1.5	2.6	3.2	1.8	1.6	1.4	1.3	1.2
18	1.4	1.6	18	4.3	1.5	2.5	2.3	1.8	1.6	1.4	1.3	1.2
19	1.4	1.4	12	4.0	2.3	2.3	2.3	1.8	1.6	1.4	1.3	1.2
20	1.4	1.4	17	3.8	1.8	2.2	2.3	1.8	1.6	1.4	1.3	1.2
21	1.4	1.4	30	3.5	1.7	2.1	2.1	1.8	1.6	1.4	1.3	1.2
22	1.7	1.4	14	3.4	1.7	2.0	2.2	1.8	1.6	1.4	1.3	1.2
23	1.5	1.4	8.3	3.2	1.7	2.0	2.1	1.8	1.6	1.4	1.3	1.1
24	1.5	1.4	6.6	3.1	1.7	2.3	2.1	1.8	1.6	1.4	1.3	1.1
25	1.5	2.9	5.3	3.0	2.0	2.5	2.0	1.8	1.6	1.4	1.3	1.1
26	1.5	2.8	6.1	2.9	2.0	16	2.0	1.8	1.6	1.4	1.3	1.1
27	1.5	2.5	9.1	2.4	2.1	5.6	1.7	1.9	1.6	1.4	1.3	1.1
28	1.5	25	7.3	2.8	2.0	3.6	1.8	1.8	1.6	1.4	1.3	1.2
29	1.4	30	8.4	2.6	-----	3.1	2.2	1.8	1.6	1.4	1.3	1.2
30	1.4	12	6.9	2.6	-----	2.7	2.1	1.8	1.6	1.4	1.3	1.2
31	1.4	-----	5.7	2.5	-----	2.6	-----	1.8	-----	1.4	1.3	-----
TOTAL	42.9	119.3	292.1	133.3	58.3	100.8	71.9	59.1	50.5	44.8	40.7	35.5
MEAN	1.38	3.98	9.42	4.30	2.08	3.25	2.40	1.91	1.68	1.45	1.31	1.18
MAX	1.7	30	30	9.9	2.9	16	5.5	2.3	1.8	1.5	1.4	1.2
MIN	1.3	1.4	3.3	2.4	1.5	1.8	1.7	1.8	1.6	1.4	1.3	1.1
AC-FT	85	237	579	264	116	200	143	117	100	99	81	70

CAL YR 1970 TOTAL 2,204.9 MEAN 6.04 MAX 148 MIN 1.3 AC-FT 4,370  
WTR YR 1971 TOTAL 1,049.2 MEAN 2.87 MAX 30 MIN 1.1 AC-FT 2,080

PEAK DISCHARGE (BASE, 80 CFS).--Nov. 28 (time unknown) 100 cfs; Dec. 20 (1000) 85 cfs (4.88 ft).

NOTE.--No gage-height record Nov. 26 to Dec. 8.

## LAGUNA CREEK BASIN

11161590 LAGUNA CREEK NEAR DAVENPORT, CALIF.

LOCATION.--Lat 37°01'32", long 122°07'48", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.30, T.10 S., R.2 W., Santa Cruz County, on right bank 0.2 mile upstream from Reggiardo Creek, 0.4 mile downstream from small left-bank tributary, and 3.6 miles northeast of Davenport.

DRAINAGE AREA.--3.07 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 680 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 70 cfs Nov. 28 (gage height, 2.45 ft); minimum daily, 0.84 cfs Sept. 27, 28.

Period of record: Maximum discharge, 264 cfs Jan. 21, 1970 (gage height, 3.60 ft), from rating curve extended above 120 cfs; minimum daily, 0.84 cfs Sept. 27, 28, 1971.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.5	7.7	7.7	4.4	3.5	4.9	4.0	2.7	2.2	1.3	1.0
2	1.4	1.5	13	7.1	4.4	3.3	4.9	4.2	2.5	2.2	1.3	1.0
3	1.4	1.9	6.8	6.8	4.2	3.3	4.7	4.0	2.5	2.2	1.1	1.0
4	1.4	3.1	21	6.5	4.2	3.3	4.4	3.7	2.5	2.2	1.0	1.0
5	1.4	2.7	8.6	5.9	4.2	3.3	4.4	3.7	2.5	2.2	1.0	1.0
6	1.4	3.2	6.2	5.6	4.0	3.1	4.4	3.7	2.4	2.2	1.0	1.0
7	1.4	2.7	4.9	5.6	4.0	3.1	4.4	3.7	2.4	2.2	1.0	1.0
8	1.4	2.4	6.8	5.4	4.0	3.1	4.2	3.5	2.4	2.2	1.0	1.0
9	1.4	2.2	5.6	5.1	4.0	3.1	4.2	3.5	2.4	1.9	1.0	1.0
10	1.4	1.9	4.9	5.1	3.7	3.1	4.4	3.5	2.4	1.9	1.0	1.0
11	1.4	2.2	4.2	8.3	3.7	3.1	4.4	3.3	2.4	1.9	1.0	1.0
12	1.4	2.1	4.0	9.4	3.7	14	4.2	3.3	2.4	1.8	1.0	1.0
13	1.4	1.9	4.0	9.0	3.7	9.8	4.9	3.3	2.2	1.8	1.0	1.0
14	1.4	1.9	3.7	9.0	3.7	6.8	7.4	3.3	2.2	1.8	1.0	1.0
15	1.3	1.9	4.0	8.3	3.7	6.8	4.9	3.3	2.2	1.8	1.0	.94
16	1.3	1.9	7.1	7.7	3.7	5.4	4.9	3.3	2.2	1.8	.94	.94
17	1.3	1.8	6.5	7.4	4.0	4.9	5.1	3.1	2.2	1.8	.94	.94
18	1.3	1.8	14	6.8	3.7	4.7	4.9	3.1	2.2	1.6	.94	.94
19	1.3	1.6	11	6.5	4.2	4.4	4.7	3.1	2.2	1.6	.94	.94
20	1.8	1.6	14	5.9	4.0	4.4	4.7	3.1	2.2	1.5	.94	.94
21	1.6	1.6	22	5.6	3.7	4.2	4.7	3.1	2.2	1.5	.94	.94
22	1.9	1.6	13	5.4	3.7	4.0	4.4	3.1	2.2	1.5	.94	.94
23	1.9	1.6	9.8	5.4	3.7	3.7	4.4	3.1	2.2	1.5	.94	.94
24	1.8	1.8	8.3	5.4	3.5	3.7	4.4	3.1	2.2	1.5	.94	.94
25	1.8	3.7	7.4	5.1	3.5	4.2	4.4	3.1	2.4	1.5	1.0	.94
26	1.6	3.5	8.6	4.9	3.5	16	4.2	3.1	2.4	1.5	1.0	.94
27	1.5	2.7	9.0	4.9	3.5	8.6	4.2	3.1	2.4	1.5	1.0	.84
28	1.5	21	8.0	4.9	3.5	6.8	4.2	3.1	2.4	1.3	1.0	.84
29	1.5	23	12	4.7	-----	5.6	4.0	2.7	2.4	1.3	1.0	.94
30	1.5	8.6	9.0	4.7	-----	5.4	4.0	2.7	2.4	1.3	1.0	1.3
31	1.5	-----	8.0	4.4	-----	5.1	-----	2.7	-----	1.3	1.0	-----
TOTAL	46.0	110.9	273.1	194.5	107.8	163.8	137.9	102.6	70.3	54.5	31.16	29.20
MEAN	1.48	3.70	8.81	6.27	3.85	5.28	4.60	3.31	2.34	1.76	1.01	.97
MAX	1.9	23	22	9.4	4.4	16	7.4	4.2	2.7	2.2	1.3	1.3
MIN	1.3	1.5	3.7	4.4	3.5	3.1	4.0	2.7	2.2	1.3	.94	.84
AC-FT	91	220	542	386	214	325	274	204	139	108	62	58

CAL YR 1970 TOTAL 2,808.10 MEAN 7.69 MAX 131 MIN 1.3 AC-FT 5,570

WTR YR 1971 TOTAL 1,321.76 MEAN 3.62 MAX 23 MIN .84 AC-FT 2,620

PEAK DISCHARGE (BASE, 110 CFS).--No peak above base.

## SAN VICENTE CREEK BASIN

385

11161800 SAN VICENTE CREEK NEAR DAVENPORT, CALIF.

LOCATION.--Lat 37°03'19", long 122°10'52", on east boundary of San Vicente Grant, Santa Cruz County, on right bank 0.6 mile downstream from small right-bank tributary, 1.2 miles upstream from Mill Creek, and 3.1 miles north of Davenport.

DRAINAGE AREA.--6.07 sq mi (revised).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete dam. Altitude of gage is 740 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 71 cfs Nov. 29 (gage height, 3.90 ft); minimum daily, 0.76 cfs Sept. 24, 25.

Period of record: Maximum discharge, 335 cfs Jan. 21, 1970 (gage height, 4.90 ft); minimum daily, 0.76 cfs Sept. 24, 25, 1971.

REMARKS.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.6	12	14	6.8	5.2	8.0	5.4	3.6	2.5	1.5	1.2
2	1.5	1.6	15	13	6.6	4.8	7.6	6.0	3.6	2.5	1.5	1.2
3	1.5	2.1	9.6	12	6.6	4.7	7.3	5.6	3.4	2.5	1.5	1.1
4	1.5	5.2	29	11	6.6	4.8	6.8	5.4	3.4	2.5	1.4	1.1
5	1.6	5.4	18	11	6.6	4.7	6.4	5.4	3.4	2.4	1.5	1.1
6	1.6	4.8	12	9.8	6.2	4.7	6.4	5.2	3.4	2.4	1.5	1.2
7	1.6	3.9	9.0	9.6	6.2	4.7	6.2	5.2	3.4	2.4	1.5	1.1
8	1.6	2.9	11	9.0	6.2	4.7	6.2	5.0	3.4	2.3	1.5	1.1
9	1.6	2.4	9.6	8.8	6.2	4.7	6.0	4.8	3.3	2.1	1.4	1.0
10	1.6	2.3	8.0	8.8	5.7	4.7	7.3	4.8	3.3	2.1	1.4	.92
11	1.6	2.4	7.3	14	5.6	4.7	6.2	4.7	3.3	2.1	1.4	.92
12	1.6	2.4	6.4	16	5.6	18	6.0	4.5	3.1	2.1	1.5	.92
13	1.6	2.5	6.0	16	5.6	17	7.4	4.3	3.1	2.1	1.5	.92
14	1.7	2.5	5.6	16	5.6	11	11	4.3	3.1	2.1	1.4	.84
15	1.7	1.9	6.0	15	5.6	10	7.8	4.2	2.9	2.1	1.3	.84
16	1.7	1.9	13	13	5.7	8.5	7.3	4.2	2.9	2.1	1.3	.84
17	1.6	1.9	12	12	6.0	8.0	8.0	4.2	2.7	2.1	1.3	.84
18	1.6	2.0	28	12	5.6	7.3	7.3	4.0	2.7	2.0	1.3	.92
19	1.6	2.0	25	11	6.4	6.4	6.8	3.9	2.7	2.0	1.3	.92
20	2.2	2.0	24	10	6.1	6.2	6.6	3.9	2.7	2.0	1.3	.84
21	1.8	2.0	32	9.6	5.6	5.8	6.4	3.9	2.6	2.0	1.3	.92
22	3.0	2.0	26	9.0	5.6	5.8	6.0	3.9	2.6	1.9	1.3	.92
23	2.3	2.0	21	8.8	5.6	5.6	6.0	3.9	2.6	1.9	1.3	.84
24	2.1	2.1	18	8.5	5.2	5.6	5.8	3.9	2.6	1.9	1.3	.76
25	1.8	4.7	15	8.5	5.2	6.2	5.8	3.7	2.6	1.9	1.3	.76
26	1.7	3.9	23	8.3	5.2	23	5.6	3.7	2.6	1.9	1.3	.92
27	1.6	3.6	18	8.0	5.2	16	5.6	3.9	2.6	1.9	1.2	1.0
28	1.6	35	16	7.8	5.2	12	5.4	3.9	2.5	1.9	1.2	1.0
29	1.6	41	21	7.6	-----	10	5.4	3.7	2.4	1.8	1.2	1.1
30	1.6	19	18	7.3	-----	9.0	5.2	3.6	2.4	1.7	1.2	1.1
31	1.6	-----	16	7.1	-----	8.3	-----	3.6	-----	1.6	1.2	-----
TOTAL	53.2	169.0	490.5	332.5	164.3	252.1	199.8	136.7	88.9	64.8	42.1	29.14
MEAN	1.72	5.63	15.8	10.7	5.87	8.13	6.66	4.41	2.96	2.09	1.36	.97
MAX	3.0	41	32	16	6.8	23	11	6.0	3.6	2.5	1.5	1.2
MIN	1.5	1.6	5.6	7.1	5.2	4.7	5.2	3.6	2.4	1.6	1.2	.76
AC-FT	106	335	973	660	326	500	396	271	176	129	84	58

CAL YR 1970 TOTAL 4,433.20 MEAN 12.1 MAX 194 MIN 1.4 AC-FT 8,790  
WTR YR 1971 TOTAL 2,023.04 MEAN 5.54 MAX 41 MIN .76 AC-FT 4,010

PEAK DISCHARGE (BASE, 100 CFS).--No peak above base.

## SCOTT CREEK BASIN

11161900 SCOTT CREEK ABOVE LITTLE CREEK, NEAR DAVENPORT, CALIF.

LOCATION.--Lat 37°03'51", long 122°13'42", in Agua Puerco y las Trancas Grant, Santa Cruz County, on left bank 600 ft upstream from Little Creek, 2.0 miles upstream from mouth, and 4.2 miles north of Davenport.

DRAINAGE AREA.--25.1 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 30.1 cfs (21,810 acre-ft per year); median of yearly mean discharges, 23 cfs (16,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 810 cfs Nov. 29 (gage height, 4.20 ft); minimum daily, 0.62 cfs Sept. 15.

Period of record: Maximum discharge, 1,970 cfs Feb. 13, 1962 (gage height, 9.36 ft), from rating curve extended above 650 cfs on basis of slope-area measurement at gage height 7.35 ft; minimum daily, 0.30 cfs for several days in 1961.

REMARKS.--Records good except those above 600 cfs, which are fair. No regulation; small diversions above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	2.2	78	65	31	19	38	19	9.7	5.5	2.8	1.3
2	1.0	2.4	73	58	30	18	36	23	9.3	5.2	2.7	1.3
3	3.0	3.4	55	52	29	18	33	20	8.9	5.0	2.8	1.1
4	4.0	13	162	48	28	18	31	20	8.7	4.9	2.9	1.1
5	4.8	15	102	46	27	18	29	19	8.3	5.2	2.7	.99
6	4.9	17	72	44	27	17	28	19	7.9	5.2	2.7	1.3
7	4.8	15	55	43	26	17	27	18	8.1	5.0	2.6	1.1
8	4.8	9.2	55	42	26	17	27	18	7.9	4.7	2.4	1.0
9	4.9	7.0	48	41	25	17	26	17	7.9	4.6	2.2	.87
10	5.1	6.0	42	40	25	17	29	16	7.9	4.6	2.0	.84
11	4.8	5.6	38	48	24	17	26	16	7.6	4.4	2.1	.76
12	2.7	6.3	35	60	23	64	25	16	7.4	4.2	2.3	.74
13	3.1	5.5	33	68	23	65	26	15	7.5	4.2	2.2	.80
14	3.4	4.9	30	70	22	41	41	15	7.3	4.2	2.3	.65
15	2.0	4.4	29	65	22	41	29	14	7.0	4.6	2.2	.62
16	1.7	4.3	72	59	22	36	27	14	6.8	4.5	1.9	.80
17	1.6	4.1	64	56	23	33	34	13	6.3	4.3	1.7	.96
18	1.7	4.1	126	53	22	30	28	13	6.2	4.1	1.8	1.1
19	1.7	4.0	111	49	25	29	27	12	6.1	4.0	2.1	1.1
20	3.1	3.9	125	47	22	27	26	12	5.9	4.3	2.0	1.0
21	3.2	3.9	193	44	21	26	26	12	5.8	4.1	1.9	1.0
22	6.6	3.9	142	43	21	25	23	12	5.5	3.9	1.9	1.2
23	4.8	3.8	115	41	21	25	23	11	5.6	3.7	1.9	1.2
24	4.3	4.1	97	39	20	25	22	11	5.8	3.6	1.9	1.1
25	3.2	13	83	38	20	26	22	11	5.7	3.9	2.1	1.1
26	2.5	12	84	37	19	118	21	11	5.9	4.0	2.0	1.4
27	2.2	9.6	88	36	20	78	21	12	5.9	3.8	1.7	1.5
28	2.2	194	82	35	20	56	20	12	5.4	3.6	1.6	1.3
29	2.1	326	93	33	-----	48	20	10	5.3	3.2	1.5	1.3
30	2.1	106	82	32	-----	44	19	9.9	5.6	3.4	1.6	2.2
31	2.2	-----	72	31	-----	40	-----	9.7	-----	3.1	1.6	-----
TOTAL	99.5	813.6	2,536	1,463	664	1,070	810	450.6	209.2	133.0	66.1	32.73
MEAN	3.21	27.1	81.8	47.2	23.7	34.5	27.0	14.5	6.97	4.29	2.13	1.09
MAX	6.6	326	193	70	31	118	41	23	9.7	5.5	2.9	2.2
MIN	1.0	2.2	29	31	19	17	19	9.7	5.3	3.1	1.5	.62
AC-FT	197	1,610	5,030	2,900	1,320	2,120	1,610	894	415	264	131	65

CAL YR 1970 TOTAL 17,048.80 MEAN 46.7 MAX 960 MIN 1.0 AC-FT 33,820  
WTR YR 1971 TOTAL 8,347.73 MEAN 22.9 MAX 326 MIN .62 AC-FT 16,560

PEAK DISCHARGE (BASE,300 CFS).--Nov. 29 (0345) 810 cfs (4.20 ft).

## 11162500 PESCADERO CREEK NEAR PESCADERO, CALIF.

LOCATION.--Lat 37°15'39", long 122°19'40", in SW $\frac{1}{4}$  sec.5, T.8 S., R.4 W., San Mateo County, on left bank at downstream side of highway bridge, 3.0 miles east of Pescadero, and 5.3 miles upstream from mouth.

DRAINAGE AREA.--45.9 sq mi.

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 62.3 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 42.0 cfs (30,430 acre-ft per year); median of yearly mean discharges, 24 cfs (17,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 770 cfs Nov. 29 (gage height, 6.25 ft); minimum daily, 0.46 cfs Oct. 1.

Period of record: Maximum discharge, 9,420 cfs Dec. 23, 1955 (gage height, 21.27 ft), from rating curve extended above 2,700 cfs on basis of slope-area measurement of maximum flow; no flow at times.

REMARKS.--Records good. Minor regulation from swimming pools in San Mateo County Memorial Park and Portola State Park during summer months. Small diversions above station by pumping. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1445: 1952-53(M). WSP 1715: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	1.3	69	115	24	13	32	12	7.2	4.4	2.9	2.0
2	.59	1.3	151	110	24	12	29	16	7.2	4.3	2.6	2.1
3	.50	1.6	95	105	23	12	27	14	7.2	4.4	2.6	2.1
4	.84	8.0	292	100	22	12	26	13	7.2	4.3	2.5	2.1
5	.99	15	153	50	22	12	25	13	7.2	4.0	2.6	2.0
6	1.4	15	88	46	21	11	23	13	6.7	4.2	2.5	1.9
7	1.7	20	63	43	21	11	23	12	6.5	4.0	2.5	3.5
8	1.6	8.8	57	40	20	11	22	12	6.6	4.0	2.4	2.1
9	1.9	5.6	51	38	19	12	21	11	5.9	4.0	2.3	1.8
10	2.0	4.5	42	36	19	12	22	11	5.6	3.8	2.1	1.7
11	1.7	4.2	38	40	18	11	19	10	6.6	4.0	2.1	1.7
12	1.4	4.3	34	54	17	111	19	10	6.3	3.7	2.1	1.7
13	1.7	4.9	31	79	17	135	18	9.8	5.9	3.8	2.2	1.7
14	1.7	4.0	28	84	16	57	23	9.8	5.7	3.8	2.2	1.7
15	1.9	3.5	26	75	16	49	20	9.5	5.4	3.7	2.3	1.7
16	2.2	3.3	90	64	16	40	19	8.8	5.2	3.5	2.1	1.7
17	1.1	3.2	130	57	18	36	22	8.5	5.1	3.5	2.2	1.7
18	1.1	3.3	200	53	16	32	21	8.2	4.7	3.4	2.2	1.7
19	1.3	3.2	180	49	19	29	19	7.9	4.8	3.2	2.1	1.7
20	1.7	3.3	200	45	16	26	19	7.7	4.9	2.9	2.2	1.7
21	3.2	3.2	300	42	15	25	18	7.7	4.8	3.0	2.3	1.7
22	3.7	3.2	250	39	15	23	18	7.4	4.7	2.9	2.2	1.7
23	3.2	3.2	200	37	15	23	16	7.4	4.7	2.9	2.2	1.7
24	3.5	3.3	150	35	14	23	15	7.2	4.7	3.0	2.2	1.7
25	3.0	10	120	33	14	23	15	7.2	4.5	3.0	2.3	1.8
26	2.4	15	130	32	13	126	14	7.7	4.8	2.8	2.3	1.9
27	1.9	11	160	30	14	82	14	8.2	5.0	3.1	2.5	1.9
28	1.7	159	140	28	14	54	13	8.8	4.8	3.1	2.1	2.0
29	1.6	416	150	27	-----	44	13	8.5	4.5	3.2	2.1	2.0
30	1.2	101	130	26	-----	38	12	7.9	4.4	3.2	2.0	2.2
31	1.3	-----	120	25	-----	34	-----	7.4	-----	3.0	2.0	-----
TOTAL	54.48	843.2	3,868	1,637	498	1,139	597	302.6	168.8	110.1	70.9	56.9
MEAN	1.76	28.1	125	52.8	17.8	36.7	19.9	9.76	5.63	3.55	2.29	1.90
MAX	3.7	416	300	115	24	135	32	16	7.2	4.4	2.9	3.5
MIN	.46	1.3	26	25	13	11	12	7.2	4.4	2.8	2.0	1.7
AC-FT	108	1,670	7,670	3,250	988	2,260	1,180	600	335	218	141	113

CAL YR 1970 TOTAL 18,749.75 MEAN 51.4 MAX 1,070 MIN .46 AC-FT 37,190

WTR YR 1971 TOTAL 9,345.98 MEAN 25.6 MAX 416 MIN .46 AC-FT 18,540

PEAK DISCHARGE (BASE, 700 CFS).--Nov. 29 (0615) 770 cfs (6.25 ft).



## PESCADERO CREEK BASIN

11162540 BUTANO CREEK NEAR PESCADERO, CALIF.

LOCATION.--Lat 37°14'01", long 122°21'56", in Butano Grant, San Mateo County, on right bank 0.2 mile downstream from small right-bank tributary and 1.7 miles southeast of Pescadero.

DRAINAGE AREA.--18.3 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1957, 1959-62, and annual maximum, water years 1959-62. June 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 70 ft (from topographic map). February 1957 to June 22, 1962, crest-stage gage at site 250 ft downstream at same datum.

AVERAGE DISCHARGE.--9 years, 21.1 cfs (15,290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 538 cfs Dec. 21 (gage height, 9.34 ft); minimum daily, 0.20 cfs Oct. 8.

Period of record: Maximum discharge, 1,600 cfs Feb. 13, 1962 (gage height, 10.04 ft, crest-stage gage, from floodmarks), by slope-area measurement of maximum flow; no flow July 29 to Aug. 1, 1964.

REMARKS.--Records good. No regulation; small diversions above station for irrigation. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	1.3	25	47	12	6.5	20	6.3	4.1	2.2	1.6	.50
2	.25	1.3	60	43	11	6.3	18	8.7	4.1	2.4	1.4	.82
3	.25	1.9	27	36	11	6.3	17	7.1	4.1	2.3	1.2	1.1
4	.25	5.1	130	32	11	6.3	15	7.2	3.8	2.6	.96	1.0
5	.22	6.5	71	29	10	6.1	14	7.0	3.9	2.5	1.0	1.0
6	.31	6.8	42	26	10	5.9	14	6.9	3.9	2.3	.63	.94
7	.28	6.9	30	24	9.8	5.8	13	6.5	3.9	2.1	.79	.91
8	.20	3.8	28	22	9.5	5.8	12	6.1	3.8	2.2	.82	.86
9	.24	3.0	25	21	9.2	5.7	12	5.8	3.9	2.1	.98	.83
10	.22	2.7	21	20	8.9	5.6	13	5.7	3.7	2.1	.88	.71
11	.35	2.5	18	26	8.5	5.6	11	5.6	3.4	2.1	.64	.61
12	.38	2.4	16	31	8.3	5.0	11	5.2	3.3	2.0	.59	.81
13	.38	2.3	15	35	8.0	6.0	10	5.1	3.5	1.8	.89	.64
14	.48	2.0	13	40	7.9	2.7	13	4.8	3.3	1.8	1.1	.60
15	.42	1.9	13	37	7.9	2.2	11	4.7	3.0	1.8	1.0	.52
16	.57	1.9	44	33	8.0	1.8	10	4.5	2.9	1.9	.91	.43
17	.61	1.8	52	30	8.5	1.6	13	4.5	3.0	1.8	.68	.60
18	.58	1.9	81	27	7.7	1.4	11	4.4	2.4	1.7	.90	.60
19	.66	1.8	86	25	9.7	1.2	10	4.3	2.5	1.6	1.1	.69
20	1.2	1.8	97	23	7.9	1.1	10	4.4	2.9	1.6	.87	.82
21	1.5	1.8	257	21	7.4	1.0	9.6	4.2	2.8	1.8	1.0	.74
22	2.2	1.8	124	20	7.3	9.6	8.8	3.9	2.7	1.5	1.0	.83
23	2.0	1.8	83	19	7.3	1.0	8.3	4.0	2.8	1.5	.99	.88
24	1.8	1.9	63	18	7.1	9.7	7.6	3.9	2.6	1.5	.70	.57
25	1.6	6.5	51	16	6.9	1.0	7.7	3.9	2.3	1.8	.99	.89
26	1.3	4.7	57	15	6.6	9.3	7.2	4.2	2.7	1.6	1.1	.94
27	1.2	4.4	69	15	6.9	6.4	6.9	4.7	2.6	1.5	.75	1.1
28	1.2	7.4	61	14	6.8	4.1	6.8	4.8	2.4	1.9	.63	.78
29	1.2	162	67	13	-----	31	6.8	4.3	2.3	2.1	1.1	.74
30	1.1	58	63	13	-----	26	6.4	4.4	2.1	1.7	.74	1.2
31	1.2	-----	54	12	-----	23	-----	4.2	-----	1.6	.75	-----
TOTAL	24.40	376.5	1,843	783	241.1	623.2	334.1	161.3	94.7	59.4	28.69	23.66
MEAN	.79	12.6	59.5	25.3	8.61	20.1	11.1	5.20	3.16	1.92	.93	.79
MAX	2.2	162	257	47	12	9.3	20	8.7	4.1	2.6	1.6	1.2
MIN	.20	1.3	13	12	6.6	5.6	6.4	3.9	2.1	1.5	.59	.43
AC-FT	48	747	3,660	1,550	478	1,240	663	320	188	118	57	47

CAL YR 1970 TOTAL 8,981.95 MEAN 24.6 MAX 468 MIN .20 AC-FT 17,820  
WTR YR 1971 TOTAL 4,593.05 MEAN 12.6 MAX 257 MIN .20 AC-FT 9,110

## PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0530	7.87	332	12-21	0015	9.34	538
12-4	0930	7.00	210				

## SAN GREGORIO CREEK BASIN

389

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CALIF.

LOCATION.--Lat 37°19'33", long 122°23'08", in San Gregorio Grant, San Mateo County, on right bank at downstream side of bridge on Old Coast Highway, 0.1 mile south of town of San Gregorio, and 1.4 miles upstream from mouth.

DRAINAGE AREA.--44.4 sq mi.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 11.40 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,590 cfs Dec. 18 (gage height, 10.88 ft); minimum daily, 0.14 cfs Sept. 18.

Period of record: Maximum discharge, 3,120 cfs Jan. 21, 1970 (gage height, 15.29 ft); minimum daily, 0.14 cfs Sept. 18, 1971.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	1.2	50	88	21	15	41	14	9.5	4.0	2.3	.92
2	.50	1.2	150	81	20	14	31	15	9.0	4.1	1.9	1.1
3	1.5	1.4	70	65	19	14	34	14	8.5	4.3	1.8	.80
4	1.4	3.8	561	58	18	14	31	13	8.3	4.1	1.4	.87
5	1.1	5.8	225	51	18	14	32	13	8.2	3.9	1.2	.85
6	1.4	12	107	47	18	14	29	13	7.5	3.9	1.3	.70
7	1.3	9.7	63	44	18	13	28	13	7.6	4.0	1.3	.67
8	1.1	5.3	64	42	17	14	25	13	7.8	3.8	1.3	.62
9	1.1	4.1	57	40	17	14	24	12	7.7	3.8	1.3	.83
10	.66	3.8	44	38	17	13	28	12	8.0	3.4	1.4	.96
11	.72	3.7	37	41	16	13	23	12	7.7	3.2	1.2	.97
12	1.0	4.1	32	78	15	85	21	12	7.4	3.2	1.2	.87
13	1.2	4.1	28	99	15	74	20	11	6.8	3.2	1.4	.98
14	1.2	3.2	27	83	15	39	25	11	6.5	3.1	1.4	.65
15	.72	3.1	27	76	15	45	23	11	6.2	2.3	1.2	.62
16	.86	3.1	129	67	16	40	22	9.5	5.6	2.4	.76	.45
17	.86	3.2	218	58	17	36	29	9.5	5.5	2.2	.79	.18
18	1.4	3.4	722	54	16	31	23	8.5	5.2	2.3	.76	.14
19	1.4	3.4	353	52	23	26	20	8.5	4.8	2.1	1.2	.31
20	2.0	3.3	410	45	17	27	26	8.5	4.3	1.8	1.5	.38
21	2.5	3.1	693	41	16	26	24	8.5	4.2	1.8	1.7	.43
22	2.5	3.1	272	39	16	26	19	8.0	3.9	1.8	1.3	.39
23	2.8	3.1	169	36	16	26	18	7.6	4.1	1.8	1.4	.40
24	2.8	2.9	126	31	15	26	16	7.6	4.1	2.2	1.4	.36
25	2.0	22	101	29	15	27	16	7.6	3.8	2.4	1.6	.55
26	1.4	18	187	28	14	401	16	8.0	4.0	2.5	1.7	.62
27	1.0	11	294	27	15	116	16	9.5	4.4	2.9	1.7	.59
28	.86	117	163	26	16	72	15	11	4.1	3.0	1.4	.85
29	.86	500	194	24	-----	56	15	10	4.0	3.0	1.6	1.0
30	.86	100	137	22	-----	48	14	9.5	4.1	2.9	1.5	1.8
31	1.2	-----	105	21	-----	43	-----	9.5	-----	2.6	1.2	-----
TOTAL	40.44	863.1	5,815	1,531	471	1,422	704	330.3	182.8	92.0	43.11	20.86
MEAN	1.30	28.8	188	49.4	16.8	45.9	23.5	10.7	6.09	2.97	1.39	.70
MAX	2.8	500	722	99	23	401	41	15	9.5	4.3	2.3	1.8
MIN	.24	1.2	27	21	14	13	14	7.6	3.8	1.8	.76	.14
AC-FT	80	1,710	11,530	3,040	934	2,820	1,400	655	363	182	86	41

CAL YR 1970 TOTAL 19,764.70 MEAN 54.1 MAX 1,840 MIN .24 AC-FT 39,200  
WTR YR 1971 TOTAL 11,515.61 MEAN 31.5 MAX 722 MIN .14 AC-FT 22,840

## PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	unknown	-	1,000	12-20	2300	10.43	1,470
12-4	0730	8.95	1,030	12-27	1230	6.95	509
12-18	0200	10.88	1,590	3-26	0945	9.10	1,070

## PILARCITOS CREEK BASIN

11162630 PILARCITOS CREEK AT HALF MOON BAY, CALIF.

LOCATION.--Lat 37°28'07", long 122°26'08", on north boundary of Miramontes Grant, San Mateo County, on left bank 0.2 mile downstream from State Highway 1, 0.5 mile northwest of town of Half Moon Bay, and 1.0 mile upstream from mouth.

DRAINAGE AREA.--27.2 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 23.59 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 16.3 cfs (11,810 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 521 cfs Dec. 20 (gage height, 7.18 ft); no flow for many days.

Period of record: Maximum discharge, 1,290 cfs Jan. 30, 1968 (gage height, 11.20 ft); no flow at times in most years.

REMARKS.--Records fair. Flow slightly regulated by storage in Pilarcitos Lake (capacity, 3,100 acre-ft, majority of water imported for domestic use). Small diversions for irrigation above station by pumping.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.60	21	56	26	6.4	15	8.8	3.7	.49	1.2	.08
2	0	.79	55	50	25	6.1	15	10	3.4	.46	.87	.12
3	0	2.7	27	33	25	5.4	13	10	3.4	.61	1.0	.09
4	0	4.8	180	29	25	4.3	13	11	3.1	.86	.67	0
5	0	13	98	27	24	4.0	13	11	2.9	.67	.42	0
6	0	14	57	25	22	3.6	12	11	2.9	.59	.53	0
7	0	6.6	42	23	20	4.3	12	9.9	2.8	.60	.43	.08
8	0	4.8	48	22	19	4.3	11	8.4	2.7	.37	.31	.05
9	0	4.2	40	21	18	4.0	11	7.6	2.1	.20	.28	0
10	0	3.9	31	22	17	3.6	13	7.9	2.5	.18	.12	0
11	0	5.4	27	44	16	3.3	11	7.5	2.7	.32	.05	0
12	0	2.4	22	47	15	14	11	7.2	2.5	.50	.20	0
13	0	1.8	20	42	14	14	11	6.7	2.7	.24	.21	0
14	0	1.6	17	37	13	10	12	6.1	2.2	.22	.11	0
15	0	1.5	24	34	13	9.4	11	5.3	1.8	.27	.27	0
16	0	1.5	98	33	13	12	11	4.5	1.4	.22	.30	0
17	0	1.4	82	33	13	11	16	3.8	.98	.23	.09	0
18	0	1.3	217	32	11	9.9	12	3.6	1.1	.17	.02	0
19	0	1.4	181	30	14	9.0	11	3.0	1.2	.19	.01	0
20	0	.70	208	29	10	9.4	11	3.0	.99	.16	.05	0
21	0	.69	256	29	10	9.4	9.5	2.1	1.0	.21	.22	0
22	0	.78	148	28	9.8	9.4	9.2	2.1	.93	.30	.30	0
23	0	1.0	95	27	9.2	11	9.0	2.7	1.2	.10	.38	0
24	0	2.1	55	27	8.1	10	9.4	3.6	.94	.49	.18	0
25	0	16	35	26	7.5	12	9.5	3.4	.60	1.1	.13	0
26	0	6.0	75	26	6.8	151	9.3	4.1	.83	1.4	.31	0
27	.10	4.7	224	26	7.2	89	9.3	3.9	1.4	.90	.25	0
28	.10	71	147	26	6.8	52	9.9	5.4	1.3	1.1	.20	0
29	.20	108	145	26	-----	33	9.6	4.3	1.1	1.4	.20	0
30	.30	32	98	26	-----	23	9.1	4.4	.69	1.3	.44	0
31	.50	-----	81	26	-----	18	-----	3.9	-----	.71	.29	-----
TOTAL	1.20	316.66	2,854	962	418.4	565.8	338.8	186.2	57.06	16.56	10.04	.42
MEAN	.039	10.6	92.1	31.0	14.9	18.3	11.3	6.01	1.90	.53	.32	.014
MAX	.50	108	256	56	26	151	16	11	3.7	1.4	1.2	.12
MIN	0	.60	17	21	6.8	3.3	9.0	2.1	.60	.10	.01	0
AC-FT	2.4	628	5,660	1,910	830	1,120	672	369	113	33	20	.8

CAL YR 1970 TOTAL 8,093.30 MEAN 22.2 MAX 766 MIN 0 AC-FT 16,050  
WTR YR 1971 TOTAL 5,727.14 MEAN 15.7 MAX 256 MIN 0 AC-FT 11,360

## PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	0315	5.48	259	12-20	1945	7.18	521
12- 4	0530	5.60	276	12-27	1345	6.04	340
12-18	0430	5.65	283	3-26	1015	5.82	307

## 11162720 COLMA CREEK AT SOUTH SAN FRANCISCO, CALIF.

LOCATION.--Lat 37°39'14", long 122°25'31", in Buri Buri Grant, San Mateo County, on left bank in Orange Memorial Park, 1.0 mile southwest of South San Francisco Post Office.

DRAINAGE AREA.--10.8 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 12.53 ft above mean sea level. Recording rain gages at Coast Guard Radio Station 2.9 miles southwest and on San Bruno Mt. 2.9 miles northwest. Altitude of both sites is 930 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 6.75 cfs (4,890 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,980 cfs Nov. 27 (gage height, 10.17 ft); minimum daily, 0.60 cfs Oct. 14.

Period of record: Maximum discharge, 1,980 cfs Nov. 27, 1970 (gage height, 10.17 ft); no flow Oct. 5, 26, 1963.

REMARKS.--Records good except those below 5.0 cfs, which are poor. Low flow affected by return flow from urban irrigation. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	2.5	33	13	2.5	2.2	2.0	2.6	2.1	2.6	2.1	2.6
2	.80	2.4	51	3.4	1.8	1.8	1.7	9.8	2.1	2.1	2.1	2.6
3	1.6	45	57	2.5	1.5	1.9	2.1	3.8	1.6	2.6	1.6	2.1
4	1.6	17	89	2.2	2.0	2.1	2.1	4.3	2.1	3.2	1.6	1.6
5	1.2	36	14	2.1	2.3	2.2	2.6	2.6	2.6	3.2	1.6	1.6
6	1.2	23	6.6	2.1	2.3	2.6	3.2	2.6	2.6	1.6	1.6	1.6
7	1.2	2.2	13	2.5	2.5	3.0	2.1	2.1	2.1	2.6	1.6	1.6
8	1.2	2.1	20	2.8	2.3	2.1	1.6	2.6	1.6	1.6	1.6	1.2
9	1.2	4.0	3.9	2.1	2.0	3.0	10	2.1	1.6	2.1	1.6	1.2
10	1.2	4.0	4.6	13	2.1	3.0	4.4	1.2	1.6	3.8	1.6	1.6
11	1.2	4.3	3.1	45	2.1	3.7	2.1	2.1	1.6	2.6	1.6	2.1
12	1.2	3.9	2.6	53	2.3	95	2.1	2.1	2.1	1.6	2.1	1.6
13	1.2	3.8	15	15	2.5	3.1	24	2.1	2.1	2.1	2.1	2.1
14	.60	3.8	2.6	15	2.2	2.5	4.3	2.1	1.6	2.6	2.1	2.1
15	1.2	3.8	53	5.4	2.8	1.7	3.2	2.1	3.2	1.6	2.1	2.1
16	.80	3.8	34	22	6.0	1.3	9.9	2.1	2.1	3.2	2.1	2.1
17	.80	3.8	29	6.3	2.2	1.2	18	1.6	1.6	3.8	2.1	1.6
18	3.0	3.8	32	3.7	12	1.6	2.6	2.6	2.1	3.8	2.1	2.1
19	.80	3.8	14	3.8	3.4	1.7	1.6	1.6	2.1	2.1	2.1	1.2
20	17	3.3	88	3.2	2.7	2.4	5.2	1.2	2.6	2.6	3.8	1.6
21	8.2	3.2	44	3.1	2.7	2.0	1.6	1.2	1.2	2.6	3.2	2.1
22	9.1	3.2	9.0	3.2	2.6	1.6	1.6	1.2	2.1	2.6	3.8	1.6
23	14	3.2	5.3	2.7	2.1	13	2.1	1.2	2.1	2.6	3.2	1.2
24	6.6	32	3.4	2.5	2.1	3.3	1.6	1.2	2.1	2.6	3.2	2.1
25	10	66	3.8	2.3	2.1	38	2.1	3.2	2.1	2.6	3.2	1.6
26	12	6.1	30	2.1	2.1	109	1.6	3.2	5.2	2.1	3.2	3.8
27	12	127	14	1.9	3.6	3.6	3.2	4.4	3.8	2.1	3.2	1.6
28	12	203	7.6	2.2	2.4	2.9	3.7	2.6	2.1	1.6	2.6	1.5
29	12	150	17	2.2	-----	2.7	2.1	2.6	2.6	2.1	3.2	2.0
30	6.6	19	3.4	2.1	-----	2.3	2.6	2.1	2.6	2.1	4.4	2.0
31	2.5	-----	3.1	2.0	-----	2.1	-----	2.6	-----	2.1	2.6	-----
TOTAL	144.80	789.0	706.0	244.4	79.2	318.6	127.0	78.8	67.0	76.5	75.0	55.8
MEAN	4.67	26.3	22.8	7.88	2.83	10.3	4.23	2.54	2.23	2.47	2.42	1.86
MAX	17	203	89	53	12	109	24	9.8	5.2	3.8	4.4	3.8
MIN	.60	2.1	2.6	1.9	1.5	1.2	1.6	1.2	1.2	1.6	1.6	1.2
AC-FT	287	1,560	1,400	485	157	632	252	156	133	152	149	111
(a)	.24	4.70	3.02	1.15	.28	1.86	.63	.29	.09	.14	.19	.09
(b)	.80	8.20	5.43	1.19	.34	2.62	.81	.36	.05	.22	.32	.04

CAL YR 1970 TOTAL 3,745.71 MEAN 10.3 MAX 205 MIN .43 AC-FT 7,430  
WTR YR 1971 TOTAL 2,762.10 MEAN 7.57 MAX 203 MIN .60 AC-FT 5,480

PEAK DISCHARGE (BASE, 600 CFS)						a Precipitation, in inches, at San Bruno Mt. gage.	
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-25	1930	7.92	1,080	12-20	1700	6.62	650
11-27	2345	10.17	1,980	3-12	1245	6.97	757
						b Precipitation, in inches, at Coast Guard Radio Station gage.	

## REDWOOD CREEK BASIN

## 11162800 REDWOOD CREEK AT REDWOOD CITY, CALIF.

LOCATION.--Lat 37°26'58", long 122°13'57", in Pulgas Grant, San Mateo County, at Menlo Country Club, on right bank 200 ft upstream from Alameda de las Pulgas bridge, and 2.5 miles south of Redwood City Old Post Office.

DRAINAGE AREA.--1.82 sq mi.

PERIOD OF RECORD.--September 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 83.92 ft above mean sea level.

AVERAGE DISCHARGE.--12 years, 1.04 cfs (753 acre-ft per year); median of yearly mean discharges, 1.0 cfs (720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 267 cfs Dec. 20 (gage height, 5.82 ft); maximum gage height, 11.55 ft Nov. 29 (backwater from culvert trash racks); no flow Oct. 3, 4.

Period of record: Maximum discharge, 644 cfs Jan. 31, 1963 (gage height, 9.36 ft), from rating curve extended above 180 cfs on basis of slope-area measurement of maximum flow and computation of maximum flow through culvert; maximum gage height, 11.55 ft Nov. 29, 1970 (backwater from culvert trash racks); no flow at times.

REMARKS.--Records good except those for period of backwater, which are fair. Low flow at times affected by return flow from urban irrigation. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1929: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	4.5	1.6	.69	.39	.30	.17	.24	.17	.09	.06
2	.01	.02	39	1.4	.69	.39	.38	.19	.19	.17	.10	.06
3	0	.14	6.6	.90	.62	.44	.30	.16	.17	.16	.08	.07
4	0	.44	27	.90	.62	.44	.30	.16	.22	.17	.09	.06
5	.01	.66	2.9	.90	.62	.39	.29	.16	.16	.18	.09	.06
6	.01	2.5	1.6	.83	.62	.34	.27	.18	.16	.11	.09	.06
7	.01	.12	1.1	.76	.62	.34	.28	.15	.17	.09	.09	.07
8	.01	.09	1.4	.76	.56	.34	.24	.17	.14	.09	.09	.05
9	.01	.05	.74	.69	.56	.34	.38	.17	.15	.09	.09	.04
10	.02	.04	.53	.69	.62	.34	.66	.19	.16	.08	.09	.04
11	.01	.04	.48	2.8	.62	.34	.28	.19	.16	.08	.09	.04
12	.02	.05	.44	4.0	.62	14	.26	.21	.19	.08	.09	.04
13	.02	.04	.53	5.1	.62	1.6	.51	.27	.26	.08	.08	.05
14	.02	.04	.40	2.8	.62	1.2	.46	.16	.23	.09	.08	.04
15	.02	.04	5.3	1.8	.56	.56	.22	.13	.24	.10	.09	.04
16	.02	.04	11	1.6	.90	.44	.32	.13	.24	.08	.09	.05
17	.02	.04	9.2	1.4	.69	.39	1.2	.15	.31	.09	.09	.04
18	.02	.04	32	1.4	.56	.39	.24	.14	.10	.10	.10	.04
19	.02	.04	9.1	1.2	.69	.34	.22	.15	.11	.09	.10	.04
20	.84	.04	30	1.2	.44	.30	.21	.15	.14	.08	.09	.05
21	.02	.04	9.8	1.1	.39	.30	.19	.17	.13	.09	.09	.04
22	.10	.04	2.6	.98	.39	.30	.19	.16	.13	.08	.08	.04
23	.11	.04	1.6	.98	.39	.39	.18	.19	.12	.08	.09	.05
24	.03	.12	1.1	.90	.34	.26	.18	.20	.13	.08	.09	.05
25	.02	4.0	.90	.83	.34	1.2	.19	.19	.13	.08	.09	.05
26	.02	3.0	11	.83	.34	8.9	.18	.20	.14	.10	.10	.04
27	.02	1.4	7.7	.83	.69	.69	.16	.23	.15	.08	.08	.03
28	.02	10	2.6	.76	.44	.39	.16	.17	.15	.08	.08	.03
29	.02	25	4.8	.69	-----	.30	.16	.21	.15	.10	.08	.05
30	.02	6.0	2.6	.69	-----	.30	.16	.22	.15	.11	.07	.01
31	.02	-----	2.1	.69	-----	.26	-----	.24	-----	.09	.06	-----
TOTAL	1.51	54.13	230.62	42.01	15.86	36.60	9.07	5.56	5.12	3.15	2.71	1.39
MEAN	.049	1.80	7.44	1.36	.57	1.18	.30	.18	.17	.10	.087	.046
MAX	.84	25	39	5.1	.90	14	1.2	.27	.31	.18	.10	.07
MIN	0	.02	.40	.69	.34	.26	.16	.13	.10	.08	.06	.01
AC-FT	3.0	107	457	83	31	73	18	11	10	6.3	5.4	2.8

CAL YR 1970 TOTAL 720.14 MEAN 1.97 MAX 59 MIN 0 AC-FT 1,430  
WTR YR 1971 TOTAL 407.73 MEAN 1.12 MAX 39 MIN 0 AC-FT 809

PEAK DISCHARGE (BASE, 70 CFS)  
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE  
12- 2 0200 4.98 186 12-18 0230 4.22 132  
12- 4 0400 3.48 86 12-20 1830 5.82 267

NOTE.--Backwater from culvert trash racks  
Nov. 6, 25, 26, 28-30.

## 11164500 SAN FRANCISQUITO CREEK AT STANFORD UNIVERSITY, CALIF.

LOCATION.--Lat 37°25'24", long 122°11'18", in San Francisquito Grant, Santa Clara County, at golf course, on right bank 1.1 miles downstream from Los Trancos Creek, and 1.1 miles west of Stanford University Post Office.

DRAINAGE AREA.--37.4 sq mi (revised).

PERIOD OF RECORD.--October 1930 to September 1941, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 115.75 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 18.2 cfs (13,190 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,000 cfs Dec. 20 (gage height, unknown); minimum daily, 0.14 cfs Oct. 18.

Period of record: Maximum discharge, 5,560 cfs Dec. 22, 1955 (gage height, 13.60 ft); no flow at times.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Searsville Lake 5 miles upstream (capacity, 952 acre-ft). Diversions of about 800 acre-ft each year above station to Los Trancos and Lagunita Canals for irrigation on Stanford University campus below station. Low flow affected by waste water from Stanford Linear Accelerator.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	1.5	24	20	7.8	6.3	11	5.6	1.7	.39	.21	.43
2	.41	1.6	257	15	7.9	5.4	20	6.4	1.6	.42	.15	.35
3	.30	1.5	51	12	7.8	4.6	22	5.6	1.8	.42	.15	.44
4	.22	1.8	382	12	7.7	4.4	14	5.1	1.4	.38	.21	.41
5	.28	1.4	74	11	7.7	4.4	9.8	4.8	1.3	.34	.35	.20
6	.30	3.9	27	11	7.8	4.3	5.3	4.4	1.3	.36	.34	.31
7	.42	.86	17	10	7.6	4.1	5.2	4.1	1.4	.35	.20	.42
8	.38	.49	14	10	7.4	4.0	4.5	3.8	1.6	.35	.18	.38
9	.30	.37	12	9.5	6.9	3.8	4.3	3.1	1.6	.43	.76	.29
10	.20	.39	9.0	9.0	6.6	3.6	6.5	2.9	1.8	.36	.73	.19
11	.20	.37	8.0	40	6.1	3.9	6.0	2.9	1.8	.47	.34	.23
12	.21	.69	7.5	90	4.7	165	7.0	2.9	1.6	.31	.29	.19
13	.33	.54	7.0	132	4.9	84	7.1	2.0	1.6	.23	.24	.15
14	.22	1.0	6.5	80	4.9	31	10	1.6	1.4	.27	.17	.20
15	.26	1.1	80	48	4.9	21	7.9	1.6	1.2	.30	.16	.15
16	.20	.72	200	35	5.3	8.6	7.4	1.6	1.1	.21	.16	.20
17	.20	1.2	150	30	6.1	7.6	18	1.4	1.0	.33	.19	.25
18	.14	1.2	300	25	5.2	7.5	12	1.3	1.1	.34	.29	.34
19	.22	1.2	150	21	6.8	8.3	9.7	1.3	.59	.26	.26	.18
20	2.3	1.2	400	19	5.9	9.9	8.6	1.3	.91	.20	.31	.22
21	.19	1.2	150	18	5.5	9.0	7.6	1.3	1.1	.15	.31	.24
22	.39	1.2	50	17	5.3	7.7	6.6	1.4	1.1	.18	.55	.18
23	.38	.63	30	16	5.1	6.5	6.1	1.3	.86	.29	.52	.32
24	.39	.63	20	15	4.7	8.1	5.4	1.4	.65	.30	.34	.45
25	.23	5.2	15	13	4.7	12	5.3	1.3	.59	.23	.16	.35
26	.23	6.3	200	11	4.7	224	4.8	1.4	.52	.33	.41	.31
27	.37	1.8	150	8.7	6.6	69	4.7	1.8	.67	.28	.48	.29
28	.43	57	35	8.3	7.3	35	4.6	1.8	.71	.18	.48	.31
29	.45	213	60	8.1	-----	19	4.6	1.8	.50	.30	.61	.31
30	.83	21	30	7.8	-----	9.2	4.9	2.0	.50	.23	.68	.78
31	1.6	-----	25	7.4	-----	8.6	-----	1.6	-----	.26	.43	-----
TOTAL	12.90	330.99	2,941.0	769.8	173.9	799.8	250.9	80.8	35.00	9.45	10.66	9.07
MEAN	.42	11.0	94.9	24.8	6.21	25.8	8.36	2.61	1.17	.30	.34	.30
MAX	2.3	213	400	132	7.9	224	22	6.4	1.8	.47	.76	.78
MIN	.14	.37	6.5	7.4	4.7	3.6	4.3	1.3	.50	.15	.15	.15
AC-FT	26	657	5,830	1,530	345	1,590	498	160	69	19	21	18

CAL YR 1970 TOTAL 11,450.85 MEAN 31.4 MAX 1,740 MIN .01 AC-FT 22,710  
WTR YR 1971 TOTAL 5,424.27 MEAN 14.9 MAX 400 MIN .14 AC-FT 10,760

PEAK DISCHARGE (BASE, 700 CFS).--Dec. 4 (0700) 860 cfs (4.12 ft); Dec. 20 (time unknown) 1,000 cfs.

NOTE.--No gage-height record Dec. 10 to Jan. 12.

## MATADERO CREEK BASIN

11166000 MATADERO CREEK AT PALO ALTO, CALIF.

LOCATION.--Lat 37°25'18", long 122°08'04", in Rincon de San Francisquito Grant, Santa Clara County, on right bank on Ash Street 150 ft upstream from Lambert Avenue Bridge and 2.1 miles southeast of Palo Alto Post Office.

DRAINAGE AREA.--7.24 sq mi.

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 22.07 ft above mean sea level. Prior to Sept. 25, 1958, at site 150 ft downstream at different datum.

AVERAGE DISCHARGE.--19 years, 1.65 cfs (1,200 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 388 cfs Dec. 20 (gage height, 3.20 ft), from rating curve extended above 150 cfs on basis of step backwater computations at gage heights 3.68 and 5.33 ft; minimum daily, 0.04 cfs Mar. 7.

Period of record: Maximum discharge, 854 cfs Dec. 22, 1955 (gage height, 9.60 ft), from rating curve extended above 390 cfs on basis of slope-area measurement of maximum flow; maximum gage height, 9.88 ft Dec. 23, 1955, site and datum then in use (backwater from culvert); no flow at times.

REMARKS.--Records good except those above 200 cfs, which are fair. No regulation or diversion above station. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.17	3.0	2.7	.35	.10	.13	.20	.17	.17	.20	.18
2	.28	.18	82	2.5	.31	.12	.14	1.5	.20	.19	.17	.14
3	.21	1.8	4.6	1.0	.21	.09	.11	.19	.15	.22	.20	.12
4	.19	2.5	31	.89	.19	.09	.12	.14	.16	.14	.20	.23
5	.22	1.4	3.3	.84	.23	.07	.15	.14	.22	.15	.20	.22
6	.21	4.7	1.2	.77	.28	.06	.13	.12	.14	.15	.20	.19
7	.18	.35	.74	.71	.20	.04	.14	.14	.15	.18	.20	.24
8	.17	.15	.59	.69	.20	.11	.14	.14	.19	.15	.17	.24
9	.20	.17	.32	.61	.17	.11	.19	.11	.18	.19	.20	.33
10	.19	.15	.22	.57	.18	.11	.63	.13	.18	.18	.24	.32
11	.19	.16	.20	6.1	.14	.13	.11	.14	.21	.15	.20	.27
12	.18	.19	.17	12	.14	25	.18	.14	.22	.20	.20	.24
13	.18	.16	.26	18	.15	2.1	2.3	.12	.17	.19	.20	.25
14	.17	.14	.18	6.7	.17	1.2	1.8	.14	.18	.18	.17	.33
15	.17	.15	3.4	2.7	.14	.57	.17	.14	.21	.18	.14	.33
16	.21	.18	9.8	1.9	3.2	.26	.68	.10	.17	.22	.17	.38
17	.18	.20	13	1.5	.86	.19	3.9	.15	.17	.23	.17	.34
18	.15	.18	47	1.2	.11	.13	.14	.14	.21	.17	.20	.30
19	.16	.26	21	1.0	.82	.12	.14	.13	.17	.17	.20	.28
20	3.3	.54	77	.84	.12	.12	.19	.12	.20	.21	.20	.27
21	.18	.50	39	.67	.11	.10	.14	.15	.15	.20	.24	.31
22	.25	.50	8.2	.64	.11	.10	.13	.17	.20	.17	.20	.28
23	.45	.51	4.3	.55	.09	.46	.14	.11	.18	.20	.23	.29
24	.16	.48	2.7	.48	.07	.19	.14	.13	.17	.17	.26	.33
25	.14	12	2.1	.44	.08	2.6	.12	.18	.27	.17	.23	.25
26	.18	2.1	42	.42	.10	10	.14	.16	.20	.17	.23	.33
27	.20	.26	23	.44	1.6	.52	.14	.13	.13	.17	.29	.26
28	.17	65	6.4	.41	.18	.41	.17	.16	.15	.17	.27	.26
29	.18	58	11	.38	-----	.18	.14	.23	.20	.14	.27	.68
30	.18	5.5	4.2	.31	-----	.15	.17	.18	.18	.20	.21	.30
31	.18	-----	2.5	.33	-----	.13	-----	.15	-----	.20	.31	-----
TOTAL	9.23	158.58	444.38	68.29	10.51	45.56	12.92	5.88	5.48	5.58	6.57	8.49
MEAN	.30	5.29	14.3	2.20	.38	1.47	.43	.19	.18	.18	.21	.28
MAX	3.3	65	82	18	3.2	25	3.9	1.5	.27	.23	.31	.68
MIN	.14	.14	.17	.31	.07	.04	.11	.10	.13	.14	.14	.12
AC-FT	18	315	881	135	21	90	26	12	11	11	13	17

CAL YR 1970 TOTAL 1,323.83 MEAN 3.63 MAX 120 MIN .06 AC-FT 2,630  
WTR YR 1971 TOTAL 781.47 MEAN 2.14 MAX 82 MIN .04 AC-FT 1,550

## PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0230	2.35	225	12-20	2030	3.20	388
12- 2	0200	2.40	234				

## 11166480 STEVENS CREEK RESERVOIR NEAR MONTE VISTA, CALIF.

LOCATION.--Lat 37°17'55", long 122°04'34", in NW¼ sec.27, T.7 S., R.2 W., Santa Clara County, at center of dam on Stevens Creek, 2.0 miles southwest of Monte Vista.

DRAINAGE AREA.--17.3 sq mi.

PERIOD OF RECORD.--December 1935 to current year. Monthly contents prior to October 1959 published in WSP 1735.

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Santa Clara County Flood Control and Water District).

EXTREMES (at 0800).--Current year: Maximum contents observed, 3,840 acre-ft May 10 (elevation, 536.85 ft); minimum observed, 408 acre-ft Nov. 18 (elevation, 480.20 ft).

Period of record: Maximum contents observed, 4,100 acre-ft Dec. 26, 1955 (elevation, 538.61 ft); maximum elevation, 539.70 ft Mar. 16, 1967; no contents at times in most years.

REMARKS.--Reservoir is formed by earthfill dam completed in 1936. Capacity, 3,860 acre-ft between elevations 444.9 ft (invert of outlet tunnel) and 537.14 ft (crest of spillway). Water released down Stevens Creek for irrigation and ground-water recharge by percolation.

COOPERATION.--Record of contents furnished by Santa Clara County Flood Control and Water District.

REVISIONS (WATER YEARS).--WRD Calif. 1970: 1969.

MONTHEND CONTENTS, IN ACRE-FEET (INCLUDING MOMENTARY  
STORAGE ABOVE SPILLWAY CREST), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	CONTENTS
Sept. 30, 1970.....	550
Oct. 31.....	472
Nov. 30.....	1,230
Dec. 31.....	3,630
Jan. 31, 1971.....	3,480
Feb. 28.....	3,530
Mar. 31.....	3,710
Apr. 30.....	3,790
May 31.....	3,220
June 30.....	2,240
July 31.....	1,480
Aug. 31.....	852
Sept. 30.....	469

NOTE.--Contents at 0800 on first day of following month.



## GUADALUPE RIVER BASIN

## RESERVOIRS IN GUADALUPE RIVER BASIN, CALIF.

11166670 ALMADEN RESERVOIR.--Lat 37°09'54", long 121°49'39", in San Vicente Grant, Santa Clara County, at center of dam on Alamitos Creek, 0.7 mile southwest of New Almaden, and 7 miles south of Edenvale. Drainage area, 11.9 sq mi. Period of record, January 1936 to current year. Monthly contents prior to October 1959, published in WSP 1735. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Santa Clara County Flood Control and Water District). Extremes for current year: Maximum contents observed, 1,730 acre-ft Mar. 16 (elevation, 605.96 ft); no contents July 12 to Sept. 30. Extremes for period of record: Maximum contents observed, 2,150 acre-ft Jan. 31, 1963 (elevation, 610.24 ft, from floodmarks); no contents at times in each year except 1942, 1943, 1962-63, 1966, 1968-71.

Reservoir is formed by earthfill dam completed in 1936. Capacity, 1,790 acre-ft between elevations 533.1 ft (invert of outlet tunnel) and 607 ft (crest of spillway). Water released down Alamitos Creek for ground-water recharge by percolation and minor irrigation. Up to 100 cfs diverted to Calero Reservoir at times. Record of contents furnished by Santa Clara County Flood Control and Water District.

11166740 CALERO RESERVOIR.--Lat 37°11'00", long 121°47'28", in San Vicente Grant, Santa Clara County, at center of dam on Arroyo Calero, 1.7 miles northeast of New Almaden, and 6 miles southeast of Edenvale. Drainage area, 6.96 sq mi. Period of record, January 1936 to current year. Monthly contents prior to October 1959, published in WSP 1735. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Santa Clara County Flood Control and Water District). Extremes for current year: Maximum contents observed, 10,110 acre-ft Mar. 26-29 (elevation, 483.01 ft); minimum observed, 4,760 acre-ft Nov. 23 (elevation, 463.55 ft). Extremes for period of record: Maximum contents observed, 10,520 acre-ft Apr. 7, 1967 (elevation, 485.21 ft); no contents at times in each year except 1942-45, 1963-71.

Reservoir is formed by earthfill dam completed to crest elevation 482.55 ft in 1936 and raised to 483.50 ft in 1962. Capacity, 10,280 acre-ft between elevations 393.7 ft (center of outlet tunnel) and 483.50 ft (crest of spillway). Water released down Arroyo Calero for ground-water recharge by percolation and minor irrigation. Up to 100 cfs diverted from Almaden Reservoir to Calero Reservoir at times. Record of contents furnished by Santa Clara County Flood Control and Water District.

11167370 GUADALUPE RESERVOIR.--Lat 37°11'57", long 121°52'42", in Los Capitancillos Grant, Santa Clara County, at center of dam on Guadalupe Creek, 3.6 miles northwest of New Almaden, and 5.0 miles southeast of Los Gatos. Drainage area, 5.97 sq mi. Period of record, January 1936 to current year. Monthly contents prior to October 1959, published in WSP 1735. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Santa Clara County Flood Control and Water District). Extremes for current year: Maximum contents observed, 2,340 acre-ft Feb. 1 (elevation, 598.40 ft); no contents Oct. 1 to Nov. 11, July 14 to Sept. 30. Extremes for period of record: Maximum contents observed, 3,610 acre-ft Feb. 1, 1963 (elevation, 619.26 ft, from floodmarks); no contents at times in each year except 1941-43, 1962-63, 1966-67.

Reservoir is formed by earthfill dam completed in 1936. Capacity, 3,460 acre-ft between elevations 506.8 ft (invert of outlet tunnel) and 617.0 ft (crest of spillway). Water released down Guadalupe Creek for irrigation and ground-water recharge by percolation. Record of contents furnished by Santa Clara County Flood Control and Water District.

11167950 LAKE ELSMAN.--Lat 37°07'51", long 121°55'47", in SE¼ sec.23, T.9 S., R.1 W., Santa Clara County, at center of Austrian Dam on Los Gatos Creek, and 7.3 miles southeast of Los Gatos. Drainage area, 9.79 sq mi. Period of record, February 1951 to current year. Monthly contents prior to October 1959, published in WSP 1735. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by San Jose Water Works). Extremes for current year: Maximum contents observed, 6,310 acre-ft Apr. 14 (elevation, 1,112.3 ft); minimum observed, 227 acre-ft Oct. 11 (elevation, 1,004.8 ft). Extremes for period of record: Maximum contents observed, 6,640 acre-ft Jan. 31, 1963 (elevation, 1,115.1 ft); no contents Nov. 30, 1968, Nov. 5, 1969.

Reservoir is formed by earthfill dam completed in 1951; topped by a 2-foot inflatable surcharge dam since 1956. Usable capacity, 6,280 acre-ft between elevations 944 ft (elevation of outlet gates) and 1,112 ft (top of 2-foot inflatable surcharge dam). Dead storage, 60 acre-ft. Water released down Los Gatos Creek for domestic and industrial use. Record of contents furnished by San Jose Water Works.

11167980 LEXINGTON RESERVOIR.--Lat 37°12'06", long 121°59'17", in SE¼ sec.29, T.8 S., R.1 W., Santa Clara County, at center of dam on Los Gatos Creek, and 1.7 miles south of Los Gatos. Drainage area, 37.0 sq mi. Period of record, December 1952 to current year. Monthly contents prior to October 1959, published in WSP 1735. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Santa Clara County Flood Control and Water District). Extremes for current year: Maximum contents observed, 12,320 acre-ft Apr. 23 (elevation, 624.90 ft); minimum observed, 1,880 acre-ft Nov. 25 (elevation, 566.65 ft). Extremes for period of record: Maximum contents observed, 23,190 acre-ft Mar. 16, 1967 (elevation, 654.00 ft); no contents at times in each year except 1963, 1966-71.

Reservoir is formed by earthfill dam completed in 1952. Capacity, 21,430 acre-ft between elevations 519 ft (invert at outlet tunnel) and 650 ft (crest of spillway). Dead storage, 31 acre-ft. Water released down Los Gatos Creek for irrigation and ground-water recharge by percolation. Record of contents furnished by Santa Clara County Flood Control and Water District.

MONTHEND CONTENTS, IN ACRE-Feet (INCLUDING MOMENTARY  
STORAGE ABOVE SPILLWAY CREST), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Almaden Reservoir a	Calero Reservoir a	Guadalupe Reservoir a	Lake Elzman b	Lexington Reservoir a
Sept. 30, 1970.....	204	6,370	0	384	4,700
Oct. 31.....	121	5,450	0	282	2,550
Nov. 30.....	746	4,900	382	1,020	3,670
Dec. 31.....	719	8,650	1,850	3,250	8,600
Jan. 31, 1971.....	1,500	9,120	2,340	4,990	10,340
Feb. 28.....	1,510	9,070	2,120	5,540	10,600
Mar. 31.....	1,140	10,080	2,240	6,250	11,900
Apr. 30.....	1,240	9,790	2,000	6,310	12,140
May 31.....	750	9,500	1,300	6,020	11,900
June 30.....	360	9,030	420	4,820	11,350
July 31.....	0	7,900	0	3,550	10,900
Aug. 31.....	0	7,120	0	2,270	8,580
Sept. 30.....	0	5,440	0	942	5,100

a Contents at 0800 on first day of following month.

b Contents at 0800 on last day of month.

## 11166900 ALAMITOS CREEK NEAR NEW ALMADEN, CALIF.

LOCATION.--Lat 37°13'21", long 121°51'00", in Pueblo Lands of San Jose Grant, Santa Clara County, on left bank at Greystone bridge, 1.1 miles downstream from Arroyo Calero, 3.4 miles southwest of Edenvale, and 3.5 miles northwest of New Almaden.

DRAINAGE AREA.--31.8 sq mi.

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 247 ft (from topographic map). Prior to July 15, 1958, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--13 years, 18.3 cfs (13,260 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,120 cfs Dec. 2 (gage height, 4.28 ft); minimum daily, 0.97 cfs Aug. 11.

Period of record: Maximum discharge, 4,300 cfs Apr. 2, 1958 (gage height, 9.67 ft), from rating curve. extended above 720 cfs on basis of slope-area measurement at gage height 7.98 ft; no flow at times in most years.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Calero 5.2 miles upstream (see sta 11166740) and Almaden 5.3 miles upstream (see sta 11166670) Reservoirs; water released during summer. Small diversions above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	12	79	6.6	23	3.3	12	13	16	9.8	3.1	26
2	20	12	201	7.2	14	3.1	13	13	14	17	2.7	27
3	19	12	20	6.0	13	3.1	14	13	8.6	18	2.4	27
4	18	14	12	5.4	13	2.9	15	13	8.2	18	2.2	27
5	18	14	9.8	5.1	13	3.5	16	13	8.2	18	1.8	26
6	18	14	8.2	5.7	13	4.8	17	13	9.0	19	2.1	19
7	18	13	7.5	6.3	13	5.4	18	13	14	21	2.1	18
8	16	13	6.6	6.3	12	6.9	17	14	9.0	22	1.7	18
9	14	13	5.7	6.3	12	8.6	16	15	11	23	1.4	17
10	15	13	5.1	6.3	11	9.8	16	15	11	23	1.1	18
11	15	13	4.2	6.3	11	10	16	15	11	19	.97	17
12	15	13	3.8	6.3	11	28	16	15	11	11	1.2	18
13	15	20	3.5	11	11	16	14	15	11	23	1.4	17
14	15	22	3.1	6.9	11	14	10	15	11	26	2.6	17
15	11	23	3.3	6.0	11	13	8.0	15	11	24	3.1	17
16	5.1	25	3.8	5.4	11	10	6.0	15	11	24	2.9	18
17	4.6	26	5.7	5.1	11	5.4	4.0	15	11	24	3.1	21
18	4.3	23	27	5.1	11	4.6	2.0	15	11	24	3.3	22
19	4.2	14	32	4.8	11	4.2	2.0	15	11	22	3.3	23
20	5.7	13	138	4.6	11	4.0	1.0	15	9.8	18	3.5	23
21	11	12	102	10	11	4.0	1.0	15	10	18	3.5	23
22	11	12	24	21	11	4.0	5.0	14	10	18	3.5	23
23	12	12	14	23	11	4.4	10	14	11	18	4.4	23
24	12	12	11	23	11	4.8	12	14	11	18	12	20
25	12	11	8.6	23	10	4.8	13	14	11	18	16	18
26	12	2.6	11	27	4.6	4.4	13	14	11	18	16	18
27	12	1.7	15	29	3.8	5.4	13	14	11	18	17	19
28	12	40	11	30	3.5	6.0	13	14	10	16	17	19
29	12	94	8.2	29	-----	6.0	13	15	10	13	18	19
30	12	8.6	7.5	29	-----	7.5	13	15	9.0	4.8	18	18
31	12	-----	7.2	30	-----	11	-----	15	-----	3.8	19	-----
TOTAL	402.9	527.9	798.8	396.7	312.9	222.9	339.0	443	321.8	567.4	190.37	616
MEAN	13.0	17.6	25.8	12.8	11.2	7.19	11.3	14.3	10.7	18.3	6.14	20.5
MAX	22	94	201	30	23	28	18	15	16	26	19	27
MIN	4.2	1.7	3.1	4.6	3.5	2.9	1.0	13	8.2	3.8	.97	17
AC-FT	799	1,050	1,580	787	621	442	672	879	638	1,130	378	1,220

CAL YR 1970 TOTAL 7,334.10 MEAN 20.1 MAX 215 MIN 1.6 AC-FT 14,550  
WTR YR 1971 TOTAL 5,139.67 MEAN 14.1 MAX 201 MIN .97 AC-FT 10,190

NOTE.--No gage-height record Apr. 8 to May 27.

## GUADALUPE RIVER BASIN

11168000 LOS GATOS CREEK AT LOS GATOS, CALIF.

LOCATION.--Lat 37°12'30", long 121°59'15", in NE¼ sec.29, T.8 S., R.1 W., Santa Clara County, on left bank 0.3 mile downstream from Trout Creek, 0.5 mile downstream from Lexington Reservoir, and 1.0 mile south of Los Gatos.

DRAINAGE AREA.--38.6 sq mi.

PERIOD OF RECORD.--October 1929 to September 1944, October 1953 to September 1971 (discontinued). Yearly estimate for water year 1930 (incomplete) and monthly discharge only for June to September 1944, published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 420 ft (from topographic map). Prior to Oct. 1, 1943, with concrete control after October 1934, at site 1 mile downstream and October 1943 to May 1944 at site 0.5 mile downstream at different datums.

AVERAGE DISCHARGE (adjusted for diversion).--33 years, 48.3 cfs (34,990 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 82 cfs Nov. 28 (gage height, 4.46 ft); maximum gage height, 4.67 ft Aug. 24; minimum daily discharge, 0.24 cfs Dec. 7.

Period of record: Maximum discharge, 7,110 cfs Feb. 27, 1940 (gage height, 14.71 ft, site and datum then in use), from rating curve extended above 2,300 cfs; no flow for part of some years.

REMARKS.--Records good. Flow regulated by Lexington Reservoir 0.5 mile upstream (see sta 11167980) and Lake Elsmar (see sta 11167950). Several diversions for irrigation above station and diversion by San Jose Water Works.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	25	10	3.4	5.0	2.5	2.6	7.7	16	5.8	7.2	50
2	43	25	22	3.9	4.9	2.1	2.6	7.7	16	6.2	7.5	48
3	43	25	5.6	2.7	3.7	1.9	2.8	7.1	17	6.2	7.5	48
4	43	25	8.4	2.6	3.6	1.9	3.2	6.8	19	6.3	7.5	47
5	21	15	2.8	2.6	3.5	1.7	3.2	6.7	21	6.5	7.7	47
6	8.7	7.9	.37	2.6	3.5	1.7	3.4	6.5	21	6.2	7.7	47
7	8.1	7.5	.24	2.6	3.4	1.5	3.5	6.3	13	6.2	7.7	47
8	33	7.2	.48	2.6	3.6	1.6	3.4	6.0	7.7	6.3	7.7	47
9	49	20	7.5	2.6	3.6	1.6	3.5	6.0	7.5	6.5	7.8	47
10	49	29	15	2.6	3.4	1.6	3.5	5.8	7.5	6.4	8.1	48
11	49	28	15	2.8	2.9	1.7	3.6	5.6	6.4	6.2	8.6	49
12	22	14	14	5.7	2.9	7.5	3.7	5.5	6.9	6.2	9.2	49
13	7.0	7.0	14	7.0	2.8	3.7	4.5	5.3	5.3	6.3	9.5	49
14	17	14	14	7.2	2.7	2.8	4.9	5.5	5.5	6.5	9.8	49
15	28	24	14	6.5	2.8	2.4	3.7	5.6	5.5	6.5	10	49
16	32	24	9.6	6.3	2.9	2.0	3.7	5.7	5.9	6.3	20	54
17	31	24	5.3	6.4	3.5	2.0	3.6	5.4	6.2	6.7	46	67
18	17	24	7.7	4.8	2.8	2.0	3.5	5.2	6.3	6.6	56	73
19	7.8	20	8.3	3.7	3.1	2.3	3.5	5.1	6.4	6.7	58	72
20	16	15	11	6.0	2.6	2.3	3.7	6.7	6.5	6.7	63	71
21	28	12	14	5.8	2.7	2.4	3.9	7.5	6.5	6.7	63	65
22	32	12	9.8	5.7	2.6	2.3	3.7	8.2	6.5	7.0	63	60
23	48	8.9	5.9	5.6	2.6	2.3	8.0	8.5	6.0	7.0	63	59
24	55	6.4	3.0	5.4	2.6	2.3	18	8.6	6.0	7.2	63	53
25	54	6.8	2.8	5.1	2.6	2.3	19	8.7	6.0	7.0	62	44
26	53	6.7	4.1	5.1	2.6	3.8	29	8.8	6.0	7.0	60	44
27	53	6.8	5.0	5.1	2.8	2.6	32	10	6.0	7.0	58	44
28	37	17	3.0	4.9	3.1	2.6	9.7	11	6.0	7.0	58	43
29	26	18	5.0	4.9	-----	2.8	8.6	13	6.0	7.0	59	43
30	26	3.3	3.1	4.9	-----	2.8	7.7	15	6.0	7.2	55	43
31	26	-----	3.0	4.9	-----	2.8	-----	15	-----	7.2	50	-----
TOTAL	1,006.6	478.5	243.99	142.0	88.8	75.8	209.7	236.5	267.6	204.6	1,020.5	1,556
MEAN	32.5	16.0	7.87	4.58	3.17	2.45	6.99	7.63	8.92	6.60	32.9	51.9
MAX	55	29	22	7.2	5.0	7.5	32	15	21	7.2	63	73
MIN	7.0	3.3	.24	2.6	2.6	1.5	2.6	5.1	5.3	5.8	7.2	43
AC-FT	2,000	949	484	282	176	150	416	469	531	406	2,020	3,090
(a)	205	3.4	650	812	552	585	1,090	1,100	1,650	1,690	1,730	1,530

CAL YR 1970 TOTAL 11,955.99 MEAN 32.8 MAX 232 MIN .24 AC-FT 23,710 a 13,640  
WTR YR 1971 TOTAL 5,530.59 MEAN 15.2 MAX 73 MIN .24 AC-FT 10,970 a 11,600

a Diversion, in acre-feet, furnished by San Jose Water Works.

## 11169000 GUADALUPE RIVER AT SAN JOSE, CALIF.

LOCATION.--Lat 37°20'04", long 121°53'54", Santa Clara County, on right bank at San Jose, 100 ft downstream from Los Gatos Creek.

DRAINAGE AREA.--144 sq mi.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to 1945, published as Guadalupe Creek at San Jose.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 72.00 ft above mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum discharge, 3,260 cfs Nov. 29 (gage height, 6.55 ft); minimum daily, 0.05 cfs Apr. 1.

Period of record: Maximum discharge, 9,150 cfs Apr. 2, 1958 (gage height, 16.55 ft); no flow manydays in most years.

REMARKS.--Records good. Flow regulated by Lexington Reservoir 12 miles upstream and Calero, Almaden, Guadalupe Reservoirs, and Lake Elsmar given elsewhere in this report, with water released during summer for percolation in spreading basins on tributaries. Diversions by San Jose Water Works for urban use (see sta 11168000). Diversion of 1,170 acre-ft into Alamos percolation ponds from Coyote Creek basin during current year.

REVISIONS (WATER YEARS).--WSP 1315-B: 1943(M), 1945(M), 1949(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	.50	285	16	16	5.1	.05	2.9	.87	2.9	4.3	1.5
2	1.7	1.7	1,020	34	12	4.5	.87	3.8	2.7	2.8	3.3	2.0
3	1.8	3.7	117	16	8.8	3.7	.53	4.3	2.3	1.9	2.3	2.1
4	1.8	59	89	15	7.3	2.6	.37	3.5	1.5	2.4	1.1	1.3
5	2.0	30	58	12	6.7	2.5	1.2	4.3	1.3	2.1	.52	.40
6	2.7	61	43	10	6.4	1.1	17	3.0	1.5	2.4	.63	.25
7	2.2	10	34	10	6.8	3.3	18	3.1	1.4	2.3	.38	.27
8	2.3	5.0	23	10	7.1	3.3	3.5	2.4	1.5	2.7	.18	.30
9	2.1	4.6	19	10	7.6	1.7	2.5	2.7	1.5	3.4	.18	.18
10	1.5	4.6	12	10	7.8	1.5	2.7	3.0	1.5	4.1	.51	.23
11	1.0	3.3	7.1	15	7.4	1.9	3.2	2.9	1.8	4.9	.93	.48
12	1.3	2.7	8.6	80	7.6	149	4.0	3.2	1.8	4.9	.90	.08
13	1.5	2.2	9.5	40	7.5	65	18	3.7	2.2	3.8	.84	.11
14	2.2	.78	8.9	20	6.3	21	117	4.5	2.6	7.5	.39	.16
15	1.0	.34	6.2	10	6.0	16	6.7	2.8	2.6	15	.29	.20
16	1.0	.41	100	10	9.6	16	5.5	1.5	2.2	15	.44	.20
17	.78	.75	73	10	15	15	55	1.2	2.2	14	.70	.17
18	.34	2.3	151	10	6.0	7.0	4.2	1.6	2.4	12	.38	.13
19	.27	2.8	174	10	12	5.7	2.6	2.2	2.4	5.4	.36	.10
20	.81	3.2	314	10	5.5	2.1	2.8	2.4	2.7	5.3	.61	2.1
21	.25	3.1	515	10	4.7	.98	2.8	2.2	2.6	3.6	3.6	2.3
22	.43	2.7	120	10	4.6	1.7	3.3	2.1	3.5	3.6	2.1	3.6
23	2.7	2.5	74	10	4.4	6.0	3.8	1.7	3.7	3.1	4.2	4.1
24	3.0	5.1	49	10	4.4	3.6	3.4	1.4	3.7	4.3	1.3	5.2
25	.61	100	37	10	4.6	11	.66	1.5	3.7	5.0	10	4.6
26	.15	14	68	10	4.6	59	1.1	.99	3.8	5.0	3.5	7.7
27	.09	2.7	73	10	28	5.1	1.2	1.1	3.8	4.1	3.0	14
28	.09	860	40	10	7.4	2.9	.52	1.3	3.9	3.8	1.9	14
29	.09	1,120	27	10	-----	1.0	.40	.94	3.8	3.4	1.5	13
30	.30	155	20	10	-----	.55	.66	.86	3.2	4.0	2.6	11
31	.18	-----	14	10	-----	.10	-----	.70	-----	4.8	1.9	-----
TOTAL	37.99	2,463.98	3,589.3	468	232.1	419.93	283.56	73.79	74.67	159.5	54.84	91.76
MEAN	1.23	82.1	116	15.1	8.29	13.5	9.45	2.38	2.49	5.15	1.77	3.06
MAX	3.0	1,120	1,020	80	28	149	117	4.5	3.9	15	10	14
MIN	.09	.34	6.2	10	4.4	.10	.05	.70	.87	1.9	.18	.08
AC-FT	75	4,890	7,120	928	460	833	562	146	148	316	109	182

CAL YR 1970 TOTAL 13,440.90 MEAN 36.8 MAX 1,120 MIN .07 AC-FT 26,660  
WTR YR 1971 TOTAL 7,949.42 MEAN 21.8 MAX 1,120 MIN .05 AC-FT 15,770

## GUADALUPE RIVER BASIN

11169500 SARATOGA CREEK AT SARATOGA, CALIF.

LOCATION.--Lat 37°15'16", long 122°02'18", in Quito Grant, Santa Clara County, on right bank on upstream side of private road bridge, 0.5 mile southwest of Saratoga, and 0.7 mile downstream from diversion dam.

DRAINAGE AREA.--9.22 sq mi.

PERIOD OF RECORD.--October 1933 to current year. Prior to October 1951, published as Campbell Creek at Saratoga.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 500 ft (from topographic map). Prior to Dec. 6, 1968, at site 40 ft downstream at different datum.

AVERAGE DISCHARGE (adjusted for diversion).--38 years, 9.91 cfs (7,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 255 cfs Nov. 28 (gage height, 4.38 ft); minimum daily, 0.04 cfs June 5.

Period of record: Maximum discharge, 2,730 cfs Dec. 22, 1955 (gage height, 6.40 ft, site and datum then in use), from rating curve extended above 510 cfs on basis of slope-area measurement of maximum flow; no flow at times.

REMARKS.--Records good. Water is diverted for municipal use by San Jose Water Works at diversion dam above station.

REVISIONS (WATER YEARS).--WSP 1445: 1940, 1952(M). WSP 1929: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	.87	37	26	7.0	3.3	2.0	.68	.10	.18	.36	.73
2	.64	.87	74	25	7.3	3.1	1.5	.49	.22	.16	.30	.83
3	.64	1.1	36	25	7.0	2.9	1.4	.75	.16	.19	.30	.73
4	.69	3.1	59	22	6.2	3.1	1.3	.32	.05	1.1	.27	.60
5	.78	9.7	43	22	6.0	2.4	.84	.32	.04	.24	.28	.57
6	.78	16	31	20	6.0	2.1	.92	.27	.05	.19	.19	.59
7	.74	3.7	32	17	5.7	1.9	.92	.27	.16	.23	.32	.59
8	.74	2.7	34	18	5.0	1.7	.68	.22	.22	.21	.40	.54
9	.64	2.2	34	17	4.5	1.6	.76	.32	.32	.20	.79	.54
10	.69	1.2	32	17	2.6	1.4	1.2	.22	.27	.05	.72	.53
11	.69	.87	28	20	2.2	1.4	.92	.22	.10	.27	.84	.60
12	.74	.82	24	25	2.1	1.2	.76	.16	.05	.10	.82	.58
13	.78	.78	20	25	2.0	6.0	2.7	.32	.16	.05	.96	.49
14	.87	.69	13	26	1.8	4.5	9.6	.16	.16	.05	.78	.43
15	.82	.78	18	24	1.9	4.3	3.5	.27	.27	.22	.76	.41
16	.87	.78	43	25	2.7	4.1	.76	.27	.22	.05	.86	.45
17	.87	.87	47	29	5.4	3.4	5.8	.27	.16	.22	.73	.46
18	.87	.74	77	27	2.2	2.6	.76	.27	.27	.05	.72	.52
19	.87	.78	68	26	5.6	1.6	.38	.27	.05	.10	.72	.51
20	1.0	.78	91	26	2.4	1.2	.38	.38	.05	.05	.84	.54
21	.96	.82	62	22	2.2	1.0	.44	.49	.10	.16	.83	.51
22	1.0	1.0	50	18	2.2	.68	.54	.38	.27	.24	.92	.60
23	1.0	.92	41	16	2.2	.76	.60	.22	.23	.18	.82	.62
24	1.0	.82	35	16	2.1	.60	.54	.32	.13	.24	.77	.56
25	1.0	3.8	29	14	2.2	3.0	.38	.44	.09	.21	1.2	.61
26	1.0	4.5	24	12	2.0	1.6	.38	.44	.39	.30	.85	.67
27	1.0	7.2	18	10	4.9	8.6	.49	.60	1.7	.52	.91	.66
28	1.0	10.2	22	6.7	3.4	3.8	.60	.16	1.8	.36	.80	.58
29	.92	.86	29	7.3	-----	3.4	.54	.10	.75	.48	.88	.65
30	.92	.37	26	7.0	-----	2.6	.49	.05	.10	.33	.80	.89
31	.87	-----	27	7.0	-----	2.2	-----	.22	-----	.36	.74	-----
TOTAL	26.03	293.39	1,204	598.0	106.8	107.24	42.08	9.87	8.64	7.29	21.48	17.59
MEAN	.84	9.78	38.8	19.3	3.81	3.46	1.40	.32	.29	.24	.69	.59
MAX	1.0	10.2	91	29	7.3	1.6	9.6	.75	1.8	1.1	1.2	.89
MIN	.64	.69	13	6.7	1.8	.60	.38	.05	.04	.05	.19	.41
AC-FT	52	582	2,390	1,190	212	213	83	20	17	14	43	35
(a)	0	35	31	194	322	288	312	281	187	130	23	0

CAL YR 1970 TOTAL 4,141.58 MEAN 11.3 MAX 153 MIN .14 AC-FT 8,210  
WTR YR 1971 TOTAL 2,442.41 MEAN 6.69 MAX 102 MIN .04 AC-FT 4,840

PEAK DISCHARGE (BASE, 110 CFS) a Diversion, in acre-feet, furnished by  
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE San Jose Water Works.  
11-28 0300 4.38 255 12-20 1900 4.12 146  
12- 2 0200 3.96 146

## 11169800 COYOTE CREEK NEAR GILROY, CALIF.

LOCATION.--Lat 37°04'40", long 121°29'36", in NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.11, T.10 S., R.4 E., Santa Clara County, on left bank 0.7 mile downstream from Bear Creek, 5.0 miles upstream from Coyote Creek Dam, and 6.4 miles northeast of Gilroy.

DRAINAGE AREA.--109 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 790 ft (from topographic map). Prior to Nov. 14, 1963, at site 0.4 mile downstream at different datum.

AVERAGE DISCHARGE.--11 years, 46.8 cfs (33,910 acre-ft per year); median of yearly mean discharges, 39 cfs (28,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,270 cfs Dec. 2 (gage height, 6.62 ft); no flow for many days.  
Period of record: Maximum discharge, 10,100 cfs Jan. 31, 1963 (gage height, 12.60 ft, site and datum then in use), from rating curve extended above 3,200 cfs on basis of slope-area measurement of maximum flow; no flow at times in each year.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	192	52	18	9.6	29	7.8	4.1	1.2	.25	
2		0	615	48	17	8.5	25	9.2	4.0	1.4	.22	
3		0	148	37	16	8.5	22	11	4.0	1.3	.21	
4		0	93	31	14	8.5	19	9.6	3.9	1.3	.19	
5		0	81	28	14	8.1	18	8.8	3.8	1.3	.21	
6		0	45	25	14	7.8	16	8.8	3.7	1.3	.15	
7		0	29	23	13	7.7	18	8.1	3.6	1.2	.13	
8		0	23	21	13	7.6	16	8.1	3.5	1.2	.13	
9		0	24	20	12	7.5	14	8.1	3.4	1.2	.13	
10		0	17	19	12	7.5	13	7.5	3.3	1.0	.11	
11		0	13	21	12	7.5	13	6.8	3.2	.94	.09	
12		0	12	74	11	36	12	6.2	3.1	.91	.08	
13		0	10	496	11	163	12	6.2	2.9	.84	.08	
14		0	10	610	11	52	44	5.9	2.7	.83	.06	
15		0	8.8	294	11	38	31	5.6	2.6	.76	.06	
16		0	212	170	11	29	20	5.1	2.4	.74	.06	
17		0	254	117	14	24	20	5.1	2.3	.73	.06	
18		0	251	90	12	20	20	4.8	2.1	.66	.04	
19		0	408	71	13	17	16	4.6	2.1	.65	.04	
20		0	284	58	12	15	14	4.6	2.0	.61	.04	
21		0	715	47	11	14	13	4.6	1.9	.57	.04	
22		0	314	40	10	12	12	4.3	1.8	.53	.04	
23		0	157	35	10	12	11	4.1	1.7	.53	.03	
24		0	98	32	9.6	12	10	4.1	1.6	.52	.02	
25		0	69	28	8.8	13	10	4.2	1.6	.45	.02	
26		0	57	26	8.5	347	10	4.1	1.6	.45	.02	
27		0	87	24	8.8	194	9.6	4.0	1.6	.34	.01	
28		14	110	23	11	92	9.2	4.2	1.5	.34	.01	
29		321	89	21	-----	60	8.8	4.5	1.4	.34	0	
30		115	75	20	-----	45	8.1	4.5	1.4	.29	0	
31		-----	63	18	-----	36	-----	4.3	-----	.27	0	-----
TOTAL	0	450	4,563.8	2,619	338.7	1,319.8	493.7	188.8	78.8	24.70	2.53	0
MEAN	0	15.0	147	84.5	12.1	42.6	16.5	6.09	2.63	.80	.082	0
MAX	0	321	715	610	18	347	44	11	4.1	1.4	.25	0
MIN	0	0	8.8	18	8.5	7.5	8.1	4.0	1.4	.27	0	0
AC-FT	0	893	9,050	5,190	672	2,620	979	374	156	49	5.0	0

CAL YR 1970 TOTAL 22,725.32 MEAN 62.3 MAX 2,360 MIN 0 AC-FT 45,080  
WTR YR 1971 TOTAL 10,079.83 MEAN 27.6 MAX 715 MIN 0 AC-FT 19,990

PEAK DISCHARGE (BASE, 1,000 CFS).--Dec. 2 (0745) 1,270 cfs (6.62 ft).

## COYOTE CREEK BASIN

## RESERVOIRS IN COYOTE CREEK BASIN, CALIF.

11169850 COYOTE LAKE.--Lat 37°07'06", long 121°32'55", in SE¼ sec.29, T.9 S., R.4 E., Santa Clara County, at center of dam on Coyote Creek, 3.8 miles northeast of San Martin. Drainage area, 120 sq mi. Period of record, February 1936 to current year. Monthly contents prior to October 1959, published in WSP 1735. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Santa Clara County Flood Control and Water District). Extremes for current year: Maximum contents observed, 23,320 acre-ft Mar. 29 (elevation, 776.69 ft); minimum observed, 5,300 acre-ft Sept. 29 (elevation, 738.41 ft). Extremes for period of record: Maximum contents observed, 28,120 acre-ft Dec. 8, 1950 (elevation, 782.5 ft); no contents at times. Reservoir is formed by rock- and earthfill dam completed in 1936. Capacity, 23,520 acre-ft between elevations 693.3 ft (invert of outlet tunnel) and 777 ft (crest of spillway). Water released down Coyote Creek for storage in Anderson Lake. Record of contents furnished by Santa Clara County Flood Control and Water District.

11169920 ANDERSON LAKE.--Lat 37°09'56", long 121°37'42", in southeast corner of La Laguna Seca Grant, Santa Clara County, at center of dam on Coyote Creek, 2.5 miles northeast of Madrone. Drainage area, 195 sq mi. Period of record, December 1950 to current year. Monthly contents prior to October 1959, published in WSP 1735. Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Santa Clara Flood Control and Water District). Extremes for current year: Maximum contents observed, 68,910 acre-ft Feb. 19 (elevation, 605.12 ft); minimum observed, 60,170 acre-ft Nov. 2 (elevation, 596.13 ft). Extremes for period of record: Maximum contents, 95,990 acre-ft Apr. 3, 1958 (elevation, 628.67 ft, from floodmarks); no contents at times in 1960-62.

Reservoir is formed by earth- and rockfill dam completed in 1950. Capacity, 91,310 acre-ft between elevations 439 ft (invert of outlet tunnel) and 625 ft (crest of spillway). Water released down Coyote Creek for irrigation and ground-water recharge by percolation. Record of contents furnished by Santa Clara County Flood Control and Water District.

MONTHEND CONTENTS, IN ACRE-FEET (INCLUDING MOMENTARY  
STORAGE ABOVE SPILLWAY CREST), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Coyote Lake	Anderson Lake
Sept. 30, 1970.....	18,200	61,920
Oct. 31.....	15,600	60,180
Nov. 30.....	13,800	61,350
Dec. 31.....	20,080	64,610
Jan. 31, 1971.....	21,020	68,750
Feb. 28.....	21,210	68,850
Mar. 31.....	23,220	67,630
Apr. 30.....	21,700	67,950
May 31.....	18,000	68,200
June 30.....	13,800	67,050
July 31.....	9,800	66,360
Aug. 31.....	6,030	65,890
Sept. 30.....	5,310	61,470

NOTE.--Contents at 0800 on first day of following month.

## 11170000 COYOTE CREEK NEAR MADRONE, CALIF.

LOCATION.--Lat 37°10'06", long 121°38'55", near southeast corner of La Laguna Seca Grant, Santa Clara County, on right bank 1.2 miles downstream from Anderson Dam and 1.8 miles northeast of Madrone.

DRAINAGE AREA.--196 sq mi.

PERIOD OF RECORD.--October 1902 to September 1912, December 1916 to current year. Records for water years 1917-19 incomplete, yearly estimates published in WSP 1315-B. Published as Coyote River near Madrone 1902-12, 1916-26.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 375 ft (from topographic map). Prior to Mar. 1, 1950, nonrecording gage and water-stage recorders at various sites within 1.4 miles upstream at different datums.

AVERAGE DISCHARGE.--65 years, 65.7 cfs (47,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 88 cfs Sept. 20-28 (gage height, 2.48 ft); minimum daily, 6.8 cfs Feb. 11-13.

Period of record: Maximum discharge, 25,000 cfs probably Mar. 7, 1911 (record furnished by Duryea, Haehl and Gilman); no flow at times.

REMARKS.--Records good. Flow regulated by Coyote (see sta 11169880) and Anderson (see sta 11169920) Lakes; water released during summer. Water is diverted to Main Avenue percolation ponds by Santa Clara County Flood Control and Water District.

REVISIONS (WATER YEARS).--WSP 1345: 1932, 1935(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	48	8.5	13	8.3	7.6	25	44	62	67	52	50
2	59	48	9.4	14	8.3	7.6	24	46	61	65	51	50
3	59	48	8.3	13	8.0	7.6	21	46	60	65	50	52
4	59	45	7.8	12	7.7	7.6	21	47	60	65	50	52
5	58	38	7.6	12	8.0	19	21	47	61	64	50	52
6	58	36	7.6	12	7.8	27	21	46	61	61	50	52
7	58	36	7.6	12	7.6	29	21	46	62	61	49	52
8	57	36	8.1	12	7.6	29	21	46	64	60	51	61
9	59	36	11	12	7.6	33	21	46	65	63	50	65
10	62	36	15	12	7.1	41	21	46	65	63	50	65
11	63	36	16	12	6.8	44	23	46	65	62	50	65
12	63	36	16	12	6.8	45	23	45	64	63	50	72
13	63	36	16	11	6.8	45	27	45	64	62	50	80
14	59	36	16	10	7.4	45	30	45	65	63	50	80
15	58	36	16	9.9	7.5	44	30	45	62	63	49	80
16	58	36	17	9.1	7.7	43	31	45	62	63	49	80
17	58	33	16	9.1	7.6	44	34	45	61	63	48	80
18	59	30	16	9.1	7.6	44	33	46	63	62	50	79
19	59	30	16	9.2	7.9	46	33	53	63	59	50	80
20	59	28	16	9.1	7.9	44	35	54	64	50	51	85
21	58	27	16	9.1	7.7	43	37	56	66	47	52	85
22	59	27	15	9.1	7.6	44	38	57	69	42	52	85
23	60	27	15	9.1	7.6	44	42	57	70	40	51	85
24	57	27	15	9.1	7.6	41	43	57	69	43	50	86
25	55	25	15	9.1	7.5	36	43	58	67	42	50	85
26	56	21	15	9.1	7.5	38	43	58	68	46	51	85
27	55	21	15	9.1	7.6	35	43	61	68	46	51	86
28	55	13	15	8.3	7.6	28	43	62	69	48	50	85
29	51	9.8	14	8.3	-----	28	43	62	68	50	51	84
30	48	8.3	13	8.3	-----	28	43	62	68	52	51	80
31	49	-----	13	8.3	-----	27	-----	63	-----	52	52	-----
TOTAL	1,789	950.1	412.9	321.4	212.7	1,044.4	934	1,582	1,936	1,752	1,561	2,178
MEAN	57.7	31.7	13.3	10.4	7.60	33.7	31.1	51.0	64.5	56.5	50.4	72.6
MAX	63	48	17	14	8.3	46	43	63	70	67	52	86
MIN	48	8.3	7.6	8.3	6.8	7.6	21	44	60	40	48	50
AC-FT	3,550	1,880	819	638	422	2,070	1,850	3,140	3,840	3,480	3,100	4,320
(a)	210	0	0	0	0	14	178	271	315	415	425	380

CAL YR 1970 TOTAL 19,905.8 MEAN 54.5 MAX 239 MIN 5.5 AC-FT 39,480 a 2,590  
WTR YR 1971 TOTAL 14,673.5 MEAN 40.2 MAX 86 MIN 6.8 AC-FT 29,100 a 2,210

a Diversion, in acre-feet, to Main Avenue percolation ponds, furnished by Santa Clara County Flood Control and Water District.



## COYOTE CREEK BASIN

11172100 UPPER PENITENCIA CREEK AT SAN JOSE, CALIF.

LOCATION.--Lat 37°23'43", long 121°49'38", on north boundary of San Jose Pala Grant, Santa Clara County, on left bank at downstream side of county road bridge, 0.1 mile upstream from Dutard Creek near northeast limits of San Jose.

DRAINAGE AREA.--21.5 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since Sept. 12, 1963. Datum of gage is 265.30 ft above mean sea level. Prior to Aug. 3, 1962, at site 0.4 mile downstream at different datum.

AVERAGE DISCHARGE.--10 years, 4.63 cfs (3,350 acre-ft per year); median of yearly mean discharges, 3.2 cfs (2,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 519 cfs Dec. 2 (gage height, 4.94 ft); minimum daily, 0.07 cfs Sept. 15.

Period of record: Maximum discharge, 1,500 cfs Jan. 21, 1967 (gage height, 6.24 ft in gage well; 7.8 ft, from outside gage), from rating curve extended above 270 cfs on basis of slope-area measurement of maximum flow; no flow at times in some years.

Maximum discharge known since at least 1935, 2,100 cfs Apr. 2, 1958, from information furnished by Santa Clara County Flood Control and Water District.

REMARKS.--Records fair. Flow partly regulated by Cherry Flat Reservoir 5 miles upstream (capacity, 500 acre-ft).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.33	19	13	3.0	1.5	2.7	1.5	.79	.80	.52	.49
2	.08	.34	152	12	3.0	1.4	2.5	1.4	.77	.65	.46	.51
3	.12	.53	22	9.2	2.8	1.3	2.2	1.5	.72	.80	.46	.45
4	.17	.99	24	9.2	2.7	1.4	2.0	1.4	.69	.72	.52	.50
5	.17	.22	16	7.1	2.7	1.3	2.0	1.5	.66	.72	.60	.52
6	.09	.74	10	6.2	2.7	1.3	2.1	1.5	.62	.72	.51	.52
7	.14	.49	7.2	5.9	2.7	1.3	3.5	1.5	.62	.72	.53	.53
8	.12	.41	5.1	4.9	2.8	1.2	2.6	1.7	.65	.65	.51	.48
9	.14	.44	4.5	4.4	2.7	1.3	2.1	1.7	.65	.58	.47	.52
10	.11	.69	2.8	4.1	2.7	1.3	2.1	1.6	.58	.58	.50	.45
11	.19	.64	2.3	5.0	2.7	1.3	1.9	1.5	.58	.58	.47	.51
12	.23	.59	2.2	14	2.5	2.7	1.7	1.4	.52	.52	.53	.49
13	.25	.50	1.9	36	2.5	5.5	1.7	1.4	.46	.58	.56	.46
14	.19	.49	1.8	35	2.9	3.1	4.5	1.4	.41	.58	.54	.36
15	.22	.45	1.5	26	3.2	3.6	2.7	1.4	.36	.52	.55	.07
16	.20	.45	2.9	19	2.4	2.7	2.3	1.3	.27	.58	.51	.40
17	.19	.46	11	15	2.1	2.2	4.7	1.2	.27	.65	.50	.38
18	.23	.46	19	13	2.1	2.2	3.5	1.1	.27	.65	.47	.44
19	.24	.46	37	12	3.2	1.8	2.8	1.1	.58	.46	.50	.43
20	.25	.45	21	9.9	2.7	1.4	2.7	.95	.72	.58	.46	.44
21	.38	.46	60	8.5	2.1	1.3	2.5	.90	.65	.52	.51	.41
22	.43	.47	46	7.4	1.9	1.2	2.3	.84	.58	.46	.66	.43
23	.78	.46	30	6.3	2.1	1.2	2.1	.85	.65	.46	.51	.44
24	.50	.52	21	5.4	1.9	1.2	2.0	.83	.65	.52	.49	.45
25	.42	1.7	16	5.0	1.8	1.7	2.1	.77	.65	.52	.26	.46
26	.39	.72	14	4.7	1.7	11	1.9	.70	.88	.46	.52	.45
27	.36	.65	20	4.7	1.7	8.0	1.8	.76	.80	.52	.48	.46
28	.37	5.3	19	5.2	1.7	5.5	1.8	.81	.72	.41	.53	.44
29	.36	52	18	3.8	-----	4.3	1.7	.84	.72	.58	.55	.48
30	.33	8.3	14	3.4	-----	3.9	1.7	.85	.65	.52	.56	.41
31	.32	-----	14	3.1	-----	3.1	-----	.78	-----	.58	.46	-----
TOTAL	8.05	80.71	635.2	318.4	69.0	82.2	72.2	36.98	18.14	18.19	15.70	13.38
MEAN	.26	2.69	20.5	10.3	2.46	2.65	2.41	1.19	.60	.59	.51	.45
MAX	.78	52	152	36	3.2	11	4.7	1.7	.88	.80	.66	.53
MIN	.08	.22	1.5	3.1	1.7	1.2	1.7	.70	.27	.41	.26	.07
AC-FT	16	160	1,260	632	137	163	143	73	36	36	31	27

CAL YR 1970 TOTAL 1,657.55 MEAN 4.54 MAX 152 MIN .05 AC-FT 3,290  
WTR YR 1971 TOTAL 1,368.15 MEAN 3.75 MAX 152 MIN .07 AC-FT 2,710

PEAK DISCHARGE (BASE, 90 CFS).--Nov. 29 (0630) 128 cfs (4.06 ft); Dec. 2 (0200) 519 cfs (4.94 ft).

## 11173200 ARROYO HONDO NEAR SAN JOSE, CALIF.

LOCATION.--Lat 37°27'42", Long 121°46'06", in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.32, T.5 S., R.2 E., Santa Clara County, on right bank 150 ft upstream from road bridge, 3.5 miles southeast of Calaveras Dam, and 3.5 miles northeast of city limits of San Jose.

DRAINAGE AREA.--77.1 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 783.86 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,210 cfs Dec. 2 (gage height, 8.84 ft); minimum daily, 0.48 cfs Sept. 19-24.

Period of record: Maximum discharge, 4,620 cfs Jan. 26, 1969 (gage height, 10.94 ft); minimum daily, 0.40 cfs Oct. 1-9, 1968.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	1.8	169	86	25	12	36	15	8.3	2.2	.90	.68
2	.59	1.8	1,010	80	24	11	31	15	8.2	2.2	.89	.69
3	.62	1.8	212	63	23	10	28	15	8.1	2.1	.82	.66
4	.60	2.1	274	54	21	11	25	16	7.5	2.1	.81	.66
5	.54	2.0	167	48	21	11	22	16	7.4	2.1	.78	.62
6	.53	2.7	89	44	20	10	21	15	6.9	2.1	.77	.65
7	.54	4.5	60	39	20	9.8	27	14	6.5	2.0	.76	.57
8	.54	5.0	54	37	19	9.6	22	15	6.2	1.9	.75	.58
9	.54	3.9	41	35	18	9.6	20	15	6.1	1.8	.74	.58
10	.54	3.5	31	33	17	9.5	19	13	6.2	1.8	.74	.58
11	.54	3.2	26	36	16	9.6	18	12	6.0	1.7	.73	.57
12	.54	2.9	22	83	16	26	16	12	5.6	1.7	.71	.54
13	.60	2.7	19	286	16	157	16	11	5.1	1.6	.73	.61
14	.60	2.7	17	375	15	54	47	11	4.9	1.5	.72	.60
15	.60	2.6	16	263	15	60	44	10	4.6	1.4	.66	.56
16	.61	2.5	119	189	15	45	28	10	4.2	1.4	.68	.55
17	.61	2.4	212	165	17	37	39	9.4	3.9	1.4	.68	.54
18	.72	2.3	175	122	16	30	41	9.0	3.5	1.3	.68	.51
19	.80	2.2	182	96	19	26	33	8.7	3.3	1.4	.68	.48
20	.96	2.2	189	78	17	22	29	8.9	3.3	1.5	.69	.48
21	.96	2.2	597	65	15	20	27	8.8	3.2	1.3	.69	.48
22	1.0	2.2	375	56	14	18	23	8.6	3.1	1.2	.69	.48
23	1.4	2.2	195	50	14	18	22	8.2	3.0	1.2	.67	.48
24	1.0	2.3	135	46	13	18	21	8.1	2.6	1.2	.68	.48
25	1.2	3.5	104	41	12	19	20	7.7	2.6	1.2	.69	.54
26	1.2	12	96	38	11	260	19	7.8	2.6	1.1	.68	.55
27	1.4	10	184	35	12	163	18	8.1	2.6	1.1	.68	.54
28	1.7	44	178	33	13	85	17	8.9	2.7	1.0	.69	.55
29	1.8	434	157	31	-----	63	16	9.2	2.6	1.0	.69	.56
30	1.8	130	137	29	-----	51	16	8.8	2.5	.95	.69	.60
31	1.8	-----	104	27	-----	42	-----	8.2	-----	.93	.64	-----
TOTAL	27.48	697.2	5,346	2,663	474	1,327.1	761	343.4	143.3	47.38	22.41	16.97
MEAN	.89	23.2	172	85.9	16.9	42.8	25.4	11.1	4.78	1.53	.72	.57
MAX	1.8	434	1,010	375	25	260	47	16	8.3	2.2	.90	.69
MIN	.53	1.8	16	27	11	9.5	16	7.7	2.5	.93	.64	.48
AC-FT	55	1,380	10,600	5,280	940	2,630	1,510	681	284	94	44	34

CAL YR 1970 TOTAL 20,579.32 MEAN 56.4 MAX 1,440 MIN .53 AC-FT 40,820  
WTR YR 1971 TOTAL 11,869.24 MEAN 32.5 MAX 1,010 MIN .48 AC-FT 23,540

## PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0345	6.39	601	12-21	0545	6.49	641
12- 2	0530	8.84	2,210	3-26	1300	6.59	681

## ALAMEDA CREEK BASIN

11176000 ARROYO MOCHO NEAR LIVERMORE, CALIF.

LOCATION.--Lat 37°37'35", long 121°42'13", NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.36, T.3 S., R.2 E., Alameda County, on right bank 100 ft downstream from Mines Road bridge, 2.4 miles upstream from small right-bank tributary, and 5.2 miles southeast of Livermore.

DRAINAGE AREA.--38.2 sq mi.

PERIOD OF RECORD.--January 1912 to September 1930, October 1963 to current year. Records for water year 1914 incomplete, yearly estimate and monthly discharge only for some months, published in WSP 1315-B.

GAGE.--Water-stage recorder. Concrete control since Aug. 5, 1964 (ineffective due to gravel fill). Datum of gage is 746.49 ft above mean sea level. 1912 to October 1914 at present site at different datum. November 1914 to Sept. 30, 1930, at site 1 mile upstream at different datum.

AVERAGE DISCHARGE.--26 years, 4.17 cfs (3,020 acre-ft per year); median of yearly mean discharges, 2.6 cfs (1,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 475 cfs Dec. 2 (gage height, 5.54 ft); no flow for several months.

Period of record: Maximum discharge recorded, 1,250 cfs Jan. 22, 1967 (gage height, 5.90 ft), from rating curve extended above 460 cfs; maximum daily discharge, 1,000 cfs Jan. 25, 1914 (estimated); no flow for parts of most years.

Flood of Dec. 23, 1955, discharge 1,880 cfs (by slope-area measurement of maximum flow).

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY.	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	24	6.4	2.5	1.3	1.4	2.0	.62	.17		
2		0	172	8.5	2.3	1.2	1.4	2.5	.58	.16		
3		0	83	5.7	2.2	1.3	1.5	2.7	.57	.15		
4		0	17	3.4	2.1	1.3	1.4	1.9	.57	.15		
5		0	13	3.0	2.1	1.3	1.3	1.8	.57	.13		
6		0	8.9	2.8	1.9	1.2	1.3	1.6	.57	.14		
7		0	5.4	2.8	1.8	1.2	2.0	1.6	.50	.13		
8		0	3.3	2.6	1.8	1.2	1.7	1.6	.50	.12		
9		0	2.2	5.0	1.8	1.2	1.5	1.8	.50	.10		
10		0	1.8	7.7	1.7	1.2	1.6	1.7	.50	.10		
11		0	1.0	8.1	1.7	1.3	1.5	1.6	.50	.09		
12		0	.94	14	1.6	2.3	1.5	1.6	.50	.08		
13		0	1.0	25	1.6	4.5	1.6	1.6	.43	.09		
14		0	.94	33	1.6	2.7	2.7	1.5	.43	.09		
15		0	.50	27	1.6	2.6	2.1	1.5	.43	.09		
16		0	2.0	16	1.5	2.2	1.6	1.5	.37	.09		
17		0	8.5	10	1.6	1.9	2.6	1.5	.37	.09		
18		0	12	8.1	1.5	1.7	2.0	1.5	.32	.08		
19		0	22	6.4	1.6	1.6	1.6	1.3	.32	.08		
20		0	34	4.8	1.6	1.5	1.5	1.4	.27	.07		
21		0	115	4.0	1.4	1.4	1.6	1.4	.27	.06		
22		.01	53	3.8	1.6	1.4	1.6	1.2	.23	.06		
23		.01	22	3.3	1.5	1.4	1.8	1.2	.23	.05		
24		.01	12	3.3	1.5	1.5	1.9	1.1	.19	.04		
25		.06	8.5	3.0	1.4	1.6	1.9	1.1	.15	.03		
26		.04	8.5	3.0	1.3	2.8	1.9	1.1	.19	.02		
27		.06	10	2.8	1.4	3.1	2.0	.94	.15	.01		
28		3.2	12	2.8	1.5	2.0	2.1	.91	.15	0		
29		71	10	2.4	-----	1.8	2.1	.87	.15	0		
30		16	8.9	2.4	-----	1.7	2.1	.81	.17	0		
31		-----	6.8	2.4	-----	1.5	-----	.74	-----	0		
TOTAL	0	90.39	680.18	233.5	47.7	54.9	52.8	45.57	11.30	2.47	0	0
MEAN	0	3.01	21.9	7.53	1.70	1.77	1.76	1.47	.38	.080	0	0
MAX	0	71	172	33	2.5	4.5	2.7	2.7	.62	.17	0	0
MIN	0	0	.50	2.4	1.3	1.2	1.3	.74	.15	0	0	0
AC-FT	0	179	1,350	463	95	109	105	90	22	4.9	0	0

CAL YR 1970 TOTAL 1,756.44 MEAN 4.81 MAX 172 MIN 0 AC-FT 3,480  
WTR YR 1971 TOTAL 1,218.81 MEAN 3.34 MAX 172 MIN 0 AC-FT 2,420

## (PEAK DISCHARGE (BASE, 90 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0945	4.78	207	12-20	2315	4.61	155
12- 2	0600	5.54	475				

## 11176200 ARROYO MOCHO NEAR PLEASANTON, CALIF.

LOCATION.--Lat 37°41'26", long 121°52'20", in Santa Rita Grant, Alameda County, on right bank 0.3 mile upstream from Santa Rita Road, 0.8 mile downstream from Arroyo Las Positas, and 2 miles north of Pleasanton.

DRAINAGE AREA.--141 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 319.51 ft above mean sea level. Prior to Oct. 30, 1967, at site 0.4 mile downstream at different datum. Dec. 8, 1967, to July 7, 1968, nonrecording gage at bridge 0.3 mile downstream at different datum.

AVERAGE DISCHARGE.--9 years, 14.5 cfs (10,510 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 622 cfs Nov. 29 (gage height, 12.50 ft); minimum daily, 0.79 cfs July 7.

Period of record: Maximum discharge, 1,760 cfs Feb. 1, 1963 (gage height, 8.60 ft, site and datum then in use), from rating curve extended above 58 cfs on basis of slope-area measurement of maximum flow; no flow at times.

REMARKS.--Records fair. No regulation. Waste water from Livermore sewage disposal plant and gravel operations enters stream about 4 miles upstream from gage. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	4.1	23	9.9	6.5	6.4	9.6	5.3	5.3	2.1	1.5	1.3
2	2.0	4.7	285	18	6.5	7.9	8.4	5.8	3.0	1.1	1.5	1.6
3	3.0	5.1	85	8.2	5.9	4.0	10	10	3.8	2.0	1.8	1.4
4	3.0	7.9	45	8.7	7.7	4.0	9.1	8.0	3.4	1.1	1.5	1.3
5	3.0	10	14	6.8	13	4.0	7.3	7.5	3.3	.81	1.5	1.3
6	4.4	10	3.1	8.7	10	4.0	6.9	7.4	3.2	2.0	1.0	1.1
7	3.3	7.0	1.7	9.3	10	4.0	6.0	7.9	3.5	.79	1.1	2.2
8	4.0	4.8	1.6	12	10	5.4	5.3	9.9	3.0	2.0	1.4	2.1
9	3.4	5.0	1.6	7.9	6.4	1.8	6.0	8.0	2.9	.82	1.2	2.1
10	3.0	4.7	1.2	4.9	7.3	2.4	7.3	9.3	3.5	1.8	1.1	2.0
11	2.6	5.9	2.2	13	3.0	4.4	9.0	8.5	3.5	2.0	1.1	1.6
12	2.4	5.6	1.9	44	10	33	7.2	8.7	3.7	2.0	1.4	1.9
13	3.5	4.3	1.9	115	7.1	27	4.0	7.1	2.8	2.0	1.4	1.9
14	3.9	3.5	2.4	73	3.5	13	24	6.2	2.4	2.0	2.0	1.8
15	3.8	4.5	1.9	49	3.5	15	11	5.2	1.8	1.1	1.6	.98
16	3.4	4.8	25	23	4.2	11	4.8	3.8	3.2	1.2	2.0	.91
17	2.6	4.1	198	12	5.1	7.3	11	7.0	2.5	1.4	2.2	.95
18	2.7	4.4	156	10	1.5	8.4	13	11	2.5	.92	.84	1.0
19	2.9	4.6	242	12	2.7	10	9.2	8.9	2.5	.91	.99	1.4
20	5.3	4.7	70	12	4.1	8.6	8.6	8.6	2.5	1.2	1.5	1.6
21	3.0	4.5	260	9.8	3.5	6.4	6.3	8.6	2.3	.94	1.5	1.7
22	3.3	4.8	147	9.3	4.1	7.7	6.0	6.6	2.5	.98	2.0	1.4
23	4.7	6.3	48	8.8	3.9	11	6.7	3.4	2.5	1.4	1.7	1.6
24	5.7	5.0	24	5.5	3.9	7.0	7.8	5.6	2.7	2.0	2.3	1.2
25	5.5	25	15	9.0	5.3	7.0	6.2	5.5	2.5	1.5	1.5	2.1
26	6.1	36	25	9.0	5.1	40	7.3	4.3	3.2	1.5	1.5	2.3
27	6.3	5.9	35	6.5	6.0	19	6.0	4.3	3.7	1.5	1.5	2.9
28	5.6	123	20	8.4	4.4	12	6.0	4.5	2.5	1.5	1.5	1.8
29	6.2	362	15	8.9	-----	12	6.0	2.9	2.5	1.5	1.5	1.5
30	6.4	45	10	10	-----	9.1	5.7	4.5	2.5	1.5	1.5	2.0
31	5.4	-----	9.1	6.9	-----	10	-----	3.7	-----	1.5	1.3	-----
TOTAL	122.4	727.2	1,770.6	549.5	164.2	322.8	241.7	208.0	89.2	45.07	46.43	48.94
MEAN	3.95	24.2	57.1	17.7	5.86	10.4	8.06	6.71	2.97	1.45	1.50	1.63
MAX	6.4	362	285	115	13	40	24	11	5.3	2.1	2.3	2.9
MIN	2.0	3.5	1.2	4.9	1.5	1.8	4.0	2.9	1.8	.79	.84	.91
AC-FT	243	1,440	3,510	1,090	326	640	479	413	177	89	92	97

CAL YR 1970 TOTAL 5,461.80 MEAN 15.0 MAX 362 MIN 1.1 AC-FT 10,830  
WTR YR 1971 TOTAL 4,336.04 MEAN 11.9 MAX 362 MIN .79 AC-FT 8,600

## (PEAK DISCHARGE (BASE, 150 CFS))

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0545	12.50	622	12-21	2115	11.01	374
12- 2	1415	11.73	489	1-13	1415	9.65	170
12-19	0300	11.10	388				

## ALAMEDA CREEK BASIN

11176400 ARROYO VALLE ABOVE LANG CANYON, NEAR LIVERMORE, CALIF.

LOCATION.--Lat 37°33'00", long 121°39'57", in SE $\frac{1}{4}$  sec.29, T.4 S. (revised), R.3 E., Alameda County, on left bank 700 ft upstream from small right-bank tributary, 1,200 ft upstream from Lang Canyon, and 10.5 miles southeast of Livermore.

DRAINAGE AREA.--126 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 800 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 28.8 cfs (20,870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 947 cfs Dec. 2 (gage height, 5.28 ft); no flow many days.  
Period of record: Maximum discharge, 5,340 cfs Jan. 25, 1969 (gage height, 8.90 ft); no flow at times in each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	68	39	14	6.5	11	5.9	2.8	.20		
2		0	569	37	13	5.9	9.2	7.3	2.8	.22		
3		0	175	29	12	6.1	8.5	8.6	2.7	.21		
4		0	164	24	11	6.3	7.9	7.2	2.5	.20		
5		.10	95	21	11	6.1	7.7	6.5	2.3	.17		
6		.45	50	19	10	5.6	7.6	6.3	2.1	.14		
7		.54	33	18	10	5.5	11	6.0	1.9	.13		
8		.23	26	17	9.9	5.3	9.2	6.7	1.8	.11		
9		.14	22	16	9.8	5.2	7.6	6.5	1.8	.09		
10		.14	17	15	9.4	5.1	7.8	5.4	1.7	.08		
11		.10	14	20	9.0	5.1	7.2	5.0	1.6	.05		
12		.10	12	41	8.6	19	6.7	4.5	1.5	.05		
13		.10	11	153	8.6	48	6.8	4.0	1.4	.04		
14		.08	10	213	8.3	25	21	3.8	1.3	.03		
15		.08	9.3	180	8.2	23	18	3.6	1.1	.02		
16		.10	44	126	8.1	17	14	3.4	1.1	.02		
17		.23	81	96	9.2	14	17	3.1	.75	.02		
18		.23	70	69	8.6	12	16	3.0	.60	.02		
19		.23	99	54	9.9	11	12	3.2	.55	.01		
20		.23	147	42	8.7	9.7	11	3.1	.51	0		
21		.23	443	35	7.9	8.8	9.7	3.0	.42	0		
22		.23	254	30	7.4	8.1	8.8	2.9	.37	0		
23		.30	131	26	7.5	8.1	8.2	2.8	.37	0		
24		.30	82	24	7.2	8.1	7.7	2.7	.29	0		
25		.86	57	22	7.2	9.1	7.8	2.6	.27	0		
26		1.3	60	19	6.5	42	7.4	2.5	.30	0		
27		1.0	94	19	6.8	31	6.9	2.8	.34	0		
28		16	94	17	7.1	20	6.6	3.2	.25	0		
29		146	88	16	-----	16	6.3	3.5	.21	0		
30		43	68	15	-----	14	6.1	3.3	.20	0		
31		-----	48	14	-----	12	-----	3.0	-----	0		
TOTAL	0	212.30	3,135.3	1,466	254.9	418.6	292.7	135.4	35.83	1.81	0	0
MEAN	0	7.08	101	47.3	9.10	13.5	9.76	4.37	1.19	.058	0	0
MAX	0	146	569	213	14	48	21	8.6	2.8	.22	0	0
MIN	0	0	9.3	14	6.5	5.1	6.1	2.5	.20	0	0	0
AC-FT	0	421	6,220	2,910	506	830	581	269	71	3.6	0	0

CAL YR 1970 TOTAL 12,733.18 MEAN 34.9 MAX 939 MIN 0 AC-FT 25,260  
WTR YR 1971 TOTAL 5,952.84 MEAN 16.3 MAX 569 MIN 0 AC-FT 11,810

PEAK DISCHARGE (BASE, 500 CFS).--Dec. 2 (0400) 947 cfs (5.28 ft); Dec. 21 (0815) 622 cfs (4.74 ft).

## 11176500 ARROYO VALLE NEAR LIVERMORE, CALIF.

LOCATION.--Lat 37°37'24", long 121°45'28", in Valle de San Jose Grant, Alameda County, on right bank 900 ft downstream from highway bridge, 1.1 miles upstream from Dry Creek, 1.3 miles downstream from Del Valle Dam, 4.1 miles south of Livermore, and 6.9 miles southeast of Pleasanton.

DRAINAGE AREA.--147 sq mi.

PERIOD OF RECORD.--January 1912 to September 1930, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as Arroyo del Valle near Livermore, 1912-29.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 510.44 ft above mean sea level. Prior to November 1914, at site 900 ft upstream at different datum. Nov. 1, 1914 to Sept. 30, 1930, at site 300 ft upstream at different datum.

AVERAGE DISCHARGE.--29 years (1912-30, 1957-68), 29.6 cfs (21,450 acre-ft per year); median of yearly mean discharges, 20 cfs (14,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 81 cfs Nov. 9-13 (gage height, 3.04 ft); minimum daily, 0.44 cfs Feb. 22, 23, Mar. 2.

Period of record: Maximum discharge, 12,200 cfs Apr. 2, 1958 (gage height, 10.91 ft); no flow at times. Maximum discharge since construction of Del Valle Dam in 1968, 885 cfs Mar. 2, 1969 (gage height, 4.88 ft).

Flood of Dec. 23, 1955, reached a stage of 13.93 ft, from floodmarks (discharge, 18,200 cfs on basis of contracted-opening and slope-area measurement of maximum flow).

REMARKS.--Records good. Flow regulated by Del Valle Reservoir 1.3 miles upstream beginning in September 1968 (capacity, 77,100 acre-ft). Water from Sacramento-San Joaquin Delta imported through South Bay Aqueduct can be pumped into Del Valle Reservoir for storage and later released into the channel for downstream percolation or returned to the South Bay Aqueduct. Records of water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	26	11	9.4	9.7	4.2	4.5	6.4	16	30	29	22
2	57	25	13	8.8	9.4	.44	6.0	6.4	28	31	39	16
3	57	43	11	9.4	9.9	3.9	4.9	4.6	15	31	47	16
4	57	45	8.8	9.4	9.9	3.3	6.5	5.8	21	31	47	16
5	55	21	6.6	9.4	9.9	.66	4.6	4.9	31	30	47	16
6	57	12	6.1	9.4	9.4	4.0	5.0	6.6	30	27	33	16
7	51	11	5.3	11	9.4	5.1	5.5	4.4	30	15	30	13
8	44	11	5.3	12	8.8	1.7	6.4	6.2	30	15	44	9.7
9	43	43	5.7	15	12	3.3	5.4	4.5	30	15	37	9.6
10	43	80	11	15	12	4.6	6.6	6.0	22	15	29	9.4
11	42	65	11	15	11	6.7	5.0	4.1	9.9	15	29	9.3
12	43	45	9.9	16	3.9	4.7	6.6	9.2	9.7	24	29	9.3
13	42	73	9.9	17	3.3	5.9	5.2	7.3	9.4	32	29	7.9
14	43	63	9.9	15	9.4	5.1	6.2	1.8	9.4	32	29	8.1
15	43	61	10	14	9.4	8.8	4.9	.87	9.4	32	29	10
16	35	61	11	11	9.4	3.4	6.3	.73	25	37	29	9.7
17	43	55	11	11	4.2	6.1	5.4	2.9	29	42	29	9.1
18	43	48	12	11	2.7	4.3	6.5	6.2	46	43	29	8.8
19	43	48	11	12	.66	6.1	5.0	3.3	62	35	29	8.8
20	43	48	12	11	.54	4.5	6.1	7.0	61	41	29	12
21	43	48	9.4	11	.54	5.4	4.4	3.5	61	42	29	15
22	44	48	10	11	.44	3.7	6.1	6.8	57	42	20	16
23	36	47	10	11	.44	5.2	4.5	3.4	43	42	29	16
24	11	47	11	11	3.0	4.1	5.9	9.3	43	38	29	16
25	11	34	10	11	3.9	5.5	4.8	7.4	43	1.6	29	16
26	11	12	10	11	3.0	4.8	5.6	3.6	43	1.2	29	16
27	47	12	10	10	3.9	5.2	4.7	9.5	26	1.1	29	16
28	50	13	9.9	10	3.0	3.2	6.5	9.9	16	6.4	29	16
29	50	14	9.9	10	-----	4.8	4.0	9.9	21	29	29	16
30	48	11	9.9	10	-----	4.9	5.8	9.9	30	30	29	16
31	47	-----	9.4	9.9	-----	6.4	-----	9.9	-----	30	29	-----
TOTAL	1,339	1,170	301.0	357.7	173.12	140.00	164.9	182.30	906.8	836.3	982	395.7
MEAN	43.2	39.0	9.71	11.5	6.18	4.52	5.50	5.88	30.2	27.0	31.7	13.2
MAX	57	80	13	17	12	8.8	6.6	9.9	62	43	47	22
MIN	11	11	5.3	8.8	.44	.44	4.0	.73	9.4	1.1	20	7.9
AC-FT	2,660	2,320	597	710	343	278	327	362	1,800	1,660	1,950	785

CAL YR 1970 TOTAL 9,448.95 MEAN 25.9 MAX 80 MIN .65 AC-FT 18,740  
WTR YR 1971 TOTAL 6,948.82 MEAN 19.0 MAX 80 MIN .44 AC-FT 13,780

NOTE.--No gage-height record Feb. 2 to Mar. 5.

## ALAMEDA CREEK BASIN

11176600 ARROYO VALLE AT PLEASANTON, CALIF.

LOCATION.--Lat 37°40'02", long 121°53'02", in Valle de San Jose Grant, Alameda County, on right bank 0.4 mile northwest of Pleasanton and 5.8 miles west of Livermore.

DRAINAGE AREA.--171 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Concrete control since Sept. 2, 1970. Datum of gage is 311.80 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 26.8 cfs (19,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 78 cfs Nov. 11, 28 (gage height, 8.33 ft); maximum gage height, 8.63 ft Mar. 24 (backwater from swimmers' dam); no flow at times.

Period of record: Maximum discharge, 11,300 cfs Apr. 3, 1958 (gage height, 25.36 ft); no flow at times in most years. Maximum discharge since construction of Del Valle Dam in 1968, 897 cfs Mar. 3, 1969 (gage height, 11.43 ft).

REMARKS.--Records good. Flow regulated by Del Valle Reservoir 10 miles upstream beginning in September 1968 (capacity, 77,100 acre-ft). Water imported from Sacramento-San Joaquin Delta (see sta 11176500). Flow regulated by pumping and gravel operations above station.

COOPERATION.--Three discharge measurements furnished by Alameda County Flood Control and Water Conservation District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	36	30	9.4	9.5	3.3	0	.58	2.3	23	3.3	20
2	36	17	39	8.8	11	5.8	4.3	1.9	3.6	27	7.0	15
3	36	18	25	11	6.4	.34	.76	3.0	11	29	18	9.1
4	36	39	30	7.0	6.7	0	1.4	1.8	11	29	27	7.8
5	38	41	16	6.8	12	0	.98	.01	14	28	29	7.0
6	41	29	12	6.6	8.7	0	.17	0	26	23	29	7.0
7	41	16	11	5.5	7.8	.91	0	4.9	24	18	15	7.0
8	34	11	7.9	6.5	7.0	1.7	0	1.2	20	9.9	22	5.8
9	29	9.5	5.7	9.9	4.3	.30	0	1.4	21	13	30	3.0
10	28	55	2.6	12	4.3	0	0	1.6	23	8.3	22	1.5
11	27	70	5.8	14	6.4	0	.41	1.8	19	9.1	17	.86
12	27	45	6.8	30	11	2.5	1.1	4.1	11	9.1	18	.56
13	28	51	4.6	33	6.2	1.5	.28	3.9	9.5	14	19	.41
14	27	61	3.9	23	5.7	1.5	1.5	3.7	6.4	17	16	.17
15	28	58	4.5	21	7.4	.50	0	.07	1.2	19	17	0
16	27	54	11	20	7.8	.01	.10	.05	0	20	19	0
17	23	53	27	9.9	5.5	0	2.4	.25	0	24	18	0
18	28	45	30	8.7	4.6	0	2.8	0	8.0	27	17	0
19	28	42	37	9.9	3.8	0	4.0	2.2	36	29	17	0
20	30	42	33	9.9	3.8	.01	1.4	.01	50	25	14	0
21	32	45	37	9.9	6.7	.50	.41	0	55	27	15	0
22	36	46	35	13	9.1	1.0	.09	0	60	29	13	0
23	36	43	24	9.9	3.3	2.0	0	0	47	30	12	.86
24	25	40	20	11	5.2	5.0	0	0	39	30	16	2.2
25	9.5	47	15	9.9	1.8	.56	.23	0	39	24	17	3.3
26	5.8	32	15	8.7	3.5	4.6	.84	0	41	9.1	16	3.8
27	4.3	18	21	12	1.2	2.2	.14	0	41	.01	15	4.0
28	27	31	19	6.1	2.6	2.6	.03	0	24	0	19	4.3
29	36	48	13	5.5	-----	2.0	0	0	14	0	20	4.9
30	37	27	14	7.0	-----	4.9	2.9	4.1	17	0	20	6.4
31	37	-----	14	9.5	-----	.28	-----	3.6	-----	0	19	-----
TOTAL	912.6	1,169.5	569.8	365.4	173.3	44.01	26.24	40.17	674.0	550.51	556.3	114.96
MEAN	29.4	39.0	18.4	11.8	6.19	1.42	.87	1.30	22.5	17.8	17.9	3.83
MAX	41	70	39	33	12	5.8	4.3	4.9	60	30	30	20
MIN	4.3	9.5	2.6	5.5	1.2	0	0	0	0	0	3.3	0
AC-FT	1,810	2,320	1,130	725	344	87	52	80	1,340	1,090	1,100	228

CAL. YR 1970 TOTAL 8,329.60 MEAN 22.8 MAX 70 MIN 0 AC-FT 16,520  
WTR YR 1971 TOTAL 5,196.79 MEAN 14.2 MAX 70 MIN 0 AC-FT 10,310

## 11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CALIF.

LOCATION.--Lat 37°36'55", long 121°52'50", in Valle de San Jose Grant, Alameda County, on right bank 0.3 mile upstream from small left-bank tributary, 0.8 mile downstream from highway bridge, and 3.2 miles south of Pleasanton.

DRAINAGE AREA.--405 sq mi.

PERIOD OF RECORD.--January 1912 to September 1930, October 1969 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 251.40 ft above mean sea level. January 1912 to September 1917, at site 3.0 miles upstream at different datum. October 1917 to September 1930, at site 0.8 mile downstream at different datum.

AVERAGE DISCHARGE.--19 years (1912-19, 1920-30, 1969-71), 42.9 cfs (31,080 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,360 cfs Nov. 29 (gage height, 8.80 ft); minimum daily, 5.7 cfs Sept. 18.

Period of record: Maximum daily discharge, 9,810 cfs Jan. 25, 1914; no flow at times.

REMARKS.--Records fair. Flow partly regulated by Del Valle Reservoir 15 miles upstream (capacity, 77,100 acre-ft). Water imported from Sacramento-San Joaquin Delta (see sta 11176500). Water from South Bay Aqueduct at times imported through Vallecitos Creek 1.5 miles downstream.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	47	76	45	31	17	20	17	15	30	15	27
2	42	39	453	64	32	18	21	19	11	32	21	23
3	43	36	154	40	25	16	20	27	20	34	25	16
4	43	65	333	33	24	14	20	21	22	34	32	14
5	44	71	105	32	35	15	20	20	20	34	34	15
6	45	61	41	31	31	13	17	18	32	31	35	14
7	45	51	30	30	28	12	17	19	34	29	28	14
8	43	36	27	31	28	12	18	22	29	23	26	14
9	40	34	25	32	25	12	18	19	28	26	36	11
10	38	56	21	33	23	12	25	19	31	20	31	9.9
11	39	78	21	53	21	10	20	18	29	21	25	8.0
12	40	61	22	131	30	135	18	22	23	22	27	8.7
13	41	53	22	332	25	69	15	20	20	22	28	9.0
14	41	64	22	164	22	35	64	18	18	22	25	8.1
15	41	62	21	90	20	32	23	14	17	19	26	7.2
16	41	61	122	58	22	24	15	12	11	30	28	5.9
17	38	58	366	43	24	19	43	11	17	36	28	6.2
18	41	52	422	37	20	18	26	17	20	42	25	5.7
19	41	50	442	41	22	18	22	17	41	43	24	5.8
20	48	49	249	40	18	18	20	16	58	34	23	6.7
21	47	51	445	36	18	17	16	16	59	29	24	7.0
22	47	52	288	37	17	16	16	15	61	30	25	6.7
23	50	51	149	31	17	21	18	12	52	31	20	6.4
24	49	49	100	30	16	25	18	11	44	33	23	6.7
25	36	89	70	30	15	26	16	13	44	32	24	9.3
26	34	118	84	29	16	183	20	9.1	42	18	25	11
27	31	39	150	30	17	48	16	9.5	43	12	24	12
28	40	222	115	30	18	29	19	9.5	34	9.4	26	11
29	46	737	101	27	-----	27	17	7.9	26	11	27	11
30	48	122	69	25	-----	26	19	7.6	26	9.1	28	16
31	48	-----	52	29	-----	22	-----	16	-----	12	27	-----
TOTAL	1,311	2,614	4,597	1,694	640	959	637	492.6	927	810.5	815	326.3
MEAN	42.3	87.1	148	54.6	22.9	30.9	21.2	15.9	30.9	26.1	26.3	10.9
MAX	50	737	453	332	35	183	64	27	61	43	36	27
MIN	31	34	21	25	15	10	15	7.6	11	9.1	15	5.7
AC-FT	2,600	5,180	9,120	3,360	1,270	1,900	1,260	977	1,840	1,610	1,620	647

CAL YR 1970 TOTAL 22,965.5 MEAN 62.9 MAX 2,250 MIN 3.5 AC-FT 45,550  
WTR YR 1971 TOTAL 15,823.4 MEAN 43.4 MAX 737 MIN 5.7 AC-FT 31,390



## ALAMEDA CREEK BASIN

## 11179000 ALAMEDA CREEK NEAR NILES, CALIF.

LOCATION.--Lat 37°35'14", long 121°57'35", in NW $\frac{1}{4}$  sec.15, T.4 S., R.1 W., Alameda County, on right bank 0.3 mile downstream from railroad bridge and 1.2 miles northeast of Niles.

DRAINAGE AREA.--633 sq mi.

PERIOD OF RECORD.--January 1891 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as "at Niles Dam" 1891-1900, and as "at Sunol Glen" 1901-21.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 85.65 ft (corrected) above mean sea level. Prior to 1901, nonrecording gage at site 1 mile upstream at different datum. 1901 to Sept. 30, 1914, nonrecording gage and Oct. 1, 1914, to Sept. 30, 1916, water-stage recorder at site 4.5 miles upstream at different datum. Oct. 1, 1916, to Dec. 17, 1923, water-stage recorder at site 800 ft upstream at different datum.

AVERAGE DISCHARGE.--80 years, 119 cfs (86,220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,300 cfs Dec. 2 (gage height, 6.26 ft); minimum daily, 9.6 cfs June 17.

Period of record: Maximum discharge, 29,000 cfs Dec. 23, 1955 (gage height, 14.9 ft); minimum (1891-1962), no flow at times; minimum daily (1963 to current year), 1.4 cfs Dec. 7, 8, 1962.

REMARKS.--Records good. Flow regulated by Calaveras Reservoir (usable capacity, 96,800 acre-ft, most of which is diverted for San Francisco water supply) beginning in 1916 although dam not completed until 1925, by San Antonio Reservoir beginning in February 1965 (capacity, 51,000 acre-ft), and by Del Valle Reservoir 23 miles upstream beginning in September 1968 (capacity, 77,100 acre-ft). Natural flow of stream affected by imported water from Delta-Mendota Canal beginning in 1962. Other diversions from ground water basin for irrigation of 9,000 acres above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1315-B: 1921. WSP 1515: 1951-52, 1956. WSP 1565: 1945.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	40	107	71	45	23	32	22	14	26	24	58
2	40	32	786	90	48	24	39	20	14	30	28	69
3	42	19	286	64	38	22	32	28	14	32	19	60
4	45	49	555	53	36	19	30	22	24	33	29	57
5	46	68	217	50	48	20	29	22	23	32	32	57
6	46	57	80	52	45	17	27	22	33	30	33	58
7	47	52	52	46	41	16	26	23	36	27	27	59
8	42	28	41	45	40	17	25	26	31	19	24	54
9	34	19	34	46	36	19	26	25	29	16	36	29
10	32	35	25	43	31	17	31	23	33	15	61	27
11	33	75	22	61	29	15	28	22	35	12	54	25
12	32	65	25	174	35	128	24	25	26	13	54	25
13	33	46	22	442	35	146	21	22	24	14	54	24
14	33	63	25	282	30	66	76	22	21	18	49	20
15	33	62	21	163	28	79	35	22	18	19	46	23
16	32	60	160	118	31	34	24	18	13	20	50	24
17	28	58	576	88	35	27	59	15	9.6	23	57	23
18	30	51	597	68	27	23	39	15	13	29	53	22
19	32	46	700	66	32	27	30	17	25	30	51	22
20	38	46	300	65	26	69	27	17	53	29	50	22
21	42	49	756	61	26	93	23	16	59	25	52	24
22	39	50	419	60	26	93	23	16	63	27	42	34
23	42	50	184	53	23	41	22	16	55	28	47	33
24	46	47	109	49	21	45	23	14	44	32	51	30
25	26	75	84	48	20	41	22	13	44	32	49	28
26	18	120	86	47	21	193	22	12	46	20	52	28
27	16	46	171	46	24	91	20	11	50	15	51	13
28	22	174	160	45	26	49	19	12	39	26	51	26
29	39	842	133	41	-----	43	21	13	23	34	52	26
30	41	192	107	38	-----	41	20	12	20	30	52	23
31	43	-----	82	43	-----	69	-----	13	-----	24	53	-----
TOTAL	1,110	2,616	6,922	2,618	903	1,607	875	576	931.6	760	1,383	1,023
MEAN	35.8	87.2	223	84.5	32.3	51.8	29.2	18.6	31.1	24.5	44.6	34.1
MAX	47	842	786	442	48	193	76	28	63	34	61	69
MIN	16	19	21	38	20	15	19	11	9.6	12	19	13
AC-FT	2,200	5,190	13,730	5,190	1,790	3,190	1,740	1,140	1,850	1,510	2,740	2,030

CAL YR 1970 TOTAL 36,427.9 MEAN 99.8 MAX 3,920 MIN 5.2 AC-FT 72,250  
WTR YR 1971 TOTAL 21,324.6 MEAN 58.4 MAX 842 MIN 9.6 AC-FT 42,300

## 11180500 DRY CREEK AT UNION CITY, CALIF.

LOCATION.--Lat 37°36'22", long 122°01'22", in Arroyo de la Alameda Grant, Alameda County, on right bank 900 ft downstream from bridge on State Highway 238 in Decoto District in Union City and 1.7 miles upstream from mouth.

DRAINAGE AREA.--9.41 sq mi.

PERIOD OF RECORD.--October 1916 to September 1919 (published as "near Decoto"), April 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 85.12 ft above mean sea level. Prior to Apr. 1, 1959, at site 1.4 miles downstream at different datum.

AVERAGE DISCHARGE.--15 years, 1.71 cfs (1,240 acre-ft per year); median of yearly mean discharges, 1.5 cfs (1,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 158 cfs Dec. 4 (gage height, 2.81 ft); no flow for several months. Period of record: Maximum discharge, 930 cfs Oct. 13, 1962 (gage height, 5.27 ft, from outside gage), from rating curve extended above 140 cfs on basis of slope-area measurement of maximum flow; no flow most of each year.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1929: Drainage area. WRD Calif. 1969: 1962(M), 1963(P), 1965(P), 1967(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	3.8	9.1	1.9	.70	1.4	.30				
2		0	25	11	1.8	.65	1.2	.30				
3		0	8.2	6.8	1.7	.69	1.0	.30				
4		0	62	5.9	1.6	.73	.94	.27				
5		0	18	5.3	1.6	.66	.85	.25				
6		0	8.8	4.8	1.5	.64	.85	.25				
7		0	6.0	4.6	1.5	.63	.82	.20				
8		0	5.3	4.3	1.4	.62	1.8	.20				
9		0	4.2	3.9	1.4	.59	1.4	.20				
10		0	3.7	3.8	1.3	.58	.74	.20				
11		0	2.0	7.6	1.3	.59	.65	.15				
12		0	1.5	15	1.2	2.8	.89	.15				
13		0	1.2	13	1.1	2.6	2.2	.15				
14		0	.95	9.8	1.1	2.3	5.2	.15				
15		0	1.4	7.8	1.1	2.3	1.7	.15				
16		0	12	7.1	1.2	1.3	.79	.10				
17		0	35	6.4	1.2	1.0	2.2	.10				
18		0	50	5.7	1.1	.84	1.5	.10				
19		0	40	5.2	1.8	.79	1.1	.10				
20		0	28	4.8	1.2	.74	.70	.10				
21		0	34	4.2	1.0	.69	.60	.05				
22		0	17	4.0	1.0	.65	.55	.05				
23		0	11	3.6	.96	.81	.50	.05				
24		0	8.5	3.4	.89	.78	.50	.05				
25		0	7.2	3.2	.82	1.2	.45	.05				
26		0	9.3	2.9	.77	10	.45	0				
27		0	15	2.6	.93	4.4	.40	0				
28		1.6	11	2.5	.87	3.1	.40	0				
29		28	16	2.3	-----	2.3	.35	0				
30		5.2	12	2.2	-----	1.9	.35	0				
31		-----	10	2.0	-----	1.5	-----	0	-----			-----
TOTAL	0	34.8	468.05	174.8	35.24	49.08	32.48	3.97	0	0	0	0
MEAN	0	1.16	15.1	5.64	1.26	1.58	1.08	.13	0	0	0	0
MAX	0	28	62	15	1.9	10	5.2	.30	0	0	0	0
MIN	0	0	.95	2.0	.77	.58	.35	0	0	0	0	0
AC-FT	0	69	928	347	70	97	64	7.9	0	0	0	0

CAL YR 1970 TOTAL 1,350.22 MEAN 3.70 MAX 335 MIN 0 AC-FT 2,680  
WTR YR 1971 TOTAL 798.42 MEAN 2.19 MAX 62 MIN 0 AC-FT 1,580

(PEAK DISCHARGE (BASE, 40 CFS))  
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE  
11-29 0315 2.44 69 12-18 2145 2.73 135  
12- 4 0545 2.81 158

NOTE.--No gage-height record Apr. 20 to June 1.

## ALAMEDA CREEK BASIN

11180700 PATTERSON CREEK AT UNION CITY, CALIF.

LOCATION.--Lat 37°55'09", long 122°02'50", in Potrero de Los Cerritos Grant, Alameda County, on right bank 0.1 mile downstream from effluence, 0.2 mile upstream from bridge on State Highway 17 (Nimitz Freeway), and 2.0 miles southwest of Decoto District in Union City.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4.13 ft above mean sea level. Prior to Oct. 26, 1966, at site 0.2 mile downstream at same datum.

AVERAGE DISCHARGE.--13 years, 47.9 cfs (34,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,300 cfs Nov. 29, result of rising stage washing out temporary dams (gage height, 13.90 ft); no flow for many days.

Period of record: Maximum discharge, 10,500 cfs Feb. 1, 1963 (gage height, 20.4 ft, from floodmarks); no flow at times in each year.

REMARKS.--Records fair. This stream is a distributary of Alameda Creek. See REMARKS for Alameda Creek at Union City.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	1.0	123	63	25	14	33	22				0
2	.35	2.9	826	84	37	14	37	24				0
3	.35	6.6	404	61	26	12	41	29				0
4	.35	17	634	48	23	12	32	27				0
5	4.5	18	294	42	28	10	31	16				0
6	9.9	18	102	43	40	10	37	18				0
7	6.2	18	56	38	32	8.0	36	19				0
8	6.6	16	20	35	30	7.0	30	35				0
9	7.4	8.0	18	38	29	6.8	32	40				0
10	7.8	3.0	16	40	20	7.0	36	36				0
11	7.8	3.0	16	55	22	7.0	36	20				0
12	7.0	7.4	15	172	21	20	32	28				0
13	4.5	9.9	14	394	27	211	29	18				0
14	2.3	8.2	12	307	20	67	86	18				0
15	2.0	9.4	12	131	18	71	48	20				0
16	3.5	9.9	123	98	22	22	28	25				0
17	5.0	11	642	81	22	21	58	35				0
18	5.0	11	668	66	23	17	53	25				0
19	5.4	12	777	61	26	18	35	25				0
20	5.8	7.8	335	60	20	33	32	25				0
21	5.0	7.4	808	51	13	71	33	25				0
22	5.0	9.4	469	48	18	80	38	25				0
23	5.0	9.9	157	48	16	48	45	25				0
24	4.2	11	86	42	14	29	23	15				0
25	4.6	60	75	38	14	32	16	5.0				0
26	4.6	142	84	44	14	184	17	2.0				0
27	4.6	70	158	37	15	115	19	2.0				0
28	3.0	109	189	36	16	58	15	1.0				6.0
29	1.0	1,550	147	29	-----	31	14	0				0
30	1.0	272	119	31	-----	28	12	0				0
31	1.0	-----	83	28	-----	53	-----	0	-----			0
TOTAL	131.10	2,438.8	7,482	2,349	631	1,316.8	1,014	605.0	0	0	0	6.0
MEAN	4.23	81.3	241	75.8	22.5	42.5	33.8	19.5	0	0	0	.20
MAX	9.9	1,550	826	394	40	211	86	40	0	0	0	6.0
MIN	.35	1.0	12	28	13	6.8	12	0	0	0	0	0
AC-FT	260	4,840	14,840	4,660	1,250	2,610	2,010	1,200	0	0	0	12
CAL YR 1970	TOTAL	28,946.57	MEAN	79.3	MAX	3,540	MIN	0	AC-FT	57,420		
WTR YR 1971	TOTAL	15,973.70	MEAN	43.8	MAX	1,550	MIN	0	AC-FT	31,680		

## 11180750 ALAMEDA CREEK AT UNION CITY, CALIF.

LOCATION.--Lat 37°35'46", long 122°03'15", in Arroyo de la Alameda Grant, Alameda County, on left bank 5 ft downstream from bridge on Baker Road, 1 mile downstream from Dry Creek, and 1.4 miles east of Alvarado District in Union City.

DRAINAGE AREA.--653 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.40 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 1.42 cfs (1,030 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 52 cfs Nov. 29 (gage height, 11.39 ft); no flow for many days. Period of record: Maximum discharge, 1,770 cfs Feb. 1, 1963 (gage height, 19.25 ft, from floodmarks); no flow most of each year.

REMARKS.--Records fair. Flow regulated by gates at Patterson Creek since October 1966. A storm drain flows into channel 0.5 mile upstream beginning in 1970. For total flow in Alameda Creek, add flow of Patterson Creek at Union City (see REMARKS for Alameda Creek near Niles). Diversion by Alameda County Water District to percolation ponds between stations near Niles and at Union City; additional percolation to ground water by placing check dams in channel during summer months.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.68	.95	0	0	0		0	.72	1.8	5.5
2	0	0	4.9	1.5	0	0	0		0	1.3	2.0	5.5
3	0	1.2	.39	.17	0	0	0		0	1.2	2.0	5.5
4	0	.63	6.2	.06	0	0	0		0	1.8	2.8	5.2
5	0	.55	.09	.04	0	0	0		0	1.8	3.7	4.9
6	0	2.9	.01	.01	0	0	0		0	1.7	4.2	4.6
7	0	0	0	.02	0	0	0		0	1.5	4.6	4.3
8	0	0	0	.01	0	0	0		0	1.3	5.0	4.4
9	0	0	0	0	0	0	0		0	1.1	4.7	4.0
10	0	0	0	0	0	0	0		0	.90	5.0	3.8
11	0	0	0	1.2	0	0	0		0	.63	5.1	3.5
12	0	0	0	2.2	0	.81	0		0	.39	5.5	3.2
13	0	0	0	1.5	0	.01	.85		0	.23	5.7	2.9
14	0	0	0	.46	0	1.2	1.8		0	.04	6.1	2.7
15	0	0	3.0	.09	0	0	0		.20	0	6.2	2.5
16	0	0	4.0	.06	0	0	0		.02	0	6.4	2.2
17	0	0	6.9	0	0	0	1.0		0	0	6.6	2.1
18	0	0	6.4	0	.55	0	0		0	0	6.6	1.8
19	0	0	1.3	0	1.1	0	0		0	0	6.7	1.6
20	0	0	6.5	.06	0	0	0		0	0	6.7	1.4
21	0	0	3.2	.06	0	0	0		.63	0	6.7	1.2
22	0	0	.46	.02	0	0	0		1.4	0	6.6	.95
23	.81	0	.32	.01	0	0	0		1.2	0	6.4	.68
24	0	.81	.20	0	0	0	0		1.0	0	6.4	.68
25	0	3.2	.14	0	0	.42	0		.46	0	6.0	.72
26	0	1.4	3.0	0	0	2.0	0		.03	0	5.8	.68
27	0	0	4.0	0	0	0	0		0	0	6.0	.39
28	0	8.9	.63	.06	0	0	0		.01	0	5.8	.03
29	0	7.7	2.7	.04	-----	0	0		.14	0	5.8	0
30	0	.68	.42	0	-----	0	0		.29	0	5.8	0
31	0	-----	.29	0	-----	0	-----		-----	.46	5.7	-----
TOTAL	.81	27.97	55.73	8.52	1.65	4.44	3.65	0	5.38	15.07	164.4	76.93
MEAN	.026	.93	1.80	.27	.059	.14	.12	0	.18	.49	5.30	2.56
MAX	.81	8.9	6.9	2.2	1.1	2.0	1.8	0	1.4	1.8	6.7	5.5
MIN	0	0	0	0	0	0	0	0	0	0	1.8	0
AC-FT	1.6	55	111	17	3.3	8.8	7.2	0	11	30	326	153
CAL YR 1970	TOTAL	128.17	MEAN	.35	MAX	12	MIN	0	AC-FT	254		
WTR YR 1971	TOTAL	364.55	MEAN	1.00	MAX	8.9	MIN	0	AC-FT	723		

## SAN LORENZO CREEK BASIN

## 11181000 SAN LORENZO CREEK AT HAYWARD, CALIF.

LOCATION.--Lat 37°41'11", long 122°03'44", in San Lorenzo Grant, Alameda County, on right bank at bridge on B Street, just outside city limits of Hayward, 0.5 mile downstream from Crow Creek, and 0.9 mile downstream from Don Castro Dam.

DRAINAGE AREA.--37.5 sq mi.

PERIOD OF RECORD.--October 1939 to September 1940, October 1946 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder and concrete control (control ineffective since 1952 due to gravel fill). Datum of gage is 133.16 ft above mean sea level. January to September 1940, nonrecording gage on bridge at present site and datum.

AVERAGE DISCHARGE.--26 years, 14.5 cfs (10,510 acre-ft per year); median of yearly mean discharges, 10 cfs (7,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,260 cfs Dec. 4 (gage height, 10.01 ft); minimum daily, 0.01 cfs Oct. 9-11.

Period of record: Maximum discharge, 7,460 cfs Oct. 13, 1962 (gage height, 19.73 ft, from floodmarks), from rating curve extended above 2,700 cfs on basis of slope-area measurement of maximum flow; maximum gage height, 20.82 ft, from floodmarks, Dec. 22, 1955; no flow at times.

REMARKS.--Records good. Flow partly regulated by Cull Creek Reservoir beginning in October 1962 (capacity, 310 acre-ft) and Don Castro Reservoir 0.9 mile upstream beginning in January 1965 (capacity, 380 acre-ft). A few very small diversions above station.

REVISIONS (WATER YEARS).--WSP 1315-B: 1947(M), 1949(M). WSP 1345: 1940(M). WSP 1715: 1947.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.30	3.9	46	15	15	10	4.7	2.8	.93	.04	.07
2	.02	.26	53	50	14	9.2	9.1	4.8	2.9	.52	.03	.07
3	.03	1.7	19	33	13	3.9	11	4.7	2.7	.77	.32	.07
4	.07	2.9	460	30	12	4.2	11	4.8	2.7	.84	.06	.07
5	.06	3.4	82	28	12	3.6	11	4.9	2.5	.79	.04	.07
6	.04	7.1	32	26	12	3.4	10	4.5	2.3	.58	.42	.07
7	.03	4.0	22	25	12	4.8	11	4.3	1.9	.60	.06	.07
8	.02	3.4	20	26	11	7.0	9.7	4.0	2.2	.44	.04	.07
9	.01	3.3	18	25	11	7.0	8.9	3.8	2.0	.59	.04	.07
10	.01	1.5	16	25	12	7.1	12	3.9	2.8	.57	.06	.07
11	.01	3.8	14	39	12	7.5	9.2	3.7	2.7	.51	.06	.07
12	.02	3.9	13	57	12	50	8.4	3.5	2.3	.17	.06	.07
13	.06	4.9	15	82	11	21	9.6	4.1	2.0	.65	.06	.07
14	.03	8.9	13	53	11	18	17	3.6	1.7	.22	.06	.07
15	.04	7.5	25	39	11	14	8.8	3.4	3.0	.26	.06	.07
16	.23	6.0	86	35	12	11	7.9	3.1	3.3	.73	.06	.07
17	.18	6.0	136	32	11	14	13	3.0	2.9	.14	.06	.07
18	.74	6.0	239	30	12	14	8.1	2.8	.59	.44	.06	.07
19	1.0	6.0	173	29	18	12	7.8	2.9	.58	.14	.06	.07
20	2.7	6.0	163	27	11	12	7.8	3.0	.78	.07	.06	.07
21	.27	5.6	184	24	9.4	12	7.0	3.5	1.0	.05	.07	.07
22	.56	1.9	100	23	9.5	9.0	6.2	3.1	.52	.39	.07	.07
23	1.8	1.6	68	21	8.8	8.2	6.0	3.1	.49	.04	.07	.07
24	.50	4.4	51	20	8.4	7.5	5.5	3.4	.52	.09	.07	.07
25	.32	17	43	19	8.3	11	5.4	3.0	.65	.32	.07	.07
26	.28	8.9	58	18	10	106	5.6	3.7	1.1	.22	.07	.07
27	.29	3.2	76	17	16	26	5.5	3.6	.88	.29	.07	.07
28	.23	47	56	16	15	18	5.0	4.1	.93	.16	.07	.07
29	.18	66	95	16	-----	15	5.0	3.9	.86	.40	.07	.07
30	.25	6.4	57	15	-----	14	4.7	3.5	.83	.12	.07	.07
31	.29	-----	49	15	-----	13	-----	2.8	-----	.46	.07	-----
TOTAL	10.29	248.86	2,439.9	941	330.4	478.4	257.2	115.2	52.43	12.50	2.48	2.10
MEAN	.33	8.30	78.7	30.4	11.8	15.4	8.57	3.72	1.75	.40	.080	.070
MAX	2.7	66	460	82	18	106	17	4.9	3.3	.93	.42	.07
MIN	.01	.26	3.9	15	8.3	3.4	4.7	2.8	.49	.04	.03	.07
AC-FT	20	494	4,840	1,870	655	949	510	229	104	25	4.9	4.2

CAL YR 1970 TOTAL 9,446.65 MEAN 25.9 MAX 1,610 MIN .01 AC-FT 18,740  
WTR YR 1971 TOTAL 4,890.76 MEAN 13.4 MAX 460 MIN .01 AC-FT 9,700

## PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-4	0615	10.01	1,260	12-20	2045	8.08	529
12-18	0530	8.31	598				

NOTE.--No gage-height record Aug. 10 to Sept. 30.

## 11181040 SAN LORENZO CREEK AT SAN LORENZO, CALIF.

LOCATION.--Lat 37°41'03", long 122°08'20", in San Lorenzo (Soto) Grant, Alameda County, on left bank 400 ft downstream from Washington Avenue bridge in San Lorenzo and 1.6 miles upstream from mouth.

DRAINAGE AREA.--44.6 sq mi.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6.13 ft above mean sea level (levels by Alameda County Flood Control and Water Conservation District).

EXTREMES.--Current year: Maximum discharge, 1,800 cfs Dec. 4 (gage height, unknown); minimum daily, 0.46 cfs Aug. 21.

Period of record: Maximum discharge, 3,300 cfs Jan. 21, 1970 (gage height, 7.67 ft, from crest-stage gage), from rating curve extended above 1,200 cfs; minimum daily, 0.05 cfs Oct. 23, 1968.

REMARKS.--Records fair. Flow partly regulated by Cull Creek Reservoir beginning in October 1962 (capacity, 310 acre-ft), and Don Castro Reservoir 7 miles upstream beginning in January 1965 (capacity, 380 acre-ft). A few very small diversions above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.75	18	71	18	15	17	4.9	2.7	1.4	.79	1.0
2	1.2	.75	52	69	18	12	11	5.5	2.8	2.0	.85	1.0
3	.90	25	30	50	16	3.3	14	4.1	2.8	1.8	.89	1.0
4	.85	23	550	45	16	3.8	13	5.2	2.6	2.0	1.2	.86
5	.89	14	84	43	16	3.6	13	4.7	2.3	2.1	1.1	.74
6	.84	48	43	40	16	3.4	13	4.5	1.8	1.8	1.5	.75
7	.68	17	30	34	16	4.4	12	4.2	1.3	2.0	1.6	.77
8	.73	4.4	34	30	15	7.2	10	3.9	.95	1.6	1.6	.73
9	.74	5.3	23	30	14	7.2	9.8	3.7	.86	2.1	1.7	.70
10	.78	2.2	22	30	15	7.2	14	3.4	1.0	1.9	1.7	.72
11	.54	18	19	74	15	7.7	9.6	3.7	1.1	1.8	1.6	.78
12	.51	7.1	18	103	15	118	8.5	3.8	1.1	1.9	1.5	.83
13	.52	3.0	22	150	15	15	8.4	4.1	.90	1.5	1.3	.89
14	.76	6.3	18	60	15	24	18	4.0	1.1	1.8	1.2	.94
15	.59	6.2	56	46	15	10	12	3.9	1.6	.95	.96	1.2
16	.61	6.3	149	38	16	7.2	7.0	3.8	1.8	1.4	.66	.95
17	.84	6.5	236	33	14	7.7	11	3.6	2.1	.97	.68	1.0
18	.89	6.4	353	31	23	8.5	9.5	3.7	1.1	1.1	.59	.80
19	1.1	6.4	179	31	24	7.7	6.9	3.4	.92	1.0	.59	.92
20	16	6.4	204	28	12	7.2	7.0	3.9	.90	.71	.64	1.2
21	1.1	6.4	211	24	8.1	7.2	7.0	3.6	1.5	.66	.46	.85
22	1.3	2.9	124	23	8.1	5.5	5.7	3.9	1.4	.87	.51	.98
23	7.7	2.6	77	22	8.1	6.4	5.2	3.8	.99	.68	.74	.98
24	1.3	39	64	21	8.1	3.6	4.9	3.8	1.4	.68	.70	1.1
25	.81	74	56	20	8.1	11	4.8	4.0	2.3	.64	.60	1.1
26	.81	26	103	20	8.5	317	5.0	3.9	2.3	.76	.63	3.6
27	.64	4.2	141	20	18	46	4.5	3.7	2.3	.55	.60	1.4
28	.75	111	73	19	15	34	6.0	3.8	2.0	.64	.60	.98
29	.69	115	156	18	-----	30	5.0	3.5	2.0	.56	.75	2.7
30	.75	22	74	18	-----	28	5.1	3.2	1.8	.82	.83	2.0
31	.81	-----	65	18	-----	27	-----	3.0	-----	.86	1.1	-----
TOTAL	47.73	616.10	3,284	1,259	406.0	795.8	277.9	122.2	49.72	39.55	30.17	33.47
MEAN	1.54	20.5	106	40.6	14.5	25.7	9.26	3.94	1.66	1.28	.97	1.12
MAX	16	115	550	150	24	317	18	5.5	2.8	2.1	1.7	3.6
MIN	.51	.75	18	18	8.1	3.3	4.5	3.0	.86	.55	.46	.70
AC-FT	95	1,220	6,510	2,500	805	1,580	551	242	99	78	60	66
CAL YR 1970	TOTAL 6,347.83	MEAN 17.4	MAX 550	MIN .32	AC-FT 12,590							
WTR YR 1971	TOTAL 6,961.64	MEAN 19.1	MAX 550	MIN .46	AC-FT 13,810							

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-4	unknown	-	1,800	3-26	0645	5.37	962
12-18	0330	5.37	962				

NOTE.--No gage-height record Dec. 4.

## CASTRO CREEK BASIN

11181400 WILDCAT CREEK AT RICHMOND, CALIF.

LOCATION.--Lat 37°57'41", long 122°21'33", in San Pablo Grant, Contra Costa County, on left bank 200 ft downstream from Southern Pacific Railway bridge at east city limits of Richmond and 2 miles upstream from mouth.

DRAINAGE AREA.--8.69 sq mi.

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 20.62 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 5.09 cfs (3,690 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 446 cfs Dec. 4 (gage height, 7.50 ft); no flow many days.

Period of record: Maximum discharge, 881 cfs Jan. 21, 1970 (gage height, 9.90 ft); no flow many days in each year.

REMARKS.--Records good. Minor storage in Lake Anza and Jewel Lake. No diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.77	19	7.8	2.5	1.3	1.1	.44				0
2	0	.09	57	9.1	2.3	1.1	1.0	.49				0
3	0	7.2	41	5.4	2.1	1.1	.93	.48				0
4	0	2.5	192	4.5	2.1	1.2	.86	.48				0
5	0	4.8	49	3.9	1.9	1.1	.86	.46				0
6	0	3.3	15	3.7	2.1	1.0	3.2	.47				0
7	0	2.9	10	3.5	2.1	.99	.96	.46				0
8	0	.30	11	3.3	2.1	1.0	.76	.45				0
9	0	.08	7.2	3.1	1.9	.93	2.1	.49				0
10	0	1.4	4.8	3.9	1.7	.93	1.8	.49				0
11	0	2.6	3.7	26	1.7	.93	.76	.63				0
12	0	2.1	2.9	27	1.7	20	.67	.70				0
13	0	1.9	5.8	27	1.9	8.1	2.8	.56				0
14	0	1.8	3.9	16	1.3	5.9	3.1	.51				0
15	0	1.8	5.5	9.9	1.3	4.2	.86	.48				0
16	0	.72	24	8.6	1.4	2.7	1.3	.33				0
17	0	.02	30	7.6	1.5	2.1	2.5	.24				0
18	0	0	27	6.8	1.5	1.5	.98	.19				0
19	0	0	11	6.1	1.9	1.3	.82	.10				0
20	1.8	0	37	5.6	1.4	1.2	.72	.22				0
21	.98	0	32	5.0	1.3	1.1	.64	.10				0
22	1.1	0	12	4.6	1.3	1.0	.53	.01				0
23	1.3	0	8.9	3.9	1.4	3.3	.55	0				0
24	2.9	6.2	7.3	3.7	1.3	1.5	.51	0				0
25	.96	6.5	6.2	3.3	1.2	5.1	.50	.10				0
26	.22	2.0	7.4	3.1	1.2	47	.47	.07				0
27	0	7.8	7.2	2.9	2.0	8.5	.48	.23				0
28	0	41	7.1	2.7	1.3	4.8	.45	.20				0
29	.09	72	23	2.7	-----	3.3	.47	.50				.10
30	.02	13	9.1	2.5	-----	2.5	.48	.24				0
31	.24	-----	6.8	2.3	-----	1.4	-----	.09	-----			-----
TOTAL	9.61	182.78	683.8	225.5	47.4	138.08	33.16	10.21	0	0	0	.10
MEAN	.31	6.09	22.1	7.27	1.69	4.45	1.11	.33	0	0	0	.003
MAX	2.9	72	192	27	2.5	47	3.2	.70	0	0	0	.10
MIN	0	0	2.9	2.3	1.2	.93	.45	0	0	0	0	0
AC-FT	19	363	1,360	447	94	274	66	20	0	0	0	.2

CAL YR 1970 TOTAL 3,095.75 MEAN 8.48 MAX 475 MIN 0 AC-FT 6,140  
WTR YR 1971 TOTAL 1,330.64 MEAN 3.65 MAX 192 MIN 0 AC-FT 2,640

PEAK DISCHARGE (BASE, 150 CFS).--Nov. 29 (0645) 158 cfs (5.08 ft); Dec. 4 (0215) 446 cfs (7.50 ft).

## 11182030 RHEEM CREEK AT SAN PABLO, CALIF.

LOCATION.--Lat 37°58'38", long 122°21'10", in San Pablo Grant, Contra Costa County, on left bank 50 ft downstream from Santa Fe Railway bridge at San Pablo and 0.7 mile upstream from mouth.

DRAINAGE AREA.--1.09 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 13.63 ft above mean sea level (Corps of Engineers bench mark). Prior to Aug. 13, 1965, at site 0.2 mile upstream at datum 7.74 ft higher.

AVERAGE DISCHARGE.--10 years (1961-71), 1.40 cfs (1,010 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 211 cfs Nov. 27 (gage height, 5.05 ft); minimum daily, 0.01 cfs Sept. 27.

Period of record: Maximum discharge, 477 cfs Dec. 20, 1969 (gage height, 6.95 ft), from rating curve extended above 150 cfs; no flow at times.

REMARKS.--Records good. Low flow affected by return flow from industrial waste, leakage, and infrequent releases from off-stream North Reservoir.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.02	13	1.9	.17	.12	.12	.12	.12	.20	.04	.14
2	.10	.02	12	1.0	.17	.12	.14	.17	.12	.40	.06	.14
3	.04	7.9	28	.34	.40	.12	.14	.10	.12	.24	.14	.24
4	.02	3.3	28	.29	.29	.12	.14	.10	.10	.12	.08	.20
5	.03	6.5	2.8	.29	.20	.12	.14	.10	.12	.12	.29	.12
6	.03	4.0	.91	.24	.17	.12	.14	.17	.12	.14	.12	.03
7	.06	4.0	1.6	.24	.17	.12	.14	.24	.12	.24	.12	.08
8	.06	.55	3.0	.24	.14	.12	.14	.12	.14	.24	.12	.12
9	.08	.29	.63	.24	.14	.17	1.8	.12	.10	.34	.17	.14
10	.08	.17	.40	.91	.17	.14	1.2	.12	.12	.20	.14	.20
11	.17	.55	.34	19	.14	.14	.14	.12	.12	.17	.24	.12
12	.40	.17	.29	12	.14	12	.14	.12	.10	.34	.24	.12
13	.47	.08	2.6	6.5	.14	.34	2.2	.12	.12	.24	.24	.34
14	.12	.04	.34	1.9	.17	1.8	1.9	.17	.34	.17	.12	.34
15	.10	.06	3.3	.72	.17	.29	.14	.14	.24	.08	.06	.47
16	.04	.06	5.9	1.0	.17	.17	.72	.14	.29	.10	.08	.34
17	.08	.04	2.1	.55	.24	.14	1.2	.14	.34	.14	.17	.29
18	.72	.03	7.9	.47	.47	.12	.14	.17	.40	.12	.17	.10
19	.08	.03	.81	.47	.40	.14	.17	.20	.20	.14	.14	.06
20	2.4	.06	21	.34	.12	.14	.10	.34	.17	.24	.17	.08
21	1.3	.03	3.3	.34	.14	.12	.12	.17	.17	.20	.17	.08
22	1.8	.02	1.0	.34	.14	.10	.10	.17	.34	.14	.12	.04
23	1.5	.04	.63	.29	.12	2.1	.10	.14	.29	.29	.14	.40
24	.20	6.2	.47	.24	.24	.14	.10	.17	.34	.14	.29	.08
25	.06	4.9	.40	.24	.17	3.3	.12	.17	.34	.06	.12	.03
26	.04	.91	1.2	.20	.12	8.2	.12	.17	.20	.08	.12	.02
27	.06	13	.47	.20	.63	.24	.17	.29	.24	.10	.14	.01
28	.04	26	1.8	.20	.12	.14	.12	.10	.24	.06	.20	.02
29	.04	31	5.2	.20	-----	.17	.10	.10	.29	.06	.14	2.1
30	.06	4.6	.63	.17	-----	.14	.14	.08	.24	.08	.24	.47
31	.03	-----	.47	.17	-----	.12	-----	.10	-----	.08	.34	-----
TOTAL	10.33	114.57	150.49	51.23	5.86	31.32	12.14	4.68	6.19	5.27	4.93	6.92
MEAN	.33	3.82	4.85	1.65	.21	1.01	.40	.15	.21	.17	.16	.23
MAX	2.4	31	28	19	.63	12	2.2	.34	.40	.40	.34	2.1
MIN	.02	.02	.29	.17	.12	.10	.10	.08	.10	.06	.04	.01
AC-FT	20	227	299	102	12	62	24	9.3	12	10	9.8	14

CAL YR 1970 TOTAL 737.81 MEAN 2.02 MAX 87 MIN .01 AC-FT 1,460  
WTR YR 1971 TOTAL 403.93 MEAN 1.11 MAX 31 MIN .01 AC-FT 801

## PEAK DISCHARGE((BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	2400	5.05	211	12-20	1730	4.89	193
12- 4	0030	4.66	168				



## PINOLE CREEK BASIN

11182100 PINOLE CREEK AT PINOLE, CALIF.

LOCATION.--Lat 37°58'21", long 122°14'43", in Pinole Grant, Contra Costa County, on left bank 0.2 mile downstream from county bridge on Pinole Valley Road, 0.8 mile upstream from Pinole city boundary.

DRAINAGE AREA.--10.0 sq mi.

PERIOD OF RECORD.--December 1938 to current year. Monthly discharge only for water years 1939-59, published in WSP 1735.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 170 ft (from topographic map).

AVERAGE DISCHARGE.--32 years (1939-71), 3.83 cfs (2,770 acre-ft per year); median of yearly mean discharges, 2.1 cfs (1,520 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 352 cfs Dec. 4 (gage height, 4.61 ft); minimum daily, 0.02 cfs Aug. 11, 18, Sept. 17-19.

Period of record: Maximum discharge, 1,660 cfs Apr. 2, 1958 (gage height, 11.63 ft); no flow at times.

REMARKS.--No storage or diversion above station except for minor stock ponds; some inflow from ground-water withdrawals during irrigation season.

COOPERATION.--Records furnished by East Bay Municipal Utility District and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.37	11	6.8	4.4	2.4	2.7	1.6	.81	.46	.10	.07
2	.05	.35	43	12	4.2	2.3	2.6	1.6	.85	.42	.08	.06
3	.07	.36	27	5.2	4.1	2.5	2.5	1.6	.84	.39	.13	.06
4	.15	.75	125	4.6	4.0	2.6	2.3	1.6	.81	.37	.13	.07
5	.14	.51	16	4.6	4.0	2.3	2.3	1.6	.78	.31	.12	.07
6	.15	.51	5.7	4.2	4.0	2.3	2.2	1.5	.72	.31	.10	.08
7	.13	1.2	4.6	4.2	3.8	2.3	2.1	1.4	.69	.31	.09	.06
8	.10	.44	4.4	4.2	3.6	2.3	2.0	1.3	.72	.31	.06	.04
9	.09	.42	3.4	4.1	3.5	2.2	2.1	1.3	.69	.31	.04	.03
10	.10	.39	2.5	4.1	3.4	2.2	2.5	1.3	.78	.29	.03	.04
11	.08	.42	2.2	11	3.3	2.2	2.0	1.3	.66	.27	.02	.06
12	.14	.46	1.9	39	3.2	20	1.9	1.3	.69	.23	.04	.06
13	.19	.37	2.4	52	3.1	5.0	2.0	1.2	.66	.19	.05	.04
14	.17	.35	2.3	21	3.1	3.5	2.8	1.2	.63	.14	.06	.04
15	.19	.37	4.5	10	3.1	3.1	1.9	1.1	.53	.17	.08	.03
16	.21	.37	46	8.6	3.1	2.7	1.8	1.0	.46	.15	.10	.03
17	.23	.39	30	7.6	3.4	2.4	2.5	.98	.46	.19	.03	.02
18	.36	.42	16	6.9	2.9	2.2	1.8	.98	.44	.21	.02	.02
19	.27	.39	9.3	6.3	3.0	2.1	1.7	.98	.51	.14	.04	.02
20	.31	.42	56	5.9	2.8	2.0	1.7	.94	.53	.07	.07	.03
21	.31	.42	34	5.6	2.7	1.9	1.6	.87	.51	.13	.09	.08
22	.31	.42	8.3	5.2	2.7	1.9	1.6	.84	.48	.13	.14	.14
23	.33	.42	6.1	5.0	2.6	2.3	1.6	.87	.51	.09	.12	.09
24	.37	.48	5.4	4.8	2.6	2.2	1.5	.90	.48	.10	.06	.15
25	.40	1.0	4.8	4.8	2.4	3.0	1.5	.90	.51	.14	.07	.17
26	.29	.98	6.3	4.6	2.3	54	1.5	.90	.55	.25	.08	.17
27	.27	.67	5.9	4.6	2.6	5.9	1.5	.98	.58	.15	.10	.21
28	.25	8.9	5.1	4.5	2.6	4.2	1.5	.98	.51	.06	.10	.17
29	.23	15	20	4.4	-----	3.9	1.5	1.0	.48	.07	.12	.20
30	.29	4.4	6.5	4.4	-----	3.2	1.6	.90	.48	.09	.09	.17
31	.37	-----	5.6	4.4	-----	2.9	-----	.84	-----	.13	.09	-----
TOTAL	6.61	41.95	521.2	274.6	90.5	154.0	58.8	35.76	18.35	6.58	2.45	2.48
MEAN	.21	1.40	16.8	8.86	3.23	4.97	1.96	1.15	.61	.21	.079	.083
MAX	.40	15	125	52	4.4	54	2.8	1.6	.85	.46	.14	.21
MIN	.05	.35	1.9	4.1	2.3	1.9	1.5	.84	.44	.06	.02	.02
AC-FT	13	83	1,030	545	180	305	117	71	36	13	4.9	4.9

CAL YR 1970 TOTAL 2,935.62 MEAN 8.04 MAX 396 MIN .05 AC-FT 5,820  
WTR YR 1971 TOTAL 1,213.28 MEAN 3.32 MAX 125 MIN .02 AC-FT 2,410

PEAK DISCHARGE (BASE, 200 CFS).--Dec. 4 (0200) 352 cfs (4.61 ft); Dec. 20 (2000) 249 cfs (3.97 ft).

## 11182400 ARROYO DEL HAMBRE AT MARTINEZ, CALIF.

LOCATION.--Lat 38°00'12", long 122°07'44", in Las Juntas Grant, Contra Costa County, on right bank 40 ft upstream from D Street Bridge in Martinez.

DRAINAGE AREA.--15.1 sq mi.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 48.33 ft above mean sea level (levels by Contra Costa County Flood Control District).

AVERAGE DISCHARGE.--7 years, 4.56 cfs (3,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 287 cfs Dec. 20 (gage height, 4.01 ft); minimum daily, 0.05 cfs Aug. 30.

Period of record: Maximum discharge, 1,640 cfs Jan. 26, 1969 (gage height, 9.62 ft), from rating curve extended above 540 cfs on basis of slope-area measurement of maximum flow; no flow at times.

REMARKS.--Records good. No regulation or diversion above station. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.19	21	8.9	4.1	3.1	3.6	1.9	.67	.19	.09	.07
2	.12	.19	50	13	4.1	2.9	3.6	4.4	.53	.15	.12	.09
3	.12	3.6	16	6.0	3.8	3.1	3.3	2.2	.85	.15	.15	.12
4	.12	1.7	89	5.8	4.1	2.9	3.1	2.0	.76	.23	.15	.15
5	.12	2.2	13	5.2	4.6	2.3	3.1	1.9	.76	.23	.15	.15
6	.12	1.2	6.3	4.6	4.6	2.3	3.1	1.9	.46	.19	.15	.15
7	.12	1.4	5.2	4.6	4.4	2.3	3.1	1.7	.60	.28	.15	.15
8	.12	.28	5.2	4.6	4.4	2.3	2.9	1.6	.53	.19	.19	.07
9	.12	.28	3.8	4.6	4.1	2.2	3.1	1.1	.53	.19	.19	.07
10	.12	.28	3.1	4.4	3.8	2.3	3.6	1.3	.60	.12	.19	.07
11	.15	.33	2.9	8.6	3.8	2.3	2.5	.95	.60	.15	.15	.07
12	.15	.28	2.7	31	3.8	39	2.2	1.1	.39	.15	.23	.07
13	.15	.28	4.9	42	3.8	7.4	3.1	1.2	.39	.12	.19	.07
14	.15	.28	2.9	17	3.8	4.6	4.9	1.2	.33	.09	.23	.07
15	.15	.28	10	11	3.3	4.1	2.3	.95	.28	.12	.23	.07
16	.28	.28	42	9.3	3.8	3.6	2.5	.85	.19	.15	.23	.07
17	.33	.28	22	8.6	4.4	3.6	3.8	.85	.15	.19	.19	.09
18	.23	.33	12	7.8	3.8	3.1	2.2	.76	.15	.23	.23	.12
19	.19	.23	8.2	7.4	3.8	3.1	2.0	.76	.23	.23	.19	.09
20	.60	.23	41	7.0	3.6	2.9	2.2	.46	.28	.28	.19	.09
21	.28	.23	17	6.3	3.3	2.7	1.9	.33	.12	.19	.12	.07
22	.19	.23	8.6	6.0	3.6	2.7	1.9	.28	.23	.15	.09	.09
23	.53	.23	6.6	5.8	3.3	3.6	1.9	.33	.23	.19	.09	.09
24	.19	2.5	6.0	5.5	3.3	2.9	1.9	.46	.19	.19	.09	.09
25	.15	4.1	5.8	5.2	3.1	4.9	1.7	.33	.19	.15	.09	.09
26	.12	1.7	10	5.2	3.1	36	1.9	.39	.15	.23	.12	.09
27	.12	2.7	8.6	4.6	3.6	6.6	1.9	.46	.19	.28	.07	.09
28	.12	23	6.6	4.6	3.1	5.2	1.9	.46	.15	.23	.07	.09
29	.15	40	18	4.6	-----	4.6	1.6	.53	.15	.28	.07	.46
30	.19	8.2	7.4	4.4	-----	4.4	1.9	.67	.19	.23	.05	.23
31	.19	-----	6.3	4.4	-----	4.1	-----	.60	-----	.39	.07	-----
TOTAL	5.78	97.01	462.1	268.0	106.3	177.1	78.7	33.92	11.07	6.14	4.52	3.29
MEAN	.19	3.23	14.9	8.65	3.80	5.71	2.62	1.09	.37	.20	.15	.11
MAX	.60	40	89	42	4.6	39	4.9	4.4	.85	.39	.23	.46
MIN	.09	.19	2.7	4.4	3.1	2.2	1.6	.28	.12	.09	.05	.07
AC-FT	11	192	917	532	211	351	156	67	22	12	9.0	6.5
CAL YR 1970	TOTAL 2,356.48 MEAN 6.46 MAX 306 MIN .03 AC-FT 4,670											
WTR YR 1971	TOTAL 1,253.93 MEAN 3.44 MAX 89 MIN .05 AC-FT 2,490											

## PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-4	0130	3.78	237	1-12	2400	3.45	167
12-20	1930	4.01	287	3-12	1430	3.55	188

## 11182500 SAN RAMON CREEK AT SAN RAMON, CALIF.

LOCATION.--Lat 37°46'23", long 121°59'37", in sec.8, T.2 S., R.1 W., Contra Costa County, on right bank 0.2 mile downstream from Bollinger Creek and 1.0 mile southwest of San Ramon.

DRAINAGE AREA.--5.89 sq mi.

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 530 ft (from topographic map).

AVERAGE DISCHARGE.--19 years, 2.88 cfs (2,090 acre-ft per year); median of yearly mean discharges, 1.9 cfs (1,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 219 cfs Dec. 4 (gage height, 3.84 ft), from rating curve extended as explained below; no flow many days.

Period of record: Maximum discharge, 1,600 cfs Oct. 13, 1962 (gage height, 16.98 ft), from rating curve extended above 90 cfs on basis of indirect measurements of maximum flow through culvert at gage heights 12.09 and 16.98 ft; no flow for parts of each year.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1445: 1953-54(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.08	1.1	6.8	3.3	1.8	3.0	1.3	.59	.25	.03	0
2	0	.08	1.3	11	3.2	1.7	2.6	1.3	.58	.25	.02	0
3	0	.11	3.9	6.2	3.0	1.8	2.4	1.3	.58	.23	.02	.01
4	0	.63	8.3	5.2	2.9	1.8	2.2	1.3	.57	.22	.03	0
5	.01	.56	8.1	4.7	2.9	1.6	2.1	1.3	.52	.20	.03	0
6	.01	.44	3.5	4.3	2.9	1.6	2.1	1.3	.50	.19	.03	.01
7	.01	.29	2.7	4.1	2.8	1.6	2.1	1.2	.51	.19	.02	.01
8	0	.17	2.9	3.9	2.7	1.6	2.0	1.2	.50	.23	.01	0
9	0	.14	2.5	3.8	2.6	1.5	1.9	1.1	.50	.22	.01	0
10	0	.14	2.1	3.8	2.5	1.5	2.6	1.1	.52	.23	.01	0
11	0	.21	1.8	5.8	2.4	1.8	1.9	1.1	.47	.19	.01	0
12	.01	.33	1.6	13	2.3	2.1	1.8	1.0	.43	.17	.01	0
13	.01	.14	1.8	17	2.3	4.9	2.0	1.0	.43	.14	.02	0
14	.01	.14	2.3	10	2.3	4.3	2.9	.98	.40	.13	.02	0
15	.02	.14	8.6	7.4	2.2	3.3	1.8	.90	.36	.12	.02	0
16	.02	.14	17	6.8	2.3	2.7	1.7	.85	.32	.12	.02	0
17	.02	.14	20	6.4	2.4	2.4	2.4	.81	.27	.10	.02	0
18	.03	.14	21	6.0	2.2	2.1	1.7	.80	.29	.12	.02	0
19	.03	.14	9.4	5.7	2.8	2.0	1.6	.79	.30	.07	.02	0
20	.03	.14	12	5.3	2.3	1.9	1.6	.78	.28	.05	.01	0
21	.03	.14	9.4	4.8	2.0	1.9	1.5	.73	.25	.08	.01	0
22	.03	.14	6.1	4.5	2.0	1.8	1.5	.71	.29	.04	.01	0
23	.03	.14	5.2	4.3	1.9	2.0	1.5	.67	.29	.04	.01	0
24	.05	.21	4.4	4.1	1.8	1.9	1.5	.60	.27	.07	.01	0
25	.05	1.2	4.1	3.9	1.8	2.4	1.6	.62	.30	.10	.01	.01
26	.03	.56	7.0	3.9	1.8	3.5	1.4	.67	.37	.09	.01	.02
27	.03	.21	9.4	3.9	2.1	5.8	1.3	.69	.27	.08	.01	.01
28	.03	4.6	6.1	3.7	1.9	4.0	1.3	.71	.25	.10	.01	.01
29	.03	12	20	3.5	-----	3.6	1.3	.70	.25	.11	0	.03
30	.03	1.1	9.0	3.5	-----	3.4	1.3	.62	.25	.10	0	.02
31	.05	-----	7.2	3.3	-----	3.2	-----	.58	-----	.05	0	-----
TOTAL	.60	24.60	306.2	180.6	67.6	127.9	56.6	28.71	11.71	4.28	.46	.13
MEAN	.019	.82	9.88	5.83	2.41	4.13	1.89	.93	.39	.14	.015	.004
MAX	.05	12	83	17	3.3	35	3.0	1.3	.59	.25	.03	.03
MIN	0	.08	1.1	3.3	1.8	1.5	1.3	.58	.25	.04	0	0
AC-FT	1.2	49	607	358	134	254	112	57	23	8.5	.9	.3

CAL YR 1970 TOTAL 1,639.65 MEAN 4.49 MAX 253 MIN 0 AC-FT 3,250  
WTR YR 1971 TOTAL 809.39 MEAN 2.22 MAX 83 MIN 0 AC-FT 1,610

## PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 4	0515	3.84	219	3-26	0545	3.21	125
3-12	1415	3.23	128				

## 11183000 SAN RAMON CREEK AT WALNUT CREEK, CALIF.

LOCATION.--Lat 37°53'04", long 122°03'00", on boundary between Arroyo de las Nueces y Bolbones and San Ramon Grants, Contra Costa County, on left bank at town of Walnut Creek, 0.3 mile downstream from small tributary, and 1.2 miles upstream from confluence with Las Trampas Creek.

DRAINAGE AREA.--50.8 sq mi.

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Concrete control since Dec. 4, 1962. Altitude of gage is 150 ft (from topographic map).

AVERAGE DISCHARGE.--19 years, 15.5 cfs (11,230 acre-ft per year); median of yearly mean discharges, 9.2 cfs (6,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,010 cfs Dec. 4 (gage height, 5.64 ft); minimum daily, 1.4 cfs Sept. 15.

Period of record: Maximum discharge, 7,980 cfs Jan. 31, 1963 (gage height, 14.40 ft), from rating curve extended above 2,200 cfs on basis of computed discharge at gage height 13.16 ft; maximum gage height, 14.55 ft Dec. 23, 1955; no flow at times in most years.

REMARKS.--Records good. No regulation; pumping for irrigation above station during periods of low flow.

REVISIONS (WATER YEARS).--WSP 1395: 1953(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.3	24	25	12	8.1	11	7.4	4.1	3.8	3.6	1.9
2	1.7	2.3	172	40	12	7.7	10	21	4.3	4.3	3.1	1.9
3	1.7	3.5	34	19	11	7.7	10	13	4.3	4.2	2.4	1.8
4	1.8	15	477	17	11	7.9	9.5	8.1	4.1	3.6	2.4	1.8
5	2.0	14	53	16	11	7.8	9.7	7.9	4.2	3.3	2.3	1.8
6	1.9	8.9	20	15	11	7.4	9.5	7.2	4.2	3.2	2.2	1.9
7	1.8	9.3	13	14	11	7.5	11	6.3	4.2	3.1	2.1	1.9
8	1.8	5.7	15	14	10	7.6	9.4	6.1	4.3	3.1	2.1	1.8
9	1.9	3.4	12	13	10	7.4	9.2	5.7	4.2	3.1	2.4	1.6
10	1.7	2.5	9.0	13	10	7.2	14	5.3	4.3	3.0	2.3	1.7
11	1.6	2.8	8.1	21	10	7.3	9.6	5.1	4.5	3.1	2.1	1.6
12	1.7	3.7	7.5	73	9.8	190	9.3	5.0	4.3	3.1	1.9	1.6
13	2.0	3.3	16	175	9.5	36	9.6	4.9	4.2	2.9	2.1	1.6
14	1.9	2.6	11	72	9.5	16	28	4.8	4.5	2.8	2.0	1.5
15	1.9	2.2	31	32	9.4	15	10	4.7	4.9	2.7	1.9	1.4
16	1.8	2.2	245	25	9.5	11	9.1	4.6	4.7	2.8	2.3	1.5
17	1.8	2.1	196	23	11	10	15	4.5	4.5	2.8	2.0	1.5
18	1.7	2.1	196	21	9.5	9.0	9.3	4.4	4.2	2.7	1.9	1.5
19	1.8	2.1	64	19	12	9.0	8.6	4.3	4.4	2.6	1.9	1.5
20	2.6	2.2	93	18	9.8	8.9	8.5	4.3	3.8	2.7	2.0	1.6
21	3.9	2.2	72	16	9.1	8.6	8.3	4.3	3.7	2.6	2.1	1.6
22	2.6	2.2	32	16	8.7	8.3	8.1	4.4	3.8	2.6	2.1	1.6
23	2.6	2.2	22	15	8.6	9.1	8.0	4.3	4.0	2.6	2.1	1.6
24	3.1	2.9	18	14	8.4	8.9	7.7	4.4	3.8	2.6	2.1	2.0
25	2.8	14	16	14	8.2	12	7.6	4.3	3.8	2.6	2.1	1.6
26	2.2	20	36	14	8.0	178	7.7	4.3	4.0	2.7	2.8	1.8
27	2.1	7.7	68	13	9.6	27	7.7	4.4	4.1	3.0	2.2	2.0
28	2.1	118	34	13	9.1	16	7.5	4.4	4.0	2.7	2.0	1.9
29	2.0	224	107	12	-----	14	7.5	4.7	4.1	2.7	1.9	2.1
30	2.1	22	36	12	-----	12	7.5	4.7	4.2	2.8	2.1	4.8
31	2.0	-----	26	12	-----	11	-----	4.3	-----	2.6	2.1	-----
TOTAL	64.3	507.4	2,163.6	816	278.7	693.4	297.9	183.1	125.7	92.4	68.6	54.4
MEAN	2.07	16.9	69.8	26.3	9.95	22.4	9.93	5.91	4.19	2.98	2.21	1.81
MAX	3.9	224	477	175	12	190	28	21	4.9	4.3	3.6	4.8
MIN	1.6	2.1	7.5	12	8.0	7.2	7.5	4.3	3.7	2.6	1.9	1.4
AC-FT	128	1,010	4,290	1,620	553	1,380	591	363	249	183	136	108
CAL YR 1970	TOTAL	10,527.9	MEAN	28.8	MAX	1,840	MIN	1.6	AC-FT	20,880		
WTR YR 1971	TOTAL	5,345.5	MEAN	14.6	MAX	477	MIN	1.4	AC-FT	10,600		

## PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0415	4.48	568	12-18	0645	4.83	690
12-4	0700	5.64	1,010	3-12	1530	4.88	708

## PACHECO CREEK BASIN

11183600 WALNUT CREEK AT CONCORD, CALIF.

LOCATION.--Lat 37°56'43", long 122°02'55", in Arroyo de las Nueces y Bolbones Grant, Contra Costa County, on right bank at southwest city limits of Concord, 0.2 mile upstream from Southern Pacific Railroad bridge, and 3.8 miles downstream from confluence of San Ramon and Las Trampas Creeks.

DRAINAGE AREA.--85.1 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 35.44 ft above mean sea level (Corps of Engineers bench mark).

EXTREMES.--Current year: Maximum discharge, 2,630 cfs Dec. 4 (gage height, 7.17 ft); minimum daily, 4.3 cfs Oct. 15, 18, 19.  
Period of record: Maximum discharge, 5,490 cfs Jan. 26, 1969 (gage height, 10.75 ft); minimum daily, 3.4 cfs Oct. 21, 1968.

REMARKS.--Records good. Flow slightly regulated by Lafayette Reservoir 10 miles upstream (capacity, 4,240 acre-ft). Some small diversions for irrigation above station. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	5.2	88	71	24	16	25	17	9.8	9.0	8.8	7.4
2	6.2	5.2	417	106	24	15	23	49	9.6	9.5	8.6	7.1
3	5.9	16	126	51	23	16	24	26	9.4	11	8.1	7.1
4	5.6	57	1,140	40	22	16	23	18	9.4	9.6	7.8	6.2
5	6.0	52	165	32	22	16	23	18	8.8	9.1	7.8	6.0
6	5.8	52	81	31	21	15	23	17	9.3	9.2	8.5	5.5
7	5.6	23	36	29	22	15	24	15	8.3	8.6	8.5	5.3
8	5.4	12	41	28	23	16	22	15	8.4	8.6	8.1	5.4
9	5.4	27	28	28	23	15	21	14	8.7	9.0	8.3	5.5
10	5.3	31	23	29	20	16	36	14	8.5	9.0	8.9	5.9
11	5.2	14	22	56	19	19	22	13	8.9	9.2	8.9	5.8
12	5.2	12	20	176	18	553	22	13	8.9	9.6	7.5	5.4
13	5.2	7.5	52	321	18	103	25	13	9.6	9.9	7.4	6.9
14	5.7	6.8	27	162	18	49	62	13	10	10	7.4	6.6
15	4.3	7.8	100	65	19	44	21	12	11	9.5	7.3	6.7
16	4.8	6.7	500	52	20	33	19	13	11	9.2	7.5	6.9
17	4.8	7.0	395	47	31	30	43	12	11	8.5	7.4	6.3
18	4.3	6.3	316	43	20	27	19	13	10	8.5	7.1	6.5
19	4.3	5.7	142	41	30	28	18	13	10	9.0	7.6	6.2
20	13	5.8	270	37	21	27	19	13	9.9	9.1	6.7	6.5
21	8.4	5.8	199	35	19	26	17	12	10	8.9	6.7	6.5
22	8.2	5.9	86	33	17	24	17	13	9.1	8.5	6.5	6.6
23	9.6	5.6	64	31	16	31	19	12	9.5	9.6	6.8	6.3
24	8.4	17	55	30	16	27	20	13	9.2	8.7	6.5	6.8
25	6.6	83	50	29	16	40	20	12	9.2	9.2	6.0	6.2
26	5.2	50	122	28	16	446	32	12	9.4	10	6.6	6.6
27	5.2	24	159	27	27	77	29	11	9.3	9.7	6.8	6.6
28	4.8	382	88	27	17	48	19	13	9.3	9.3	6.3	5.8
29	4.8	649	252	27	-----	38	17	13	8.8	9.1	6.1	7.5
30	5.2	85	88	26	-----	32	18	12	9.1	9.5	6.3	13
31	5.2	-----	69	24	-----	29	-----	10	-----	9.0	7.2	-----
TOTAL	186.0	1,667.3	5,221	1,762	582	1,887	722	464	283.4	286.6	230.0	197.1
MEAN	6.00	55.6	168	56.8	20.8	60.9	24.1	15.0	9.45	9.25	7.42	6.57
MAX	13	649	1,140	321	31	553	62	49	11	11	8.9	13
MIN	4.3	5.2	20	24	16	15	17	10	8.3	8.5	6.0	5.3
AC-FT	369	3,310	10,360	3,490	1,150	3,740	1,430	920	562	568	456	391
CAL YR 1970	TOTAL 24,308.9 MEAN 66.6 MAX 3,080 MIN 4.3 AC-FT 48,220											
WTR YR 1971	TOTAL 13,488.4 MEAN 37.0 MAX 1,140 MIN 4.3 AC-FT 26,750											

## PEAK DISCHARGE (BASE, 850 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	0415	6.02	1,710	3-12	1430	6.76	2,300
12-4	0400	7.17	2,630	3-26	0715	5.32	1,090
12-20	1900	5.16	958				

## 11456000 NAPA RIVER NEAR ST. HELENA, CALIF.

LOCATION.--Lat 38°29'52", long 122°25'37", in Carne Humana Grant, Napa County, on right bank 0.2 mile upstream from highway bridge, 1.3 miles northeast of Zinfandel, and 2.5 miles east of St. Helena.

DRAINAGE AREA.--81.4 sq mi.

PERIOD OF RECORD.--October 1929 to September 1932, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 172.12 ft (corrected) above mean sea level. Prior to Nov. 22, 1958, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--35 years, 95.3 cfs (69,040 acre-ft per year); median of yearly mean discharges, 73 cfs (52,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,700 cfs Dec. 3 (gage height, 14.00 ft); minimum daily, 0.16 cfs Sept. 21.

Period of record: Maximum discharge, 12,600 cfs Dec. 22, 1955 (gage height, 16.17 ft, present datum); no flow at times.

REMARKS.--Records good. No regulation; small diversions above station for irrigation of about 300 acres. Records of water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	6.1	785	249	142	27	98	25	13	3.1	2.0	.83
2	.31	6.1	1,710	265	88	27	89	25	15	3.5	1.9	.58
3	.43	6.5	3,230	194	134	27	81	25	13	3.0	1.8	.48
4	.31	16	4,920	165	68	27	72	25	11	2.6	1.6	.64
5	.31	16	1,480	149	60	26	67	24	11	2.6	1.3	.76
6	.31	130	760	136	59	25	61	24	10	2.6	1.3	1.1
7	.19	36	516	124	56	25	57	23	10	2.6	1.3	1.1
8	.25	13	496	112	52	25	55	22	9.6	2.4	1.3	1.1
9	.31	8.5	378	103	51	25	55	22	9.3	2.2	1.3	.70
10	.31	8.5	278	122	48	25	69	21	9.1	2.1	1.2	.91
11	.31	8.1	222	225	47	25	53	20	8.6	2.3	1.1	.85
12	.37	11	184	368	45	400	50	19	7.8	2.5	1.2	.62
13	.43	8.5	157	720	43	180	48	18	7.3	2.5	1.0	.79
14	.61	7.3	137	815	42	122	65	18	7.5	2.5	.96	1.1
15	.55	6.9	207	570	40	104	49	17	8.5	2.4	1.1	.93
16	.49	6.5	860	888	40	81	42	16	6.3	2.6	1.1	.94
17	.61	6.1	535	840	38	72	46	15	5.9	2.7	1.2	.94
18	.61	6.1	765	550	36	62	39	15	5.4	2.6	1.4	.77
19	.73	5.7	472	484	37	56	38	15	5.3	2.6	1.2	.27
20	1.6	5.7	690	492	35	52	36	14	5.0	2.4	1.3	.18
21	4.9	5.7	805	389	33	47	27	14	4.6	2.5	1.2	.16
22	9.5	5.7	452	216	33	44	30	14	4.4	2.5	1.4	.32
23	11	5.7	324	155	31	63	31	14	3.9	2.4	1.4	.54
24	8.1	6.1	254	137	31	68	27	13	4.1	1.9	1.0	.60
25	7.3	13	207	122	30	122	27	12	3.9	2.0	.83	.73
26	5.3	32	184	109	28	1,330	27	13	3.6	2.3	.80	.76
27	4.9	478	160	100	29	375	25	14	3.3	2.0	.94	.79
28	4.9	2,390	254	131	28	227	25	16	3.5	1.5	.93	.76
29	4.9	1,210	775	155	-----	171	25	16	3.6	1.9	.90	.81
30	5.3	770	378	84	-----	138	24	15	3.4	1.9	1.3	.88
31	6.1	-----	278	79	-----	114	-----	14	-----	1.9	1.3	-----
TOTAL	81.61	5,234.8	22,853	9,248	1,404	4,112	1,438	558	216.9	74.6	38.56	21.94
MEAN	2.63	174	737	298	50.1	133	47.9	18.0	7.23	2.41	1.24	.73
MAX	11	2,390	4,920	888	142	1,330	98	25	15	3.5	2.0	1.1
MIN	.19	5.7	137	79	28	25	24	12	3.3	1.5	.80	.16
AC-FT	162	10,380	45,330	18,340	2,780	8,160	2,850	1,110	430	148	76	44

CAL YR 1970 TOTAL 83,115.04 MEAN 228 MAX 6,430 MIN .19 AC-FT 164,900  
WTR YR 1971 TOTAL 45,281.41 MEAN 124 MAX 4,920 MIN .16 AC-FT 89,820

PEAK DISCHARGE (BASE, 4,200 CFS).--Nov. 28 (0130) 5,700 cfs (10.60 ft); Dec. 3 (2245) 9,700 cfs (14.00 ft).

## NAPA RIVER BASIN

11456500 CONN CREEK NEAR OAKVILLE, CALIF.

LOCATION.--Lat 38°26'50", long 122°22'47", in Caymus Grant, Napa County, on left bank 20 ft upstream from Oakville Cross Road bridge and 1.4 miles northeast of Oakville.

DRAINAGE AREA.--55.4 sq mi.

PERIOD OF RECORD.--October 1929 to September 1959 (published as "near St. Helena"), October 1970 to September 1971. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 112.18 ft above mean sea level (levels by county of Napa). November 1929, to Aug. 4, 1952, at site 3.3 miles upstream at different datum. Aug. 5, 1952, to Sept. 30, 1959, at site 4.9 miles upstream at different datum.

AVERAGE DISCHARGE (prior to construction of Conn Dam).--16 years (1929-45), 33.9 cfs (24,540 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 276 cfs Dec. 21 (gage height, 5.14 ft), from rating curve extended above 120 cfs; no flow for many days.

Period of record: Maximum discharge, 7,700 cfs Feb. 27, 1940 (gage height, 11.80 ft, site and datum then in use); no flow for many days in each year.

REMARKS.--Records good. Flow regulated by Lake Hennessey 6.5 miles upstream beginning in December 1945 (capacity, 31,000 acre-ft). Diversion for irrigation of about 700 acres occurs between dam and gage. Some effluent ground water flows past the station during the summer months at times when the stream is dry a short distance above and below the gage; no flow is computed for these periods.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.08	3.3	97	36	11	30	6.0	1.4	1.9	1.0	1.2
2	0	.08	9.6	110	34	10	26	2.5	1.4	1.7	.92	1.4
3	0	.11	25	90	31	10	25	3.2	1.3	1.6	.92	2.2
4	0	.32	84	78	29	11	24	3.5	1.2	1.5	.92	1.6
5	0	.20	184	70	27	11	22	3.5	1.3	1.9	1.0	1.9
6	0	.27	212	61	26	9.6	19	3.5	1.2	2.2	.92	1.2
7	0	.23	173	56	26	11	17	3.5	1.2	2.3	.84	.92
8	0	.16	153	52	24	11	15	3.5	1.1	2.3	.84	.76
9	0	.14	132	49	23	11	15	3.0	1.1	1.6	.84	.68
10	0	.12	106	48	23	11	15	2.8	1.1	1.1	.84	.44
11	0	.14	88	62	23	12	15	2.5	2.0	1.1	1.0	.34
12	0	.14	73	72	21	59	13	2.6	3.5	1.3	1.0	.26
13	0	.12	64	94	21	120	12	2.3	4.1	1.2	.92	.22
14	0	.12	56	122	20	83	20	2.3	4.1	1.3	.84	.18
15	0	.12	55	126	19	61	21	3.2	5.0	2.0	.76	.12
16	0	.11	161	126	18	42	17	2.5	2.6	2.2	.56	.10
17	0	.11	192	146	17	30	13	2.6	3.0	1.6	.34	.12
18	0	.11	197	131	15	23	8.4	3.2	2.8	1.3	.26	.10
19	0	.10	173	116	16	14	7.6	2.5	3.0	1.3	.26	.04
20	.10	.10	167	103	15	14	6.0	2.5	3.5	1.3	.26	0
21	.40	.10	258	89	13	13	4.1	2.5	4.7	1.5	.22	0
22	.25	.10	201	79	13	12	6.4	2.5	2.8	1.4	.18	0
23	.18	.11	157	71	13	14	9.6	2.3	3.2	1.4	.18	0
24	.16	.12	126	64	13	17	7.6	2.3	1.7	1.3	.18	0
25	.12	.17	104	58	12	24	8.0	2.3	3.2	1.2	.18	0
26	.10	.17	92	54	12	153	11	2.2	3.8	1.1	.22	0
27	.09	1.2	83	49	10	144	10	2.0	3.8	1.0	.22	0
28	.08	3.9	76	46	10	104	9.6	2.0	6.0	1.0	.22	0
29	.09	3.9	133	43	-----	80	8.8	1.7	2.6	1.0	.44	0
30	.09	2.9	131	40	-----	62	9.6	1.6	2.0	1.1	.68	0
31	.09	-----	109	38	-----	41	-----	1.5	-----	1.0	1.0	-----
TOTAL	1.75	15.55	3,777.9	2,440	560	1,228.6	425.7	84.1	79.7	45.7	18.96	13.78
MEAN	.057	.52	122	78.7	20.0	39.6	14.2	2.71	2.66	1.47	.61	.46
MAX	.40	3.9	258	146	36	153	30	6.0	6.0	2.3	1.0	2.2
MIN	0	.08	3.3	38	10	9.6	4.1	1.5	1.1	1.0	.18	0
AC-FT	3.5	31	7,490	4,840	1,110	2,440	844	167	158	91	38	27

WTR YR 1971 TOTAL 8,691.74 MEAN 23.8 MAX 258 MIN 0 AC-FT 17,240

## 11458000 NAPA RIVER NEAR NAPA, CALIF.

LOCATION.--Lat 38°22'06", long 122°18'08", in Yajome Grant, Napa County, on left bank at downstream side of Oak Knoll Avenue bridge, 0.4 mile downstream from Dry Creek, and 5 miles north of Napa.

DRAINAGE AREA.--218 sq mi.

PERIOD OF RECORD.--October 1929 to September 1932, October 1959 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 24.74 ft above mean sea level.

AVERAGE DISCHARGE.--15 years, 181 cfs (131,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,200 cfs Dec. 4 (gage height, 20.13 ft); no flow Aug. 5.  
Period of record: Maximum discharge, 16,900 cfs Jan. 31, 1963 (gage height, 27.59 ft); no flow at times.

REMARKS.--Records good. Flow slightly regulated by Lake Hennessey beginning in December 1945 (capacity, 31,000 acre-ft). Diversions for irrigation of about 10,000 acres above station. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1315-B: 1930(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.3	949	508	232	70	199	61	22	6.1	3.1	3.0
2	1.5	1.5	2,040	568	229	65	180	58	20	4.5	2.8	3.8
3	1.8	2.2	2,750	439	223	65	168	58	23	5.8	1.8	2.2
4	2.0	8.5	8,150	385	165	67	153	56	21	5.8	.06	1.5
5	1.8	12	2,590	343	145	61	145	55	17	5.6	0	1.6
6	2.2	112	1,460	310	143	55	136	53	18	5.8	.13	2.3
7	2.2	124	992	283	136	56	128	49	17	8.8	.30	3.5
8	2.2	33	921	259	130	58	120	45	17	6.4	.60	2.4
9	2.0	19	742	235	130	58	122	45	16	5.8	1.5	2.3
10	2.2	15	577	226	132	56	132	44	15	5.3	1.8	2.3
11	2.0	14	481	403	128	58	118	40	15	6.4	2.8	.60
12	2.0	14	406	505	124	501	112	39	15	6.4	2.0	2.6
13	2.0	15	352	774	118	472	108	38	16	5.8	2.6	3.3
14	1.6	12	295	879	116	283	130	36	15	4.8	3.5	3.3
15	1.6	11	340	711	112	256	116	34	19	4.0	3.1	3.1
16	2.0	10	1,400	896	110	185	106	33	13	6.7	2.4	.50
17	1.8	9.2	1,100	1,080	106	148	104	32	11	5.0	1.6	2.4
18	1.8	9.2	1,400	763	98	130	82	32	12	3.6	3.5	3.0
19	1.3	8.5	959	655	100	118	84	32	11	1.4	3.9	3.0
20	1.0	8.5	1,260	652	94	108	82	29	8.8	1.2	3.7	2.4
21	1.2	8.1	1,920	571	90	104	56	26	11	2.8	3.7	4.0
22	2.0	8.1	1,040	421	86	96	65	28	10	3.3	3.4	3.6
23	3.4	8.1	756	337	86	110	68	27	9.1	3.8	1.9	3.7
24	3.9	8.5	610	304	80	124	67	27	5.8	1.8	1.0	4.0
25	3.0	12	517	277	77	153	71	27	5.6	2.6	4.0	3.9
26	2.4	32	466	250	73	1,700	68	24	9.4	3.6	1.9	5.1
27	1.8	207	421	232	74	700	67	26	9.7	2.4	2.0	3.3
28	1.3	3,250	412	247	71	466	68	29	10	2.4	1.6	5.6
29	1.2	1,580	1,160	274	-----	364	65	29	8.8	4.0	2.5	3.8
30	1.2	921	714	199	-----	307	64	26	5.8	3.8	2.6	2.9
31	1.3	-----	568	183	-----	250	-----	25	-----	3.6	2.7	-----
TOTAL	59.5	6,474.7	37,748	14,169	3,408	7,244	3,184	1,163	407.0	139.3	68.49	89.00
MEAN	1.92	216	1,218	457	122	234	106	37.5	13.6	4.49	2.21	2.97
MAX	3.9	3,250	8,150	1,080	232	1,700	199	61	23	8.8	4.0	5.6
MIN	1.0	1.3	295	183	71	55	56	24	5.6	1.2	0	.50
AC-FT	118	12,840	74,870	28,100	6,760	14,370	6,320	2,310	807	276	136	177

CAL YR 1970 TOTAL 155,955.59 MEAN 427 MAX 11,100 MIN 0 AC-FT 309,300  
WTR YR 1971 TOTAL 74,153.99 MEAN 203 MAX 8,150 MIN 0 AC-FT 147,100

PEAK DISCHARGE (BASE, 5,000 CFS).--Nov. 28 (0415) 7,290 cfs (16.17 ft); Dec. 4 (0345) 12,200 cfs (20.13 ft).



## NAPA RIVER BASIN

11458100 MILLIKEN CREEK NEAR NAPA, CALIF.

LOCATION.--Lat 38°20'19", long 122°16'06", in Yajome Grant, Napa County, on right bank at upstream side of Hedgeside Road bridge, 3.0 miles northwest of town of Napa.

DRAINAGE AREA.--17.3 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 37.68 ft above mean sea level (levels by county of Napa).

EXTREMES.--Current year: Maximum discharge, 3,580 cfs Dec. 3 (gage height, 5.68 ft), from rating curve extended above 1,100 cfs; minimum, 0.44 cfs Aug. 27.

REMARKS.--Records good. Flow can be controlled by several small lakes and diversion dams on the Silverado Golf Course; diversion above station for irrigation of about 500 acres.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.7	46	51	8.7	1.5	14	2.3	2.8	2.5	1.9	2.8
2	3.0	3.3	138	59	8.7	.54	10	2.5	3.3	3.0	9.6	2.5
3	3.0	6.1	601	34	8.2	2.8	12	3.0	3.3	4.7	1.7	2.5
4	3.0	6.9	1,280	29	5.7	3.3	8.2	2.8	3.0	1.9	1.7	2.5
5	3.0	8.0	271	24	6.7	3.3	8.2	2.5	2.8	2.8	1.3	1.5
6	3.0	26	110	19	6.7	2.8	7.7	2.3	2.5	3.3	.64	1.2
7	3.0	10	84	17	6.7	1.9	7.2	2.3	3.0	6.9	.76	2.5
8	3.0	6.7	101	16	4.8	1.9	6.7	2.3	2.5	1.9	.88	2.5
9	3.0	5.2	71	15	5.2	1.9	5.7	1.7	1.7	2.8	2.1	2.3
10	3.0	4.8	48	16	5.2	1.9	8.7	1.7	2.5	2.8	2.3	2.3
11	3.0	4.8	40	60	6.2	1.9	9.0	1.9	2.8	1.9	2.5	1.9
12	3.0	4.8	31	48	5.5	20	7.2	2.3	4.0	2.1	3.3	1.3
13	3.0	2.8	27	45	.88	30	7.2	2.1	2.8	2.1	2.8	2.1
14	3.0	2.3	23	43	1.0	30	9.2	1.9	4.0	1.9	2.8	2.3
15	3.0	2.3	59	36	3.0	36	7.2	2.1	3.7	2.1	2.5	2.3
16	3.0	2.3	141	59	3.7	20	4.4	2.3	3.0	2.5	2.8	2.5
17	3.0	2.3	82	62	3.7	22	4.8	4.8	2.5	2.8	2.5	2.5
18	3.0	2.1	115	48	3.0	16	5.4	2.3	2.8	3.0	2.5	2.8
19	3.0	2.1	69	40	5.7	4.0	2.8	1.9	3.3	2.3	2.1	2.3
20	6.0	1.9	124	34	5.7	8.7	1.9	5.2	3.0	1.7	1.9	2.3
21	5.0	1.9	125	26	3.0	9.2	1.3	2.8	3.7	2.1	2.3	2.1
22	4.4	1.9	73	21	3.0	7.7	1.3	3.7	2.8	2.3	2.3	1.9
23	3.7	1.9	53	17	13	13	2.1	4.0	3.0	2.3	2.1	2.8
24	3.0	3.0	42	16	7.2	17	3.1	4.8	2.5	3.0	1.9	4.4
25	2.8	6.1	33	14	6.2	21	2.8	4.8	3.3	2.3	1.5	4.4
26	2.8	25	34	13	4.8	229	2.1	3.7	4.0	1.9	.64	3.7
27	2.8	44	29	11	3.3	80	1.3	3.0	4.4	2.8	.44	4.8
28	13	202	29	11	3.7	43	1.2	2.8	3.7	2.5	.76	5.2
29	3.7	101	181	9.7	-----	37	1.0	2.8	2.3	3.0	1.5	5.7
30	6.9	50	78	9.2	-----	25	1.9	3.0	2.5	2.8	2.1	5.7
31	3.7	-----	59	9.2	-----	17	-----	2.8	-----	2.3	2.1	-----
TOTAL	114.8	545.2	4,197	912.1	149.18	709.34	165.6	88.4	91.5	82.3	66.22	85.6
MEAN	3.70	18.2	135	29.4	5.33	22.9	5.52	2.85	3.05	2.65	2.14	2.85
MAX	13	202	1,280	62	13	229	14	5.2	4.4	6.9	9.6	5.7
MIN	2.8	1.9	23	9.2	.88	.54	1.0	1.7	1.7	1.7	.44	1.2
AC-FT	228	1,080	8,320	1,810	296	1,410	328	175	181	163	131	170

WTR YR 1971 TOTAL 7,207.24 MEAN 19.7 MAX 1,280 MIN .44 AC-FT 14,300

PEAK DISCHARGE (BASE, 600 CFS).--Nov. 28 (0200) 893 cfs (3.67 ft); Dec. 3 (2400) 3,580 cfs (5.68 ft).

## 11458200 REDWOOD CREEK NEAR NAPA, CALIF.

LOCATION.--Lat 38°19'04", long 122°20'35", in Napa Grant, Napa County, on right bank 2.9 miles upstream from confluence with Browns Valley Creek and 3.4 miles northwest of Napa.

DRAINAGE AREA.--9.79 sq mi.

PERIOD OF RECORD.--July 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 166.16 ft above mean sea level.

AVERAGE DISCHARGE.--13 years, 11.1 cfs (8,040 acre-ft per year); median of yearly mean discharges, 8.5 cfs (6,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,460 cfs Nov. 27 (gage height, 8.52 ft); no flow for many days. Period of record: Maximum discharge, 1,460 cfs Nov. 27, 1970 (gage height, 8.52 ft); maximum gage height, 10.44 ft Jan. 5, 1965; no flow for many days in each year.

REMARKS.--Records good. Small storage and release affects summer flow. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.13	32	29	6.6	2.2	11	2.8	.80	.26		
2	0	.13	121	28	6.3	2.1	9.7	3.0	.80	.26		
3	0	.17	460	23	6.1	2.1	9.1	2.8	.80	.26		
4	0	3.5	404	20	5.6	2.1	8.5	2.6	.70	.22		
5	0	3.5	99	18	5.6	2.1	9.1	2.6	.64	.22		
6	0	14	53	16	5.1	1.9	7.7	2.6	.59	.22		
7	0	5.9	39	14	4.8	1.9	7.2	2.4	.59	.20		
8	0	2.2	44	12	4.8	1.9	6.7	2.4	.59	.20		
9	0	1.3	35	11	4.6	1.7	6.4	2.4	.54	.18		
10	0	1.0	27	11	4.3	1.8	7.4	2.2	.54	.18		
11	0	1.2	21	28	3.9	1.8	6.2	2.0	.50	.16		
12	0	1.9	17	25	3.9	30	5.7	2.0	.50	.15		
13	0	1.3	13	23	3.7	12	5.7	1.8	.50	.15		
14	0	.93	11	22	3.7	15	7.4	1.7	.46	.14		
15	0	.78	18	20	3.5	12	5.4	1.5	.44	.13		
16	0	.65	45	30	3.5	8.2	4.9	1.4	.40	.12		
17	0	.53	31	35	3.3	6.8	4.9	1.2	.38	.12		
18	0	.48	64	27	3.1	5.8	4.4	1.2	.36	.10		
19	0	.43	38	25	3.7	5.6	4.2	1.1	.34	.09		
20	0	.39	102	22	3.0	5.1	3.8	1.1	.34	.08		
21	0	.39	71	19	2.8	3.9	3.8	1.0	.34	.07		
22	0	.35	40	16	2.8	3.5	3.6	.90	.36	.06		
23	0	.35	29	14	2.6	5.1	3.4	.90	.34	.05		
24	0	.39	23	12	2.5	5.8	3.4	.90	.32	.04		
25	0	1.6	20	11	2.5	12	3.2	.90	.30	.03		
26	.01	6.3	17	10	2.3	125	3.2	.90	.28	.02		
27	.07	170	14	9.1	2.3	32	3.4	.90	.28	0		
28	.09	204	19	8.5	2.3	21	3.0	1.2	.28	0		
29	.13	75	94	7.9	-----	17	2.8	1.1	.28	0		
30	.13	43	39	7.3	-----	14	2.8	1.1	.28	0		
31	.13	-----	32	6.8	-----	12	-----	.90	-----	0		
TOTAL	.56	541.80	2,072	560.6	109.2	373.4	168.0	51.50	13.87	3.71	0	0
MEAN	.018	18.1	66.8	18.1	3.90	12.0	5.60	1.66	.46	.12	0	0
MAX	.13	204	460	35	6.6	125	11	3.0	.80	.26	0	0
MIN	0	.13	11	6.8	2.3	1.7	2.8	.90	.28	0	0	0
AC-FT	1.1	1,070	4,110	1,110	217	741	333	102	28	7.4	0	0

CAL YR 1970 TOTAL 9,510.29 MEAN 26.1 MAX 900 MIN 0 AC-FT 18,860  
WTR YR 1971 TOTAL 3,894.64 MEAN 10.7 MAX 460 MIN 0 AC-FT 7,730

## PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	2225	8.52	1,460	12-20	1930	5.53	433
12-3	2115	8.52	1,430				

## NAPA RIVER BASIN

11458300 NAPA CREEK AT NAPA, CALIF.

LOCATION.--Lat 38°18'07", long 122°18'10", in Napa Grant, Napa County, on left bank 150 ft upstream from bridge on State Highway 29 in town of Napa, 0.6 mile downstream from confluence of Redwood and Browns Creeks.

DRAINAGE AREA.--14.9 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Datum of gage is 32.60 ft above mean sea level (levels by county of Napa).

EXTREMES.--Current year: Maximum discharge, 1,640 cfs Dec. 3 (gage height, 8.30 ft), from rating curve extended above 500 cfs; no flow for many days.

REMARKS.--Records good. No regulation; small diversion above station for domestic use.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	57	36	12	3.1	15	3.7	.64	.06	.01	.01
2	.01	.02	187	36	12	2.9	13	3.5	.64	.08	.01	.01
3	.01	1.7	455	27	11	2.9	12	3.1	.64	.04	.02	.01
4	.01	2.3	577	23	9.0	3.1	11	3.1	.64	.04	.02	0
5	.01	.81	160	22	10	3.1	12	2.7	.54	.04	.01	.01
6	.01	18	80	20	10	2.9	9.8	2.7	.54	.04	.01	.01
7	.01	4.7	59	18	9.5	2.9	8.9	2.5	.54	.08	.01	.01
8	.01	2.0	69	17	8.0	2.9	8.4	2.2	.54	.06	.01	.01
9	.01	.78	50	16	7.1	2.7	8.4	2.0	.54	.04	.01	0
10	.01	.45	32	17	6.6	2.5	9.3	2.0	.45	.08	.01	0
11	.01	.64	26	35	6.2	2.5	8.0	1.9	.45	.06	.01	0
12	.01	1.1	22	32	5.8	39	7.1	1.9	.41	.04	.01	0
13	.01	1.1	20	32	5.8	20	8.0	1.7	.37	.04	.01	0
14	.01	.64	17	29	5.4	21	11	1.4	.29	.02	.01	0
15	.01	.64	30	27	5.4	19	8.0	1.3	.21	.02	.01	0
16	.01	.59	89	43	6.2	12	6.6	1.1	.18	.02	.01	0
17	.01	.54	50	46	5.4	10	6.2	.98	.15	.02	0	0
18	.01	.41	115	34	4.7	8.4	5.8	.78	.12	.02	.01	0
19	.64	.25	55	31	5.8	8.0	6.6	.78	.21	.01	.01	0
20	.29	.12	147	27	4.1	7.1	5.8	.70	.21	.01	.01	0
21	.06	.12	131	24	3.9	5.8	5.0	.64	.21	.12	.01	0
22	.84	.12	65	22	3.9	5.4	4.7	.64	.21	.02	.01	0
23	.64	.12	46	20	3.9	8.9	4.4	.64	.15	.01	.01	0
24	.29	.64	37	19	3.7	8.9	4.1	.64	.10	.01	.02	0
25	.10	3.4	30	18	3.5	18	4.1	.64	.10	.01	.01	0
26	.02	6.9	28	17	3.3	166	3.7	.59	.10	.02	.02	0
27	.02	104	25	16	3.1	34	4.4	.70	.12	.06	.01	0
28	.01	263	30	15	3.1	24	4.1	.88	.08	.01	.01	0
29	.01	104	137	14	-----	20	3.7	.88	.04	.01	.01	0
30	.01	49	51	13	-----	17	3.7	.88	.08	.01	.01	0
31	.01	-----	40	12	-----	16	-----	.88	-----	.01	.01	-----
TOTAL	3.12	568.11	2,917	758	178.4	500.0	222.8	48.05	9.50	1.11	.34	.07
MEAN	.10	18.9	94.1	24.5	6.37	16.1	7.43	1.55	.32	.036	.011	.002
MAX	.84	263	577	46	12	166	15	3.7	.64	.12	.02	.01
MIN	.01	.02	17	12	3.1	2.5	3.7	.59	.04	.01	0	0
AC-FT	6.2	1,130	5,790	1,500	354	992	442	95	19	2.2	.7	.1

WTR YR 1971 TOTAL 5,206.50 MEAN 14.3 MAX 577 MIN 0 AC-FT 10,330

PEAK DISCHARGE (BASE, 600 CFS).--Nov. 27 (2330) 1,250 cfs (7.00 ft); Dec. 3 (2200) 1,640 cfs (8.30 ft).

## 11458500 SONOMA CREEK AT AGUA CALIENTE, CALIF.

LOCATION.--Lat 38°19'24", long 122°29'36", in Agua Caliente Grant, Sonoma County, on left bank 20 ft upstream from bridge and 0.4 mile west of Agua Caliente.

DRAINAGE AREA.--58.4 sq mi.

PERIOD OF RECORD.--February 1955 to current year. Prior to October 1966, published as "at Boyes Hot Springs."

GAGE.--Water-stage recorder. Altitude of gage is 120 ft (from topographic map). Prior to July 24, 1967, at site 0.8 mile downstream at different datum. July 24, 1967, to Oct. 9, 1968, at site 130 ft upstream at different datum.

AVERAGE DISCHARGE.--16 years, 74.9 cfs (54,270 acre-ft per year); median of yearly mean discharges, 69 cfs (50,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,390 cfs Dec. 3 (gage height, 15.26 ft); minimum daily, 0.35 cfs Sept. 20-22.  
Period of record: Maximum discharge, 8,880 cfs Dec. 22, 1955 (gage height, 17.10 ft, site and datum then in use), from rating curve extended above 4,100 cfs on basis of slope-area measurement of maximum flow; no flow at times.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No regulation; some diversion above station for irrigation of about 1,500 acres.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	8.0	340	160	49	18	67	16	8.5	1.6	1.0	.56
2	.38	8.1	994	143	46	16	59	16	8.9	1.6	.90	.54
3	.38	8.6	2,930	123	43	17	56	16	8.0	1.7	.90	.54
4	.38	21	3,080	109	39	18	51	15	8.0	1.4	.86	.53
5	.42	22	826	98	38	19	42	15	6.6	1.4	.92	.52
6	.38	112	363	90	37	17	41	14	5.6	1.3	.80	.51
7	.41	25	263	82	33	16	42	14	5.2	1.3	.91	.50
8	.44	14	280	77	30	16	37	14	5.2	1.2	.93	.50
9	.42	10	212	73	29	16	37	14	5.2	1.2	.70	.48
10	.44	8.6	160	81	29	16	46	14	5.2	1.2	.65	.46
11	.50	10	129	102	28	17	35	13	5.0	1.4	.56	.45
12	.58	11	111	130	26	188	31	13	4.8	1.2	.54	.44
13	.81	9.0	92	163	26	79	33	12	4.5	1.1	.64	.44
14	.72	7.6	79	153	26	79	44	12	4.0	1.2	.67	.43
15	.72	7.0	159	140	26	61	31	11	3.8	1.0	.72	.42
16	.76	6.3	505	263	24	47	29	10	3.5	.98	.61	.40
17	.78	5.9	325	245	24	41	29	8.9	3.1	1.1	.61	.39
18	.82	6.0	688	176	22	36	26	9.4	2.9	1.2	.55	.37
19	.98	5.4	285	152	24	31	25	9.8	2.7	1.0	.56	.36
20	2.8	5.0	775	134	23	30	24	9.8	2.7	1.0	.65	.35
21	5.0	4.9	457	122	22	29	23	8.5	2.5	1.0	.61	.35
22	13	5.0	260	113	22	27	22	8.5	2.3	1.0	.60	.35
23	10	5.1	206	101	21	39	22	8.5	2.3	1.2	.60	.36
24	8.6	5.6	167	94	20	37	19	8.5	2.3	1.0	.58	.36
25	7.5	14	147	84	19	98	19	8.0	2.1	1.2	.57	.38
26	6.8	38	136	76	19	767	18	8.9	2.0	1.3	.57	.40
27	6.6	430	124	70	19	164	18	10	2.3	1.3	.56	.42
28	6.4	1,980	206	64	19	109	16	12	2.0	1.2	.56	.45
29	6.8	810	385	59	-----	90	16	11	2.0	1.2	.56	.48
30	7.0	508	250	56	-----	81	16	9.8	1.8	1.0	.57	.50
31	7.5	-----	195	52	-----	71	-----	8.0	-----	1.0	.58	-----
TOTAL	98.68	4,111.1	15,129	3,585	783	2,290	974	358.6	125.0	37.48	21.04	13.24
MEAN	3.18	137	488	116	28.0	73.9	32.5	11.6	4.17	1.21	.68	.44
MAX	13	1,980	3,080	263	49	767	67	16	8.9	1.7	1.0	.56
MIN	.36	4.9	79	52	19	16	16	8.0	1.8	.98	.54	.35
AC-FT	196	8,150	30,010	7,110	1,550	4,540	1,930	711	248	74	42	26

CAL YR 1970 TOTAL 50,978.89 MEAN 140 MAX 4,131 MIN .27 AC-FT 101,100  
WTR YR 1971 TOTAL 27,526.14 MEAN 75.4 MAX 3,080 MIN .35 AC-FT 54,600

PEAK DISCHARGE((BASE, 2,300 CFS, REVISED)  
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE  
11-28 0030 14.98 8,080 12-20 1815 9.58 3,070  
12- 3 2045 15.26 8,390

NOTE.--No gage-height record Aug. 23 to Sept. 30.

## NOVATO CREEK BASIN

11459500 NOVATO CREEK AT NOVATO, CALIF.

LOCATION.--Lat 38°06'28", long 122°34'44", in Novato Grant, Marin County, on left bank in Novato, 100 ft upstream from 7th Street Bridge.

DRAINAGE AREA.--17.6 sq mi.

PERIOD OF RECORD.--October 1946 to current year. Records of diversions for water years 1952-53, estimated. Prior to October 1966 published as "near Novato."

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (from topographic map). Prior to Aug. 23, 1967, at site 0.6 mile upstream at different datum.

AVERAGE DISCHARGE (adjusted for diversion).--25 years, 12.3 cfs (8,910 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 695 cfs Nov. 27 (gage height, 6.82 ft); no flow many days.

Period of record: Maximum discharge, 2,000 cfs Jan. 14, 1970 (gage height, 11.01 ft); no flow many days in each year.

REMARKS.--Records good. Flow regulated by Stafford Lake beginning Dec. 1, 1951 (capacity, 4,500 acre-ft since Oct. 18, 1954); contents, 2,240 acre-ft Sept. 30, 1970, and 2,720 acre-ft Sept. 30, 1971. Diversion from Stafford Lake for municipal water supply began Apr. 25, 1952, and amounted to 1,860 acre-ft for the water year 1971.

COOPERATION.--Record of diversions furnished by North Marin County Water District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	38	28	5.1	1.5	8.8	1.3	.48	.29	.21	.04
2	0	0	136	29	4.9	1.3	8.0	2.0	.59	.29	.15	.04
3	0	2.9	139	21	4.4	1.3	7.3	1.1	.48	.29	.21	0
4	0	4.2	179	17	4.0	1.3	7.0	1.1	.48	.29	.21	0
5	0	2.3	68	15	3.8	1.3	6.6	1.1	.59	.29	.29	0
6	0	6.1	37	13	3.6	1.2	6.2	1.1	.48	.29	.29	0
7	0	.83	35	12	3.2	1.2	5.8	.70	.59	.21	.21	.01
8	0	.46	27	11	3.0	1.2	4.4	.83	.48	.21	.21	0
9	0	.35	18	10	3.0	.94	5.3	.83	.59	.21	.11	0
10	0	.30	14	11	2.7	.70	5.0	.70	.59	.29	.11	0
11	0	.35	11	16	2.7	.59	4.4	.96	.59	.29	.07	0
12	0	.24	9.7	23	2.6	38	3.8	.96	.48	.21	.11	0
13	0	.19	13	33	2.4	5.0	5.3	.83	.59	.21	.29	0
14	.06	.20	7.8	24	2.4	6.6	7.3	.70	.70	.21	.29	0
15	.10	.30	28	21	2.6	3.3	5.0	.70	.48	.15	.29	.11
16	.30	.30	50	41	2.6	3.1	4.7	.70	.48	.21	.37	.21
17	.46	.34	67	54	2.5	2.6	5.0	.70	.37	.15	.21	.15
18	.58	.37	105	43	2.2	2.4	3.6	.70	.37	.15	.21	.11
19	.30	.29	73	35	2.1	2.0	3.3	.70	.48	.11	.21	0
20	1.2	.22	141	30	2.0	2.0	3.3	.70	.48	.37	.29	0
21	.35	.25	153	24	1.9	2.0	2.2	.59	.48	.15	.15	.04
22	.25	.22	97	19	1.9	1.8	2.4	.83	.37	.11	.15	.04
23	1.2	.22	69	16	1.7	4.4	2.4	.59	.37	.21	.11	.04
24	.20	1.5	53	15	1.6	2.2	3.1	.59	.29	.21	.11	0
25	.01	5.4	41	12	1.6	13	3.1	.83	.29	.21	.04	.04
26	0	2.8	35	10	1.6	65	3.3	.83	.48	.21	.11	0
27	0	85	29	9.1	2.4	32	1.6	1.3	.29	.37	.01	0
28	0	157	30	7.9	1.6	21	1.4	.59	.37	.29	.01	.11
29	0	108	48	6.9	-----	16	1.3	.70	.29	.21	0	.15
30	0	35	31	6.1	-----	13	1.3	.70	.37	.21	0	.37
31	0	-----	24	5.5	-----	9.6	-----	.48	-----	.37	.07	-----
TOTAL	5.01	415.63	1,806.5	618.5	76.1	257.53	132.2	26.44	13.97	7.27	5.10	1.46
MEAN	.16	13.9	58.3	20.0	2.72	8.31	4.41	.85	.47	.23	.16	.049
MAX	1.2	157	179	54	5.1	65	8.8	2.0	.70	.37	.37	.37
MIN	0	0	7.8	5.5	1.6	.59	1.3	.48	.29	.11	0	0
AC-FT	9.9	824	3,580	1,230	151	511	262	52	28	14	10	2.9

CAL YR 1970 TOTAL 9,729.82 MEAN 26.7 MAX 960 MIN 0 AC-FT 19,300  
WTR YR 1971 TOTAL 3,365.71 MEAN 9.22 MAX 179 MIN 0 AC-FT 6,680

## 11460000 CORTE MADERA CREEK AT ROSS, CALIF.

LOCATION.--Lat 37°57'45", long 122°33'20", in Punta de Quentin Grant, Marin County, on left bank behind fire station at Ross, 1.7 miles southwest of San Rafael, and 4 miles upstream from mouth.

DRAINAGE AREA.--18.1 sq mi.

PERIOD OF RECORD.--February 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7.97 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--20 years, 28.2 cfs (20,430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,640 cfs Dec. 3 (gage height, 15.11 ft); minimum daily, 0.17 cfs Oct. 8.

Period of record: Maximum discharge, 3,620 cfs Dec. 22, 1955 (gage height, 17.45 ft); no flow at times.

REMARKS.--Records good. Flow regulated by Phoenix Lake 1.7 miles upstream (capacity, 612 acre-ft). Diversion on tributary above station by Marin Municipal Water District.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	1.0	159	40	12	2.1	18	4.2	2.1	1.0	.40	1.2
2	.19	1.1	525	33	11	2.1	16	9.1	2.1	1.0	.40	1.2
3	.22	22	727	26	9.9	1.8	14	4.2	2.1	1.0	.50	1.0
4	.22	9.3	977	23	9.1	1.8	12	4.2	1.8	1.0	.50	1.0
5	.23	9.1	171	21	8.3	1.8	11	4.2	2.1	1.0	.65	1.0
6	.21	37	82	18	8.3	1.5	9.9	3.7	1.8	1.0	.50	.80
7	.20	5.2	55	16	7.5	1.5	8.3	3.3	1.8	1.0	.40	1.0
8	.17	3.1	57	16	8.3	1.5	7.5	3.3	1.8	1.0	.40	.80
9	.18	2.9	45	15	8.3	1.5	11	3.3	1.8	.80	.40	.80
10	.18	3.4	36	19	8.3	1.5	11	3.3	1.8	1.0	.40	.80
11	.18	4.6	33	39	8.3	1.5	7.5	2.8	1.8	.80	.50	.80
12	.18	3.8	32	50	8.3	121	6.7	2.8	1.8	.80	.65	.80
13	.20	4.5	30	76	7.5	34	12	2.8	1.5	.80	.80	.80
14	.20	3.0	26	49	7.5	46	19	2.8	1.5	.65	.80	.80
15	.19	3.1	106	44	7.5	34	9.1	2.8	1.5	.65	.80	.80
16	.21	3.3	118	48	7.5	23	9.1	2.8	1.5	.65	.65	1.0
17	.22	3.3	74	47	6.7	20	9.9	2.8	1.5	.50	.80	.80
18	.31	3.3	137	39	6.7	17	7.5	2.8	1.5	.65	.80	1.0
19	.33	3.3	90	34	7.5	15	6.7	2.8	2.1	.50	.80	.80
20	9.6	3.3	316	30	6.7	12	6.0	2.8	2.9	.50	2.9	.80
21	3.5	3.3	234	26	4.8	9.9	6.0	2.8	1.2	.50	4.8	.80
22	6.4	3.6	98	23	2.5	13	5.4	2.8	1.2	.50	5.4	1.0
23	1.8	3.6	61	22	2.9	16	5.4	2.8	1.2	.50	3.2	1.0
24	.54	8.0	44	19	2.5	8.3	5.4	2.8	1.2	.65	.50	1.0
25	.48	11	34	17	2.1	27	4.8	2.7	1.2	1.5	.50	1.0
26	.50	4.0	30	16	2.1	243	4.8	2.5	1.2	.50	.65	1.5
27	.50	254	26	16	3.7	67	4.8	2.9	1.2	.50	.65	.50
28	.49	442	44	15	2.1	44	4.8	2.5	1.2	.50	.80	.40
29	.55	300	113	14	-----	33	4.2	2.5	1.0	.50	1.0	2.1
30	.80	82	59	13	-----	27	4.2	2.1	1.0	.50	1.0	.30
31	.96	-----	45	12	-----	22	-----	2.1	-----	.40	1.0	-----
TOTAL	30.13	1,241.1	4,584	876	187.9	850.8	262.0	99.3	48.4	22.85	33.55	27.60
MEAN	.97	41.4	148	28.3	6.71	27.4	8.73	3.20	1.61	.74	1.08	.92
MAX	9.6	442	977	76	12	243	19	9.1	2.9	1.5	5.4	2.1
MIN	.17	1.0	26	12	2.1	1.5	4.2	2.1	1.0	.40	.40	.30
AC-FT	60	2,460	9,090	1,740	373	1,690	520	197	96	45	67	55
CAL YR 1970	TOTAL	18,566.51	MEAN	50.9	MAX	1,720	MIN	.15	AC-FT	36,830		
WTR YR 1971	TOTAL	8,263.63	MEAN	22.6	MAX	977	MIN	.17	AC-FT	16,390		

## PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	0030	14.85	2,560	12-20	1815	10.75	1,420
12- 3	2345	15.11	2,640				

## ARROYO CORTE MADERA DEL PRESIDIO BASIN

11460100 ARROYO CORTE MADERA DEL PRESIDIO AT MILL VALLEY, CALIF.

LOCATION.--Lat 37°53'50", long 122°32'06", in Sausalito Grant, Marin County, on right bank near south boundary of town of Mill Valley, 1 mile upstream from mouth.

DRAINAGE AREA.--4.69 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1.85 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 7.73 cfs (5,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 593 cfs Dec. 4 (gage height, 6.05 ft); minimum daily, 0.11 cfs Sept. 10-12, 25, 27, 28.

Period of record: Maximum discharge, 1,180 cfs Jan. 21, 1970 (gage height, 7.52 ft); no flow for several days in 1968.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.37	26	12	3.8	1.4	6.6	1.9	1.4	.58	.37	.17
2	.17	.37	70	9.7	3.6	1.2	5.6	3.3	2.1	.52	1.0	.17
3	.17	4.1	71	7.2	3.3	1.4	5.0	2.2	1.0	.52	1.0	.15
4	.16	3.8	310	6.4	3.0	1.4	4.4	2.0	1.0	.58	.29	.15
5	.16	2.9	100	5.8	3.0	1.1	4.1	2.2	.92	.52	.29	.15
6	.18	6.0	41	5.2	3.0	1.1	3.9	2.0	.92	.52	.26	.17
7	.20	2.1	26	4.8	2.9	1.0	3.6	1.9	.77	.58	.23	.15
8	.18	1.4	28	4.4	2.7	1.1	3.3	1.8	.77	.52	.20	.13
9	.18	1.1	23	4.2	2.6	1.0	3.8	1.7	.77	.47	.20	.13
10	.18	.92	16	17	2.5	1.2	3.6	1.7	1.3	.47	.20	.11
11	.17	4.8	12	37	2.4	1.6	2.9	1.8	.92	.42	.23	.11
12	.17	2.4	9.5	38	2.4	24	2.7	1.8	.84	.70	.26	.11
13	.16	1.4	9.0	37	2.3	14	6.0	1.8	.84	.47	.29	.13
14	.16	1.1	7.0	28	2.3	22	5.8	1.4	.84	.33	.33	.47
15	.16	.92	22	21	2.2	22	3.8	1.4	.77	.33	.33	.20
16	.20	.77	25	20	2.2	15	4.1	1.4	.58	.42	.29	.17
17	.17	.77	26	19	2.1	11	5.2	1.3	.84	.33	.23	.23
18	.29	.64	61	17	9.9	7.7	3.8	1.2	.64	.29	.23	.20
19	.37	.58	38	15	4.4	6.2	3.5	1.2	.64	.33	.26	.20
20	2.3	.52	62	13	2.4	5.4	3.2	1.2	.64	.33	.26	.17
21	2.4	.52	56	11	2.1	4.6	2.9	1.1	.58	.37	.26	.17
22	3.2	.52	29	8.7	1.9	4.1	2.9	1.2	.58	.42	.23	.17
23	5.4	.52	19	7.7	1.7	6.0	2.6	1.2	.64	.37	.23	.17
24	2.6	9.4	15	6.8	1.9	4.2	2.5	1.2	.47	.37	.20	.17
25	.84	14	12	6.0	1.5	15	2.4	1.2	.70	.33	.20	.11
26	.77	6.4	9.5	5.4	1.5	96	2.3	1.2	.58	.33	.23	.15
27	.52	29	9.7	5.0	1.7	33	2.4	1.4	.47	.33	.23	.11
28	.42	65	10	5.0	1.5	19	2.3	1.3	.42	.33	.20	.11
29	.42	53	16	4.4	-----	14	2.2	1.3	.84	.33	.20	.79
30	.42	23	15	4.1	-----	10	2.0	1.2	.58	.29	.23	.84
31	.42	-----	13	3.9	-----	7.7	-----	1.1	-----	.23	.20	-----
TOTAL	23.31	238.32	1,186.7	389.7	76.8	354.4	109.4	48.6	24.36	12.93	9.16	6.26
MEAN	.75	7.94	38.3	12.6	2.74	11.4	3.65	1.57	.81	.42	.30	.21
MAX	5.4	65	310	38	9.9	96	6.6	3.3	2.1	.70	1.0	.84
MIN	.16	.37	7.0	3.9	1.5	1.0	2.0	1.1	.42	.23	.20	.11
AC-FT	46	473	2,350	773	152	703	217	96	48	26	18	12

CAL YR 1970 TOTAL 3,831.10 MEAN 10.5 MAX 434 MIN .16 AC-FT 7,600  
WTR YR 1971 TOTAL 2,479.94 MEAN 6.79 MAX 310 MIN .11 AC-FT 4,920

## PEAK DISCHARGE (BASE, 220 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	2400	5.27	331	12-20	1800	5.02	256
12-4	0230	6.05	593				

## 11460800 WALKER CREEK NEAR TOMALES, CALIF.

LOCATION.--Lat 38°12'35", long 122°51'35", in Nicasio Grant, Marin County, on left bank 1,300 ft upstream from Chileno Creek and 3.5 miles southeast of Tomales.

DRAINAGE AREA.--37.1 sq mi.

PERIOD OF RECORD.--June 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 56.74 ft above mean sea level.

AVERAGE DISCHARGE.--12 years, 46.4 cfs (32,600 acre-ft per year); median of yearly mean discharges, 41 cfs (29,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,290 cfs Dec. 4 (gage height, 18.65 ft), from rating curve extended above 790 cfs; no flow many days.

Period of record: Maximum discharge, 5,420 cfs Jan. 5, 1966 (gage height, 22.23 ft); no flow many days in each year.

REMARKS.--Records good. No regulation; small diversions above station for irrigation of about 100 acres and stock watering. Records of suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967-68.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	132	85	24	5.1	51	7.8	1.3	.11		
2		0	434	97	22	4.9	39	9.8	1.5	.07		
3		0	1,090	69	20	4.7	33	8.2	1.3	.07		
4		.01	1,670	60	18	4.5	28	7.4	1.1	.07		
5		.02	576	53	17	4.3	24	6.7	.95	.07		
6		.03	277	47	16	4.2	21	6.4	.95	.05		
7		.01	207	42	14	4.1	19	5.4	.95	.05		
8		0	182	39	13	4.1	17	4.8	.95	.05		
9		0	121	37	12	4.0	17	4.5	.95	.05		
10		0	85	42	11	4.0	21	4.2	1.1	.04		
11		.01	69	92	11	4.8	16	3.9	.80	.04		
12		.11	57	123	10	112	15	3.9	.70	.04		
13		.19	51	132	9.5	74	16	3.7	.70	.04		
14		.17	47	101	9.0	65	29	3.2	.60	.04		
15		.15	79	94	8.5	65	17	2.9	.42	.04		
16		.11	355	423	8.2	47	15	2.3	.30	.04		
17		.09	304	393	7.8	40	18	2.1	.26	.05		
18		.08	406	225	7.6	33	15	2.1	.22	.05		
19		.08	225	155	8.0	27	14	1.9	.22	.03		
20		.08	622	113	7.2	24	13	1.8	.19	.04		
21		.09	636	86	6.8	21	12	1.6	.16	.04		
22		.09	289	71	6.5	19	11	1.5	.16	.04		
23		.11	184	61	6.2	30	11	1.5	.16	.03		
24		.25	126	52	5.8	32	9.8	1.6	.16	.03		
25		1.6	96	46	5.5	68	9.4	1.8	.13	.03		
26		1.9	85	41	5.2	725	9.0	1.8	.16	.03		
27		138	72	37	6.4	230	8.6	1.8	.19	.02		
28		1,120	79	33	5.4	138	8.6	2.1	.16	.02		
29		618	175	30	-----	103	8.2	2.1	.11	.01		
30		195	105	28	-----	83	7.8	1.9	.11	0		
31		-----	90	26	-----	65	-----	1.6	-----	0		
TOTAL	0	2,076.18	8,926	2,933	301.6	2,049.7	533.4	112.3	16.96	1.29	0	0
MEAN	0	69.2	288	94.6	10.8	66.1	17.8	3.62	.57	.042	0	0
MAX	0	1,120	1,670	423	24	725	51	9.8	1.5	.11	0	0
MIN	0	0	47	26	5.2	4.0	7.8	1.5	.11	0	0	0
AC-FT	0	4,120	17,700	5,820	598	4,070	1,060	223	34	2.6	0	0
CAL YR 1970	TOTAL	42,795.48	MEAN	117	MAX	3,490	MIN	0	AC-FT	84,880		
WTR YR 1971	TOTAL	16,950.43	MEAN	46.4	MAX	1,670	MIN	0	AC-FT	33,620		

## PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	0045	16.49	2,520	12-20	2030	15.12	2,050
12- 4	0030	18.65	3,290				

NOTE.--No gage-height record Jan. 24 to Mar. 10.



## SALMON CREEK BASIN

11460920 SALMON CREEK AT BODEGA, CALIF.

LOCATION.--Lat 38°20'54", long 122°58'45", in Estero Americano Grant, Sonoma County, on left bank 100 ft upstream from private road bridge, 0.3 mile upstream from small left-bank tributary, and 0.4 mile northwest of Bodega.

DRAINAGE AREA.--15.7 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 81.03 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 23.1 cfs (16,740 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,380 cfs Dec. 3 (gage height, 15.10 ft), from rating curve extended above 800 cfs; no flow many days.

Period of record: Maximum discharge, 1,960 cfs Jan. 5, 1966 (gage height, 18.89 ft), from rating curve extended above 800 cfs; no flow many days in each year.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.61	92	37	11	4.5	14	4.4	1.6	.34	.04	0
2	0	.60	235	36	10	4.3	12	7.4	1.6	.29	.03	.01
3	0	.84	598	23	9.6	4.1	11	5.4	1.5	.34	.01	.01
4	0	12	641	19	9.0	4.0	9.8	4.8	1.5	.24	0	0
5	0	14	232	18	8.5	3.8	9.1	4.5	1.6	.29	0	0
6	0	71	80	16	8.0	3.7	8.7	4.2	1.4	.16	.01	0
7	0	10	83	15	7.6	3.6	8.0	3.9	1.3	.16	.01	0
8	0	4.0	97	14	7.2	3.5	7.4	3.9	1.2	.12	.01	0
9	0	3.6	55	13	6.8	3.4	9.3	4.1	1.1	.08	0	0
10	0	3.8	35	46	6.6	3.4	16	3.5	1.2	.14	0	0
11	0	7.6	29	66	6.3	5.2	8.5	3.3	1.1	.12	0	0
12	0	10	23	85	6.1	88	7.4	3.3	.94	.07	0	0
13	0	4.5	19	76	6.0	28	12	3.2	.94	.04	0	0
14	0	2.8	18	59	5.8	103	26	2.9	.87	.07	0	0
15	0	2.1	112	145	5.6	42	11	2.7	.66	.06	0	0
16	0	1.8	282	727	5.4	22	9.3	2.4	.54	.07	0	0
17	0	1.5	138	216	5.2	17	12	2.2	.49	.16	0	0
18	0	1.4	423	84	5.1	13	8.9	2.2	.44	.16	0	0
19	0	1.2	87	61	5.6	11	7.6	2.1	.54	.14	0	0
20	.45	1.1	301	46	5.4	9.3	7.2	2.0	.59	.08	0	0
21	1.5	1.0	184	38	5.2	8.2	6.4	1.9	.54	.07	0	0
22	5.3	1.1	71	32	5.0	7.8	6.2	1.9	.49	.12	0	0
23	7.4	1.1	45	28	4.8	54	6.2	1.9	.39	.16	0	0
24	5.6	2.0	32	25	4.6	26	5.4	2.0	.39	.24	0	0
25	1.9	17	26	23	4.4	147	5.1	2.0	.34	.24	0	0
26	1.1	49	29	23	4.3	385	5.0	2.0	.49	.29	0	0
27	.23	109	23	21	4.8	64	4.8	2.0	.80	.34	0	0
28	.68	274	101	17	4.6	35	4.8	2.1	.54	.19	0	0
29	.68	123	148	15	-----	25	4.7	2.0	.34	.14	0	0
30	.56	98	54	13	-----	19	4.5	1.9	.24	.05	.01	0
31	.62	-----	38	12	-----	16	-----	1.6	-----	.10	0	-----
TOTAL	26.02	829.65	4,331	2,049	178.5	1,163.8	268.3	93.7	25.67	5.07	.12	.02
MEAN	.84	27.7	140	66.1	6.38	37.5	8.94	3.02	.86	.16	.004	.0007
MAX	7.4	274	641	727	11	385	26	7.4	1.6	.34	.04	.01
MIN	0	.60	18	12	4.3	3.4	4.5	1.6	.24	.04	0	0
AC-FT	52	1,650	8,590	4,060	354	2,310	532	186	51	10	.2	.04

CAL YR 1970 TOTAL 14,906.89 MEAN 40.8 MAX 1,040 MIN 0 AC-FT 29,570  
 WTR YR 1971 TOTAL 8,970.85 MEAN 24.6 MAX 727 MIN 0 AC-FT 17,790

PEAK DISCHARGE (BASE, 1,000 CFS).--Dec. 3 (2300) 1,380 cfs (15.10 ft); Mar. 26 (0230) 1,040 cfs (12.83 ft).

## 11461000 RUSSIAN RIVER NEAR UKIAH, CALIF.

LOCATION.--Lat 39°12'07", long 123°11'55", in Yokayo Rancho Grant, Mendocino County, on left bank 200 ft downstream from York Creek, 0.7 mile upstream from East Fork, and 3.6 miles north of Ukiah.

DRAINAGE AREA.--99.7 sq mi.

PERIOD OF RECORD.--August 1911 to September 1913, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 608.98 ft (revised) above mean sea level. Prior to October 1952, nonrecording gage at bridge 0.6 mile downstream at different datum. Oct. 1, 1952, to Feb. 16, 1959, water-stage recorder at datum 2.00 ft higher, and Feb. 17, 1959, to Sept. 30, 1961, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--21 years, 180 cfs (130,400 acre-ft per year); median of yearly mean discharges, 160 cfs (116,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,360 cfs Dec. 3 (gage height, 14.96 ft); no flow for many days. Period of record: Maximum discharge, 18,900 cfs Dec. 21, 1955 (gage height, 21.0 ft, present datum); no flow at times in 1911, 1952-53, 1960-61, 1964-65, 1970-71.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No regulation; small diversions above station for irrigation of about 300 acres.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	2.8	859	317	109	48	155	48	15	4.7	.10	.15
2	0	2.8	2,400	304	99	40	145	50	15	4.2	.06	.15
3	0	6.2	5,040	233	92	46	133	54	15	6.0	.06	.12
4	0	35	3,500	208	86	54	125	46	15	4.2	.08	.15
5	0	210	1,320	187	81	48	115	41	15	3.5	.08	.18
6	0	82	720	168	76	42	108	38	15	2.4	.08	.18
7	0	42	790	154	72	40	100	35	15	1.8	.12	.18
8	0	29	1,220	145	69	38	91	34	15	2.4	.18	.18
9	0	78	735	136	65	36	116	33	13	3.0	.21	.18
10	0	135	456	182	62	37	154	31	13	3.5	.25	.25
11	0	106	348	320	60	126	109	30	12	3.5	.25	.29
12	0	158	295	538	57	2,430	96	29	12	4.2	.21	.29
13	0	74	279	643	55	805	100	29	12	3.2	.18	.25
14	0	52	251	1,030	53	775	163	28	12	3.2	.18	.29
15	0	37	487	3,020	51	448	109	27	12	2.4	.18	.25
16	0	30	1,170	6,450	49	320	98	25	9.8	2.1	.18	.25
17	0	23	691	3,140	48	279	126	24	8.7	1.0	.15	.21
18	0	17	512	1,520	46	216	103	23	8.1	1.0	.18	.21
19	0	13	376	790	45	177	93	22	8.7	1.3	.12	.21
20	1.1	11	563	504	43	154	90	22	9.3	1.3	.15	.21
21	5.3	9.0	529	362	41	136	80	20	9.3	.80	.15	.25
22	13	8.2	365	295	40	126	76	19	7.7	.53	.12	.21
23	10	9.0	317	257	39	525	79	18	6.4	.55	.12	.21
24	6.8	131	282	233	38	288	73	18	6.8	.45	.10	.21
25	5.7	252	254	200	36	1,800	69	17	7.2	.35	.08	.35
26	4.9	153	233	180	35	3,500	65	18	9.3	.35	.08	.35
27	4.1	760	219	163	44	950	59	18	8.7	.35	.08	.35
28	3.7	2,040	700	147	57	330	56	20	6.8	.29	.10	.35
29	3.4	636	1,080	143	-----	240	53	18	6.8	.21	.10	.45
30	3.1	1,130	476	130	-----	195	50	16	5.1	.12	.10	.55
31	2.9	-----	341	118	-----	170	-----	15	-----	.10	.18	-----
TOTAL	64.0	6,272.0	26,808	22,217	1,648	14,419	2,989	866	324.7	63.00	4.21	7.46
MEAN	2.06	209	865	717	58.9	465	99.6	27.9	10.8	2.03	.14	.25
MAX	13	2,040	5,040	6,450	109	3,500	163	54	15	6.0	.25	.55
MIN	0	2.8	219	118	35	36	50	15	5.1	.10	.06	.12
AC-FT	127	12,440	53,170	44,070	3,270	28,600	5,930	1,720	644	125	8.4	15
CAL YR 1970	TOTAL	103,755.12	MEAN	284	MAX	7,390	MIN	0	AC-FT	205,800		
WTR YR 1971	TOTAL	75,682.37	MEAN	207	MAX	6,450	MIN	0	AC-FT	150,100		

## PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 3	1800	14.96	9,360	3-12	1200	11.14	5,440
1-16	1300	14.63	8,990	3-25	2315	-	8,600

NOTE.--No gage-height record Jan. 29 to Mar. 1.

## RUSSIAN RIVER BASIN

## 11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CALIF.

LOCATION.--Lat 39°14'48", long 123°07'45", in NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.18, T.16 N., R.11 W., Mendocino County, on left bank 0.1 mile downstream from Cold Creek and 3.9 miles east of Calpella.

DRAINAGE AREA.--92.2 sq mi.

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 787.87 ft above mean sea level. Prior to May 28, 1957, at site 1.3 miles downstream at different datum. May 28, 1957, to Apr. 5, 1966, at site 0.4 mile downstream at same datum.

AVERAGE DISCHARGE.--30 years, 341 cfs (247,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,980 cfs Jan. 16 (gage height, 18.48 ft); minimum daily, 17 cfs July 28.

Period of record: Maximum discharge, 18,700 cfs Dec. 22, 1964 (gage height, 20.21 ft); minimum daily, 3.8 cfs Oct. 30, 31, 1959.

REMARKS.--Records good. Flow greatly affected by diversion from Eel River through Potter Valley powerhouse (see sta 11471000). Diversion for irrigation of about 1,000 acres above station. Records of water temperatures and turbidity data for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	263	235	823	543	405	336	445	336	303	49	31	68
2	269	235	2,230	529	393	336	424	339	281	47	44	63
3	275	237	4,230	459	387	336	414	351	279	48	44	88
4	283	245	2,460	438	384	336	402	342	291	40	37	112
5	285	315	863	420	381	333	396	342	289	46	34	118
6	283	259	623	408	378	323	396	339	289	26	40	123
7	285	227	801	399	372	318	390	336	297	70	36	105
8	285	235	1,020	393	372	318	361	336	291	79	38	102
9	283	340	767	390	369	318	282	336	285	75	45	100
10	277	265	613	427	366	320	278	333	295	73	31	118
11	269	346	557	536	363	342	247	330	289	76	24	126
12	261	381	515	658	360	1,770	241	328	289	87	22	132
13	257	309	522	783	357	672	291	323	289	123	22	133
14	265	310	487	1,030	354	781	414	320	299	138	20	133
15	269	295	640	2,750	354	571	366	323	295	123	23	126
16	281	299	1,070	6,050	354	494	372	325	281	120	24	123
17	289	293	791	2,170	354	441	381	323	279	115	51	132
18	285	291	665	1,190	354	405	372	289	273	121	59	129
19	285	281	592	879	354	381	366	289	271	126	53	133
20	301	283	749	704	351	366	363	295	225	123	45	145
21	310	291	697	595	351	360	357	295	215	120	49	147
22	299	293	592	585	345	354	354	287	209	130	63	144
23	275	275	557	553	342	698	357	287	199	138	44	149
24	245	325	529	522	342	494	351	287	199	130	41	165
25	237	411	504	490	339	1,710	351	281	71	123	35	161
26	231	360	518	469	339	2,150	348	229	49	121	47	149
27	231	629	504	452	339	839	345	237	49	42	32	169
28	229	1,400	935	441	336	630	339	313	56	17	19	171
29	231	715	1,020	434	-----	557	336	315	48	25	54	191
30	233	1,040	616	420	-----	508	333	268	49	22	45	197
31	235	-----	536	414	-----	469	-----	315	-----	30	56	-----
TOTAL	8,306	11,420	28,026	26,531	10,095	18,266	10,672	9,649	6,834	2,603	1,208	3,952
MEAN	268	381	904	856	361	589	356	311	228	84.0	39.0	132
MAX	310	1,400	4,230	6,050	405	2,150	445	351	303	138	63	197
MIN	229	227	487	390	336	318	241	229	48	17	19	63
AC-FT	16,470	22,650	55,590	52,620	20,020	36,230	21,170	19,140	13,560	5,160	2,400	7,840

CAL YR 1970 TOTAL 155,277 MEAN 425 MAX 7,620 MIN 55 AC-FT 308,000  
WTR YR 1971 TOTAL 137,562 MEAN 377 MAX 6,050 MIN 17 AC-FT 272,900

## PEAK DISCHARGE (BASE, 3,300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 3	1800	17.42	7,760	3-12	1300	13.42	4,040
1-16	1400	18.48	8,980	3-25	2345	16.15	6,450

## 11461800 LAKE MENDOCINO NEAR UKIAH, CALIF.

LOCATION.--Lat 39°11'53", long 123°10'50", in Yokayo Rancho Grant, Mendocino County, in intake tower 30 ft upstream from Coyote Dam on East Fork Russian River and 3.6 miles northeast of Ukiah.

DRAINAGE AREA.--105 sq mi.

PERIOD OF RECORD.--October 1965 to current year. Records prior to October 1965 in files of Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 94,100 acre-ft Jan. 17 (elevation, 749.72 ft); minimum, 44,900 acre-ft Oct. 1 (elevation, 719.96 ft).

Period of record: Maximum contents, 114,800 acre-ft Jan. 24, 1970 (elevation, 760.86 ft); minimum, 42,500 acre-ft Sept. 10, 11, 1970 (elevation, 718.26 ft).

REMARKS.--Reservoir is formed by earthfill dam; storage began in November 1958. Capacity, 122,900 acre-ft between elevations 637.0 ft (invert of outlet tunnel) and 764.8 ft (spillway crest) above mean sea level. Storage affected by diversions from Eel River through Potter Valley powerhouse (see sta 11471000). Water is released down East Fork Russian River for irrigation and recreation use. Records given herein represent total contents.

CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

637	135	660	2,110	685	10,900	720	45,000
640	250	665	3,190	690	13,700	730	60,100
645	535	670	4,590	695	17,100	740	76,900
650	900	675	6,280	700	21,100	750	94,600
655	1,380	680	8,430	710	31,620	765	122,900

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45,000	51,800	73,300	68,600	57,300	66,500	90,300	88,200	91,100	88,100	75,200	58,100
2	45,100	52,100	78,600	69,600	58,100	67,100	90,600	87,700	91,100	87,700	74,600	57,600
3	45,100	52,600	89,000	70,600	58,900	67,700	90,600	88,000	91,000	87,400	73,900	57,200
4	45,200	52,900	90,800	71,400	59,600	68,400	90,700	88,700	91,000	87,100	73,100	56,900
5	45,400	53,500	84,400	72,400	60,400	69,000	90,700	88,400	91,000	86,800	72,500	56,600
6	45,500	53,900	78,100	73,200	61,200	69,500	90,800	90,000	91,000	86,400	72,000	56,300
7	45,600	54,200	74,300	74,200	61,900	70,100	90,800	90,500	91,000	86,000	71,400	56,000
8	45,800	54,500	74,300	75,100	62,600	70,600	90,800	90,400	90,900	85,600	70,900	55,600
9	45,900	55,100	70,300	74,400	63,400	71,200	90,600	90,400	90,900	85,000	70,300	55,300
10	46,200	55,400	65,600	69,700	64,100	71,800	90,400	90,400	90,900	84,700	69,800	55,000
11	46,400	56,000	61,200	68,600	64,800	72,400	90,100	90,500	90,900	84,300	69,200	54,700
12	46,600	56,600	57,000	69,000	65,500	76,500	89,900	90,600	90,800	83,900	68,500	54,500
13	46,700	57,000	53,100	69,800	66,300	77,800	90,100	90,700	90,800	83,600	67,900	54,200
14	46,900	57,500	52,100	71,200	67,000	79,400	90,400	90,800	90,900	83,300	67,300	54,000
15	47,100	58,000	53,500	77,600	67,700	79,800	90,700	90,700	90,900	82,900	66,700	53,700
16	47,300	58,500	56,000	91,500	68,400	79,800	90,800	90,700	90,900	82,500	66,200	53,400
17	47,500	58,900	57,600	92,600	69,100	79,600	90,800	90,700	90,800	82,100	65,700	53,100
18	47,700	59,400	58,900	87,100	69,800	79,500	90,700	90,600	90,800	81,700	65,300	52,800
19	48,000	59,800	60,000	82,800	70,500	79,500	90,700	90,600	90,700	81,300	64,700	52,500
20	48,300	60,200	61,500	79,700	71,200	79,500	90,600	90,600	90,600	80,900	64,200	52,200
21	48,800	60,600	62,900	74,700	70,600	79,600	90,600	90,600	90,500	80,400	63,700	51,900
22	49,200	61,100	64,000	69,600	65,100	79,600	90,600	90,600	90,300	80,000	63,200	51,600
23	49,500	61,500	64,900	64,800	62,400	80,300	90,500	90,700	90,200	79,600	62,700	51,300
24	49,800	62,000	65,900	60,000	63,100	80,600	90,400	90,700	90,200	79,300	62,200	51,100
25	50,000	62,700	66,800	54,800	63,800	84,400	90,400	90,700	89,900	78,900	61,600	50,800
26	50,200	63,200	67,700	52,200	64,400	88,100	90,200	90,600	89,600	78,500	61,100	50,500
27	50,400	64,800	68,600	53,200	65,200	88,700	90,000	90,500	89,200	78,000	60,600	50,300
28	50,600	67,700	70,800	54,000	65,900	88,800	89,600	90,700	89,000	77,500	60,000	50,100
29	50,900	69,100	70,700	54,900	-----	89,000	89,100	90,800	88,700	77,000	59,400	50,000
30	51,200	71,400	67,800	55,700	-----	89,500	88,600	90,900	88,400	76,500	58,900	49,900
31	51,500	-----	67,300	56,500	-----	89,900	-----	91,000	-----	75,800	58,500	-----
MAX	51,500	71,400	90,800	92,600	71,200	89,900	90,800	91,000	91,100	88,100	75,200	58,100
MIN	45,000	51,800	52,100	52,200	57,300	66,500	88,600	87,700	88,400	75,800	58,500	49,900
(a)	724.50	736.96	734.49	727.79	733.60	747.49	746.78	748.08	746.66	739.43	729.04	723.42
(b)	+6,600	+19,900	-4,100	-10,800	+9,400	+24,000	-1,300	+2,400	-2,600	-12,600	-17,300	-8,600

CAL YR 1970 b -3,000

WTR YR 1971 b +5,000

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

## RUSSIAN RIVER BASIN

## 11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CALIF.

LOCATION.--Lat 39°11'45", long 123°11'30", in Yokayo Rancho Grant, Mendocino County, on right bank of outlet channel, 500 ft downstream from Coyote Dam, 1,300 ft upstream from mouth, and 3.2 miles northeast of Ukiah.

DRAINAGE AREA.--105 sq mi.

PERIOD OF RECORD.--August 1911 to September 1913, October 1951 to June 1956, October 1957 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 614.41 ft above mean sea level. Prior to October 1951, nonrecording gage at site 0.5 mile upstream at different datum. October 1951 to June 1956, water-stage recorder at site 1.0 mile upstream at different datum.

AVERAGE DISCHARGE (unadjusted).--7 years (1911-13, 1951-55, 1957-58), 356 cfs (257,900 acre-ft per year); 12 years (1959-71), 354 cfs (256,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,390 cfs Dec. 4 (gage height, 7.38 ft); minimum daily, 0.10 cfs Dec. 24-27, Jan. 3-7.

Period of record (prior to regulation by Lake Mendocino): Maximum discharge, 13,300 cfs Dec. 21, 1955 (gage height, 16.86 ft, site and datum then in use), from rating curve extended above 1,700 cfs on basis of maximum flow at station upstream which was defined to 8,600 cfs; no flow Aug. 13-15, 1913.

1957 to current year: Maximum discharge, 7,350 cfs Jan. 24, 1970 (gage height, 10.84 ft); minimum daily, 0.10 cfs May 19-21, 1969, Dec. 24-27, 1970, Jan. 3-7, 1971.

REMARKS.--Records good. Flow affected by diversion from Eel River through Potter Valley powerhouse (see sta 11471000) and since November 1958 by storage in Lake Mendocino 500 ft upstream (see sta 11461800). Small diversions above station for irrigation of about 1,000 acres. Records of turbidity data for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	90	96	.3	14	25	267	594	287	198	302	255
2	243	90	55	.2	14	54	303	599	310	198	318	255
3	240	90	2.9	.1	14	63	380	229	310	198	330	255
4	240	90	1,620	.1	14	63	380	35	310	198	330	255
5	231	90	4,270	.1	14	63	383	34	310	195	330	255
6	213	90	4,130	.1	14	63	385	34	310	226	312	255
7	210	90	2,920	.1	14	63	385	134	310	252	300	252
8	207	90	1,080	.2	14	63	385	370	306	252	299	252
9	195	90	2,710	635	14	63	388	370	306	249	298	252
10	186	90	3,130	2,620	14	63	390	332	306	249	316	252
11	183	90	2,830	988	14	63	390	292	306	249	326	252
12	180	90	2,550	425	14	68	317	282	306	265	326	252
13	182	90	2,500	429	14	65	274	285	306	274	316	252
14	183	90	930	430	14	68	274	324	283	285	296	228
15	183	90	.7	207	14	332	274	342	287	302	294	252
16	183	90	1.0	3.1	14	487	353	342	310	302	277	252
17	183	90	.3	1,720	14	561	395	342	297	302	266	262
18	183	90	.3	3,910	14	510	395	342	290	302	283	270
19	172	90	.7	3,000	14	394	395	322	290	302	294	268
20	159	90	2.2	2,220	14	366	397	294	290	302	293	267
21	143	90	1.2	2,910	536	370	400	286	264	302	291	267
22	132	90	.2	2,860	2,930	370	400	286	249	302	290	264
23	132	90	.2	2,810	1,730	370	400	286	235	302	288	272
24	132	90	.1	2,750	20	352	400	286	225	302	276	276
25	132	90	.1	2,880	20	341	400	286	208	302	281	274
26	132	90	.1	1,770	20	433	424	286	198	284	290	270
27	132	92	.1	.4	20	626	513	286	198	274	286	270
28	111	96	.6	8.4	20	631	582	273	178	274	286	257
29	90	96	935	14	-----	488	594	255	186	273	282	247
30	90	96	1,860	14	-----	318	594	254	198	283	267	246
31	90	-----	845	14	-----	267	-----	250	-----	302	258	-----
TOTAL	5,318	2,720	32,471.7	32,619.1	5,576	8,063	11,817	8,932	8,169	8,300	9,201	7,736
MEAN	172	90.7	1,047	1,052	199	260	394	288	272	268	297	258
MAX	246	96	4,270	3,910	2,930	631	594	599	310	302	330	276
MIN	90	90	.10	.10	14	25	267	34	178	195	258	228
AC-FT	10,550	5,400	64,410	64,700	11,060	15,990	23,440	17,720	16,200	16,460	18,250	15,340

CAL YR 1970 TOTAL 161,441.1 MEAN 442 MAX 6,620 MIN .10 AC-FT 320,200  
WTR YR 1971 TOTAL 140,922.8 MEAN 386 MAX 4,270 MIN .10 AC-FT 279,500

## 11462500 RUSSIAN RIVER NEAR HOPLAND, CALIF.

LOCATION.--Lat 39°01'36", long 123°07'46", in Rancho de Sanel Grant, Mendocino County, on right bank at abandoned highway bridge, 0.2 mile downstream from McNab Creek, 4 miles north of Hopland.

DRAINAGE AREA.--362 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 497.61 ft above mean sea level. Prior to Sept. 9, 1943, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 731 cfs (529,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,000 cfs Jan. 16 (gage height, 18.76 ft); minimum daily, 99 cfs Nov. 2.

Period of record: Maximum discharge, 45,000 cfs Dec. 22, 1955 (gage height, 27.00 ft); minimum daily, 26 cfs Dec. 18, 1943, June 26, 1949.

Flood in December 1937 reached a stage of 30.0 ft, from floodmarks.

REMARKS.--Records good. Small diversions for irrigation of about 700 acres above station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino 15 miles upstream (see sta 11461800). Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1041: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	102	1,850	876	335	160	894	575	300	171	260	250
2	225	99	4,500	876	303	163	816	590	340	171	270	246
3	229	102	8,600	640	267	175	760	500	340	171	278	246
4	229	125	11,000	555	260	185	730	260	336	178	278	246
5	229	239	6,340	500	250	183	700	190	330	172	274	246
6	207	274	5,460	460	240	175	680	175	340	190	274	246
7	198	213	4,900	430	230	170	660	160	338	225	260	246
8	198	168	3,040	400	217	168	670	210	330	225	260	243
9	195	292	4,110	360	202	163	700	370	325	225	264	243
10	178	379	4,030	3,080	198	160	800	390	325	229	264	243
11	175	219	3,650	2,030	198	190	700	370	320	232	278	239
12	178	323	3,270	1,560	196	4,040	610	340	310	243	278	239
13	178	225	3,190	1,810	192	1,940	550	325	320	260	278	239
14	178	180	2,160	2,580	190	1,620	660	320	305	267	260	225
15	178	160	834	4,720	186	1,370	580	335	288	285	260	229
16	178	148	2,610	16,300	184	1,280	540	350	300	285	257	232
17	178	140	2,100	8,490	190	1,270	618	343	295	285	243	236
18	180	135	1,380	7,330	178	1,080	600	343	288	281	243	250
19	180	130	1,020	5,820	176	876	575	340	280	278	257	250
20	165	128	1,300	3,940	168	774	560	330	280	271	260	250
21	160	125	1,520	4,390	160	720	545	328	280	267	260	250
22	145	125	1,020	4,120	2,580	684	530	320	245	260	260	250
23	145	123	834	3,890	2,460	1,200	515	317	230	264	260	250
24	153	125	714	3,730	267	970	510	314	220	265	260	246
25	143	433	625	3,680	195	2,210	490	312	205	270	264	250
26	140	387	560	3,110	173	7,060	490	312	190	250	264	253
27	138	770	515	681	168	3,110	510	312	182	240	264	253
28	135	3,550	804	520	168	2,170	550	318	174	230	267	243
29	109	1,330	3,100	451	-----	1,700	580	310	174	230	267	236
30	104	1,740	3,230	395	-----	1,280	575	302	176	235	264	236
31	102	-----	2,300	367	-----	1,020	-----	297	-----	245	253	-----
TOTAL	5,355	12,489	90,566	88,091	10,531	38,266	18,698	10,258	8,366	7,400	8,179	7,311
MEAN	173	416	2,921	2,842	376	1,234	623	331	279	239	264	244
MAX	229	3,550	11,000	16,300	2,580	7,060	894	590	340	285	278	253
MIN	102	99	515	360	160	160	490	160	174	171	243	225
AC-FT	10,620	24,770	179,600	174,700	20,890	75,900	37,090	20,350	16,590	14,680	16,220	14,500
CAL YR 1970	TOTAL 397,038		MEAN 1,088		MAX 16,900		MIN 70		AC-FT 787,500			
WTR YR 1971	TOTAL 305,510		MEAN 837		MAX 16,300		MIN 99		AC-FT 606,000			

NOTE.--No gage-height record Apr. 3 to July 6.

## RUSSIAN RIVER BASIN

11463000 RUSSIAN RIVER NEAR CLOVERDALE, CALIF.

LOCATION.--Lat 38°52'16", long 123°03'09", in NW¼NW¼ sec.23, T.12 N., R.11 W., Mendocino County, on left bank  
0.3 mile downstream from Cummisky Creek and 5.5 miles northwest of Cloverdale.

DRAINAGE AREA.--503 sq mi.

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 350 ft (from topographic map). Prior to July 30, 1970, at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--20 years, 1,008 cfs (730,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 25,000 cfs Dec. 4 (gage height, 18.92 ft); minimum daily, 101 cfs Nov. 2.

Period of record: Maximum discharge, 55,200 cfs Dec. 22, 1964 (gage height, 31.60 ft, site and datum then in use); minimum daily, 80 cfs May 25, 1970.

REMARKS.--Records good. Small diversions for irrigation of about 1,200 acres above station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino 28 miles upstream (see sta 11461800).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	102	2,950	1,400	505	226	1,170	720	296	160	236	235
2	222	101	6,920	1,370	470	226	1,060	732	338	158	244	230
3	226	102	11,800	1,040	438	244	970	712	341	154	257	230
4	226	143	16,300	890	407	246	930	338	338	158	259	230
5	226	389	7,560	780	389	241	885	273	332	162	257	230
6	214	320	6,020	680	380	231	865	244	335	156	259	230
7	199	293	5,620	617	365	222	860	224	332	192	241	230
8	192	208	3,740	564	356	219	830	377	326	197	244	230
9	194	208	4,660	522	329	212	850	473	320	194	246	230
10	179	442	4,470	2,800	308	208	1,030	477	320	201	246	230
11	170	279	3,980	2,440	296	234	855	431	314	205	262	230
12	170	317	3,510	1,930	296	5,400	775	398	308	210	268	225
13	170	284	3,380	2,380	284	2,990	684	392	311	226	268	225
14	168	217	2,600	3,650	276	2,320	825	389	311	229	252	215
15	168	186	1,370	6,160	270	2,000	704	424	282	246	244	220
16	168	166	3,550	19,100	265	1,800	668	424	296	254	241	220
17	168	158	2,910	12,100	276	1,740	790	421	296	254	219	225
18	172	150	2,040	8,650	252	1,510	750	414	282	257	217	240
19	175	146	1,520	6,820	252	1,240	720	404	276	259	234	240
20	172	141	2,120	4,270	236	1,080	712	380	276	249	241	240
21	162	137	2,510	4,760	224	1,000	688	356	273	246	241	235
22	158	135	1,640	4,430	2,360	940	664	350	239	244	244	240
23	141	134	1,290	4,190	2,700	1,480	660	344	231	244	244	240
24	152	137	1,070	4,000	551	1,390	640	338	210	241	244	235
25	144	368	920	3,920	344	2,780	632	332	203	246	249	240
26	139	456	825	3,680	282	9,410	617	335	186	249	249	245
27	135	1,100	736	1,160	246	3,960	652	335	181	222	250	240
28	135	5,300	1,320	830	231	2,710	696	338	181	217	250	230
29	120	2,270	3,870	692	-----	2,120	732	317	156	210	250	225
30	108	2,590	3,670	606	-----	1,640	724	302	160	212	245	225
31	105	-----	2,930	547	-----	1,330	-----	302	-----	226	240	-----
TOTAL	5,297	16,979	117,801	106,978	13,588	51,349	23,638	12,296	8,250	6,678	7,641	6,940
MEAN	171	566	3,800	3,451	485	1,656	788	397	275	215	246	231
MAX	226	5,300	16,300	19,100	2,700	9,410	1,170	732	341	259	268	245
MIN	105	101	736	522	224	208	617	224	156	154	217	215
AC-FT	10,510	33,680	233,700	212,200	26,950	101,900	46,890	24,390	16,360	13,250	15,160	13,770

CAL YR 1970 TOTAL 524,649 MEAN 1,437 MAX 24,600 MIN 80 AC-FT 1,041,000  
WTR YR 1971 TOTAL 377,435 MEAN 1,034 MAX 19,100 MIN 101 AC-FT 748,600

NOTE.--No gage-height record Aug. 27 to Sept. 30.

## 11463200 BIG SULPHUR CREEK NEAR CLOVERDALE, CALIF.

LOCATION.--Lat 38°49'21", long 122°59'07", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.4, T.11 N., R.10 W., Sonoma County, on right bank 0.5 mile downstream from small left-bank tributary, 1.9 miles upstream from mouth, and 2.0 miles northeast of Cloverdale.

DRAINAGE AREA.--82.3 sq mi.

PERIOD OF RECORD.--July 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 392.78 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 202 cfs (146,300 acre-ft per year); median of yearly mean discharges, 180 cfs (130,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,160 cfs Dec. 3 (gage height, 11.28 ft); minimum daily, 2.3 cfs Oct. 1-3.

Period of record: Maximum discharge, 15,700 cfs Dec. 22, 1964 (gage height, 15.08 ft), from rating curve extended above 5,700 cfs on basis of slope-area measurement at gage height 16.8 ft; minimum daily, 1.8 cfs Sept. 24, Oct. 20, 1964.

Flood of Dec. 22, 1955, reached a stage of 16.8 ft from floodmarks, present datum (discharge, 20,000 cfs by slope-area measurement of maximum flow).

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1929: 1958-60.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	7.0	987	410	142	55	203	66	33	13	6.2	7.0
2	2.3	7.0	1,760	372	134	51	183	70	33	13	6.2	6.2
3	2.3	8.6	4,630	300	126	53	165	66	32	12	5.8	5.8
4	2.5	136	4,460	266	118	51	151	64	30	12	6.2	5.4
5	2.7	586	1,570	239	114	49	140	62	29	12	6.2	5.0
6	2.9	180	874	215	111	47	134	59	28	11	6.2	5.0
7	2.7	105	676	197	105	46	126	57	27	11	6.2	5.0
8	2.7	57	718	180	100	45	118	56	26	10	6.2	5.0
9	2.9	94	586	170	97	44	138	56	26	10	5.8	5.0
10	2.9	107	420	197	94	43	239	53	26	10	5.4	4.6
11	3.1	69	344	288	90	53	145	51	25	9.4	5.4	4.6
12	3.1	70	280	332	87	1,780	128	50	24	9.0	5.8	4.6
13	3.1	46	239	430	84	550	130	49	24	8.6	5.8	4.6
14	3.4	35	209	886	81	420	206	47	23	8.6	6.2	4.2
15	3.7	29	440	1,270	80	296	138	44	22	8.2	5.8	4.2
16	4.0	25	952	2,490	77	224	126	44	20	8.2	5.8	3.9
17	4.0	23	736	1,580	76	185	136	43	18	8.2	5.8	3.9
18	4.6	20	694	964	73	156	118	41	18	7.8	5.8	3.9
19	5.2	19	505	688	74	138	109	40	19	7.8	5.8	3.7
20	10	17	808	510	69	126	105	39	19	7.8	5.8	3.6
21	12	17	778	410	66	114	98	38	17	7.4	5.8	3.6
22	46	16	525	348	64	107	94	37	16	7.4	6.2	3.6
23	23	16	425	304	63	134	90	37	16	7.4	6.2	3.6
24	23	18	356	266	60	120	86	36	16	7.0	5.8	3.6
25	13	136	308	239	57	410	83	35	15	7.0	5.4	3.4
26	10	134	288	218	56	1,810	78	37	16	7.0	5.4	3.4
27	8.6	1,410	256	200	59	622	76	37	18	7.0	5.4	3.4
28	7.8	2,270	712	183	57	400	74	40	15	6.6	5.8	3.5
29	7.4	1,170	1,440	170	-----	316	71	37	14	6.6	5.8	3.7
30	7.0	1,090	652	158	-----	266	69	36	14	6.6	6.2	3.9
31	7.0	-----	470	149	-----	230	-----	33	-----	6.6	7.0	-----
TOTAL	235.2	7,917.6	28,098	14,629	2,414	8,941	3,757	1,460	659	274.2	183.4	130.9
MEAN	7.59	264	906	472	86.2	288	125	47.1	22.0	8.85	5.92	4.36
MAX	46	2,270	4,630	2,490	142	1,810	239	70	33	13	7.0	7.0
MIN	2.3	7.0	209	149	56	43	69	33	14	6.6	5.4	3.4
AC-FT	467	15,700	55,730	29,020	4,790	17,730	7,450	2,900	1,310	544	364	260

CAL YR 1970 TOTAL 121,912.1 MEAN 334 MAX 8,570 MIN 2.1 AC-FT 241,800  
WTR YR 1971 TOTAL 68,699.3 MEAN 188 MAX 4,630 MIN 2.3 AC-FT 136,300

PEAK DISCHARGE (BASE, 7,500 CFS).--Dec. 3 (2200) 9,160 cfs (11.28 ft).



## RUSSIAN RIVER BASIN

11463900 MAACAMA CREEK NEAR KELLOGG, CALIF.

LOCATION.--Lat 38°38'25", long 122°45'45", in SW $\frac{1}{4}$  sec.9, T.9 N., R.8 W., Sonoma County, on right bank 0.5 mile downstream from Redwood Creek and 4.4 miles west of Kellogg.

DRAINAGE AREA.--43.4 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements and annual maximum, water years 1958-60, December 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 188.91 ft above mean sea level. Prior to Dec. 20, 1960, crest-stage gage only at site 700 ft upstream at different datum.

AVERAGE DISCHARGE.--10 years (1961-71), 92.5 cfs (67,020 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,250 cfs Dec. 3 (gage height, 12.66 ft); minimum daily, 0.14 cfs Sept. 14, 15.

Period of record: Maximum discharge, 8,920 cfs Dec. 22, 1964 (gage height, 17.56 ft); no flow for many days in 1964 and 1968.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	1.7	420	177	64	22	82	25	11	2.8	3.0	.90
2	.42	1.8	829	161	63	21	75	28	11	2.6	2.3	.70
3	.54	2.9	2,240	125	53	21	70	25	11	2.4	2.0	.95
4	.65	25	2,060	109	49	22	65	25	10	2.2	1.9	.90
5	.69	134	728	97	48	20	61	24	8.2	2.1	1.9	.74
6	.73	148	394	88	45	20	57	23	9.4	2.1	2.0	.36
7	.65	50	308	83	42	19	55	21	8.9	2.3	1.3	.29
8	.54	24	316	76	40	19	49	21	8.6	2.1	1.1	.62
9	.54	51	240	72	38	19	61	20	8.4	2.1	.74	.21
10	.57	44	185	98	37	18	82	20	8.6	2.1	.90	.39
11	.61	36	152	142	35	25	55	19	8.4	2.1	.23	.49
12	.69	33	126	221	33	762	48	19	7.7	2.5	.17	.29
13	.83	22	108	329	33	206	53	18	7.7	2.4	.29	.19
14	.88	17	93	418	32	169	75	17	7.3	2.4	1.1	.14
15	.88	14	214	429	31	128	52	16	6.8	2.7	.45	.14
16	.93	13	403	951	30	97	47	16	6.4	2.4	.45	.29
17	.93	12	260	572	29	82	51	14	5.4	3.5	.21	.42
18	1.1	11	513	363	28	68	43	14	4.9	2.7	.70	.45
19	1.1	10	254	266	30	60	39	14	5.2	3.4	.29	.62
20	2.2	8.9	379	208	27	56	38	13	5.2	3.7	.49	.66
21	2.3	8.4	311	171	26	51	33	13	4.9	3.4	.29	.74
22	12	7.9	213	146	25	47	30	13	5.2	3.8	.53	.90
23	5.9	7.7	172	128	25	82	33	12	5.0	4.2	.49	.95
24	5.9	12	145	111	24	68	29	12	4.9	4.9	.53	.95
25	3.2	96	125	99	22	353	29	12	4.5	4.7	.45	.90
26	2.4	77	113	90	22	897	28	12	5.0	5.2	.84	.95
27	2.1	870	100	84	22	278	28	13	5.0	6.0	.32	1.3
28	1.8	1,180	313	76	22	183	27	17	4.0	4.7	.45	1.2
29	1.7	588	468	72	-----	141	26	13	3.4	3.5	.49	1.3
30	1.8	635	229	70	-----	116	26	12	3.0	3.3	.74	1.7
31	1.8	-----	177	67	-----	95	-----	11	-----	3.0	.66	-----
TOTAL	56.83	4,141.3	12,588	6,099	975	4,165	1,447	532	205.0	97.3	27.31	20.64
MEAN	1.83	138	406	197	34.8	134	48.2	17.2	6.83	3.14	.88	.69
MAX	12	1,180	2,240	951	64	897	82	28	11	6.0	3.0	1.7
MIN	.42	1.7	93	67	22	18	26	11	3.0	2.1	.17	.14
AC-FT	113	8,210	24,970	12,100	1,930	8,260	2,870	1,060	407	193	54	41

CAL YR 1970 TOTAL 55,389.42 MEAN 152 MAX 3,580 MIN .27 AC-FT 109,900  
WTR YR 1971 TOTAL 30,354.38 MEAN 83.2 MAX 2,240 MIN .14 AC-FT 60,210

## PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	2345	11.85	3,620	3-12	1130	9.89	2,350
12- 3	2100	12.66	4,250	3-26	0015	10.38	2,650

## 11464000 RUSSIAN RIVER NEAR HEALDSBURG, CALIF.

LOCATION.--Lat 38°36'48", long 122°50'07", in Sotoyome Grant, Sonoma County, on left bank 2 miles east of Healdsburg and 3.5 miles upstream from Dry Creek.

DRAINAGE AREA.--793 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 77.01 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 1,443 cfs (1,045,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 40,200 cfs Dec. 4 (gage height, 18.84 ft); minimum daily, 118 cfs Nov. 2.

Period of record: Maximum discharge, 71,300 cfs Dec. 23, 1964 (gage height, 27.00 ft); maximum gage height, 30.0 ft Feb. 28, 1940; minimum daily discharge, 38 cfs July 2, 1950.

Flood in December 1937 reached a stage of 30.8 ft, from floodmarks.

REMARKS.--Records good. Several small diversions for irrigation above station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino 63 miles upstream (see sta 11461800). Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 981: 1942.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	120	5,520	2,800	1,050	430	1,810	948	360	170	207	229
2	188	118	9,170	2,540	988	400	1,620	972	365	163	215	222
3	192	129	15,600	2,000	908	388	1,500	996	415	158	222	210
4	196	216	34,200	1,710	836	400	1,430	756	421	163	232	212
5	200	770	14,100	1,510	796	400	1,340	544	403	163	240	210
6	203	890	10,100	1,350	756	388	1,280	478	397	161	236	212
7	192	605	8,240	1,240	716	370	1,240	436	397	154	243	212
8	180	435	6,340	1,130	670	358	1,180	418	385	163	232	210
9	174	380	6,810	1,050	646	352	1,160	592	365	178	229	207
10	174	480	6,100	1,830	616	340	1,470	622	360	178	222	202
11	171	495	5,420	3,300	598	352	1,290	598	360	186	222	196
12	165	435	4,530	2,780	568	4,660	1,160	556	330	191	240	196
13	162	435	4,100	3,600	562	6,640	1,080	532	345	191	246	189
14	162	370	3,840	5,180	538	2,780	1,290	520	345	204	250	185
15	162	305	2,290	6,810	520	2,920	1,160	520	330	210	240	184
16	162	280	5,880	21,600	502	2,220	1,040	532	299	229	229	184
17	165	252	5,560	21,500	496	2,010	1,080	532	294	243	222	184
18	168	236	5,160	13,300	478	1,820	1,100	526	294	246	204	187
19	171	220	3,350	10,400	472	1,580	1,040	514	278	250	199	201
20	188	208	3,580	6,810	460	1,360	1,020	490	274	246	210	259
21	184	200	5,880	6,380	436	1,240	996	418	274	240	218	215
22	204	192	3,360	5,740	1,040	1,160	948	424	258	236	222	208
23	208	188	2,560	5,260	2,640	1,300	932	412	226	236	222	208
24	192	188	2,180	4,840	1,590	1,760	916	406	210	236	222	208
25	184	260	1,890	4,520	688	1,830	884	400	191	240	218	212
26	171	610	1,720	4,480	550	13,800	868	400	183	250	226	215
27	159	1,380	1,550	2,540	490	7,320	860	400	173	246	232	222
28	153	11,400	1,760	1,600	460	4,430	900	410	173	226	236	226
29	150	6,290	6,680	1,480	-----	3,240	956	409	172	210	240	226
30	144	4,500	5,380	1,240	-----	2,490	964	391	172	202	243	222
31	129	-----	4,620	1,140	-----	2,070	-----	370	-----	199	246	-----
TOTAL	5,434	32,587	197,470	151,660	21,070	70,808	34,514	16,522	9,049	6,368	7,065	6,253
MEAN	175	1,086	6,370	4,892	753	2,284	1,150	533	302	205	228	208
MAX	208	11,400	34,200	21,600	2,640	13,800	1,810	996	421	250	250	259
MIN	129	118	1,550	1,050	436	340	860	370	172	154	199	184
AC-FT	10,780	64,640	391,700	300,800	41,790	140,400	68,460	32,770	17,950	12,630	14,010	12,400

CAL YR 1970 TOTAL 850,907 MEAN 2,331 MAX 46,100 MIN 99 AC-FT 1,688,000  
WTR YR 1971 TOTAL 558,800 MEAN 1,531 MAX 34,200 MIN 118 AC-FT 1,108,000

## RUSSIAN RIVER BASIN

## 11464500 DRY CREEK NEAR CLOVERDALE, CALIF.

LOCATION.--Lat 38°44'59", long 123°05'28", in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.5, T.10 N., R.11 W., Sonoma County, on left bank 500 ft downstream from Smith Creek and 5 miles southwest of Cloverdale.

DRAINAGE AREA.--87.8 sq mi.

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 304.04 ft above mean sea level.

AVERAGE DISCHARGE.--30 years, 162 cfs (117,400 acre-ft per year); median of yearly mean discharges, 150 cfs (109,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,450 cfs Dec. 3 (gage height, 11.15 ft); minimum daily, 0.41 cfs Oct. 1.

Period of record: Maximum discharge, 18,100 cfs Dec. 22, 1964 (gage height, 18.09 ft); minimum, 0.10 cfs several days in 1944, 1949, 1951-53, 1962, 1964.

Flood in December 1937 reached a stage of about 18 ft, from floodmarks.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--1395: 1942(M), 1943, 1946(M), 1951-54(M), drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	3.0	598	385	143	37	215	40	18	5.9	1.4	.95
2	.50	2.7	1,380	330	130	37	185	53	18	5.2	1.4	.95
3	.50	4.2	4,060	251	118	38	160	57	17	4.9	1.3	.87
4	.52	36	3,680	218	105	38	140	45	17	4.6	1.3	.80
5	.52	209	1,680	194	99	38	124	40	15	4.3	1.3	.80
6	.54	66	950	170	93	36	114	39	16	4.0	1.2	.87
7	.56	38	758	149	87	37	106	36	16	3.8	1.2	.95
8	.56	30	715	133	77	37	96	35	15	3.3	1.1	.87
9	.56	51	535	120	72	36	118	35	15	3.6	1.2	.80
10	.58	34	385	123	69	35	130	33	15	3.3	1.2	.73
11	.58	51	276	161	68	45	93	32	14	3.1	1.0	.73
12	.58	44	227	245	65	1,320	81	30	14	3.3	1.0	.67
13	.60	29	194	475	63	686	88	29	14	2.9	1.0	.67
14	.60	22	149	659	60	646	152	27	13	2.9	.95	.67
15	.60	17	445	1,300	57	444	93	26	10	2.9	.95	.61
16	.70	16	916	4,440	56	336	81	25	11	2.4	.87	.61
17	.60	16	701	2,530	53	280	86	24	10	2.4	.80	.61
18	1.0	16	535	1,450	50	230	72	24	9.9	2.4	.73	.61
19	1.2	15	385	854	51	190	66	23	9.9	2.3	.73	.61
20	3.6	14	713	610	45	164	63	22	9.9	2.2	.73	.61
21	9.8	14	758	485	44	137	58	21	9.4	2.1	.67	.67
22	17	13	520	410	42	121	56	21	9.0	2.0	.67	.61
23	17	13	365	350	41	215	54	21	8.6	1.9	.73	.61
24	14	26	280	305	39	152	50	20	8.2	1.9	.73	.67
25	6.7	97	233	272	37	664	49	19	7.8	2.1	.67	.61
26	4.6	74	209	245	36	1,850	47	21	8.6	2.2	.61	.61
27	3.9	631	182	224	44	806	46	21	8.6	1.9	.73	.67
28	3.6	1,330	667	209	40	520	45	22	7.8	1.8	.73	.67
29	3.3	687	1,060	191	-----	378	43	21	7.0	1.8	.80	.87
30	3.0	631	638	176	-----	305	42	19	6.2	1.7	.95	.95
31	3.3	-----	460	161	-----	255	-----	18	-----	1.5	.95	-----
TOTAL	101.51	4,229.9	24,654	17,825	1,884	10,113	2,753	899	358.9	90.6	29.60	21.93
MEAN	3.27	141	795	575	67.3	326	91.8	29.0	12.0	2.92	.95	.73
MAX	17	1,330	4,060	4,440	143	1,850	215	57	18	5.9	1.4	.95
MIN	.41	2.7	149	120	36	35	42	18	6.2	1.5	.61	.61
AC-FT	201	8,390	48,900	35,360	3,740	20,060	5,460	1,780	712	180	59	44

CAL YR 1970 TOTAL 109,604.82 MEAN 300 MAX 6,140 MIN .41 AC-FT 217,400  
WTR YR 1971 TOTAL 62,960.44 MEAN 172 MAX 4,440 MIN .41 AC-FT 124,900

## PEAK DISCHARGE (BASE, 3,300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 3	1730	11.15	7,450	3-25	2330	7.49	3,540
1-16	1430	9.58	5,640				

## 11465200 DRY CREEK NEAR GEYSERVILLE, CALIF.

LOCATION.--Lat 38°41'55", long 122°57'25", in Tzabaco Grant, Sonoma County, on left bank pier of bridge 0.3 mile downstream from Pena Creek and 3 miles west of Geyserville.

DRAINAGE AREA.--162 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 159.40 ft above mean sea level. Prior to Oct. 1, 1964, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--12 years, 329 cfs (238,400 acre-ft per year); median of yearly mean discharges, 310 cfs (225,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,700 cfs Dec. 3 (gage height, 12.68 ft); no flow for many days. Period of record: Maximum discharge, 32,400 cfs Jan. 31, 1963 (gage height, 17.50 ft, present datum); no flow at times.

REMARKS.--Records good. No regulation; small diversion above station for orchard irrigation of about 400 acres in summer. Records of chemical analyses, water temperatures, suspended-sediment discharge, and sediment and turbidity data for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.05	1,150	685	230	80	379	88	38	10	1.6	.09
2	0	.04	2,610	620	220	80	329	99	39	9.0	1.6	.08
3	0	.05	7,470	488	200	80	293	109	37	8.4	1.5	.07
4	0	.58	7,260	412	193	80	267	90	37	7.8	1.7	.06
5	0	398	2,430	351	186	80	249	84	34	7.2	1.7	.05
6	0	149	1,230	309	181	78	232	83	31	6.6	1.8	.04
7	0	102	1,020	282	168	76	218	79	29	6.2	1.9	.04
8	0	57	995	261	162	74	205	76	29	5.8	2.0	.03
9	0	73	810	240	152	72	217	75	27	5.4	1.0	.03
10	0	83	640	230	140	72	275	71	26	6.0	.75	.02
11	0	70	508	264	124	75	196	67	26	7.0	1.0	.02
12	0	91	428	402	123	2,040	178	65	26	6.2	1.4	.01
13	0	64	372	776	119	1,040	178	62	26	5.4	1.4	.01
14	0	55	312	1,190	119	978	292	61	26	4.8	1.5	.01
15	.01	44	708	2,020	115	725	198	60	24	4.5	1.2	0
16	.05	41	1,680	8,000	110	547	176	59	25	4.5	.90	0
17	.03	36	1,260	4,380	108	456	178	57	22	4.0	.80	0
18	.05	32	1,040	2,180	104	376	163	55	20	3.8	.70	0
19	.04	29	792	1,370	102	329	150	53	20	3.7	.60	0
20	.06	26	1,340	1,010	97	279	144	52	20	3.6	.50	0
21	.15	23	1,600	810	94	264	133	52	19	3.4	.44	0
22	.26	21	1,060	660	91	254	129	51	18	3.2	.38	0
23	.35	20	768	560	90	339	123	50	17	3.1	.33	0
24	.38	23	600	480	86	275	114	50	16	3.0	.28	0
25	.19	122	492	424	84	725	111	49	15	2.7	.24	0
26	.08	163	436	380	84	3,430	106	49	15	2.7	.21	0
27	.06	1,090	388	345	86	1,400	103	49	15	2.5	.18	0
28	.06	2,580	954	315	87	940	103	50	14	2.4	.16	0
29	.05	1,110	2,080	291	-----	695	101	49	12	2.2	.14	0
30	.05	1,110	1,120	270	-----	556	90	35	11	1.9	.12	0
31	.05	-----	828	240	-----	464	-----	37	-----	1.8	.10	-----
TOTAL	1.92	7,612.72	44,381	30,245	3,655	16,959	5,630	1,966	714	148.8	28.13	.56
MEAN	.062	254	1,432	976	131	547	188	63.4	23.8	4.80	.91	.019
MAX	.38	2,580	7,470	8,000	230	3,430	379	109	39	10	2.0	.09
MIN	0	.04	312	230	84	72	90	35	11	1.8	.10	0
AC-FT	3.8	15,100	88,030	59,990	7,250	33,640	11,170	3,900	1,420	295	56	1.1

CAL YR 1970 TOTAL 212,161.50 MEAN 581 MAX 12,400 MIN 0 AC-FT 420,800  
WTR YR 1971 TOTAL 111,342.13 MEAN 305 MAX 8,000 MIN 0 AC-FT 220,800

PEAK DISCHARGE (BASE, 8,200 CFS).--Dec. 3 (1900) 14,700 cfs (12.68 ft); Jan. 16 (1600) 10,400 cfs (10.80 ft).

## RUSSIAN RIVER BASIN

11466500 LAGUNA DE SANTA ROSA NEAR GRATON, CALIF.

LOCATION.--Lat 38°27'10", long 122°50'03", in Molinos Grant, Sonoma County, on downstream side of left bank pier of highway bridge, 0.2 mile downstream from Santa Rosa Creek, and 2 miles northeast of Graton.

PERIOD OF RECORD.--February 1940 to September 1949 (contents only), October 1964 to current year in reports of Geological Survey. October 1949 to September 1964 available in files of district office.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Dec. 31, 1958, at site 75 ft downstream at same datum.

EXTREMES.--Current year: Maximum elevation, 63.8 ft Dec. 4.

Period of record: Maximum elevation, 73.3 ft Dec. 23, 1964.

REMARKS.--The lagoon is a natural water channel and overflow basin connecting Santa Rosa Creek, Mark West Creek, and other smaller creeks with Russian River. During floods directions of flow may be either to or from Russian River and the lagoon acts as a natural regulator of floods on lower Russian River.

ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		-	56.10	-								
2		-	57.40	-								
3		-	60.20	-								
4		-	63.30	-								
5		-	59.10	-								
6		-	56.30	-								
7		-	55.20	-								
8		-	-	-								
9		-	-	-								
10		-	-	-								
11		-	-	-								
12		-	-	-								
13		-	-	-								
14		-	-	-								
15		-	-	-								
16		-	55.70	57.00								
17		-	55.50	56.40								
18		-	56.80	-								
19		-	55.20	-								
20		-	56.40	-								
21		-	55.90	-								
22		-	-	-								
23		-	-	-								
24		-	-	-								
25		-	-	-								
26		-	-	-								
27		56.40	-	-		55.70						
28		59.10	-	-								
29		57.70	-	-		-----						
30		56.50	-	-		-----						
31		-----	-	-		-----	-----		-----			-----
MEAN		-	-	-		-						
MAX		-	-	-		-						
MIN		-	-	-		-						

## RUSSIAN RIVER BASIN

449

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CALIF.

LOCATION.--Lat 38°30'03", long 122°55'59", in NW¼NE¼ sec.35, T.8 N., R.10 W., Sonoma County, on left bank 0.6 mile downstream from Hobson Creek and 3.4 miles east of Guerneville.

DRAINAGE AREA.--1,340 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1954, published as "at Guerneville."

GAGE.--Water-stage recorder. Datum of gage is 17.25 ft above mean sea level. Prior to Oct. 1, 1954, nonrecording gage at bridge 5.3 miles downstream at datum 8.58 ft lower. Supplementary water-stage recorder 2.1 miles downstream used during periods of low flow 1948-54.

AVERAGE DISCHARGE.--32 years, 2,326 cfs (1,685,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 59,800 cfs Dec. 4 (gage height, 39.33 ft); minimum daily, 117 cfs July 8.

Period of record: Maximum discharge, 93,400 cfs Dec. 23, 1964 (gage height, 49.6 ft, from floodmarks); maximum gage height, 49.7 ft Dec. 23, 1955, from floodmarks; minimum daily discharge, 52 cfs May 30, 1964.

REMARKS.--Records good. Many diversions above station for irrigation. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations), since November 1958 by storage in Lake Mendocino 77 miles upstream (see sta 11461800) and by diversion at Wohler pumping plant beginning in May 1959. Records of water temperatures, suspended-sediment discharge, and sediment and turbidity data for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	142	11,500	5,560	1,790	622	2,970	1,130	385	152	158	202
2	148	136	16,700	4,970	1,650	598	2,590	1,160	376	138	164	190
3	164	136	24,600	4,020	1,510	578	2,350	1,210	388	127	168	178
4	172	348	56,400	3,390	1,380	582	2,190	1,090	397	126	174	168
5	174	895	38,300	2,950	1,280	574	2,030	804	397	127	188	166
6	178	2,470	19,500	2,590	1,210	561	1,890	692	373	127	192	172
7	176	1,570	13,300	2,290	1,140	546	1,820	616	367	124	192	172
8	170	910	11,300	2,070	1,060	534	1,710	568	361	117	194	170
9	158	658	10,000	1,900	1,000	522	1,630	660	349	126	186	174
10	152	622	8,830	2,170	945	510	2,030	724	349	140	166	152
11	147	745	7,730	4,370	905	513	1,900	724	337	142	166	138
12	143	714	6,660	4,510	855	4,810	1,630	688	325	152	172	142
13	142	630	5,910	6,160	825	11,100	1,510	656	322	148	192	206
14	144	549	5,480	7,750	790	5,160	2,010	624	328	144	200	228
15	150	471	4,250	9,550	755	5,340	1,800	604	313	152	202	204
16	154	411	9,790	29,200	718	3,960	1,520	612	295	160	190	156
17	158	366	10,500	37,500	694	3,400	1,500	600	285	176	176	124
18	166	330	12,000	21,500	670	2,980	1,510	600	285	192	156	124
19	184	303	8,920	15,100	654	2,560	1,410	564	280	206	152	132
20	206	282	7,430	10,700	638	2,230	1,350	548	278	202	158	170
21	224	267	13,200	8,920	610	1,980	1,320	492	275	190	170	216
22	267	255	8,340	7,970	726	1,810	1,250	464	265	182	178	166
23	279	243	5,870	7,140	2,910	1,890	1,200	451	255	188	184	168
24	297	246	4,660	6,560	2,390	2,640	1,170	439	240	190	182	172
25	236	363	3,910	6,080	986	2,680	1,120	433	218	194	174	174
26	212	1,020	3,460	5,850	740	19,600	1,090	409	213	206	176	180
27	190	1,560	3,090	4,470	674	12,800	1,070	343	208	210	182	190
28	176	21,000	3,430	2,900	650	7,410	1,090	433	198	200	188	194
29	170	16,700	11,900	2,450	-----	5,550	1,130	445	167	170	196	200
30	164	10,600	9,050	2,160	-----	4,430	1,150	424	170	158	206	214
31	154	-----	7,510	1,950	-----	3,550	-----	397	-----	152	206	-----
TOTAL	5,597	64,942	363,520	234,700	30,155	112,020	48,940	19,604	8,999	5,018	5,588	5,242
MEAN	181	2,165	11,730	7,571	1,077	3,614	1,631	632	300	162	180	175
MAX	297	21,000	56,400	37,500	2,910	19,600	2,970	1,210	397	210	206	228
MIN	142	136	3,090	1,900	610	510	1,070	343	167	117	152	124
AC-FT	11,100	128,800	721,000	465,500	59,810	222,200	97,070	38,880	17,850	9,950	11,080	10,400
CAL YR 1970	TOTAL	1,544,067	MEAN	4,230	MAX	69,800	MIN	63	AC-FT	3,063,000		
WTR YR 1971	TOTAL	904,325	MEAN	2,478	MAX	56,400	MIN	117	AC-FT	1,794,000		

## PEAK DISCHARGE (BASE, 23,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	1000	23.63	24,300	1-17	0400	31.83	41,100
12- 4	1400	39.33	59,800	3-26	1415	24.03	25,100

## GUALALA RIVER BASIN

11467500 SOUTH FORK GUALALA RIVER NEAR ANNAPOLIS, CALIF.

LOCATION.--Lat 38°42'14", long 123°25'13", in German Grant, Sonoma County, on left bank 2,700 ft downstream from Wheatfield Fork Gualala River and 3.1 miles southwest of Annapolis.

DRAINAGE AREA.--161 sq mi.

PERIOD OF RECORD.--October 1950 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 43.63 ft above mean sea level. Prior to Aug. 30, 1962, at site 1,700 ft upstream at different datum.

AVERAGE DISCHARGE.--21 years, 431 cfs (312,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,900 cfs Dec. 3 (gage height, 17.98 ft); minimum daily, 0.49 cfs Oct. 5.

Period of record: Maximum discharge, 55,000 cfs Dec. 22, 1955 (gage height, 24.57 ft, site and datum then in use), from rating curve extended above 13,000 cfs on basis of slope-area measurement of maximum flow; minimum, 0.4 cfs Sept. 13, 1951.

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	13	2,130	958	234	75	398	115	43	20	6.6	5.9
2	.49	12	3,860	797	218	71	340	133	45	18	6.4	6.1
3	.50	13	13,500	592	198	80	295	124	43	17	5.7	6.1
4	.56	80	12,800	505	187	83	262	112	41	14	5.5	6.4
5	.49	645	3,410	435	181	73	235	103	37	14	5.4	5.7
6	.50	250	1,850	385	175	67	223	90	35	14	5.1	5.4
7	.55	142	1,600	330	169	65	215	93	35	14	5.2	5.1
8	.61	118	1,630	290	160	65	192	88	32	13	4.8	4.8
9	.64	228	1,210	274	151	63	223	88	32	12	4.8	4.5
10	.64	184	867	580	145	63	482	83	32	12	4.6	4.3
11	.64	166	676	724	139	98	262	78	31	12	4.8	3.6
12	.66	152	545	944	133	3,140	219	78	31	12	4.6	3.9
13	.68	114	475	1,530	127	1,390	219	75	29	11	4.5	3.9
14	.69	96	410	1,410	124	1,620	594	71	29	11	4.5	3.9
15	.70	83	958	2,070	124	1,190	350	67	26	10	4.3	3.7
16	.72	71	2,490	14,700	115	797	290	63	25	9.7	4.2	3.8
17	1.0	65	1,720	5,380	112	658	325	61	25	9.7	4.2	3.7
18	1.1	61	1,390	2,330	106	530	262	59	26	9.4	4.2	3.7
19	1.2	59	1,020	1,490	115	455	227	57	25	9.0	4.2	3.7
20	3.4	56	2,190	1,100	100	405	215	53	24	8.7	4.3	3.6
21	12	54	2,240	860	98	360	192	53	24	8.1	4.3	3.4
22	29	53	1,340	718	95	330	178	51	23	8.1	4.3	2.9
23	36	52	888	616	90	658	178	51	23	7.9	4.0	3.5
24	22	76	634	540	85	580	157	49	23	7.6	4.2	4.0
25	24	198	490	480	80	1,430	148	49	22	7.6	4.3	3.9
26	20	489	425	435	75	7,280	142	53	21	7.4	4.2	3.8
27	19	1,350	375	395	88	1,970	133	51	23	7.4	3.9	3.8
28	18	3,580	2,280	355	85	1,120	127	53	24	7.4	3.7	3.8
29	15	1,570	3,590	318	-----	794	124	51	22	7.1	4.9	4.3
30	14	1,820	1,750	286	-----	601	115	49	21	6.4	4.6	5.4
31	13	-----	1,280	254	-----	482	-----	45	-----	6.4	6.1	-----
TOTAL	246.27	11,850	70,023	42,081	3,709	26,593	7,322	2,246	872	331.9	146.4	130.6
MEAN	7.75	395	2,259	1,357	132	858	244	72.5	29.1	10.7	4.72	4.35
MAX	38	3,580	13,500	14,700	234	7,280	594	133	45	20	6.6	6.4
MIN	.49	12	375	254	75	63	115	45	21	6.4	3.7	2.9
AC-FT	477	23,500	138,900	83,470	7,360	52,750	14,520	4,450	1,730	658	290	259

CAL YR 1970 TOTAL 241,567.29 MEAN 662 MAX 17,500 MIN .49 AC-FT 479,100  
WTR YR 1971 TOTAL 165,545.17 MEAN 454 MAX 14,700 MIN .49 AC-FT 328,400

## PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-3	2100	17.98	27,900	3-26	0200	12.51	14,800
1-16	1500	14.98	20,400				

## 11467600 GARCIA RIVER NEAR POINT ARENA, CALIF.

LOCATION.--Lat 38°55'35", long 123°37'45", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.3, T.12 N., R.16 W., Mendocino County, on left bank 0.9 mile downstream from North Fork and 3.5 miles northeast of town of Point Arena.

DRAINAGE AREA.--98.5 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1951-56, and annual maximum, water years 1952-56, August 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 55.31 ft above mean sea level. July 17, 1951, to Jan. 31, 1956, crest-stage only, at site 15 ft upstream at different datum.

AVERAGE DISCHARGE.--9 years, 350 cfs (253,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,700 cfs Dec. 3 (gage height, 13.34 ft), from rating curve extended as explained below; minimum daily, 9.0 cfs Sept. 17-25, 28.

Period of record: Maximum discharge, 28,700 cfs Jan. 4, 1966 (gage height, 16.41 ft), from rating curve extended above 9,600 cfs on basis of slope-area measurement at gage height 15.11 ft; maximum gage-height, 16.48 ft Jan. 23, 1970; minimum daily discharge, 9.0 cfs Sept. 17-25, 28, 1971.

REMARKS.--Records good. No regulation or diversion above station. Record of water temperatures for the current year is published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	17	1,400	743	200	91	418	119	53	29	17	14
2	13	17	2,430	626	190	84	348	126	53	28	17	14
3	13	18	7,650	494	172	98	306	119	53	28	17	13
4	14	78	7,330	409	166	98	270	112	53	26	16	12
5	14	504	2,170	348	158	91	235	108	53	26	16	12
6	14	306	1,390	298	154	84	210	105	50	26	16	12
7	14	171	1,200	258	150	84	195	101	50	25	16	11
8	13	117	1,280	240	143	80	178	98	48	25	15	11
9	13	177	1,160	225	140	77	283	94	46	25	15	11
10	13	171	941	220	133	77	423	94	46	25	15	10
11	13	138	788	255	129	129	288	91	45	25	15	10
12	13	138	680	360	126	3,310	252	91	43	24	15	10
13	13	108	558	582	122	1,540	264	94	43	22	15	10
14	13	87	446	914	119	1,220	381	91	41	22	15	10
15	13	78	643	1,800	119	990	306	91	39	22	14	9.5
16	13	78	1,320	7,450	115	761	282	91	39	22	14	9.5
17	14	68	1,070	5,000	119	608	300	87	34	22	14	9.0
18	14	60	914	2,450	112	494	258	84	32	22	13	9.0
19	14	54	707	1,380	112	430	230	77	34	21	13	9.0
20	18	48	1,020	1,000	108	388	220	74	34	21	13	9.0
21	28	45	1,310	779	105	336	200	71	34	19	13	9.0
22	76	44	932	653	101	264	190	68	32	19	13	9.0
23	45	43	689	574	98	336	186	68	32	19	13	9.0
24	50	61	510	502	91	270	170	65	32	19	13	9.0
25	29	202	395	430	91	1,030	166	65	31	18	12	9.0
26	23	230	318	374	87	4,350	150	65	32	18	12	9.5
27	21	1,170	270	324	98	1,710	143	65	32	18	12	9.5
28	18	2,070	1,040	288	98	1,100	136	62	31	18	12	9.0
29	18	999	2,300	258	-----	797	133	59	31	18	12	10
30	17	1,190	1,350	235	-----	617	129	59	29	18	13	15
31	17	-----	932	220	-----	494	-----	56	-----	18	15	-----
TOTAL	614	8,487	45,143	29,689	3,556	22,038	7,250	2,650	1,205	688	441	313.0
MEAN	19.8	283	1,456	958	127	711	242	85.5	40.2	22.2	14.2	10.4
MAX	76	2,070	7,650	7,450	200	4,350	423	126	53	29	17	15
MIN	13	17	270	220	87	77	129	56	29	18	12	9.0
AC-FT	1,220	16,830	89,540	58,890	7,050	43,710	14,380	5,260	2,390	1,360	875	621
CAL YR 1970	TOTAL	178,059.0	MEAN	488	MAX	14,600	MIN	13	AC-FT	353,200		
WTR YR 1971	TOTAL	122,074.0	MEAN	334	MAX	7,650	MIN	9.0	AC-FT	242,100		

## PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 3	2215	13.34	15,700	3-12	1315	9.97	6,740
1-16	unknown	-	13,200	3-26	0030	10.55	8,070



## NAVARRO RIVER BASIN

11468000 NAVARRO RIVER NEAR NAVARRO, CALIF.

LOCATION.--Lat 39°10'20", long 123°40'06", in SE $\frac{1}{4}$  sec.7, T.15 N., R.16 W., Mendocino County, on right bank 2.9 miles downstream from North Fork, 5.2 miles upstream from mouth, and 6.8 miles west of Navarro.

DRAINAGE AREA.--303 sq mi.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4.79 ft above mean sea level. Prior to Oct. 1, 1969, at site 0.2 mile upstream at datum 1.86 ft higher.

AVERAGE DISCHARGE.--21 years, 533 cfs (386,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,000 cfs Jan. 16 (gage height, 24.00 ft); minimum daily, 5.5 cfs Oct. 3.

Period of record: Maximum discharge, 64,500 cfs Dec. 22, 1955 (gage height, 40.60 ft, site and datum then in use), from rating curve extended above 19,000 cfs on basis of slope-area measurement of maximum flow; minimum, 4.7 cfs Aug. 26, 27, 1959.

Flood in December 1937 reached a stage of 38.2 ft, from floodmarks.

REMARKS.--Records good. No regulation or diversion above station. Record of water temperatures for the current year is published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1445: 1954(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	17	1,800	1,190	327	145	761	178	64	32	15	11
2	5.7	17	3,860	1,160	303	130	613	170	60	31	14	11
3	5.5	17	7,720	847	281	128	532	165	59	29	13	11
4	5.7	32	11,600	703	254	138	469	155	58	29	13	12
5	5.7	210	3,270	626	248	140	411	148	56	28	12	12
6	5.6	308	1,910	554	233	130	383	140	51	27	12	11
7	6.1	213	1,580	500	221	125	375	130	50	26	12	11
8	6.5	131	2,250	451	206	125	335	121	50	24	12	11
9	6.5	105	2,020	423	193	121	315	119	50	24	12	10
10	9.0	128	1,390	431	185	117	590	115	50	24	12	10
11	7.2	116	1,040	563	175	158	447	107	49	24	12	10
12	6.6	119	815	901	168	4,690	379	104	48	25	12	10
13	7.1	108	689	1,430	165	3,080	351	102	47	25	12	9.6
14	7.4	83	590	2,150	160	1,920	363	98	47	25	12	9.6
15	7.8	71	577	3,940	158	1,660	359	92	46	24	12	9.1
16	7.9	67	2,400	11,600	153	1,270	331	89	44	24	11	8.6
17	7.9	59	2,320	8,440	153	1,090	323	85	42	24	11	8.6
18	9.3	53	1,760	3,900	145	842	323	83	39	23	10	8.1
19	9.6	48	1,360	2,560	145	671	323	80	38	21	10	7.6
20	14	46	1,540	1,820	143	550	311	79	38	19	10	8.1
21	20	43	2,310	1,430	138	460	295	76	38	16	10	7.6
22	32	42	1,590	1,170	135	395	278	75	38	16	11	7.6
23	44	42	1,250	959	133	797	267	74	36	16	11	7.6
24	48	44	973	815	125	775	251	73	34	16	11	8.1
25	36	93	793	685	123	1,410	242	71	33	15	11	8.6
26	26	252	667	590	119	7,820	227	71	33	15	11	9.1
27	21	348	577	518	130	3,420	212	74	34	15	11	9.1
28	19	2,600	924	469	153	2,060	200	74	35	14	11	9.1
29	18	1,220	3,180	423	-----	1,470	198	73	35	14	10	11
30	17	1,290	1,880	379	-----	1,170	188	69	33	14	11	11
31	17	-----	1,420	351	-----	932	-----	66	-----	15	12	-----
TOTAL	444.8	7,922	66,055	51,978	5,072	37,939	10,652	3,156	1,335	674	359	288.1
MEAN	14.3	264	2,131	1,677	181	1,224	355	102	44.5	21.7	11.6	9.60
MAX	48	2,600	11,600	11,600	327	7,820	761	178	64	32	15	12
MIN	5.5	17	577	351	119	117	188	66	33	14	10	7.6
AC-FT	882	15,710	131,000	103,100	10,060	75,250	21,130	6,260	2,650	1,340	712	571

CAL YR 1970 TOTAL 295,497.8 MEAN 810 MAX 24,100 MIN 5.3 AC-FT 586,100  
WTR YR 1971 TOTAL 185,874.9 MEAN 509 MAX 11,600 MIN 5.5 AC-FT 368,700

## PEAK DISCHARGE (BASE, 7,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 4	0300	23.97	19,900	3-12	1645	17.22	10,900
1-16	1800	24.00	20,000	3-26	0500	18.39	12,200

## 11468070 SOUTH FORK BIG RIVER NEAR COMPTCHE, CALIF.

LOCATION.--Lat 39°13'47", long 123°27'53", in SW $\frac{1}{4}$  sec.19, T.16 N., R.14 W., Mendocino County, on left bank 250 ft downstream from Daugherty Creek and 7.2 miles east of Comptche.

DRAINAGE AREA.--36.2 sq mi.

PERIOD OF RECORD.--August 1960 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 500 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 55.4 cfs (40,140 acre-ft per year); median of yearly mean discharges, 53 cfs (38,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,150 cfs Dec. 3 (gage height, 10.67 ft); minimum daily, 0.40 cfs Oct. 1.

Period of record: Maximum discharge, 8,200 cfs Dec. 22, 1964 (gage height, 16.30 ft), from rating curve extended above 1,700 cfs on basis of slope-area measurement of maximum flow; minimum, 0.40 cfs Oct. 1, 1970.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	1.8	254	123	34	12	96	18	5.9	3.0	1.5	1.6
2	.48	1.8	518	130	31	11	78	21	5.9	2.9	1.5	1.4
3	.48	2.2	1,650	110	29	14	62	20	5.6	2.8	1.5	1.2
4	.48	9.0	1,200	92	27	15	53	18	5.6	2.8	1.5	1.0
5	.57	29	370	75	26	14	47	18	5.6	2.7	1.5	.90
6	.58	35	206	65	25	12	44	17	5.6	2.6	1.5	.86
7	.59	18	192	55	24	12	42	16	5.6	2.6	1.4	.86
8	.59	11	285	48	23	12	38	15	5.6	2.5	1.4	.86
9	.59	37	250	42	21	11	55	15	4.9	2.5	1.5	.88
10	.59	26	171	62	20	12	53	13	4.6	2.5	1.6	.91
11	.59	23	118	115	19	28	39	13	4.3	2.4	1.6	.94
12	.59	28	88	217	18	808	37	13	4.3	2.4	1.5	.98
13	.59	18	74	285	18	408	36	13	4.0	2.4	1.5	1.0
14	.68	13	59	455	17	346	37	12	3.8	2.3	1.4	1.0
15	.68	11	91	1,020	18	261	32	11	3.8	2.3	1.4	1.0
16	.68	9.9	239	2,260	16	210	33	10	3.8	2.2	1.3	1.0
17	.68	8.2	226	1,100	15	173	36	9.9	3.5	2.1	1.3	1.0
18	.99	7.0	201	557	15	135	32	9.5	3.5	2.0	1.2	1.0
19	.88	5.9	147	352	15	109	30	9.0	3.5	1.9	1.2	1.1
20	3.8	5.2	168	239	13	90	30	8.6	3.5	1.8	1.2	1.1
21	12	4.9	162	177	13	66	27	8.6	3.3	1.8	1.2	1.1
22	8.6	4.6	126	135	13	55	26	8.2	3.3	1.8	1.2	1.1
23	16	4.6	102	106	12	206	26	7.8	3.0	1.7	1.1	1.1
24	9.0	15	84	84	12	158	23	7.0	3.0	1.7	1.1	1.1
25	4.3	47	71	69	11	550	23	7.0	3.3	1.7	1.1	1.1
26	3.0	41	61	58	10	1,050	21	9.5	4.3	1.7	1.0	1.1
27	2.4	179	52	51	14	501	21	8.6	4.0	1.6	1.0	1.0
28	2.2	313	145	45	15	302	19	8.6	3.5	1.6	1.0	1.0
29	2.0	154	264	41	-----	208	19	7.4	3.0	1.6	1.0	1.3
30	2.0	254	178	38	-----	158	18	6.3	3.0	1.5	1.2	2.2
31	2.0	-----	140	37	-----	120	-----	5.9	-----	1.5	1.8	-----
TOTAL	79.01	1,317.1	7,892	8,243	524	6,067	1,133	364.9	126.6	66.9	41.2	32.69
MEAN	2.55	43.9	255	266	18.7	196	37.8	11.8	4.22	2.16	1.33	1.09
MAX	16	313	1,650	2,260	34	1,050	96	21	5.9	3.0	1.8	2.2
MIN	.40	1.8	52	37	10	11	18	5.9	3.0	1.5	1.0	.86
AC-FT	157	2,610	15,650	16,350	1,040	12,030	2,250	724	251	133	82	65

CAL YR 1970 TOTAL 33,817.18 MEAN 92.6 MAX 2,430 MIN .40 AC-FT 67,080  
WTR YR 1971 TOTAL 25,887.40 MEAN 70.9 MAX 2,260 MIN .40 AC-FT 51,350

## PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 3	2315	10.67	3,150	3-12	1130	7.84	1,520
1-16	1145	10.38	2,950	3-25	2300	8.50	1,850

## NOYO RIVER BASIN

11468500 NOYO RIVER NEAR FORT BRAGG, CALIF.

LOCATION.--Lat 39°25'42", long 123°44'12", in NE $\frac{1}{4}$  sec.15, T.18 N., R.17 W., Mendocino County, on right bank 0.7 mile downstream from South Fork and 3.5 miles east of Fort Bragg.

DRAINAGE AREA.--106 sq mi.

PERIOD OF RECORD.--August 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 11.73 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 221 cfs (160,100 acre-ft per year); median of yearly mean discharges, 210 cfs (152,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,080 cfs Dec. 4 (gage height, 19.98 ft); minimum daily, 1.9 cfs Oct. 1.

Period of record: Maximum discharge, 24,000 cfs Dec. 22, 1964 (gage height, 26.30 ft), from rating curve extended above 7,400 cfs on basis of slope-conveyance study; minimum daily, 0.80 cfs Sept. 12, 1968.

REMARKS.--Records good. No regulation or diversion above station. Record of water temperatures for the current year is published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	6.5	850	548	154	78	392	95	41	23	10	12
2	2.1	6.5	1,450	494	144	70	329	100	40	22	9.5	11
3	4.1	8.5	3,430	413	132	82	284	114	40	21	9.5	10
4	2.4	28	4,710	359	124	95	248	98	39	21	9.0	9.5
5	2.6	107	1,390	314	118	91	221	91	38	20	9.0	9.0
6	2.9	86	889	273	114	84	197	87	37	19	8.5	8.0
7	2.4	61	829	233	108	79	183	82	37	19	8.5	7.5
8	2.6	39	952	200	102	78	163	76	37	18	8.0	7.0
9	3.4	109	864	175	95	72	188	75	36	18	8.0	6.5
10	3.6	131	658	236	89	76	317	70	36	18	8.0	6.5
11	3.6	73	506	392	86	212	242	67	35	18	7.5	6.5
12	3.9	80	398	728	82	2,010	212	67	34	17	7.5	6.5
13	4.6	67	329	836	78	1,620	194	67	33	16	7.0	6.5
14	4.9	50	263	1,210	78	1,050	203	63	32	16	7.5	6.5
15	5.1	39	263	2,290	82	868	175	61	31	15	7.5	6.5
16	5.7	35	593	6,750	76	668	165	59	30	15	7.5	6.1
17	6.2	29	756	4,220	73	539	194	55	29	14	7.5	5.7
18	9.5	25	675	2,170	72	428	185	55	27	14	7.5	5.7
19	11	22	536	1,400	73	347	175	54	27	14	7.5	5.7
20	23	20	572	983	67	284	178	53	27	13	7.5	5.7
21	41	18	756	728	65	236	160	51	27	12	8.0	6.1
22	51	18	633	578	63	206	152	51	26	12	8.5	5.3
23	59	18	515	488	63	696	154	50	25	12	8.5	5.3
24	52	53	416	419	61	717	136	48	25	11	8.0	5.3
25	24	288	341	362	61	1,410	134	47	25	11	8.0	5.7
26	14	250	284	314	56	5,210	126	51	30	11	8.0	6.5
27	11	889	245	272	72	1,890	118	50	32	11	7.5	6.5
28	8.5	1,530	389	239	86	1,090	112	47	28	11	8.0	7.0
29	7.7	726	1,160	212	-----	766	106	45	25	11	8.0	9.5
30	7.3	686	885	188	-----	584	100	44	24	11	9.5	15
31	6.9	-----	668	170	-----	470	-----	42	-----	11	12	-----
TOTAL	387.9	5,498.5	27,205	28,194	2,474	22,106	5,743	2,015	953	475	256.5	220.6
MEAN	12.5	183	878	909	88.4	713	191	65.0	31.8	15.3	8.27	7.35
MAX	59	1,530	4,710	6,750	154	5,210	392	114	41	23	12	15
MIN	1.9	6.5	245	170	56	70	100	42	24	11	7.0	5.3
AC-FT	769	10,910	53,960	55,920	4,910	43,850	11,390	4,000	1,890	942	509	438
CAL YR 1970	TOTAL	113,158.9	MEAN	310	MAX	7,250	MIN	1.4	AC-FT	224,500		
WTR YR 1971	TOTAL	95,528.5	MEAN	262	MAX	6,750	MIN	1.9	AC-FT	189,500		

## PEAK DISCHARGE (BASE, 2,400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-4	0130	19.98	9,080	3-12	1515	12.38	3,460
1-16	2000	18.80	7,900	3-26	0330	18.46	7,560

## 11468540 PUDDING CREEK NEAR FORT BRAGG, CALIF.

LOCATION.--Lat 39°27'25", long 123°43'20", in NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.2, T.18 N., R.17 W., Mendocino County, on right bank at old town site of Glenblair, 0.7 mile downstream from Little Valley Creek, and 4.5 miles east of Fort Bragg.

DRAINAGE AREA.--12.5 sq mi.

PERIOD OF RECORD.--October 1963 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 88.92 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 20.8 cfs (15,070 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,220 cfs Mar. 25 (gage height, 6.94 ft); minimum daily, 0.04 cfs Oct. 8-13.

Period of record: Maximum discharge, 2,000 cfs Dec. 21, 1964 (gage height, 8.55 ft); no flow at times.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.43	78	43	7.3	7.9	21	5.8	1.8	.93	.32	.24
2	.07	.49	128	43	6.7	6.2	17	6.7	1.7	.85	.30	.25
3	.07	.85	401	32	6.0	11	15	7.0	1.7	.85	.29	.22
4	.07	3.9	365	26	5.6	12	13	7.0	1.7	.77	.28	.18
5	.07	9.9	113	21	5.6	9.9	11	5.8	1.7	.75	.27	.15
6	.05	6.2	66	18	6.0	8.2	10	5.4	1.8	.70	.27	.15
7	.05	4.4	104	15	5.8	8.2	9.2	4.9	1.7	.65	.27	.21
8	.04	2.8	133	13	5.4	7.6	8.2	4.5	1.6	.65	.23	.23
9	.04	16	86	11	5.2	6.5	18	4.3	1.6	.59	.22	.21
10	.04	10	50	46	4.8	11	26	4.0	1.6	.59	.19	.21
11	.04	6.0	33	68	4.6	50	16	3.8	1.5	.55	.19	.23
12	.04	5.0	24	89	4.4	294	13	4.0	1.5	.55	.19	.23
13	.04	4.0	21	91	4.4	142	12	4.6	1.4	.52	.15	.23
14	.05	3.0	16	143	4.4	88	14	3.9	1.3	.49	.15	.22
15	.05	2.5	23	404	5.4	63	11	3.6	1.3	.49	.15	.21
16	.05	2.3	56	765	4.8	49	11	3.4	1.2	.47	.15	.24
17	.05	2.0	80	325	4.6	38	18	3.0	1.1	.46	.15	.23
18	.05	1.6	59	149	4.6	27	13	2.8	1.1	.43	.14	.27
19	.05	1.5	39	93	5.6	21	11	2.8	1.1	.41	.12	.26
20	.15	1.4	76	60	4.6	17	14	2.6	1.2	.38	.11	.24
21	.75	1.3	106	42	4.4	14	11	2.5	1.2	.37	.09	.23
22	2.0	1.3	61	31	4.4	19	11	2.5	1.1	.36	.11	.24
23	3.9	1.3	41	24	4.4	164	14	2.4	1.1	.36	.12	.27
24	3.2	7.6	29	20	4.2	95	10	2.3	.97	.32	.14	.30
25	1.5	19	22	16	4.4	336	9.2	2.4	1.0	.33	.11	.33
26	.95	14	18	14	3.8	480	8.2	2.9	1.6	.33	.10	.37
27	.65	130	15	12	9.2	137	7.6	2.8	1.6	.35	.07	.38
28	.49	180	45	11	11	72	7.0	2.4	1.3	.34	.07	.38
29	.43	62	99	9.2	-----	48	6.5	2.2	1.1	.35	.06	.47
30	.43	67	63	8.5	-----	36	6.0	2.0	.97	.37	.13	.71
31	.43	-----	47	7.6	-----	26	-----	1.8	-----	.34	.31	-----
TOTAL	15.87	567.77	2,497	2,650.3	151.6	2,304.5	371.9	116.1	41.54	15.90	5.45	8.09
MEAN	.51	18.9	80.5	85.5	5.41	74.3	12.4	3.75	1.38	.51	.18	.27
MAX	3.9	180	401	765	11	480	26	7.0	1.8	.93	.32	.71
MIN	.04	.43	15	7.6	3.8	6.2	6.0	1.8	.97	.32	.06	.15
AC-FT	31	1,130	4,950	5,260	301	4,570	738	230	82	32	11	16

CAL YR 1970 TOTAL 9,562.66 MEAN 26.2 MAX 773 MIN .04 AC-FT 18,970  
WTR YR 1971 TOTAL 8,746.02 MEAN 24.0 MAX 765 MIN .04 AC-FT 17,350

## PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-3	2145	6.35	970	3-25	2200	6.94	1,220
1-15	2145	6.73	1,120				

## TENMILE RIVER BASIN

11468600 MIDDLE FORK TENMILE RIVER NEAR FORT BRAGG, CALIF.

LOCATION.--Lat 39°34'22", long 123°41'57", in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.25, T.20 N., R.17 W., Mendocino County, on right bank 0.8 mile upstream from confluence with North Fork Tenmile River and 10 miles northeast of Fort Bragg.

DRAINAGE AREA.--32.9 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1951-56, 1961. August 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 53.88 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 89.0 cfs (64,480 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,870 cfs Dec. 3 (gage height, 11.11 ft); minimum daily, 1.5 cfs Oct. 1.

Period of record: Maximum discharge, 5,670 cfs Dec. 21, 1964 (gage height, 15.34 ft); minimum daily, 1.3 cfs Sept. 27-30, 1970.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	4.8	329	190	61	32	140	45	19	11	5.4	6.2
2	1.6	4.5	539	165	58	30	118	47	19	10	5.0	5.8
3	1.6	5.3	1,430	140	54	35	103	48	18	10	5.0	5.0
4	1.7	21	1,560	122	51	38	91	44	18	9.8	5.0	4.6
5	1.7	64	630	105	48	36	82	43	17	9.4	5.0	4.2
6	1.7	42	383	92	47	33	74	39	17	9.4	4.6	3.8
7	1.7	29	365	82	45	33	68	36	17	9.0	4.2	3.8
8	1.7	21	410	73	43	32	62	35	16	9.0	4.2	3.4
9	1.6	127	341	66	41	31	88	33	16	9.0	4.2	3.4
10	1.6	72	250	123	39	35	109	32	16	9.0	3.8	3.0
11	1.7	50	186	166	39	137	86	31	16	8.6	3.8	3.0
12	1.7	73	145	216	38	894	76	30	15	8.6	3.8	3.0
13	1.9	39	118	269	36	633	72	31	15	8.2	3.8	2.7
14	2.0	30	96	473	36	386	76	29	15	8.2	3.0	2.1
15	2.0	25	116	994	36	289	65	27	14	7.8	3.4	2.4
16	2.2	22	216	1,850	35	239	68	26	14	7.4	3.0	2.4
17	2.2	19	256	1,320	34	199	94	26	13	7.4	3.0	2.4
18	2.8	17	233	858	33	162	88	25	13	7.4	3.0	2.4
19	2.8	15	165	514	33	137	81	24	13	7.0	3.0	2.4
20	6.5	13	220	342	32	117	80	24	13	6.6	2.7	2.4
21	11	13	265	243	31	102	71	23	13	6.2	2.4	2.4
22	18	12	190	192	32	104	71	23	12	6.2	2.7	3.0
23	22	13	140	159	31	637	79	23	12	5.8	2.7	3.8
24	22	141	105	135	30	485	72	22	12	5.8	2.4	3.4
25	13	223	85	117	29	730	69	22	12	5.8	2.1	3.8
26	8.4	145	69	103	28	1,620	64	23	15	5.8	2.1	9.8
27	6.8	584	58	92	33	718	58	22	14	5.8	2.1	11
28	6.0	722	205	84	34	416	54	21	13	5.8	2.1	7.0
29	5.5	326	445	76	-----	286	51	20	12	5.8	2.1	5.8
30	5.0	303	280	70	-----	214	47	20	11	5.8	3.8	5.0
31	5.0	-----	235	65	-----	170	-----	19	-----	5.8	6.6	-----
TOTAL	164.9	3,175.6	10,065	9,496	1,087	9,010	2,357	913	440	237.4	110.0	123.4
MEAN	5.32	106	325	306	38.8	291	78.6	29.5	14.7	7.66	3.55	4.11
MAX	22	722	1,560	1,850	61	1,620	140	48	19	11	6.6	11
MIN	1.5	4.5	58	65	28	30	47	19	11	5.8	2.1	2.1
AC-FT	327	6,300	19,960	18,840	2,160	17,870	4,680	1,810	873	471	218	245

CAL YR 1970 TOTAL 41,460.4 MEAN 114 MAX 2,340 MIN 1.5 AC-FT 82,240  
WTR YR 1971 TOTAL 37,179.3 MEAN 102 MAX 1,850 MIN 1.5 AC-FT 73,750

## PEAK DISCHARGE (BASE, 900 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	1815	7.98	1,340	3-12	1230	7.58	1,180
12-3	2230	11.11	2,870	3-26	0345	9.71	2,160
1-16	1730	9.50	2,050				

## 11469000 MATTOLE RIVER NEAR PETROLIA, CALIF.

LOCATION.--Lat 40°18'42", long 124°15'48", in NW¼ sec.11, T.2 S., R.2 W., Humboldt County, on right bank 0.2 mile upstream from Clear Creek, 1.5 miles southeast of Petrolia, and 1.7 miles upstream from North Fork.

DRAINAGE AREA.--240 sq mi.

PERIOD OF RECORD.--October 1911 to December 1913, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (from topographic map). November 1911 to December 1913, nonrecording gages at several sites upstream within 0.3 mile of present site at various datums. Dec. 11, 1950, to July 14, 1955, at site 0.3 mile upstream at datum 7.48 ft higher. July 15, 1955, to Oct. 26, 1967, at site 0.4 mile downstream at different datum.

AVERAGE DISCHARGE.--23 years, 1,365 cfs (988,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 46,900 cfs Dec. 3 (gage height, 20.70 ft); minimum daily, 20 cfs Oct. 10-16.

Period of record: Maximum discharge, 90,400 cfs Dec. 22, 1955 (gage height, 29.60 ft, site and datum then in use), from rating curve extended above 24,000 cfs on basis of slope-area measurement of maximum flow; minimum observed, 20 cfs Sept. 1, 2, 15-30, Oct. 27-31, 1913, Sept. 14-18, 25, Oct. 10-16, 1970.

REMARKS.--Records fair. Diversions for irrigation of about 350 acres above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1285: 1912-13.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	81	6,090	3,800	740	595	1,750	578	190	100	55	57
2	22	71	8,110	3,100	690	510	1,510	566	183	96	53	59
3	22	72	27,100	2,490	665	610	1,360	548	176	94	52	65
4	22	892	16,700	2,030	635	700	1,250	512	173	94	49	55
5	22	2,130	8,580	1,670	615	635	1,160	484	170	94	50	48
6	22	1,800	9,100	1,460	595	570	1,070	458	162	90	49	45
7	22	1,250	14,600	1,340	565	580	1,000	438	156	88	47	41
8	21	1,550	10,200	1,300	540	590	929	417	154	88	47	39
9	21	3,300	6,130	1,220	515	545	3,060	406	154	88	47	38
10	20	1,800	4,240	1,620	497	610	3,720	380	154	90	46	37
11	20	1,340	2,900	2,080	483	4,220	2,200	360	148	88	45	37
12	20	1,760	2,110	2,600	470	10,600	1,820	344	145	86	45	36
13	20	1,420	1,760	2,200	456	6,060	1,590	344	142	82	45	36
14	20	1,210	1,470	6,000	443	4,700	1,500	322	137	78	44	34
15	20	1,160	2,140	17,500	452	3,450	1,280	304	134	78	42	34
16	20	1,100	3,490	32,000	429	2,810	1,230	300	128	75	42	34
17	21	985	2,900	17,500	416	2,380	1,390	282	120	75	41	33
18	22	910	2,680	11,000	404	1,900	1,390	274	118	72	41	33
19	24	825	1,400	8,400	447	1,620	1,220	260	116	72	39	32
20	151	720	2,960	6,200	408	1,430	1,170	256	118	70	39	31
21	529	760	4,280	4,400	388	1,290	1,070	247	116	66	39	30
22	593	2,500	3,200	3,400	384	1,390	1,000	238	114	65	41	30
23	650	5,700	2,490	2,570	388	5,520	1,010	230	110	63	40	30
24	663	21,000	1,710	2,200	380	4,600	920	221	108	62	38	31
25	267	12,600	1,310	1,750	392	6,760	856	221	114	62	37	32
26	175	5,440	1,410	1,500	373	15,700	800	234	134	60	38	35
27	130	12,100	1,300	1,290	461	7,380	732	221	131	59	37	38
28	105	9,750	5,210	1,120	605	4,710	697	208	116	59	37	38
29	89	5,080	9,630	1,000	-----	3,170	648	205	108	57	36	82
30	78	5,120	6,890	890	-----	2,440	614	194	104	56	40	287
31	85	-----	5,100	800	-----	1,970	-----	190	-----	55	49	-----
TOTAL	3,918	104,426	177,190	146,430	13,836	100,045	39,946	10,242	4,133	2,362	1,350	1,457
MEAN	126	3,481	5,716	4,724	494	3,227	1,332	330	138	76.2	43.5	48.6
MAX	663	21,000	27,100	32,000	740	15,700	3,720	578	190	100	55	287
MIN	20	71	1,300	800	373	510	614	190	104	55	36	30
AC-FT	7,770	207,100	351,500	290,400	27,440	198,400	79,230	20,320	8,200	4,690	2,680	2,890
CAL YR 1970	TOTAL 669,726		MEAN 1,835		MAX 27,100		MIN 20		AC-FT 1,328,000			
WTR YR 1971	TOTAL 605,335		MEAN 1,658		MAX 32,000		MIN 20		AC-FT 1,201,000			

## PEAK DISCHARGE (BASE, 15,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1815	18.41	36,800	12- 7	1445	13.94	19,600
11-27	1715	13.64	18,700	1-16	unknown	-	35,000
12- 3	1930	20.70	46,900	3-26	0215	14.78	22,300

## EEL RIVER BASIN

11470000 LAKE PILLSBURY NEAR POTTER VALLEY, CALIF.

LOCATION.--Lat 39°24'30", long 122°57'30", on line between secs.14 and 23, T.18 N., R.10 W., Lake County, Mendocino National Forest, at Scott Dam near right bank of Eel River, 0.3 mile downstream from Rice Fork, and 10.2 miles northeast of town of Potter Valley.

DRAINAGE AREA.--289 sq mi.

PERIOD OF RECORD.--October 1922 to September 1928 (daily gage heights only), October 1928 to current year. Monthend contents only for some periods, published in WSP 1315-B. Prior to October 1953, published as "at Hullville."

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 81.7 ft below mean sea level (river-profile survey). Prior to Jan. 26, 1950, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 87,400 acre-ft May 5 (gage height, 1,910.26 ft); minimum, 19,500 acre-ft Nov. 5 (gage height, 1,865.50 ft).

Period of record: Maximum contents, 95,600 acre-ft May 13, 16, 1925 (gage height, 1,910.8 ft); maximum gage height, 1,911.84 ft Dec. 22, 1964, from floodmarks; minimum contents, 10 acre-ft Dec. 9, 10, 1931 (gage height, 1,822.5 ft).

REMARKS.--Reservoir is formed by concrete overflow type dam; storage began in December 1921. Usable capacity, 86,400 acre-ft between gage heights 1,822.4 (sill of outlet gate) and 1,910.0 ft (top of spillway gates); dead storage, 397 acre-ft; spillway at gage height 1,900.0 ft. Water is released down Eel River to Van Arsdale Reservoir, from which it is diverted through tunnel to Potter Valley powerhouse; part is then used for irrigation and remainder flows into East Fork Russian River. Records given herein represent total contents. Record of turbidity data for the current year is published in Part 2 of this report.

COOPERATION.--Record of contents furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission project.

CAPACITY TABLE (GAGE HEIGHT, IN FEET, AND CONTENTS, IN ACRE-FEET)

1,822.4	397	1,840	3,990	1,865	19,100	1,890	48,400
1,824	534	1,845	6,080	1,870	23,500	1,895	56,700
1,827	864	1,850	8,690	1,875	28,700	1,900	65,800
1,830	1,310	1,855	11,800	1,880	34,500	1,905	75,800
1,835	2,410	1,860	15,200	1,885	41,100	1,910	86,800

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36,172	19,927	49,567	67,578	67,383	66,030	76,593	86,922	83,698	76,108	70,723	65,992
2	35,502	19,833	54,222	67,364	67,325	65,953	77,955	87,173	83,475	76,087	70,581	65,762
3	34,829	19,722	72,451	67,208	67,228	65,934	79,244	87,287	83,186	76,023	70,440	65,666
4	34,224	19,620	71,492	67,111	67,131	65,896	80,480	87,310	82,920	76,002	70,300	65,628
5	33,679	19,518	70,239	67,034	67,053	65,857	81,135	87,241	82,632	75,960	70,159	65,189
6	33,103	20,307	69,289	66,956	67,014	65,819	82,190	87,150	82,322	75,876	70,018	64,961
7	32,544	21,609	69,958	66,898	66,956	65,704	83,208	87,082	82,013	75,771	69,878	64,733
8	31,955	21,818	69,998	66,879	66,917	65,647	83,609	87,104	81,705	75,603	69,718	64,468
9	31,349	22,638	68,972	66,937	66,859	65,551	83,675	87,104	81,376	75,435	69,567	64,223
10	30,738	23,542	68,283	67,422	66,879	65,513	83,275	87,150	81,047	75,309	69,468	63,903
11	30,146	23,883	67,871	67,637	66,975	65,953	83,319	87,196	80,720	75,163	69,329	63,603
12	29,560	24,257	67,617	67,559	66,917	75,372	83,230	87,219	80,327	74,995	69,170	63,304
13	28,980	24,287	67,481	67,461	66,840	73,830	83,252	87,241	79,936	74,766	68,972	62,987
14	28,363	24,090	67,305	67,734	66,801	74,121	83,297	87,219	79,525	74,536	68,814	62,653
15	27,730	23,815	68,342	72,165	66,762	73,810	83,275	87,173	79,114	74,308	68,617	62,319
16	27,084	23,487	69,547	77,592	66,685	73,913	83,564	87,059	78,684	74,058	68,460	61,988
17	26,460	23,107	68,028	74,017	66,588	74,162	83,966	86,967	78,254	73,810	68,283	61,657
18	25,876	22,666	67,715	71,920	66,569	74,432	84,167	86,831	77,464	73,562	68,126	61,327
19	25,332	22,239	67,461	70,440	66,473	74,557	84,368	85,945	77,166	73,293	67,949	60,999
20	24,806	21,782	67,481	69,488	66,396	74,870	84,660	85,877	76,848	73,026	67,773	60,654
21	24,277	21,429	67,364	68,834	66,299	75,540	84,839	85,764	76,445	72,779	67,598	60,310
22	23,756	21,276	67,189	68,420	66,280	76,171	85,064	85,651	76,108	72,471	67,442	59,967
23	23,373	21,142	67,072	68,106	66,222	75,016	85,290	85,538	76,066	72,205	67,344	59,608
24	23,079	21,000	66,975	67,871	66,203	74,079	85,628	85,425	75,918	71,940	67,189	59,268
25	22,806	23,240	66,917	67,676	66,126	76,911	85,900	85,357	75,939	71,635	67,034	58,965
26	22,396	27,621	66,917	67,559	66,088	75,855	85,967	84,974	75,981	71,472	66,859	58,698
27	21,973	32,484	66,879	67,500	66,088	74,953	86,262	84,592	76,923	71,370	66,743	58,432
28	21,528	36,798	68,795	67,442	66,222	75,288	86,421	84,480	76,023	71,249	66,608	58,097
29	21,080	40,751	68,814	67,403	-----	75,183	86,603	84,346	76,044	71,147	66,453	57,692
30	20,638	45,141	68,047	67,383	-----	75,183	86,785	84,144	76,044	71,006	66,338	57,290
31	20,203	-----	67,715	67,383	-----	75,540	-----	83,921	-----	70,864	66,145	-----
MAX	36,172	45,141	72,451	77,592	67,383	76,911	86,785	87,310	83,698	76,108	70,723	65,992
MIN	20,203	19,518	49,567	66,879	66,088	65,513	76,593	83,921	75,918	70,864	66,145	57,290
(a)	1,866.36	1,887.84	1,901.01	1,900.84	1,900.24	1,904.86	1,910.00	1,908.73	1,905.10	1,902.59	1,900.20	1,895.37
(b)	-16,600	+24,900	+22,600	-332	-1,160	+9,320	+11,200	-2,860	-7,880	-5,180	-4,720	-8,860

CAL YR 1970 b +720  
WTR YR 1971 b +20,500

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet, rounded to Geological Survey standards.

## 11470500 EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CALIF.

LOCATION.--Lat 39°24'29", long 122°58'13", in SE $\frac{1}{4}$  sec.15, T.18 N., R.10 W., Lake County, Mendocino National Forest, on left bank 0.4 mile upstream from Soda Creek, 0.7 mile downstream from Scott Dam, and 9.7 miles northeast of town of Potter Valley.

DRAINAGE AREA.--290 sq mi.

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1929, published as South Eel River at Hullville, and October 1929 to September 1953 as "at Hullville."

GAGE.--Water-stage recorder. Altitude of gage is 1,740 ft (from topographic map). Prior to Dec. 15, 1930, at datum 3.00 ft higher.

AVERAGE DISCHARGE.--49 years, 547 cfs (396,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 17,400 cfs Jan. 16 (gage height, 16.49 ft); minimum daily, 43 cfs Aug. 23.

Period of record: Maximum discharge, 56,300 cfs Dec. 22, 1964 (gage height, 24.24 ft, from floodmarks), from rating curve extended above 9,400 cfs on basis of computed flow over Scott Dam at gage heights 18.50 and 21.85 ft; minimum daily, 0.1 cfs Sept. 8, 1924.

REMARKS.--Flow regulated by Lake Pillsbury 0.7 mile upstream (see sta 11470000). No diversion above station. Records of water temperatures and turbidity data for the current year are published in Part 2 of this report.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1315-B: 1923(M), 1938(M). WSP 1395: Drainage area. WRD Calif. 1967: 1963-64.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	332	263	99	1,200	972	311	604	320	324	53	68	87
2	332	261	109	1,090	944	302	320	334	327	51	68	97
3	337	259	872	911	872	300	254	357	334	50	68	108
4	337	259	10,200	798	794	294	203	372	341	53	68	113
5	332	166	5,370	720	733	283	467	458	348	55	68	113
6	332	113	3,850	658	694	279	207	479	352	78	69	113
7	332	174	3,340	607	652	279	208	428	352	101	70	120
8	337	199	4,120	577	611	279	467	410	352	101	70	125
9	343	163	3,530	599	576	279	986	384	352	100	70	133
10	341	175	2,270	770	555	279	1,300	369	352	100	70	145
11	337	246	1,650	1,140	600	281	794	369	352	100	69	150
12	337	250	1,310	1,160	749	4,160	790	369	360	122	76	150
13	332	270	1,130	1,090	761	4,270	794	367	362	149	79	156
14	330	288	978	1,050	721	2,040	794	367	362	149	79	170
15	335	296	1,010	3,110	694	1,810	725	364	360	149	79	170
16	337	302	2,420	13,500	648	1,360	562	350	360	148	79	162
17	335	310	1,870	12,100	600	1,100	508	336	362	148	78	162
18	332	318	1,430	8,840	548	930	512	336	364	150	78	162
19	339	316	1,160	5,880	528	863	461	749	309	153	78	162
20	337	314	1,040	4,100	473	701	422	318	269	152	78	162
21	337	316	1,010	2,950	436	419	400	305	267	152	78	162
22	332	318	898	2,230	407	545	382	305	265	152	77	162
23	276	318	782	1,820	384	2,960	341	307	263	152	43	167
24	252	318	705	1,550	364	2,140	273	309	178	150	70	176
25	250	228	640	1,330	352	3,040	294	311	61	150	70	187
26	255	159	618	1,180	334	8,630	320	538	59	92	99	192
27	259	169	596	1,100	331	4,210	313	419	58	57	45	192
28	259	133	937	1,050	324	2,480	311	318	57	57	66	192
29	261	93	3,170	1,010	-----	2,000	305	322	56	56	68	192
30	265	98	2,000	982	-----	1,650	307	324	54	63	77	190
31	263	-----	1,430	986	-----	1,190	-----	324	-----	69	87	-----
TOTAL	9,715	7,092	60,544	76,088	16,657	49,664	14,624	11,618	8,212	3,312	2,242	4,572
MEAN	313	236	1,953	2,454	595	1,602	487	375	274	107	72.3	152
MAX	343	318	10,200	13,500	972	8,630	1,300	749	364	153	99	192
MIN	250	93	99	577	324	279	203	305	54	50	43	87
AC-FT	19,270	14,070	120,100	150,900	33,040	98,510	29,010	23,040	16,290	6,570	4,450	9,070
CAL YR 1970	TOTAL	339,572	MEAN	930	MAX	18,500	MIN	34	AC-FT	673,500		
WTR YR 1971	TOTAL	264,340	MEAN	724	MAX	13,500	MIN	43	AC-FT	524,300		





## 11471500 EEL RIVER AT VAN ARSDALE DAM, NEAR POTTER VALLEY, CALIF.

LOCATION.--Lat 39°23'19", long 123°06'54", in NE $\frac{1}{4}$  sec.30, T.18 N., R.11 W., Mendocino County, on left bank 1,000 ft downstream from Van Arsdale Dam and 4.6 miles north of town of Potter Valley.

DRAINAGE AREA.--349 sq mi.

PERIOD OF RECORD.--November 1909 to September 1922 (combined monthly discharge only, of Eel River at this station and Snow Mountain Water and Power Co.'s tailrace near Potter Valley), October 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1929, published as South Eel River at Van Arsdale Dam, near Potter Valley.

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (from topographic map). Nov. 18, 1909, to Mar. 3, 1927, recorder in reservoir 800 ft upstream from Van Arsdale Dam at different datum. Oct. 1, 1927, to Feb. 28, 1937, nonrecording gage at present site and datum.

AVERAGE DISCHARGE (combined flow of Eel River at Van Arsdale Dam and Potter Valley powerhouse tailrace).--62 years (1909-71), 638 cfs (462,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 22,400 cfs Jan. 16 (gage height, 21.12 ft); minimum daily, 0.63 cfs Nov. 15.  
Period of record: Maximum discharge, 64,100 cfs Dec. 22, 1964 (gage height, 33.9 ft from floodmarks); no flow at times.

REMARKS.--Flow regulated by Lake Pillsbury 11 miles upstream (see sta 11470000). Water is diverted from Van Arsdale Reservoir through tunnel to Potter Valley powerhouse (see sta 11471000) after which part is used for irrigation and remainder flows into East Fork Russian River. Records given herein show only flow passing dam down Eel River.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1315-B: 1913, 1920-23, 1925-27. WSP 1395: 1923(M), 1938.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.95	509	1,170	724	28	616	52	5.3	2.2	4.0	9.4
2	1.0	1.1	899	1,010	680	20	190	69	6.5	2.2	4.0	7.0
3	1.3	3.7	3,310	776	605	18	130	85	4.3	2.2	4.0	2.8
4	1.4	19	12,900	621	509	16	46	93	3.3	2.2	4.0	2.8
5	1.3	97	5,740	504	438	4.4	277	141	3.5	2.8	4.0	2.8
6	1.5	2.8	3,770	419	392	3.8	29	182	8.6	4.1	4.0	2.8
7	1.4	1.2	3,100	353	345	6.1	21	141	6.5	3.5	4.1	2.8
8	.89	1.3	3,880	313	298	4.6	147	120	5.9	2.7	4.1	2.8
9	1.2	143	3,350	317	259	4.6	736	101	4.8	2.5	4.1	2.8
10	1.3	4.8	2,170	542	236	6.3	1,380	79	4.1	2.5	4.1	2.8
11	1.4	14	1,560	1,010	256	46	713	76	3.5	2.7	4.1	2.7
12	1.5	31	1,200	1,060	383	4,800	696	76	3.3	2.9	4.0	2.6
13	1.5	1.3	978	1,020	438	4,990	642	71	6.3	6.3	4.0	2.6
14	1.1	.95	800	978	388	2,030	548	69	6.3	8.3	4.0	8.6
15	.75	.63	837	3,470	362	1,800	494	61	6.8	5.3	4.0	29
16	.95	.80	2,270	17,600	333	1,350	317	54	18	3.7	4.0	13
17	1.1	.80	1,790	15,000	280	1,080	277	39	3.7	3.7	35	6.8
18	1.1	12	1,350	10,300	218	830	256	39	8.6	3.7	4.1	7.0
19	1.3	24	1,050	6,330	209	724	221	424	6.3	3.8	6.8	8.3
20	6.5	17	899	3,920	162	571	177	22	2.8	4.4	9.4	7.2
21	8.3	2.0	874	2,780	130	277	157	3.8	2.8	4.8	9.4	7.5
22	4.1	5.0	730	2,080	108	266	134	3.3	2.9	4.3	9.4	12
23	62	35	582	1,690	85	2,410	118	3.8	3.7	3.8	34	6.8
24	3.5	130	473	1,400	66	2,030	39	3.0	9.1	3.7	2.6	5.7
25	1.1	157	383	1,180	55	2,790	42	6.5	2.9	3.7	2.8	6.5
26	.89	22	353	1,010	42	9,770	69	201	3.8	3.5	11	21
27	1.1	448	333	912	43	4,610	60	280	3.0	22	17	29
28	1.2	818	945	843	36	2,500	57	15	2.6	4.8	4.0	21
29	1.2	306	3,310	782	-----	1,960	54	7.5	2.2	2.2	6.1	12
30	1.1	669	2,070	741	-----	1,620	46	56	2.2	4.0	6.3	12
31	1.3	-----	1,440	736	-----	1,170	-----	3.3	-----	4.0	6.8	-----
TOTAL	115.58	2,969.33	63,855	80,867	8,080	47,735.8	8,689	2,577.2	153.6	132.5	229.2	260.1
MEAN	3.73	99.0	2,060	2,609	289	1,540	290	83.1	5.12	4.27	7.39	8.67
MAX	62	818	12,900	17,600	724	9,770	1,380	424	18	22	35	29
MIN	.75	.63	333	313	36	3.8	21	3.0	2.2	2.2	2.6	2.6
AC-FT	229	5,890	126,700	160,400	16,030	94,680	17,230	5,110	305	263	455	516
CAL YR 1970	TOTAL	313,461.11	MEAN	859	MAX	22,600	MIN	.63	AC-FT	621,800		
WTR YR 1971	TOTAL	215,664.31	MEAN	591	MAX	17,600	MIN	.63	AC-FT	427,800		

## EEL RIVER BASIN

11472150 EEL RIVER NEAR DOS RIOS, CALIF.

LOCATION.--Lat 39°37'30", long 123°20'25", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.32, T.21 N., R.13 W., Mendocino County, on left bank 1,100 ft upstream from Outlet Creek, and 6.3 miles south of Dos Rios.

DRAINAGE AREA.--528 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,001.28 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 1,155 cfs (836,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 45,500 cfs Jan. 16 (gage height, 25.61 ft), from rating curve extended above 14,000 cfs; minimum daily, 1.8 cfs Oct. 7, 8.  
 Period of record: Maximum discharge, 61,600 cfs Jan. 23, 1970 (gage height, 30.35 ft), from rating curve extended above 14,000 cfs; minimum daily, 1.8 cfs Oct. 7, 8, 1970.  
 Flood of Dec. 22, 1964, reached a stage of 45.52 ft, from information by local resident (discharge, 120,000 cfs).

REMARKS.--Records good. Flow partly regulated by Lake Pillsbury 40 miles upstream (see sta 11470000) and by diversion through Potter Valley powerhouse (see sta 11471000). Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	5.4	3,090	2,080	1,100	172	1,670	208	68	25	9.5	14
2	2.6	5.4	4,870	1,910	1,050	147	907	233	64	25	8.4	14
3	2.2	5.9	16,600	1,510	978	142	741	295	64	24	9.5	13
4	2.2	41	23,300	1,280	882	156	498	268	59	24	9.5	17
5	2.2	361	9,860	1,110	785	142	570	255	55	22	9.5	13
6	2.0	463	6,240	990	725	114	445	345	53	22	9.5	10
7	1.8	242	5,080	888	660	103	335	330	51	21	9.5	9.0
8	1.8	133	6,370	813	595	103	277	268	51	21	9.0	8.4
9	2.0	1,040	5,550	785	562	100	1,170	255	51	19	9.0	8.4
10	2.0	560	3,660	996	508	103	2,400	216	49	18	8.4	8.4
11	2.2	302	2,600	1,770	495	886	1,330	196	47	18	7.9	8.4
12	2.4	450	2,030	2,110	540	10,600	1,210	189	45	17	8.4	8.4
13	2.4	236	1,680	1,920	710	9,350	1,170	185	43	17	8.4	8.4
14	2.6	142	1,440	2,570	655	4,120	1,110	173	41	16	8.4	8.4
15	2.6	105	1,720	11,600	630	3,460	994	166	41	16	8.4	8.4
16	2.6	85	4,090	36,300	590	2,660	809	152	41	15	8.4	7.9
17	2.6	70	3,410	27,600	562	2,320	823	138	51	15	7.9	22
18	3.4	56	2,510	16,300	463	1,820	721	122	37	14	10	20
19	3.4	49	1,960	9,710	445	1,520	643	345	33	14	27	12
20	8.2	65	1,780	6,270	401	1,310	552	237	31	14	13	11
21	21	58	1,860	4,430	345	935	504	97	33	13	10	11
22	43	47	1,590	3,330	295	618	439	77	29	12	10	11
23	49	41	1,340	2,690	266	4,030	474	72	26	12	12	12
24	108	1,160	1,170	2,250	232	3,420	350	70	27	12	20	12
25	43	1,970	1,030	1,890	203	5,830	273	68	27	12	25	16
26	21	1,120	942	1,640	181	18,200	277	70	37	11	13	12
27	13	3,890	918	1,440	172	8,470	282	486	39	10	10	12
28	8.9	5,570	2,390	1,340	181	4,640	255	141	35	10	9.0	22
29	7.6	2,630	6,040	1,250	-----	3,330	242	92	33	19	21	37
30	5.9	3,370	3,730	1,170	-----	2,790	221	72	27	15	13	43
31	5.4	-----	2,550	1,130	-----	2,240	-----	110	-----	12	12	-----
TOTAL	379.9	24,272.7	131,400	151,072	15,211	93,831	21,692	5,931	1,288	515	354.6	418.1
MEAN	12.3	809	4,239	4,873	543	3,027	723	191	42.9	16.6	11.4	13.9
MAX	108	5,570	23,300	36,300	1,100	18,200	2,400	486	68	25	27	43
MIN	1.8	5.4	918	785	172	100	221	68	26	10	7.9	7.9
AC-FT	754	48,140	260,600	299,700	30,170	186,100	43,030	11,760	2,550	1,020	703	829

CAL YR 1970 TOTAL 576,946.3 MEAN 1,581 MAX 45,000 MIN 1.8 AC-FT 1,144,000  
 WTR YR 1971 TOTAL 446,365.3 MEAN 1,223 MAX 36,300 MIN 1.8 AC-FT 885,400

## 11472200 OUTLET CREEK NEAR LONGVALE, CALIF.

LOCATION.--Lat 39°37'05", long 123°21'20", in NE¼ sec.1, T.20 N., R.14 W., Mendocino County, on right bank 0.2 mile downstream from Bloody Run Creek, 0.9 mile upstream from mouth, and 6.9 miles northeast of Longvale.

DRAINAGE AREA.--161 sq mi.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,018.14 ft above mean sea level.

AVERAGE DISCHARGE.--15 years, 447 cfs (323,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 16,400 cfs Jan. 16 (gage height, 15.73 ft); minimum daily, 0.78 cfs Oct. 1-5.

Period of record: Maximum discharge, 77,900 cfs Dec. 22, 1964 (gage height, 30.6 ft, from floodmarks), from rating curve extended above 9,900 cfs on basis of slope-area measurement of maximum flow; no flow Aug. 15-17, 1959, Sept. 14, 15, 1967.

REMARKS.--Records good. No regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1929: 1958(M), 1960.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	2.9	2,360	770	198	122	427	114	36	11	2.3	3.5
2	.78	2.8	3,850	660	178	106	361	137	34	9.8	2.3	2.8
3	.78	2.9	10,100	544	158	128	309	187	34	9.3	2.3	2.5
4	.78	98	7,350	467	148	178	261	163	32	8.8	2.3	2.3
5	.78	480	3,460	428	139	148	230	133	31	8.3	2.3	2.1
6	.91	319	2,050	380	135	116	208	114	29	7.5	2.1	1.9
7	.95	178	1,500	340	128	100	211	102	28	7.1	2.1	1.9
8	.95	194	1,850	305	122	90	184	95	26	7.1	2.1	1.9
9	.95	1,460	1,630	281	116	83	641	90	25	6.7	2.1	1.9
10	.95	498	1,000	541	110	106	807	84	24	6.7	2.1	1.9
11	.95	534	676	1,010	104	1,040	464	78	23	6.3	2.1	1.8
12	1.0	650	538	1,170	100	7,010	339	72	21	6.3	2.3	1.8
13	1.1	272	469	943	99	3,450	291	71	21	6.3	2.3	1.8
14	1.1	160	423	2,100	95	2,310	481	69	20	5.9	2.1	1.6
15	1.1	114	700	7,850	97	1,510	354	65	19	5.5	1.9	1.6
16	1.1	116	1,410	13,100	97	1,020	339	60	17	5.1	1.9	1.6
17	1.2	88	1,200	8,060	93	883	514	57	17	4.7	1.9	1.6
18	1.7	71	920	4,300	86	637	423	56	15	4.3	1.6	1.5
19	1.8	59	735	2,260	97	493	324	53	15	4.3	1.6	1.5
20	3.4	50	660	1,350	93	406	288	49	15	3.9	1.5	1.4
21	5.9	44	665	832	86	347	261	48	14	3.9	1.5	1.4
22	15	40	580	641	81	328	230	44	13	3.5	1.5	1.3
23	33	94	490	531	81	2,430	284	41	12	3.1	1.5	1.3
24	38	1,840	430	452	78	1,240	227	41	12	3.1	1.5	1.3
25	18	1,760	370	395	76	4,470	195	40	12	2.8	1.4	1.3
26	8.6	880	338	350	71	7,160	170	42	12	2.5	1.4	1.4
27	5.7	3,900	330	317	74	2,950	153	44	13	2.5	1.3	1.4
28	4.3	3,760	920	284	106	1,540	142	46	14	2.5	1.3	1.6
29	3.4	2,240	2,100	261	-----	873	131	45	13	2.5	1.3	2.5
30	3.0	2,510	1,420	237	-----	641	122	41	12	2.5	1.5	7.9
31	2.9	-----	948	217	-----	514	-----	38	-----	2.3	2.5	-----
TOTAL	160.86	22,417.6	51,472	51,376	3,046	42,429	9,371	2,319	609	166.1	57.9	60.3
MEAN	5.19	747	1,660	1,657	109	1,369	312	74.8	20.3	5.36	1.87	2.01
MAX	38	3,900	10,100	13,100	198	7,160	807	187	36	11	2.5	7.9
MIN	.78	2.8	330	217	71	83	122	38	12	2.3	1.3	1.3
AC-FT	319	44,470	102,100	101,900	6,040	84,160	18,590	4,600	1,210	329	115	120
CAL YR 1970	TOTAL	226,982.68	MEAN	622	MAX	14,400	MIN	.70	AC-FT	450,200		
WTR YR 1971	TOTAL	183,484.76	MEAN	503	MAX	13,100	MIN	.78	AC-FT	363,900		

## PEAK DISCHARGE (BASE, 7,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	1730	12.14	10,000	3-12	1045	13.26	11,800
12- 3	2045	15.71	16,300	3-25	2200	14.14	13,300
1-16	1630	15.73	16,400				

## EEL RIVER BASIN

## 11472900 BLACK BUTTE RIVER NEAR COVELO, CALIF.

Location.--Lat 39°49'15", long 123°04'50", in SE¼ sec.28 (revised), T.23 N., R.11 W., Mendocino County, on right bank 10 ft upstream from highway bridge, 0.5 mile upstream from mouth, and 9.5 miles east of Covelo.

DRAINAGE AREA.--162 sq mi.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1951-56 and annual maximum, water years 1954-57, October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,456.71 ft above mean sea level. Sept. 10, 1953, to Sept. 30, 1957, crest-stage gage only at same site at different datum. Oct. 1, 1958, to Dec. 22, 1964, water-stage recorder at site 0.1 mile upstream at same datum.

AVERAGE DISCHARGE.--13 years, 316 cfs (228,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,530 cfs Dec. 3 (gage height, 19.79 ft); minimum daily, 2.5 cfs Oct. 1-9.

Period of record: Maximum discharge, 29,000 cfs Dec. 22, 1964 (gage height, 26.4 ft, from floodmarks, site then in use), from rating curve extended above 13,000 cfs on basis of slope-area measurement of maximum flow; minimum (1958 to current year), 1.2 cfs Sept. 11, 1959.

Flood of Dec. 11, 1937, reached a stage of 36.2 ft, from floodmarks at crest-stage site (discharge, 26,000 cfs).

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1715: 1959(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	7.5	856	284	695	200	665	307	156	51	13	8.5
2	2.5	7.5	832	263	685	193	635	298	152	48	13	8.5
3	2.5	7.3	3,130	226	630	208	615	295	144	44	13	8.5
4	2.5	42	2,450	226	570	218	605	286	138	43	13	8.1
5	2.5	221	630	221	534	195	595	304	132	42	12	7.8
6	2.5	202	518	226	534	188	555	301	126	39	12	7.4
7	2.5	139	1,040	210	522	190	542	301	125	39	11	7.1
8	2.5	85	928	170	502	185	510	310	119	37	11	6.7
9	2.5	479	518	210	486	180	610	295	113	36	10	6.7
10	2.6	273	273	574	502	180	600	298	107	36	9.5	6.4
11	2.6	226	210	544	595	280	466	307	101	33	12	6.4
12	2.6	479	182	440	650	2,510	438	304	97	32	11	6.4
13	2.6	174	174	378	645	796	470	304	93	30	10	6.0
14	2.6	104	163	357	620	655	490	283	89	29	9.2	6.0
15	2.6	80	305	1,590	650	585	478	268	87	28	8.8	5.7
16	2.6	66	531	5,170	570	640	466	259	84	26	8.8	5.4
17	2.6	57	336	3,530	421	645	450	235	80	24	8.5	5.1
18	3.3	33	289	2,500	343	575	403	226	77	23	8.1	4.8
19	3.7	30	252	1,550	310	542	373	223	76	23	8.1	4.5
20	7.0	28	252	1,230	280	538	379	218	72	23	7.8	4.5
21	14	25	247	1,010	268	530	346	210	69	22	7.8	4.8
22	21	25	215	883	259	560	340	200	64	20	7.8	4.8
23	22	33	210	766	244	1,460	364	200	61	19	7.8	4.8
24	28	236	210	670	238	946	334	198	60	18	7.8	4.8
25	16	904	206	595	247	1,810	316	200	58	17	7.8	4.8
26	12	574	221	518	218	2,880	304	198	76	17	7.4	5.1
27	10	1,270	226	526	220	1,100	298	180	74	15	7.1	6.4
28	8.9	892	459	555	208	869	298	198	63	15	7.1	6.7
29	8.3	740	702	585	-----	808	307	180	57	14	6.7	11
30	7.8	996	305	615	-----	784	304	173	54	14	7.4	21
31	7.8	-----	273	685	-----	718	-----	162	-----	14	8.5	-----
TOTAL	213.1	8,435.3	17,143	27,307	12,646	22,168	13,556	7,721	2,804	871	293.0	204.7
MEAN	6.87	281	553	881	452	715	452	249	93.5	28.1	9.45	6.82
MAX	28	1,270	3,130	5,170	695	2,880	665	310	156	51	13	21
MIN	2.5	7.3	163	170	208	180	298	162	54	14	6.7	4.5
AC-FT	423	16,730	34,000	54,160	25,080	43,970	26,890	15,310	5,560	1,730	581	406

CAL YR 1970 TOTAL 159,007.3 MEAN 436 MAX 10,100 MIN 1.9 AC-FT 315,400  
WTR YR 1971 TOTAL 113,362.1 MEAN 311 MAX 5,170 MIN 2.5 AC-FT 224,900

## PEAK DISCHARGE (BASE, 5,500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 3	2145	19.79	7,530	3-12	1330	19.20	6,050
1-16	1500	19.62	7,100	3-26	0100	19.75	7,430

## 11473700 MILL CREEK NEAR COVELO, CALIF.

LOCATION.--Lat 39°44'57", long 123°10'48", in NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.22, T.22 N., R.12 W., Mendocino County, on left bank at downstream side of county road bridge, 0.9 mile downstream from Turner Creek, and 4.6 miles southeast of Covelo.

DRAINAGE AREA.--95.6 sq mi.

PERIOD OF RECORD.--September 1956 to September 1971 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (from topographic map). Prior to Oct. 1, 1969, at site 0.6 mile downstream at different datum.

AVERAGE DISCHARGE.--15 years, 169 cfs (122,400 acre-ft per year); median of yearly mean discharges, 140 cfs (101,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,740 cfs Jan. 15 (gage height, 19.29 ft); no flow for many days. Period of record: Maximum discharge, 24,100 cfs Dec. 22, 1964 (gage height, 20.97 ft, site and datum then in use), from rating curve extended above 2,300 cfs on basis of slope-area measurement at gage heights 14.50 and 20.97 ft; no flow for several months in each year.

REMARKS.--Records fair. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1,160	370	120	44	209	51	10	1.5	.05	
2		0	2,160	340	106	38	179	50	11	1.4	.05	
3		0	4,500	305	96	48	165	53	8.8	1.3	.05	
4		0	5,450	250	92	53	148	53	10	.87	.05	
5		14	2,950	205	88	43	135	44	8.4	.87	.05	
6		53	1,520	156	86	38	125	40	7.5	.87	.02	
7		20	1,450	130	77	36	125	35	7.1	.53	.02	
8		4.3	1,410	130	68	38	114	31	6.2	.53	.02	
9		347	990	116	63	35	188	30	6.7	.23	.02	
10		68	750	230	59	36	245	26	6.2	.17	.02	
11		80	475	335	56	143	143	24	6.7	.15	.02	
12		130	318	455	56	4,070	125	22	5.8	.15	.02	
13		34	264	434	51	910	125	21	5.4	.15	.02	
14		14	210	946	50	616	130	20	5.8	.15	.02	
15		4.5	240	4,640	53	431	106	18	5.4	.15	.02	
16		2.0	580	7,730	48	396	102	17	4.0	.11	.05	
17		.87	465	3,530	44	361	138	17	3.8	.11	.05	
18		.20	362	1,700	40	272	112	18	3.3	.09	.05	
19		.07	298	964	48	230	96	16	3.3	.09	.05	
20		.02	295	612	43	200	90	14	3.3	.11	.02	
21		.01	272	448	40	179	90	14	2.6	.17	.05	
22		0	245	364	42	170	84	13	2.4	.17	.05	
23		0	220	311	40	1,260	94	13	2.4	.15	.02	
24		515	192	275	36	434	82	12	2.1	.15	.02	
25		441	172	239	35	2,740	78	12	2.4	.11	.01	
26		191	172	212	34	4,290	72	13	3.8	.09	0	
27		1,910	164	188	44	1,150	66	13	4.0	.09	0	
28		1,610	350	165	51	589	62	19	2.9	.09	0	
29		832	840	148	-----	410	57	13	2.4	.05	0	
30		1,400	575	140	-----	314	53	11	2.0	.05	0	
31		-----	425	130	-----	251	-----	10	-----	.05	0	-----
TOTAL	0	7,670.97	29,474	26,198	1,666	19,825	3,538	743	155.7	10.70	.82	0
MEAN	0	256	951	845	59.5	640	118	24.0	5.19	.35	.027	0
MAX	0	1,910	5,450	7,730	120	4,290	245	53	11	1.5	.05	0
MIN	0	0	164	116	34	35	53	10	2.0	.05	0	0
AC-FT	0	15,220	58,460	51,960	3,300	39,320	7,020	1,470	309	21	1.6	0

CAL YR 1970 TOTAL 109,878.64 MEAN 301 MAX 9,800 MIN 0 AC-FT 217,900  
WTR YR 1971 TOTAL 89,282.19 MEAN 245 MAX 7,730 MIN 0 AC-FT 177,100

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	1745	15.66	5,030	3-12	1215	18.07	8,000
12-4	unknown	18.60	8,740	3-26	0100	18.56	8,680
1-15	2230	19.29	9,740				

NOTE.--No gage-height record Dec. 1 to Jan. 9.

## EEL RIVER BASIN

11473800 ELK CREEK NEAR HEARST, CALIF.

LOCATION.--Lat 39°38'50", long 123°07'13", in NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.30, T.21 N., R.11 W., Mendocino County, on left bank 900 ft upstream from small left-bank tributary and 13.5 miles northeast of Hearst.

DRAINAGE AREA.--84.1 sq mi.

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,197.2 ft above mean sea level (levels by Topographic Division). Prior to Nov. 6, 1969, at site 600 ft downstream at same datum.

AVERAGE DISCHARGE.--7 years, 228 cfs (165,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,580 cfs Dec. 4 (gage height, 18.56 ft), from rating curve extended above 2,500 cfs as explained below; minimum daily, 0.92 cfs Oct. 15.

Period of record: Maximum discharge, 25,000 cfs Dec. 22, 1964 (gage height, 22.2 ft, present site, from floodmarks), from rating curve extended above 9,900 cfs on basis of slope-area measurement at gage height 22.2 ft, present site; minimum daily, 0.10 cfs Sept. 24 to Oct. 11, 1964.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended-sediment discharges for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	6.6	517	333	104	14	440	132	52	15	3.7	2.0
2	1.1	7.1	787	310	106	13	400	132	50	14	3.6	1.9
3	1.1	8.4	3,420	274	95	14	360	120	48	13	3.4	1.9
4	1.1	60	4,220	251	79	14	330	111	45	12	3.4	1.9
5	1.1	204	2,230	232	64	12	310	113	45	12	3.3	1.8
6	1.1	169	1,400	216	60	11	300	122	44	12	3.1	1.7
7	1.2	81	1,320	204	54	9.6	300	134	42	11	2.9	1.7
8	1.3	34	1,300	197	44	9.2	241	132	44	10	2.9	1.7
9	1.2	226	963	200	39	8.8	440	122	42	10	3.0	1.6
10	1.3	125	598	278	37	7.9	570	118	40	9.6	3.0	1.5
11	1.3	75	421	302	55	37	320	113	39	9.6	3.0	1.5
12	1.2	128	274	278	71	3,230	270	113	37	9.6	2.8	1.5
13	1.3	62	229	264	73	1,760	270	109	35	9.2	2.5	1.5
14	1.2	39	172	369	68	889	285	98	34	8.4	2.3	1.5
15	.92	32	232	2,530	68	592	220	91	33	7.6	2.1	1.5
16	1.2	26	528	6,680	57	437	216	85	30	7.2	2.1	1.4
17	1.3	24	421	4,440	46	382	300	80	27	6.8	2.0	1.4
18	1.5	23	315	2,930	37	254	232	76	26	6.4	2.0	1.4
19	1.6	22	264	1,460	34	216	202	75	26	5.8	1.9	1.3
20	4.9	20	264	823	28	188	190	71	24	5.8	1.9	1.3
21	9.6	17	251	725	25	160	174	68	22	5.8	1.9	1.2
22	12	17	216	512	22	154	174	65	21	5.8	1.8	1.2
23	14	18	188	360	21	750	183	62	20	5.8	1.8	1.1
24	21	85	166	251	20	598	165	60	20	5.7	1.8	1.0
25	12	286	151	194	19	1,600	168	62	19	5.2	1.6	1.0
26	9.2	238	151	160	16	4,030	150	62	20	5.0	1.6	1.1
27	7.9	882	140	140	17	2,300	145	61	20	4.7	1.6	1.2
28	6.6	1,100	411	135	16	1,240	159	66	19	4.5	1.6	1.3
29	6.6	453	765	130	-----	801	143	60	17	4.3	1.7	1.5
30	6.6	630	464	108	-----	617	145	54	15	4.0	1.7	4.4
31	6.6	-----	373	104	-----	548	-----	52	-----	4.0	2.1	-----
TOTAL	140.12	5,098.1	23,151	25,390	1,375	20,896.5	7,802	2,819	956	249.8	74.1	47.0
MEAN	4.52	170	747	819	49.1	674	260	90.9	31.9	8.06	2.39	1.57
MAX	21	1,100	4,220	6,680	106	4,030	570	134	52	15	3.7	4.4
MIN	.92	6.6	140	104	16	7.9	143	52	15	4.0	1.6	1.0
AC-FT	278	10,110	45,920	50,360	2,730	41,450	15,480	5,590	1,900	495	147	93

CAL YR 1970 TOTAL 108,883.66 MEAN 298 MAX 8,350 MIN .50 AC-FT 216,000  
WTR YR 1971 TOTAL 87,998.62 MEAN 241 MAX 6,680 MIN .92 AC-FT 174,500

## PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-4	0015	18.56	8,580	3-12	1130	17.75	6,280
1-16	1630	18.51	8,430	3-26	0030	18.01	6,930

## 11473900 MIDDLE FORK EEL RIVER NEAR DOS RIOS, CALIF.

LOCATION.--Lat 39°42'23", long 123°19'27", in NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.5, T.21 N., R.13 W., Mendocino County, on right bank 0.6 mile upstream from Eastman Creek, 1.7 miles southeast of Dos Rios, and 1.9 miles upstream from mouth.

DRAINAGE AREA.--745 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 901.58 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 1,905 cfs (1,380,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 59,900 cfs Jan. 16 (gage height, 23.61 ft); minimum daily, 7.2 cfs Oct. 8-11, 17.

Period of record: Maximum discharge, 90,500 cfs Jan. 23, 1970 (gage height, 27.15 ft); minimum daily, 5.8 cfs Sept. 14-16, 1970.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1967: 1966.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	33	5,140	2,440	2,540	797	3,180	2,090	779	184	38	23
2	7.9	33	7,400	2,450	2,520	743	2,840	2,040	725	173	37	23
3	7.9	33	19,100	1,930	2,270	779	2,590	1,960	664	165	35	22
4	7.9	64	27,100	1,720	1,950	870	2,460	1,900	648	153	34	22
5	7.9	1,110	9,440	1,600	1,690	752	2,460	2,080	648	146	32	21
6	7.9	1,240	8,330	1,470	1,600	680	2,520	1,960	672	139	31	20
7	7.9	1,020	9,920	1,360	1,500	664	2,460	1,980	672	133	31	19
8	7.2	508	11,300	1,340	1,390	664	2,160	2,080	672	126	30	19
9	7.2	3,980	7,830	1,380	1,300	616	2,270	1,950	664	119	29	18
10	7.2	3,070	4,680	2,800	1,290	592	4,520	1,980	616	116	28	18
11	7.2	1,570	3,240	4,550	1,840	1,170	3,200	2,040	592	110	28	18
12	7.9	2,400	2,480	3,800	2,760	20,200	2,800	2,090	544	105	29	18
13	7.9	1,300	2,050	3,150	2,990	9,470	2,760	2,090	506	99	27	17
14	7.9	800	1,750	4,020	2,780	5,020	3,150	1,830	478	93	24	16
15	7.9	550	1,940	14,200	2,700	3,790	3,050	1,680	450	88	23	16
16	7.9	442	5,840	43,300	2,490	3,220	2,960	1,560	438	83	22	15
17	7.2	358	3,720	33,200	2,160	3,590	3,160	1,370	426	78	21	15
18	9.3	285	2,790	26,500	1,830	2,800	2,830	1,260	385	73	21	14
19	11	240	2,320	13,700	1,680	2,490	2,680	1,230	358	71	20	13
20	20	202	2,150	8,770	1,440	2,320	2,640	1,180	336	66	20	13
21	34	182	2,260	6,140	1,290	2,170	2,520	1,140	306	66	20	13
22	59	170	1,960	4,800	1,170	2,010	2,330	1,060	281	60	20	13
23	89	206	1,740	4,000	1,090	9,930	2,510	1,070	261	58	20	13
24	194	2,570	1,580	3,450	990	7,940	2,270	1,130	241	55	20	13
25	128	7,090	1,390	3,050	1,040	9,930	2,080	1,200	227	51	20	13
26	74	4,860	1,320	2,760	900	32,700	1,960	1,170	261	49	20	13
27	54	7,600	1,340	2,550	900	10,300	1,930	1,010	311	47	19	14
28	47	9,530	2,810	2,320	870	6,860	2,000	1,140	251	44	18	15
29	42	4,240	7,330	2,240	-----	5,520	2,060	1,080	218	43	18	19
30	38	6,130	3,360	2,280	-----	4,700	2,040	1,030	196	41	19	30
31	35	-----	2,550	2,460	-----	3,790	-----	880	-----	40	21	-----
TOTAL	965.1	61,816	166,160	209,730	48,970	157,077	78,390	48,260	13,826	2,874	775	516
MEAN	31.1	2,061	5,360	6,765	1,749	5,067	2,613	1,557	461	92.7	25.0	17.2
MAX	194	9,530	27,100	43,300	2,990	32,700	4,520	2,090	779	184	38	30
MIN	7.2	33	1,320	1,340	870	592	1,930	880	196	40	18	13
AC-FT	1,910	122,600	329,600	416,000	97,130	311,600	155,500	95,720	27,420	5,700	1,540	1,020

CAL YR 1970 TOTAL 817,814.2 MEAN 2,241 MAX 52,700 MIN 5.8 AC-FT 1,622,000  
WTR YR 1971 TOTAL 789,359.1 MEAN 2,163 MAX 43,300 MIN 7.2 AC-FT 1,566,000

## PEAK DISCHARGE (BASE, 35,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 4	0245	22.34	50,400	3-12	1530	20.16	36,000
1-16	1945	23.61	59,900	3-26	0415	23.16	56,300



## EEL RIVER BASIN

11474500 NORTH FORK EEL RIVER NEAR MINA, CALIF.

LOCATION.--Lat 39°56'18", long 123°20'36", in SW $\frac{1}{4}$  sec.8, T.24 N., R.13 W., Mendocino County, on right bank 0.2 mile upstream from county road bridge, 1.4 miles upstream from Asbill Creek, and 2 miles south of Mina.

DRAINAGE AREA.--248 sq mi.

PERIOD OF RECORD.--August 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,016.8 ft above mean sea level (levels by Topographic Division). Aug. 27, 1953, to Jan. 15, 1954, water-stage recorder and Jan. 16 to June 22, 1954, nonrecording gage, at site 0.4 mile downstream at different datums. June 23, 1954, to Dec. 21, 1964, water-stage recorder and Feb. 7 to July 8, 1965, nonrecording gage at site 0.2 mile downstream at different datums. July 9, 1965, to Aug. 20, 1967, water-stage recorder at site 0.6 mile downstream at datum 15.1 ft lower.

AVERAGE DISCHARGE.--18 years, 640 cfs (463,700 acre-ft per year); median of yearly mean discharges, 550 cfs (398,000 acre-feet per year).

EXTREMES.--Current year: Maximum discharge, 30,800 cfs Dec. 3 (gage height, 20.23 ft), from rating curve extended as explained below; minimum daily, 1.2 cfs Oct. 5-9, Sept. 17-21.

Period of record: Maximum discharge, 133,000 cfs Dec. 22, 1964 (gage height, 33.6 ft, from floodmarks, site and datum then in use), from rating curve extended above 12,000 cfs on basis of slope-area measurement of maximum flow; minimum, 0.1 cfs Aug. 30, 31, 1959.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	10	3,020	1,320	439	193	856	249	83	33	6.4	4.0
2	1.5	10	3,360	1,100	410	188	721	241	81	31	5.6	5.6
3	1.5	11	10,100	825	369	332	624	247	78	29	5.6	5.6
4	1.5	169	10,700	696	338	461	547	236	72	28	5.6	5.6
5	1.2	739	4,090	607	316	351	501	215	69	27	5.6	5.6
6	1.2	575	3,400	512	301	282	458	201	65	26	5.6	4.0
7	1.2	533	4,780	479	279	260	439	191	64	25	5.6	4.0
8	1.2	252	4,060	454	257	249	389	180	60	23	4.8	3.2
9	1.2	2,540	2,690	443	231	231	658	174	59	22	4.8	3.2
10	1.5	883	1,840	1,100	228	225	1,200	163	57	22	4.0	3.2
11	1.5	702	1,280	1,330	249	887	624	165	56	21	4.0	3.2
12	1.5	1,260	903	1,210	263	7,910	490	172	53	20	4.0	3.2
13	1.5	464	757	1,020	257	3,200	505	165	51	19	4.0	2.4
14	1.9	270	619	1,110	241	2,060	501	150	49	19	3.2	2.4
15	1.5	174	1,180	8,310	252	1,720	421	140	47	18	3.2	2.4
16	1.5	145	2,690	18,000	228	1,650	392	131	44	17	3.2	1.8
17	1.5	117	1,840	10,100	209	1,860	598	125	42	16	3.2	1.2
18	1.5	96	1,270	6,170	188	1,360	487	121	41	15	3.2	1.2
19	1.5	85	934	3,410	207	1,030	443	118	41	15	2.4	1.2
20	16	75	866	2,330	178	856	436	110	41	14	2.4	1.2
21	19	65	851	1,870	165	731	425	108	37	13	2.4	1.2
22	34	39	721	1,450	161	679	392	106	33	11	2.4	1.8
23	38	396	641	1,130	157	3,480	519	101	32	11	2.4	2.4
24	117	3,800	564	903	152	2,470	432	97	31	10	3.2	2.4
25	41	3,640	497	757	176	5,470	392	95	29	9.0	3.2	2.4
26	25	1,710	461	649	161	13,000	360	114	42	9.0	3.2	2.4
27	19	5,650	443	590	167	3,890	329	104	57	8.0	3.2	3.2
28	15	4,850	1,120	534	185	2,340	307	106	48	7.2	3.2	4.0
29	13	2,530	2,840	494	-----	1,800	282	95	40	7.2	3.2	7.2
30	12	3,450	1,580	468	-----	1,430	263	88	37	7.2	3.2	76
31	11	-----	1,400	458	-----	1,100	-----	85	-----	6.4	4.8	-----
TOTAL	387.4	35,240	71,497	69,829	6,764	61,695	14,991	4,593	1,539	539.0	120.8	167.2
MEAN	12.5	1,175	2,306	2,253	242	1,990	500	148	51.3	17.4	3.90	5.57
MAX	117	5,650	10,700	18,000	439	13,000	1,200	249	83	33	6.4	76
MIN	1.2	10	443	443	152	188	263	85	29	6.4	2.4	1.2
AC-FT	768	69,900	141,800	138,500	13,420	122,400	29,730	9,110	3,050	1,070	240	332
CAL YR 1970	TOTAL 261,551.40		MEAN 717		MAX 14,000		MIN .40		AC-FT 518,800			
WTR YR 1971	TOTAL 267,362.40		MEAN 732		MAX 18,000		MIN 1.2		AC-FT 530,300			

## PEAK DISCHARGE (BASE, 8,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1730	13.28	10,300	11-16	1645	19.16	26,300
11-27	1915	15.20	14,300	3-12	1315	14.54	12,800
12- 3	2230	20.23	30,800	3-26	0130	19.16	26,300
12- 7	1630	12.18	8,320				

## 11475000 EEL RIVER AT FORT SEWARD, CALIF.

LOCATION.--Lat 40°13'05", long 123°37'54", in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.8, T.3 S., R.5 E., Humboldt County, on right bank at downstream side of bridge, 1.0 mile southeast of Fort Seward, 1.9 miles upstream from Dobbys Creek, and 11.8 miles northeast of Garberville.

DRAINAGE AREA.--2,107 sq mi.

PERIOD OF RECORD.--September 1955 to current year. Prior to October 1965, published as "at Alderpoint."

GAGE.--Water-stage recorder. Datum of gage is 217.26 ft above mean sea level. Prior to Dec. 22, 1964, at site 7.5 miles upstream at datum 46.55 ft higher. Feb. 2 to Sept. 30, 1965, at site 7.7 miles upstream at datum 49.42 ft higher.

AVERAGE DISCHARGE.--16 years, 4,892 cfs (3,544,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 160,000 cfs Jan. 16 (gage height, 42.54 ft); minimum daily, 23 cfs Oct. 6-8.

Period of record: Maximum discharge, 561,000 cfs Dec. 22, 1964 (gage height, 87.2 ft, from floodmarks, site and datum then in use), from rating curve extended above 110,000 cfs on basis of slope-area measurement at gage height 72.5 ft; minimum daily, 10 cfs Aug. 30 to Sept. 5, 1964.

REMARKS.--Records good. Flow slightly regulated by Lake Pillsbury 99 miles upstream (see sta 11470000) and by diversion through Potter Valley powerhouse (see sta 11471000). Records of water temperatures, suspended-sediment discharge, and sediment and turbidity data for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	104	19,400	9,100	5,480	1,760	9,140	2,640	1,220	375	104	58
2	25	98	24,500	8,660	5,280	1,590	7,560	2,660	1,090	348	101	63
3	25	95	50,200	6,960	4,830	1,690	6,200	2,690	1,040	325	89	63
4	25	280	94,700	5,580	4,220	2,410	5,340	2,720	981	315	89	63
5	25	1,960	39,600	4,720	3,780	2,420	4,690	2,600	947	300	86	63
6	23	3,840	28,700	4,050	3,440	1,990	4,690	2,660	923	290	83	63
7	23	3,620	26,800	3,540	3,210	1,710	4,300	2,650	923	270	83	63
8	23	2,160	32,200	3,190	2,970	1,670	3,890	2,620	918	265	83	63
9	25	7,740	26,700	3,030	2,740	1,580	4,150	2,610	912	250	80	58
10	25	8,370	18,100	3,890	2,540	1,580	9,960	2,470	905	235	75	56
11	25	4,110	13,200	9,050	2,570	3,550	7,540	2,450	873	226	75	56
12	25	6,460	10,500	10,100	3,300	38,200	5,890	2,540	835	221	73	54
13	25	4,080	8,640	8,880	4,030	40,900	5,270	2,500	795	212	70	54
14	25	2,180	7,500	10,900	4,030	19,700	5,790	2,450	751	203	70	51
15	25	1,480	7,440	36,500	3,680	15,200	5,300	2,210	712	199	70	51
16	25	1,200	18,900	122,000	3,560	11,800	4,840	2,060	679	190	68	49
17	25	1,010	15,800	107,000	3,180	11,600	5,580	1,930	638	185	66	49
18	28	846	11,700	68,800	2,800	8,950	5,210	1,740	603	173	61	46
19	30	685	9,140	42,900	2,540	7,420	4,430	1,620	588	165	58	44
20	66	633	7,920	28,800	2,380	6,380	4,090	1,870	544	149	58	37
21	80	583	8,620	21,000	2,100	5,500	4,070	1,610	522	145	56	44
22	114	543	7,620	16,300	1,930	4,980	3,610	1,480	486	142	61	46
23	250	784	6,300	13,000	1,800	17,000	3,810	1,400	462	135	63	44
24	414	8,680	5,380	11,000	1,680	19,300	3,740	1,390	433	128	61	44
25	566	17,100	4,480	9,140	1,630	21,600	3,240	1,430	423	128	56	39
26	366	12,300	3,870	7,840	1,630	84,200	2,980	1,500	414	128	56	42
27	245	17,200	3,660	7,040	1,520	42,000	2,850	1,480	429	114	56	44
28	181	36,400	6,500	6,540	1,720	24,300	2,760	1,690	487	110	66	44
29	145	16,200	23,200	6,060	-----	17,300	2,730	1,530	453	110	63	66
30	121	17,300	14,800	5,700	-----	13,600	2,710	1,390	413	110	56	110
31	107	-----	10,800	5,560	-----	11,200	-----	1,310	-----	107	56	-----
TOTAL	3,132	178,041	566,870	606,830	84,570	443,080	146,360	63,900	21,399	6,253	2,192	1,627
MEAN	101	5,935	18,290	19,580	3,020	14,290	4,879	2,061	713	202	70.7	54.2
MAX	566	36,400	94,700	122,000	5,480	84,200	9,960	2,720	1,220	375	104	110
MIN	23	95	3,660	3,030	1,520	1,580	2,710	1,310	413	107	56	37
AC-FT	6,210	353,100	1,124M	1,204M	167,700	878,800	290,300	126,700	42,440	12,400	4,350	3,230
CAL YR 1970	TOTAL 2,363,584		MEAN 6,476		MAX 170,000		MIN 21		AC-FT 4,688,000			
WTR YR 1971	TOTAL 2,124,254		MEAN 5,820		MAX 122,000		MIN 23		AC-FT 4,213,000			

## PEAK DISCHARGE (BASE, 41,100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	0300	25.57	51,900	3-12	2030	28.95	68,800
12- 4	0230	39.21	134,000	3-26	0845	35.52	109,000
1-16	2200	42.54	160,000				



## 11475700 TENMILE CREEK NEAR LAYTONVILLE, CALIF.

LOCATION.--Lat 39°45'45", long 123°32'30", in NW¼ sec.16, T.22 N., R.15 W., Mendocino County, on right bank 0.1 mile downstream from Step Gulch Creek and 6.0 miles northwest of Laytonville.

DRAINAGE AREA.--50.3 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,427.42 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 160 cfs (115,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,100 cfs Dec. 3 (gage height, 14.20 ft); minimum daily, 0.06 cfs Oct. 6, 7.

Period of record: Maximum discharge, 14,500 cfs Dec. 22, 1964 (gage height, 21.3 ft, from floodmarks), from rating curve extended above 4,300 cfs on basis of slope-area measurement at gage height 22.9 ft; no flow at times.

Flood of Dec. 22, 1955, reached a stage of 22.9 ft, from floodmarks (discharge, 16,300 cfs by slope-area measurement of maximum flow).

REMARKS.--Records poor. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	1.5	680	353	85	43	191	56	18	6.9	1.4	.72
2	.11	1.4	1,240	300	78	37	161	59	18	6.7	1.4	.70
3	.10	2.8	4,560	222	71	53	139	79	18	6.1	1.4	.70
4	.09	116	1,840	190	68	54	122	68	17	5.4	1.2	.70
5	.08	194	1,020	165	66	45	110	56	17	5.2	1.2	.70
6	.06	187	678	144	63	37	100	53	16	5.0	1.2	.70
7	.06	189	995	127	59	37	95	49	15	4.8	1.2	.70
8	.08	170	855	115	56	38	87	46	15	4.6	1.1	.70
9	.10	255	562	106	53	34	320	45	14	4.1	1.1	.70
10	.09	176	396	204	51	68	338	42	14	4.1	1.1	.66
11	.08	201	308	252	49	502	172	39	14	4.1	1.1	.66
12	.11	221	242	258	47	2,440	139	37	13	4.1	1.1	.66
13	.11	109	230	258	47	736	136	36	13	4.1	1.1	.66
14	.13	67	193	630	46	738	152	32	12	6.1	1.1	.66
15	.15	59	630	3,260	45	452	113	31	11	10	1.1	.66
16	.29	61	802	3,900	41	393	111	30	11	5.2	1.0	.66
17	.44	42	486	1,980	39	325	202	28	10	4.3	.94	.66
18	.60	32	355	1,170	38	238	143	29	9.6	3.6	.94	.57
19	.65	26	270	694	44	193	115	26	9.6	3.1	.94	.57
20	2.3	21	265	470	38	161	111	25	6.7	2.7	.88	.57
21	26	18	340	348	36	136	106	24	5.9	2.3	.88	.57
22	21	18	260	278	36	222	94	25	6.4	2.1	.88	.57
23	58	86	228	230	35	1,010	113	23	6.9	1.9	.72	.55
24	19	275	198	198	34	425	94	21	6.9	1.9	.72	.55
25	5.7	730	168	169	33	2,560	84	21	6.9	1.8	.72	.55
26	3.2	386	155	148	31	2,350	77	22	8.1	1.8	.72	.55
27	2.3	1,670	155	133	41	875	70	23	8.6	1.6	.72	.52
28	1.8	2,750	1,220	119	45	530	67	24	8.3	1.6	.72	.52
29	1.6	1,300	990	108	-----	372	63	22	8.1	1.6	.72	3.6
30	1.5	405	474	98	-----	293	59	18	7.5	1.5	.72	13
31	1.6	-----	384	91	-----	230	-----	18	-----	1.4	.72	-----
TOTAL	147.44	9,769.7	21,179	16,718	1,375	15,627	3,884	1,107	345.5	119.7	30.74	34.29
MEAN	4.76	326	683	539	49.1	504	129	35.7	11.5	3.86	.99	1.14
MAX	58	2,750	4,560	3,900	85	2,560	338	79	18	10	1.4	13
MIN	.06	1.4	155	91	31	34	59	18	5.9	1.4	.72	.52
AC-FT	292	19,380	42,010	33,160	2,730	31,000	7,700	2,200	685	237	61	68
CAL YR 1970	TOTAL 46,246.81		MEAN 127		MAX 5,050		MIN 0		AC-FT 91,730			
WTR YR 1971	TOTAL 70,337.37		MEAN 193		MAX 4,560		MIN .06		AC-FT 139,500			

## PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-3	1745	14.20	7,100	3-12	1015	12.24	5,140
1-15	2015	13.21	6,110	3-25	2215	13.87	6,770

NOTE.--No gage-height record June 19 to Sept. 30.

## EEL RIVER BASIN

## 11475800 SOUTH FORK EEL RIVER AT LEGGETT, CALIF.

LOCATION.--Lat 39°52'30", long 123°43'10", in NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.3, T.23 N., R.17 W., Mendocino County, on right bank near Standish-Hickey State Park, 0.2 mile upstream from Rock Creek, and 0.5 mile northwest of Leggett.

DRAINAGE AREA.--248 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 693.32 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 966 cfs (699,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 44,600 cfs Dec. 3 (gage height, 21.32 ft); minimum daily, 15 cfs Oct. 1-17.

Period of record: Maximum discharge, 72,700 cfs Jan. 4, 1966 (gage height, 25.4 ft, from floodmarks), from rating curve extended above 21,000 cfs on basis of slope-area measurement at gage height 26.13 ft; minimum daily, 15 cfs Oct. 15, 1966, Sept. 30 to Oct. 17, 1970.

Flood of Dec. 22, 1964, reached a stage of 26.13 ft, from floodmarks (discharge, 78,700 cfs by slope-area measurement of maximum flow).

REMARKS.--Records fair. No regulation or diversion above station. Record of water temperatures for the current year is published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	35	4,790	2,000	525	258	1,480	378	158	87	41	51
2	15	33	6,960	1,810	485	233	1,280	378	158	85	40	46
3	15	34	22,000	1,480	446	302	1,120	382	155	83	40	42
4	15	360	19,000	1,310	428	390	976	378	150	80	39	37
5	15	900	6,800	1,170	410	358	856	362	146	79	39	37
6	15	628	4,640	1,050	394	302	743	354	143	78	38	34
7	15	560	5,630	958	378	278	650	342	137	75	38	33
8	15	585	5,390	904	358	274	590	330	135	73	38	31
9	15	3,020	3,680	856	334	250	1,010	322	132	72	37	30
10	15	1,080	2,550	1,210	326	322	1,720	310	130	70	36	29
11	15	945	1,940	1,570	322	1,680	1,080	302	130	68	35	28
12	15	1,250	1,550	1,820	306	11,100	886	290	124	67	35	28
13	15	700	1,360	1,650	290	5,960	754	286	121	66	35	28
14	15	490	1,190	3,050	278	4,090	727	270	121	64	34	26
15	15	395	1,830	12,700	290	2,890	555	258	115	62	34	26
16	15	370	3,130	23,900	270	2,340	545	250	107	60	34	25
17	15	307	2,240	15,500	258	2,050	850	240	103	59	33	25
18	18	256	1,860	9,200	250	1,550	727	233	100	58	32	24
19	19	220	1,520	5,540	266	1,280	585	225	101	56	32	23
20	82	190	1,490	3,860	243	1,100	550	218	102	54	31	23
21	100	175	1,680	2,780	226	982	500	209	101	53	31	23
22	260	167	1,500	2,150	219	1,050	465	205	98	51	31	22
23	273	480	1,310	1,710	215	5,890	515	203	96	48	31	22
24	329	6,520	1,170	1,380	206	3,880	455	194	95	48	31	24
25	128	5,590	1,030	1,140	206	8,930	437	187	93	45	30	25
26	79	3,180	940	946	191	18,800	428	190	97	45	29	26
27	59	11,000	880	782	219	7,740	415	191	100	43	28	26
28	48	10,500	3,200	683	266	4,280	406	186	98	43	28	26
29	42	4,430	6,100	655	-----	2,930	398	182	95	43	28	48
30	38	4,610	3,040	625	-----	2,210	386	172	90	41	31	87
31	37	-----	2,420	580	-----	1,780	-----	162	-----	41	43	-----
TOTAL	1,767	59,010	122,820	104,969	8,605	95,479	22,089	8,189	3,531	1,897	1,062	955
MEAN	57.0	1,967	3,962	3,386	307	3,080	736	264	118	61.2	34.3	31.8
MAX	329	11,000	22,000	23,900	525	18,800	1,720	382	158	87	43	87
MIN	15	33	880	580	191	233	386	162	90	41	28	22
AC-FT	3,500	117,000	243,600	208,200	17,070	189,400	43,810	16,240	7,000	3,760	2,110	1,890
CAL YR 1970	TOTAL 493,844	MEAN 1,353	MAX 26,900	MIN 15	AC-FT 979,500							
WTR YR 1971	TOTAL 430,373	MEAN 1,179	MAX 23,900	MIN 15	AC-FT 853,600							

## PEAK DISCHARGE (BASE, 8,500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1845	13.86	15,600	1-16	1730	17.68	28,200
11-27	1845	15.92	21,800	3-12	1330	14.51	17,500
12- 3	2145	21.32	44,600	3-26	0100	18.05	29,700
12-28	2345	12.05	10,700				

11475940 EAST BRANCH SOUTH FORK EEL RIVER NEAR GARBERVILLE, CALIF.

LOCATION.--Lat 40°04'27", long 123°46'08", in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.31, T.4 S., R.4 E., Humboldt County, on left bank just upstream from Panther Canyon, 1.9 miles upstream from mouth, and 2.3 miles southeast of Garberville.

DRAINAGE AREA.--74.3 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 385.32 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 288 cfs (208,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 19,000 cfs Dec. 3 (gage height, unknown); minimum daily, 2.2 cfs Oct. 19.

Period of record: Maximum discharge, 21,000 cfs Dec. 21, 1969 (gage height, 14.40 ft), from rating curve extended above 5,600 cfs; minimum daily, 2.2 cfs Oct. 19, 1970.

REMARKS.--Records poor. No regulation; small diversion above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	7.2	1,400	450	134	96	342	151	57	16	7.6	4.3
2	3.8	6.7	2,420	380	124	89	287	146	57	15	7.6	4.3
3	3.8	6.3	5,500	320	112	163	245	151	55	13	7.0	4.3
4	3.6	45	4,400	270	110	148	233	136	55	12	7.0	4.6
5	3.6	162	2,000	235	106	114	197	136	49	11	7.0	4.6
6	3.6	190	1,300	212	103	100	156	153	49	12	7.3	4.3
7	3.4	145	1,600	200	98	93	153	148	45	12	7.3	4.3
8	3.4	112	1,500	182	93	90	138	138	45	12	7.0	4.6
9	3.2	595	1,050	173	90	88	668	120	45	11	7.0	4.9
10	3.2	360	700	275	87	100	612	120	38	11	7.0	4.9
11	3.2	192	520	434	86	430	410	114	34	10	6.7	4.9
12	3.0	310	450	460	82	3,100	342	106	34	12	6.4	5.5
13	3.0	159	380	446	80	1,040	310	106	29	13	6.4	5.2
14	3.0	105	335	976	79	1,050	287	100	29	15	6.4	5.2
15	2.6	86	390	3,000	79	708	260	83	25	15	6.4	5.5
16	2.4	76	800	4,900	75	690	260	76	22	16	6.4	5.2
17	2.4	67	600	2,700	73	618	334	69	21	15	6.7	5.5
18	2.8	58	505	1,600	70	450	334	61	19	15	6.7	4.9
19	2.2	49	455	1,070	70	338	278	45	21	13	6.4	4.9
20	5.4	43	490	794	66	275	290	34	19	11	6.7	4.9
21	13	38	590	545	65	233	281	29	22	10	6.7	4.9
22	29	30	525	460	62	438	263	34	19	9.1	6.4	4.9
23	40	410	470	386	62	1,300	278	34	16	8.8	6.1	4.6
24	58	1,900	420	338	61	750	275	57	16	8.8	6.7	4.5
25	39	2,200	365	287	63	4,000	248	77	18	8.8	6.7	4.6
26	24	1,200	325	260	62	4,570	218	77	29	8.8	5.8	4.3
27	16	3,200	285	233	76	1,730	200	77	25	8.5	5.2	4.1
28	10	2,700	600	206	98	952	185	70	19	7.6	4.3	4.3
29	8.9	1,250	1,210	185	-----	714	168	66	17	7.6	4.6	6.2
30	8.2	1,300	800	158	-----	565	156	60	17	7.6	4.3	3.8
31	7.7	-----	550	146	-----	434	-----	57	-----	7.6	4.3	-----
TOTAL	319.2	16,998.2	32,935	22,281	2,366	25,466	8,408	2,831	946	353.2	198.1	143.0
MEAN	10.3	567	1,062	719	84.5	821	280	91.3	31.5	11.4	6.39	4.77
MAX	58	3,200	5,500	4,900	134	4,570	668	153	57	16	7.6	6.2
MIN	2.2	6.3	285	146	61	88	138	29	16	7.6	4.3	3.8
AC-FT	633	33,720	65,330	44,190	4,690	50,510	16,680	5,620	1,880	701	393	284
CAL YR 1970	TOTAL 122,776.3		MEAN 336		MAX 6,430		MIN 1.7		AC-FT 243,500			
WTR YR 1971	TOTAL 113,244.7		MEAN 310		MAX 5,500		MIN 2.2		AC-FT 224,600			

## PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	unknown	-	5,200	3-12	unknown	-	6,400
12-3	unknown	-	19,000	3-25	2215	14.04	15,000
1-16	unknown	14.02	14,900				

NOTE.--No gage-height record Oct. 20 to Nov. 24, Nov. 27 to Jan. 5.

## 11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CALIF.

LOCATION.--Lat 40°10'55", long 123°46'30", in NW¼ sec.30, T.3 S., R.4 E., Humboldt County, on right bank at Sylvandale Campgrounds on U.S. Highway 101, 0.5 mile upstream from Rocky Glen Creek, 4.3 miles southeast of Miranda, and 20 miles upstream from mouth.

DRAINAGE AREA.--537 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 217.57 ft above mean sea level. Prior to Nov. 2, 1940, nonrecording gage at site 200 ft upstream at datum 0.8 ft higher. Nov. 2, 1940, to Oct. 31, 1944, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--32 years, 1,908 cfs (1,382,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 92,400 cfs Dec. 3 (gage height, 29.16 ft); minimum daily, 27 cfs Oct. 1-5, 13-17.

Period of record: Maximum discharge, 199,000 cfs Dec. 22, 1964 (gage height, 46.0 ft, from floodmarks), from rating curve extended above 53,000 cfs on basis of slope-area measurement at gage height 42.7 ft; minimum observed, 9 cfs Oct. 17, 1944.

REMARKS.--Records good. Occasional storage and release for recreation use during summer months at Benbow Dam. No diversion above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 1395: Drainage area. Revised figures of discharge, in cubic feet per second, water year 1955, superseding figures published in WSP 1395 and 1735 are given below.

Apr. 19, 1955..... 886

MONTH	CFS-DAYS	MAX	MIN	MEAN	AC-FT
April 1955	61,659	9,700	382	2,055	124,300
WTR YR 1955	355,309	10,800	44	973	704,700
CAL YR 1955	675,814	100,000	44	1,852	1,340,000

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	82	10,200	4,680	1,310	772	3,040	840	303	162	86	74
2	27	76	14,200	4,210	1,220	702	2,560	816	297	158	83	77
3	27	76	42,300	3,440	1,130	824	2,210	848	291	154	80	80
4	27	414	47,800	2,960	1,060	944	1,920	832	280	149	80	80
5	27	1,850	18,200	2,620	1,010	896	1,690	758	274	140	80	77
6	29	2,130	12,200	2,310	970	786	1,520	709	269	136	77	70
7	29	1,810	14,800	2,060	928	730	1,420	674	258	136	77	67
8	29	1,260	15,300	1,830	888	716	1,290	641	252	136	77	62
9	29	6,700	10,100	1,680	840	674	2,510	621	247	136	74	60
10	29	3,760	6,870	2,060	800	709	4,590	595	241	132	67	60
11	28	2,190	5,040	3,280	772	3,370	2,830	569	236	132	64	59
12	28	3,440	3,940	3,920	744	20,700	2,310	550	230	132	64	57
13	27	1,930	3,310	3,870	716	13,700	2,030	543	225	132	64	77
14	27	1,250	2,790	6,540	688	8,420	1,900	524	220	128	64	145
15	27	948	3,200	24,900	681	6,670	1,640	498	215	124	64	124
16	27	884	7,380	61,000	674	5,060	1,500	485	205	124	62	64
17	27	755	5,610	40,000	641	4,700	1,970	459	200	124	62	53
18	32	626	4,570	22,800	621	3,560	1,930	447	195	124	60	42
19	34	548	3,760	12,600	647	2,930	1,630	429	190	120	60	42
20	57	485	4,190	8,220	615	2,490	1,580	411	190	83	60	42
21	128	430	4,910	5,850	576	2,140	1,520	393	190	104	60	42
22	301	406	4,140	4,540	556	2,240	1,370	363	180	100	60	42
23	440	2,120	3,470	3,690	550	11,000	1,440	375	176	96	60	42
24	671	18,300	2,970	3,100	530	8,370	1,360	339	176	96	60	44
25	390	16,600	2,580	2,670	543	13,400	1,250	241	171	96	60	46
26	213	7,960	2,250	2,350	524	45,200	1,170	315	185	96	60	46
27	150	18,400	2,020	2,090	615	19,600	1,080	339	190	90	59	48
28	117	25,000	5,900	1,860	793	10,200	1,010	327	190	90	59	48
29	103	10,100	14,700	1,680	-----	6,620	944	327	171	90	59	60
30	90	9,050	7,640	1,520	-----	4,820	888	321	167	86	59	236
31	87	-----	5,590	1,400	-----	3,760	-----	309	-----	86	60	-----
TOTAL	3,284	139,580	291,930	245,730	21,642	206,703	54,102	15,898	6,614	3,692	2,061	2,066
MEAN	106	4,653	9,417	7,927	773	6,668	1,803	513	220	119	66.5	68.9
MAX	671	25,000	47,800	61,000	1,310	45,200	4,590	848	303	162	86	236
MIN	27	76	2,020	1,400	524	674	888	241	167	83	59	42
AC-FT	6,510	276,900	579,000	487,400	42,930	410,000	107,300	31,530	13,120	7,320	4,090	4,100
CAL YR 1970	TOTAL	1,156,764	MEAN	3,169	MAX	58,600	MIN	27	AC-FT	2,294,000		
WTR YR 1971	TOTAL	993,302	MEAN	3,721	MAX	61,000	MIN	27	AC-FT	1,970,000		

## PEAK DISCHARGE (BASE, 15,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	2130	16.38	33,000	12-29	0530	13.35	18,900
11-28	0130	18.81	40,800	1-16	1600	25.27	71,600
12- 3	2245	29.16	92,400	3-12	1915	16.45	30,500
12- 7	2145	13.51	19,500	3-26	0445	23.48	62,600

## 11476600 BULL CREEK NEAR WEOTT, CALIF.

LOCATION.--Lat 40°21'05", long 124°00'10", in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.30, T.1 S., R.2 E., Humboldt County, on left bank 0.2 mile downstream from Albee Creek, 4.5 miles northwest of Weott, and 4.6 miles upstream from mouth.

DRAINAGE AREA.--28.1 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 269.36 ft above mean sea level. Prior to Dec. 22, 1964, water-stage recorder, and Jan. 14 to Aug. 10, 1965, nonrecording gage at site 150 ft downstream at datum 8.90 ft lower.

AVERAGE DISCHARGE.--11 years, 126 cfs (91,290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,970 cfs Dec. 3 (gage height, 11.01 ft); minimum daily, 0.82 cfs Oct. 1-6.

Period of record: Maximum discharge, 6,520 cfs Dec. 22, 1964 (gage height, 20.6 ft, from floodmarks, site and datum then in use), from rating curve extended above 2,100 cfs on basis of slope-area measurement of maximum flow; minimum daily, 0.82 cfs Oct. 1-6, 1970.

REMARKS.--Records good. Minor diversions above station for domestic use.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	5.9	681	294	83	72	190	75	20	11	5.0	3.1
2	.82	5.5	764	263	78	61	169	74	20	9.7	4.8	3.7
3	.82	6.6	1,870	235	72	69	153	72	20	9.7	4.6	3.5
4	.82	122	1,440	211	67	73	137	67	19	9.7	4.6	2.8
5	.82	198	828	192	66	68	122	63	18	9.7	4.6	2.8
6	.82	196	572	173	61	63	114	57	17	9.7	4.6	2.7
7	.93	116	995	169	58	67	103	54	17	8.8	4.1	3.3
8	.93	124	864	146	54	62	96	49	16	8.4	4.1	3.0
9	.93	310	614	133	51	59	205	46	16	8.8	4.1	2.7
10	.93	168	418	156	49	81	186	43	16	9.1	3.9	2.7
11	.93	179	319	167	47	297	160	41	16	8.8	3.7	2.5
12	.93	178	232	171	45	698	147	40	15	8.4	3.5	2.5
13	.93	139	207	171	43	478	140	38	15	8.1	3.7	2.5
14	.93	117	177	300	42	424	131	35	15	8.1	3.7	2.4
15	.93	107	245	700	42	340	119	34	14	8.1	3.7	2.4
16	1.0	107	284	1,850	39	313	126	33	14	7.5	3.5	2.3
17	1.2	91	240	1,350	38	279	149	32	13	7.5	3.3	2.1
18	1.2	83	222	880	39	248	160	30	13	7.2	3.1	2.1
19	1.3	76	201	680	42	224	146	29	14	6.4	3.1	2.1
20	19	69	232	498	37	205	144	29	14	6.1	3.1	2.1
21	37	63	232	370	35	186	131	27	13	6.4	3.0	2.1
22	22	64	211	294	35	201	128	26	12	6.1	3.1	2.0
23	48	142	194	274	35	248	122	25	12	5.8	3.1	2.0
24	27	538	175	219	34	226	114	24	11	5.8	3.0	2.0
25	16	614	160	169	36	450	108	26	13	6.1	2.8	2.0
26	11	439	147	151	36	658	102	26	15	5.6	2.7	2.1
27	9.4	844	133	137	47	470	96	24	13	5.6	2.5	2.7
28	7.7	719	367	124	75	367	90	24	12	5.8	2.5	2.7
29	5.9	590	482	109	-----	294	84	23	11	5.3	2.5	14
30	5.9	569	343	100	-----	250	79	21	11	5.0	2.7	11
31	5.9	-----	331	93	-----	213	-----	21	-----	5.0	3.1	-----
TOTAL	232.79	6,980.0	14,180	10,779	1,386	7,744	3,951	1,208	445	233.3	109.8	95.9
MEAN	7.51	233	457	348	49.5	250	132	39.0	14.8	7.53	3.54	3.20
MAX	48	844	1,870	1,850	83	698	205	75	20	11	5.0	14
MIN	.82	5.5	133	93	34	59	79	21	11	5.0	2.5	2.0
AC-FT	462	13,840	28,130	21,380	2,750	15,360	7,840	2,400	883	463	218	190
CAL YR 1970	TOTAL	60,037.09	MEAN	164	MAX	2,850	MIN	.82	AC-FT	119,100		
WTR YR 1971	TOTAL	47,344.79	MEAN	130	MAX	1,870	MIN	.82	AC-FT	93,910		

## PEAK DISCHARGE (BASE, 1,700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 3	1730	11.01	2,970	1-16	unknown	-	2,950
12- 7	1145	8.66	1,410				



## EEL RIVER BASIN

11477000 EEL RIVER AT SCOTIA, CALIF.  
(International Hydrological Decade Station)

LOCATION.--Lat 40°29'30", long 124°05'55", in SW $\frac{1}{4}$  sec.5, T.1 N., R.1 E., Humboldt County, near center of span in left pier of bridge on U.S. Highway 101, 0.5 mile north of Scotia, and 6 miles upstream from Van Duzen River.

DRAINAGE AREA.--3,113 sq mi.

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods and yearly estimates for 1915-16, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 35.50 ft above mean sea level. Prior to Dec. 12, 1940, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--61 years, 7,257 cfs (5,258,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 234,000 cfs Dec. 4, Jan. 17; maximum gage height, 41.29 ft Dec. 4; minimum daily discharge, 73 cfs Oct. 6, 8.  
Period of record: Maximum discharge, 752,000 cfs Dec. 23, 1964 (gage height, 72.0 ft, from floodmarks), from rating curve extended above 220,000 cfs on basis of maximum flow at upstream stations; minimum observed, 10 cfs Aug. 12-14, 1924.

REMARKS.--Records good. Flow slightly regulated by Lake Pillsbury 138 miles upstream (see sta 11470000) and by diversion through Potter Valley powerhouse (see sta 11471000). Records of chemical analyses, water temperatures, and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 931: 1938. WSP 1315-B: 1914-15(M), 1917(M), 1927-28(M), 1936(M), 1939(M).  
WSP 1345: Drainage area. WSP 1715: 1959.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	235	46,500	19,800	7,180	4,200	14,200	4,410	1,930	619	244	191
2	75	210	54,400	18,300	6,940	3,580	11,800	4,350	1,790	564	226	195
3	75	210	86,000	15,300	6,570	3,850	9,880	4,390	1,670	537	227	195
4	75	1,300	195,000	12,600	6,070	4,840	8,920	4,420	1,600	514	224	191
5	75	3,500	87,700	11,000	5,660	4,680	8,130	4,190	1,550	506	215	192
6	73	8,600	61,000	9,740	5,260	3,960	7,730	4,170	1,470	492	215	184
7	75	8,100	59,600	8,770	5,010	3,600	7,380	4,080	1,410	462	215	177
8	73	4,500	67,700	7,990	4,700	3,440	6,910	3,990	1,400	446	215	177
9	75	18,800	57,000	7,510	4,390	3,290	7,270	3,910	1,410	437	215	174
10	77	20,000	45,000	7,960	4,130	3,170	14,200	3,750	1,380	423	215	174
11	75	9,000	34,000	13,500	3,990	5,660	12,000	3,680	1,330	400	215	174
12	75	13,000	25,000	17,500	4,290	49,100	8,710	3,630	1,290	389	215	174
13	75	8,890	19,000	16,600	4,860	75,300	7,720	3,720	1,240	385	208	165
14	75	6,400	15,200	20,700	5,020	35,800	7,670	3,630	1,150	376	198	156
15	75	4,500	15,000	63,700	4,780	27,800	7,490	3,410	1,070	368	194	156
16	75	3,500	37,000	173,000	4,580	20,300	6,910	3,180	1,030	360	194	153
17	75	2,800	30,000	182,000	4,310	19,700	7,740	3,030	1,000	361	191	153
18	80	2,400	21,600	115,000	4,010	15,400	9,040	2,810	980	350	191	153
19	82	2,100	17,200	72,900	3,810	12,100	7,510	2,670	957	342	191	150
20	200	1,950	15,600	46,900	3,630	10,200	7,000	2,590	919	336	191	150
21	210	1,850	18,200	32,200	3,330	9,100	6,860	2,760	878	319	191	145
22	350	1,750	16,000	24,000	3,150	8,160	6,290	2,470	856	310	191	140
23	550	2,600	13,700	19,200	3,030	24,300	6,220	2,330	781	306	191	138
24	980	22,000	12,300	15,900	2,910	36,800	6,320	2,260	736	290	191	140
25	1,150	54,800	10,900	13,400	2,920	30,000	5,730	2,230	718	273	194	138
26	800	35,900	9,810	11,500	2,940	131,000	5,320	2,300	710	270	191	130
27	550	38,000	9,130	10,200	3,010	82,700	5,010	2,290	703	265	191	130
28	400	91,400	12,300	9,370	3,800	43,500	4,810	2,310	689	265	191	134
29	340	44,900	44,100	8,290	-----	29,100	4,670	2,360	693	258	191	215
30	280	37,700	31,000	7,740	-----	21,600	4,560	2,220	659	255	191	320
31	240	-----	23,400	7,390	-----	17,700	-----	2,050	-----	251	191	-----
TOTAL	7,485	450,895	1,190.3M	999,960	124,280	743,930	234,000	99,590	33,999	11,729	6,303	5,064
MEAN	241	15,030	38,400	32,260	4,439	24,000	7,800	3,213	1,133	378	203	169
MAX	1,150	91,400	195,000	182,000	7,180	131,000	14,200	4,420	1,930	619	244	320
MIN	73	210	9,130	7,390	2,910	3,170	4,560	2,050	659	251	191	130
AC-FT	14,850	894,400	2,361M	1,983M	246,500	1,476M	464,100	197,500	67,440	23,260	12,500	10,040

CAL YR 1970 TOTAL 4,640,580 MEAN 12,710 MAX 267,000 MIN 73 AC-FT 9,205,000  
WTR YR 1971 TOTAL 3,907,575 MEAN 10,710 MAX 195,000 MIN 73 AC-FT 7,751,000

## PEAK DISCHARGE (BASE, 72,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	0815	29.17	110,000	1-17	0130	41.24	234,000
12- 4	0700	41.29	234,000	3-13	0115	28.75	106,000
12- 8	0530	24.98	75,800	3-26	1400	35.30	167,000

## 11477500 VAN DUZEN RIVER NEAR DINSMORES, CALIF.

LOCATION.--Lat 40°29'05", long 123°39'25", in NE¼NW¼ sec.7, T.1 N., R.5 E., Humboldt County, on right bank 10 ft upstream from private road bridge, 0.3 mile upstream from South Fork, and 2.8 miles west of Dinsmores.

DRAINAGE AREA.--85.1 sq mi.

PERIOD OF RECORD.--August 1953 to September 1958, October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,996.88 ft above mean sea level. Aug. 19, 1953, to Sept. 30, 1958, at site 1.7 miles upstream at different datum.

AVERAGE DISCHARGE.--13 years, 393 cfs (284,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,100 cfs Mar. 26 (gage height, 13.58 ft); minimum daily, 1.9 cfs Oct. 1-14.

Period of record: Maximum discharge, 27,000 cfs Dec. 22, 1964 (gage height, 22.5 ft, from floodmarks), from rating curve extended above 10,000 cfs on basis of slope-area measurement of maximum flow; minimum, 1.8 cfs Aug. 29, 1958.

REMARKS.--Records good. No regulation or diversion above station. Record of water temperatures for the current year is published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	14	1,680	832	370	159	512	242	95	31	6.4	8.7
2	1.9	13	1,410	612	350	158	428	235	90	29	5.9	9.9
3	1.9	13	4,440	457	318	253	381	247	86	28	5.5	9.5
4	1.9	206	4,710	385	285	306	353	231	80	27	5.4	9.4
5	1.9	830	3,460	336	268	246	343	234	78	24	5.1	8.8
6	1.9	630	3,300	303	258	230	340	219	76	24	5.1	7.8
7	1.9	630	5,380	279	240	247	319	212	73	23	5.0	7.3
8	1.9	658	3,370	271	221	247	289	219	70	22	5.1	6.3
9	1.9	2,990	2,210	281	204	242	931	201	67	22	5.0	6.0
10	1.9	973	1,480	995	204	276	1,200	200	65	21	5.8	5.8
11	1.9	1,120	1,050	885	241	1,620	639	206	62	20	6.5	5.4
12	1.9	1,450	762	641	269	3,630	486	211	58	19	6.5	5.1
13	1.9	605	601	525	283	1,940	446	233	55	18	6.5	5.0
14	1.9	354	486	493	272	1,270	432	197	52	17	6.5	4.4
15	2.4	275	990	3,390	314	903	377	185	51	16	6.2	3.6
16	3.3	249	1,690	7,460	269	1,140	411	171	48	14	5.5	3.3
17	3.7	202	1,000	6,190	239	1,190	565	155	46	13	5.5	3.3
18	4.6	157	722	5,190	226	823	468	144	46	13	5.2	3.2
19	4.6	145	536	2,500	238	659	420	140	45	12	4.6	3.0
20	5.5	127	465	1,640	197	580	408	137	43	13	4.2	2.8
21	5.5	114	403	1,180	178	513	367	130	39	13	4.2	2.8
22	28	127	349	854	168	633	361	123	37	13	4.7	2.4
23	61	1,060	313	670	158	2,820	394	124	35	12	4.6	2.4
24	129	3,970	282	525	166	1,930	338	128	34	9.4	4.6	2.4
25	49	3,380	260	435	196	3,850	310	130	37	8.8	4.6	2.4
26	33	1,890	246	383	166	6,950	292	138	47	8.2	4.3	3.0
27	25	3,930	232	361	177	2,500	279	123	46	7.5	5.1	3.7
28	21	2,620	714	352	171	1,670	269	118	39	7.4	4.2	3.7
29	18	1,760	1,720	341	-----	1,210	253	114	35	7.0	4.2	14
30	16	1,990	929	348	-----	915	244	107	32	7.0	5.2	88
31	15	-----	994	367	-----	663	-----	101	-----	6.9	7.5	-----
TOTAL	451.2	32,482	46,184	39,481	6,646	39,773	12,855	5,355	1,667	506.2	164.7	243.4
MEAN	14.6	1,083	1,490	1,274	237	1,283	429	173	55.6	16.3	5.31	8.11
MAX	129	3,970	5,380	7,460	370	6,950	1,200	247	95	31	7.5	88
MIN	1.9	13	232	271	158	158	244	101	32	6.9	4.2	2.4
AC-FT	895	64,430	91,610	78,310	13,180	78,890	25,500	10,620	3,310	1,000	327	483

CAL YR 1970 TOTAL 189,503.4 MEAN 519 MAX 9,020 MIN 1.9 AC-FT 375,900  
WTR YR 1971 TOTAL 185,808.5 MEAN 509 MAX 7,460 MIN 1.9 AC-FT 368,600

(PEAK DISCHARGE (BASE, 6,000 CFS, REVISED))

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1715	11.05	8,950	12- 7	1345	11.22	9,320
11-27	1615	10.50	7,740	1-16	1715	11.59	10,100
12- 3	2100	12.77	12,600	3-26	0130	13.58	14,100

## 11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CALIF.

LOCATION.--Lat 40°28'50", long 123°53'23", in NE<sup>1</sup>SE<sup>1</sup> sec.12, T.1 N., R.2 E., Humboldt County, on left bank at downstream side of bridge on State Highway 36, 0.9 mile upstream from Grizzly Creek, and 5 miles west of Bridgeville.

DRAINAGE AREA.--222 sq mi.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 358.18 ft above mean sea level. Prior to Oct. 1, 1965, at site 2.4 miles upstream at different datum.

AVERAGE DISCHARGE.--21 years, 912 cfs (660,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 26,500 cfs Dec. 3 (gage height, 17.86 ft), from rating curve extended above 12,000 cfs as explained below; minimum daily, 6.1 cfs Oct. 1-4.

Period of record: Maximum discharge, 48,700 cfs Dec. 22, 1964 (gage height, 24.0 ft, present site and datum, from floodmarks), from rating curve extended above 20,000 cfs on basis of slope-area measurement at gage height 21.3 ft, former site and datum; minimum, 5.0 cfs Sept. 13, 1959.

REMARKS.--Records excellent. No storage or large diversion above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	38	5,050	1,850	691	594	1,210	523	184	76	27	29
2	6.1	35	5,220	1,500	646	570	1,040	516	176	74	24	29
3	6.1	36	14,500	1,210	578	1,220	890	530	168	69	22	31
4	6.1	406	11,200	1,040	509	1,380	770	502	160	66	22	29
5	6.6	1,710	6,780	920	488	1,030	673	488	156	64	22	27
6	6.6	1,340	6,640	800	474	790	637	460	152	62	22	24
7	6.6	1,420	11,700	710	432	820	594	432	144	59	22	23
8	6.6	1,330	8,430	655	390	810	516	418	140	57	20	22
9	6.6	7,420	5,160	628	360	760	1,880	404	133	54	19	20
10	6.6	2,300	3,220	1,920	336	880	2,570	384	133	54	19	19
11	6.6	2,220	2,140	1,880	372	4,440	1,400	384	130	52	19	18
12	8.2	3,040	1,620	1,450	411	10,800	1,140	390	123	50	19	17
13	8.2	1,280	1,430	1,210	439	5,500	1,040	474	119	48	19	17
14	8.2	810	1,240	1,700	425	3,490	1,070	390	112	46	19	16
15	10	594	1,980	11,800	509	2,410	910	354	109	45	18	16
16	8.2	556	3,940	16,500	446	2,570	890	342	102	43	18	15
17	8.2	454	2,220	11,700	390	2,570	1,640	306	96	41	17	14
18	10	335	1,640	9,350	366	1,840	1,520	276	93	40	17	14
19	12	280	1,330	5,680	467	1,580	1,310	260	93	39	16	13
20	24	252	1,370	3,600	360	1,430	1,300	250	93	38	16	12
21	34	222	1,320	2,230	318	1,270	1,170	240	88	35	15	11
22	95	255	1,150	1,700	300	1,320	1,130	235	82	35	16	11
23	125	1,930	1,000	1,430	300	6,660	1,190	220	76	33	16	11
24	334	8,350	890	1,220	348	4,880	1,010	220	76	32	16	11
25	144	8,200	790	1,050	538	7,330	880	230	79	31	16	11
26	100	4,320	710	910	446	14,300	800	255	119	31	16	15
27	76	10,200	655	820	538	5,680	710	240	140	28	16	19
28	60	7,470	1,960	860	682	3,330	655	220	105	28	16	22
29	51	4,140	4,600	710	-----	2,130	602	216	91	28	16	50
30	44	5,090	2,470	682	-----	1,780	562	204	82	28	18	225
31	41	-----	2,380	710	-----	1,490	-----	192	-----	25	22	-----
TOTAL	1,271.6	76,033	114,735	88,425	12,559	95,654	31,709	10,555	3,554	1,411	580	791
MEAN	41.0	2,534	3,701	2,852	449	3,086	1,057	340	118	45.5	18.7	26.4
MAX	334	10,200	14,500	16,500	691	14,300	2,570	530	184	76	27	225
MIN	6.1	35	655	628	300	570	516	192	76	25	15	11
AC-FT	2,520	150,800	227,600	175,400	24,910	189,700	62,890	20,940	7,050	2,800	1,150	1,570
CAL YR 1970	TOTAL	451,628.5	MEAN	1,237	MAX	18,500	MIN	6.1	AC-FT	895,800		
WTR YR 1971	TOTAL	437,277.6	MEAN	1,198	MAX	16,500	MIN	6.1	AC-FT	867,300		

## PEAK DISCHARGE (BASE, 15,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1915	13.64	15,300	12- 7	1415	15.10	18,900
11-27	1530	14.34	17,000	1-16	1630	15.71	20,400
12- 3	1930	17.86	26,500	3-26	0130	17.23	24,700

## 11479000 YAGER CREEK NEAR CARLOTTA, CALIF.

LOCATION.--Lat 40°34'15", long 124°02'55", in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.10, T.2 N., R.1 E., Humboldt County, on right bank 0.8 mile upstream from Cooper Mill Creek and 2.4 miles north of Carlotta.

DRAINAGE AREA.--127 sq mi.

PERIOD OF RECORD.--August 1953 to October 1955, August 1956 to September 1960, August 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 200 ft (from topographic map). Aug. 18, 1953, to Dec. 22, 1955, at same site at different datum. Aug. 14, 1956, to Sept. 30, 1960, at site 0.2 mile downstream at different datum.

AVERAGE DISCHARGE.--12 years, 377 cfs (273,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,800 cfs Dec. 3 (gage height, unknown); minimum daily, 3.5 cfs Oct. 3-5.

Period of record: Maximum discharge, 30,000 cfs Dec. 22, 1964 (gage height, 19.9 ft, from floodmarks), from rating curve extended above 250 cfs on basis of field estimate of maximum flow; minimum, 2.8 cfs Sept. 30, 1969.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	7.0	2,150	736	165	815	524	252	61	32	13	14
2	3.6	6.8	2,560	634	153	698	420	243	61	32	13	15
3	3.5	7.0	9,300	509	138	1,500	354	227	60	30	13	14
4	3.5	221	7,950	422	125	1,100	304	198	58	29	12	12
5	3.5	865	4,760	356	148	724	259	205	56	28	12	11
6	3.9	742	4,180	300	165	566	227	203	54	27	12	11
7	3.9	415	6,290	259	140	584	213	187	52	27	12	9.6
8	3.9	646	1,980	228	123	536	192	144	50	26	11	8.9
9	3.7	4,000	1,340	210	115	430	668	138	50	25	11	8.9
10	3.7	998	907	872	107	590	850	127	51	25	11	8.6
11	3.7	942	718	1,070	103	2,330	518	117	49	25	11	8.2
12	3.7	1,490	586	956	97	5,460	405	111	47	24	11	7.9
13	3.9	658	544	781	90	2,630	341	152	46	23	11	7.6
14	3.9	405	471	1,120	88	1,890	317	111	44	22	12	7.4
15	4.0	256	700	7,100	143	1,230	266	103	42	20	11	7.1
16	4.3	231	1,490	7,340	117	1,310	281	114	39	20	11	6.6
17	4.0	186	1,020	3,780	109	1,090	1,310	100	38	19	11	6.6
18	4.5	148	767	1,990	130	773	1,850	90	37	18	10	6.3
19	4.7	130	616	1,280	375	638	1,060	85	38	18	9.9	6.0
20	9.2	130	652	921	237	548	960	82	39	17	9.9	5.7
21	11	123	730	736	195	445	843	79	36	16	9.9	5.2
22	12	190	616	598	203	554	738	73	35	15	11	5.2
23	18	1,250	515	498	252	2,150	745	72	33	15	11	5.2
24	50	6,450	435	420	440	1,380	632	70	33	14	11	5.2
25	24	6,300	370	361	717	2,560	530	76	32	14	10	5.2
26	16	1,740	316	312	554	4,350	465	95	32	14	9.6	6.3
27	12	7,400	277	277	620	2,270	410	81	32	14	9.6	7.9
28	10	3,000	879	245	829	1,330	385	73	32	14	9.6	8.6
29	9.0	1,480	1,520	221	-----	928	309	69	32	14	9.2	31
30	8.2	2,120	886	198	-----	773	270	65	32	14	9.9	94
31	7.2	-----	858	180	-----	662	-----	62	-----	14	14	-----
TOTAL	260.2	42,536.8	56,383	34,910	6,678	42,844	16,646	3,804	1,301	645	342.6	356.2
MEAN	8.39	1,418	1,819	1,126	239	1,382	555	123	43.4	20.8	11.1	11.9
MAX	50	7,400	9,300	7,340	829	5,460	1,850	252	61	32	14	94
MIN	3.5	6.8	277	180	88	430	192	62	32	14	9.2	5.2
AC-FT	516	84,370	111,800	69,240	13,250	84,980	33,020	7,550	2,580	1,280	680	707
CAL YR 1970	TOTAL 189,783.6		MEAN 520	MAX 9,300	MIN 3.5	AC-FT 376,400						
WTR YR 1971	TOTAL 206,706.8		MEAN 566	MAX 9,300	MIN 3.5	AC-FT 410,000						

## PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11- 9	0645	8.83	7,890	12-28	2200	6.47	4,060
11-24	unknown	-	9,400	1-15	1745	11.03	12,100
11-27	unknown	-	10,200	3-11	2345	8.32	7,230
12- 3	unknown	-	15,800	3-25	2200	8.56	7,620
12- 7	1300	10.77	11,500				

NOTE.--No gage-height record Nov. 22 to Dec. 4.

## MAD RIVER BASIN

11480400 RUTH RESERVOIR NEAR FOREST GLEN, CALIF.

LOCATION.--Lat 40°21'29", long 123°25'20", in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.19, T.1 S., R.7 E., Trinity County, Six Rivers National Forest, near center of Ruth Dam on Mad River, 5.2 miles west of Forest Glen.

DRAINAGE AREA.--119 sq mi.

PERIOD OF RECORD.--October 1966 to current year. Records prior to October 1966 in files of Humboldt Bay Municipal Water District.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Humboldt Bay Municipal Water District).

EXTREMES.--Current year: Maximum contents, 62,200 acre-ft Jan. 16 (elevation, 2,662.83 ft); minimum, 20,400 acre-ft Nov. 4, 5 (elevation, 2,620.34 ft).  
Period of record: Maximum contents, 63,500 acre-ft Jan. 24, 1970 (elevation, 2,663.87 ft); minimum, 14,700 acre-ft Nov. 16 to Dec. 2, 1967 (elevation, 2,612.34 ft).

REMARKS.--Reservoir is formed by earthfill dam; storage began July 1961. Total capacity, 51,800 acre-ft at elevation 2,654.0 ft, crest of spillway. Water is released down Mad River for municipal use. Records given herein represent total contents.

## CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

2,595	6,670	2,620	20,100	2,640	37,300	2,660	56,700
2,600	8,520	2,625	23,900	2,645	42,300	2,665	65,000
2,605	10,700	2,630	27,800	2,650	47,400	2,670	72,300
2,610	13,300	2,635	32,500	2,655	52,900	2,675	80,300
2,615	16,500						

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27,700	20,900	54,500	53,000	52,000	51,600	53,000	52,100	51,900	50,300	46,300	40,300
2	27,500	20,600	54,300	52,800	51,900	51,700	52,800	52,100	51,900	50,200	46,100	40,100
3	27,200	20,500	58,100	52,600	51,800	51,900	52,600	52,100	51,900	50,000	46,000	39,900
4	27,000	20,400	57,400	52,400	51,600	52,100	52,400	51,900	51,900	49,900	45,800	39,700
5	26,700	20,400	56,700	52,200	51,500	52,300	52,400	51,900	51,900	49,800	45,600	39,500
6	26,400	20,500	56,100	52,000	51,200	52,200	52,500	51,900	51,800	49,700	45,400	39,200
7	26,200	20,600	57,600	51,900	51,000	52,200	52,500	51,900	51,800	49,600	45,300	39,100
8	26,000	21,200	56,500	51,600	50,700	52,200	52,500	51,800	51,800	49,500	45,100	38,800
9	25,700	23,600	55,200	51,600	50,400	52,200	53,000	51,800	51,800	49,400	44,900	38,600
10	25,500	24,200	54,200	52,300	50,200	52,300	53,100	51,900	51,700	49,400	44,800	38,400
11	25,200	25,000	53,500	53,000	50,200	53,300	53,000	52,000	51,700	49,300	44,600	38,200
12	25,000	25,900	53,100	53,100	50,300	56,000	52,900	52,200	51,600	49,200	44,400	38,000
13	24,800	26,200	52,800	53,000	50,400	55,100	52,800	52,200	51,600	49,100	44,100	37,900
14	24,500	26,300	52,600	52,900	50,500	54,300	52,700	52,200	51,500	49,000	43,900	37,600
15	24,300	26,300	53,100	56,600	50,600	53,800	52,700	52,100	51,500	48,900	43,700	37,400
16	24,100	26,300	53,600	62,200	50,700	53,900	52,700	52,100	51,400	48,800	43,500	37,200
17	23,800	26,300	53,400	60,900	50,700	53,900	52,800	52,000	51,400	48,800	43,300	36,900
18	23,600	26,200	53,100	58,800	50,800	53,600	52,700	52,100	51,300	48,700	43,100	36,700
19	23,400	26,100	52,800	56,600	51,000	53,200	52,700	52,000	51,200	48,500	42,900	36,400
20	23,300	26,000	52,600	55,300	50,900	53,000	52,700	52,000	51,200	48,300	42,700	36,200
21	23,200	25,900	52,400	54,400	50,900	52,700	52,600	51,900	51,100	48,200	42,500	36,000
22	22,900	25,800	52,200	53,800	50,900	53,000	52,600	51,900	51,000	48,000	42,300	35,700
23	22,800	26,700	52,000	53,400	51,000	54,800	52,600	51,900	50,900	47,800	42,100	35,500
24	22,600	32,600	51,800	53,100	51,100	54,600	52,600	51,900	50,800	47,700	41,900	35,300
25	22,400	36,900	51,700	52,800	51,200	57,700	52,600	51,900	50,700	47,600	41,700	35,000
26	22,200	38,900	51,500	52,600	51,300	58,800	52,600	51,900	50,700	47,400	41,500	34,800
27	22,000	44,800	51,200	52,400	51,500	56,400	52,500	52,000	50,600	47,200	41,300	34,600
28	21,800	48,500	52,000	52,300	51,500	55,100	52,400	52,000	50,500	47,000	41,100	34,400
29	21,500	51,000	53,100	52,200	-----	54,300	52,200	51,900	50,500	46,900	40,900	34,300
30	21,300	53,800	53,100	52,100	-----	53,700	52,000	51,900	50,400	46,700	40,700	34,100
31	21,100	-----	53,100	52,100	-----	53,400	-----	51,900	-----	46,500	40,500	-----
TOTAL	751,700	858,400	1,665.3M	1,666.0M	1,427.8M	1,665.3M	1,579.2M	1,611.4M	1,540.0M	1,507.4M	1,348.0M	1,115.8M
MEAN	24,250	28,610	53,720	53,740	50,990	53,720	52,640	51,980	51,330	48,630	43,480	37,190
MAX	27,700	53,800	58,100	62,200	52,000	58,800	53,100	52,200	51,900	50,300	46,300	40,300
MIN	21,100	20,400	51,200	51,600	50,200	51,600	52,000	51,800	50,400	46,500	40,500	34,100
(a)	2,621.25	2,655.81	2,655.15	2,654.21	2,653.75	2,655.38	2,654.18	2,654.07	2,652.69	2,649.13	2,643.19	2,636.87
(b)	-6,900	+32,700	-700	-1,000	-600	+1,900	-1,400	-100	-1,500	-3,900	-6,000	-6,400

CAL YR 1970 b +1,100  
WTR YR 1971 b -6,000

a Elevation, in feet, at end of month.  
b Change in contents, in acre-feet.

## 11480500 MAD RIVER NEAR FOREST GLEN, CALIF.

LOCATION.--Lat 40°27'30", long 123°30'35", in SW $\frac{1}{4}$  sec.16, T.1 N., R.6 E., Trinity County, Six Rivers National Forest, on right bank 0.7 mile downstream from Lamb Creek and 11.1 miles northwest of Forest Glen.

DRAINAGE AREA.--143 sq mi.

PERIOD OF RECORD.--June 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,408.18 ft above mean sea level. Prior to Dec. 22, 1955, water-stage recorder at site 0.7 mile upstream at different datum. Jan. 13 to June 18, 1956, nonrecording gage at former site at datum 4.17 ft lower than former datum.

AVERAGE DISCHARGE.--18 years, 384 cfs (278,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,600 cfs Jan. 16 (gage height, 11.52 ft); minimum daily, 27 cfs May 11.

Period of record: Maximum discharge, 39,200 cfs Dec. 22, 1955 (gage height, 24.5 ft, from floodmarks, present datum), from rating curve extended above 8,100 cfs on basis of slope-area measurement of maximum flow; minimum daily, 0.60 cfs Sept. 15, 1961.

REMARKS.--Records excellent. Flow regulated by Ruth Reservoir 9 miles upstream beginning in July 1961 (see sta 11480400). No diversion above station. Records of water temperatures, suspended-sediment discharge, and sediment and turbidity data for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1395: 1954. WSP 1715: 1957(M), 1958(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	107	1,440	832	437	101	817	143	69	64	89	98
2	119	107	1,540	759	422	99	685	194	68	64	89	97
3	119	110	2,320	652	408	114	590	241	67	63	89	97
4	119	128	5,560	568	401	132	521	254	65	62	89	97
5	119	176	3,910	504	368	169	400	226	63	62	87	97
6	119	161	3,380	453	395	214	317	158	61	61	83	97
7	118	143	3,910	416	392	214	332	160	60	61	83	97
8	118	152	4,230	397	389	209	330	190	58	49	83	97
9	118	396	2,960	400	378	201	419	186	58	48	83	97
10	118	168	1,860	466	314	203	587	118	58	48	87	97
11	118	197	1,270	655	252	474	544	27	58	48	98	97
12	118	210	940	782	161	1,860	483	54	58	48	99	97
13	118	150	754	770	159	2,520	445	79	58	48	99	96
14	127	134	630	734	161	1,710	421	106	57	48	99	95
15	109	128	690	2,120	161	1,270	388	154	57	48	99	99
16	109	127	1,120	7,460	159	1,140	379	137	56	48	99	103
17	107	125	1,050	9,240	156	1,250	425	120	54	47	99	103
18	110	123	883	7,740	159	1,110	422	68	65	47	99	103
19	107	122	729	4,910	137	929	396	98	66	47	99	103
20	114	120	645	2,970	164	785	382	117	65	106	97	103
21	116	119	579	1,950	164	679	367	108	64	93	97	103
22	110	126	511	1,410	164	643	363	103	63	86	98	103
23	118	228	458	1,100	144	1,390	364	99	63	66	97	103
24	112	537	418	904	99	1,810	361	95	64	66	97	103
25	109	450	397	759	101	2,580	350	72	66	66	97	103
26	107	289	392	654	97	7,110	337	72	67	87	97	105
27	107	722	388	583	101	4,710	317	75	65	102	100	103
28	107	504	495	533	101	2,660	296	79	64	83	99	103
29	107	392	713	495	-----	1,740	328	76	62	83	99	111
30	107	610	847	470	-----	1,270	350	74	63	90	99	103
31	109	-----	853	452	-----	1,000	-----	71	-----	90	98	-----
TOTAL	3,532	7,061	45,872	52,138	6,544	40,296	12,716	3,754	1,862	2,029	2,927	3,010
MEAN	114	235	1,480	1,682	234	1,300	424	121	62.1	65.5	94.4	100
MAX	127	722	5,560	9,240	437	7,110	817	254	69	106	100	111
MIN	107	107	388	397	97	99	296	27	54	47	83	95
AC-FT	7,010	14,010	90,990	103,400	12,980	79,930	25,220	7,450	3,690	4,020	5,810	5,970
CAL YR 1970	TOTAL 196,477		MEAN 538	MAX 10,300	MIN 22	AC-FT 389,700						
WTR YR 1971	TOTAL 181,741		MEAN 498	MAX 9,240	MIN 27	AC-FT 360,500						

## MAD RIVER BASIN

## 11480750 MAD RIVER NEAR KNEELAND, CALIF.

LOCATION.--Lat 40°45'50", long 123°53'20", in NW1/4 sec.6, T.4 N., R.3 E., Humboldt County, on left bank at mouth of Maple Creek 30 ft upstream from bridge and 5.4 miles east of Kneeland.

DRAINAGE AREA.--352 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 329.66 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 1,199 cfs (868,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,000 cfs Jan. 16 (gage height, 18.94 ft); minimum daily, 99 cfs July 20.

Period of record: Maximum discharge, 32,200 cfs Jan. 13, 1969 (gage height, 22.0 ft); minimum daily, 55 cfs Oct. 3-8, Nov. 5, 1966.

Flood of Dec. 22, 1964, reached a stage of 37.99 ft, from floodmarks (discharge, 55,000 cfs).

REMARKS.--Records good. Flow regulated by Ruth Reservoir 47 miles upstream (see sta 11480400). No diversion above station. Records of chemical analyses, water temperatures, suspended-sediment discharge, and sediment and turbidity data for the current year are published in Part 2 of this report.

REVISIONS.--Revised figures of discharge, in cubic feet per second, for the water year 1970, superseding figures published in WRD Calif. 1970, are given herewith:

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
1970		1970-Con.		1970-Con.	
Jan. 9	1,500	Jan. 16	9,800	Jan. 23	20,000
10	3,000	17	16,000	24	25,000
11	2,000	18	11,000	25	14,000
12	2,200	19	7,500	26	16,000
13	3,800	20	7,000	27	21,000
14	7,300	21	13,000	28	10,000
15	6,800	22	18,000		
MONTH	CFS-DAYS	MAX	MIN	MEAN	AC-FT
January 1970	233,079	25,000	683	7,519	462,300
WTR YR 1970	469,464	25,000	91	1,286	931,200

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	126	5,100	2,500	1,120	1,100	2,000	871	264	164	124	121
2	131	124	5,460	2,090	1,060	850	1,780	775	257	162	125	129
3	129	128	13,200	1,760	955	1,490	1,600	787	246	154	125	124
4	128	570	11,300	1,530	847	2,100	1,480	811	236	143	125	121
5	128	1,290	7,130	1,350	811	1,630	1,430	799	229	141	122	118
6	128	978	7,280	1,200	739	1,320	1,200	695	219	141	115	117
7	128	671	11,300	1,100	727	1,310	1,120	615	213	134	112	117
8	128	1,130	7,850	1,060	655	1,300	1,040	607	207	126	112	115
9	128	6,110	5,000	1,100	591	1,220	1,730	591	201	121	110	114
10	128	1,610	3,780	2,840	535	1,270	2,170	591	201	121	116	114
11	128	1,570	2,890	2,720	471	3,000	1,670	443	198	115	126	114
12	128	2,450	2,150	2,470	413	9,100	1,540	401	188	110	127	114
13	128	1,200	1,910	2,200	365	6,450	1,510	543	184	107	127	112
14	128	775	1,700	2,420	341	4,700	1,450	437	181	107	128	111
15	134	645	2,360	9,750	511	3,640	1,330	463	177	104	128	111
16	119	591	4,140	21,300	407	4,380	1,390	519	172	104	128	111
17	118	511	3,240	19,000	370	3,860	2,350	479	168	103	128	117
18	122	407	2,630	15,800	395	2,570	2,090	437	168	100	128	117
19	123	375	2,080	12,700	599	2,060	1,840	360	181	100	125	117
20	165	327	1,900	9,750	495	1,530	1,850	401	177	99	122	117
21	153	300	1,820	6,300	480	1,240	1,690	385	170	128	120	117
22	195	385	1,560	5,000	475	2,330	1,610	365	166	121	119	117
23	267	3,880	1,380	4,000	485	14,600	1,620	350	164	118	119	117
24	375	9,550	1,180	3,400	590	12,800	1,530	336	162	116	118	117
25	203	6,350	1,100	2,720	1,000	14,500	1,420	345	188	117	114	117
26	182	3,280	1,020	2,300	770	17,200	1,320	345	305	128	114	123
27	155	6,780	967	1,850	1,020	8,400	1,240	305	260	138	117	128
28	140	4,620	2,050	1,600	1,330	5,260	1,160	296	204	120	118	121
29	133	2,890	3,460	1,490	-----	3,300	1,020	292	186	118	117	260
30	129	4,220	2,740	1,290	-----	2,920	1,090	276	177	125	118	296
31	129	-----	2,860	1,200	-----	2,440	-----	268	-----	124	132	-----
TOTAL	4,635	63,843	122,537	145,790	18,557	139,870	46,270	15,188	6,049	3,809	3,759	3,844
MEAN	150	2,128	3,953	4,703	663	4,512	1,542	490	202	123	121	128
MAX	375	9,550	13,200	21,300	1,330	17,200	2,350	871	305	164	132	296
MIN	118	124	967	1,060	341	850	1,020	268	162	99	110	111
AC-FT	9,190	126,600	243,100	289,200	36,810	277,400	91,780	30,130	12,000	7,560	7,460	7,620

CAL YR 1970 TOTAL 554,523 MEAN 1,519 MAX 25,000 MIN 91 AC-FT 1,100,000  
WTR YR 1971 TOTAL 574,151 MEAN 1,573 MAX 21,300 MIN 99 AC-FT 1,139,000

NOTE.--No gage-height record July 24 to Aug. 23.

## 11481000 MAD RIVER NEAR ARCATA, CALIF.

LOCATION.--Lat 40°54'35", long 124°03'35", in NW¼ sec.15, T.6 N., R.1 E., Humboldt County, on right bank 100 ft upstream from bridge on U.S. Highway 299, 1.0 mile downstream from Warren Creek, and 2.8 miles northeast of Arcata.

DRAINAGE AREA.--485 sq mi.

PERIOD OF RECORD.--October 1910 to September 1913, August 1950 to current year. Monthly discharge only for some periods published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 12.79 ft above mean sea level. December 1910 to September 1913, nonrecording gage at site 0.1 mile upstream at different datum. Aug. 15, 1950, to July 23, 1956, water-stage recorder at site 0.6 mile upstream at datum 11.00 ft higher. July 24, 1956, to Apr. 9, 1965, water-stage recorder at datum 5.00 ft higher. Aug. 29 to Oct. 26, 1961, auxiliary water-stage recorder at site 0.5 mile downstream at different datum.

AVERAGE DISCHARGE (adjusted for diversions).--24 years, 1,528 cfs (1,107,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 29,200 cfs Dec. 3, Jan. 16 (gage height, 17.15 ft); minimum daily, 25 cfs Sept. 14.

Period of record: Maximum discharge, 77,800 cfs Dec. 22, 1955 (gage height, 29.75 ft, present site and datum); minimum 0.75 cfs July 31, 1970.

REMARKS.--Records good. Flow regulated by Ruth Reservoir 68 miles upstream beginning in July 1961 (see sta 11480400). Water is diverted 0.5 mile upstream from station for municipal supply and industrial use in Humboldt Bay area. Records of chemical analyses, water temperatures, suspended-sediment discharge, and sediment and turbidity data for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	37	5,020	3,270	1,250	1,870	3,070	1,310	275	170	60	92
2	35	35	7,300	2,750	1,200	1,380	2,520	1,330	260	156	68	96
3	36	34	13,800	2,080	1,100	2,480	2,130	1,190	245	161	68	92
4	37	177	18,700	1,880	1,020	3,020	1,840	1,070	230	165	72	76
5	41	826	10,700	1,640	1,090	2,360	1,650	1,020	225	156	72	68
6	39	936	9,170	1,440	1,100	1,790	1,390	890	210	147	64	68
7	39	796	13,200	1,280	1,020	1,780	1,220	709	197	120	56	60
8	39	896	12,400	1,200	904	1,800	1,080	681	192	112	48	48
9	39	7,650	8,000	1,170	888	1,600	2,010	667	179	108	44	37
10	39	2,120	5,080	3,860	844	1,700	6,160	625	188	104	40	34
11	39	1,080	3,590	4,660	808	5,950	3,470	566	183	100	37	48
12	39	2,520	2,730	4,320	772	13,200	2,520	476	165	88	48	34
13	39	1,100	2,310	3,350	706	9,800	1,760	632	165	72	60	48
14	39	630	1,970	3,570	690	6,740	1,530	530	152	56	68	25
15	38	432	2,280	8,600	904	4,900	1,370	518	134	52	68	34
16	39	368	5,400	20,900	814	4,780	1,440	597	125	44	60	28
17	37	326	4,620	24,500	742	5,080	3,650	560	116	44	56	48
18	39	266	3,380	21,000	742	4,100	4,330	512	116	40	52	37
19	41	233	2,610	12,700	1,040	3,470	3,390	454	143	34	52	48
20	60	208	2,450	7,930	850	3,010	3,390	426	147	25	52	31
21	63	190	2,370	5,360	790	2,730	3,390	421	129	37	56	48
22	67	204	2,040	3,860	784	3,300	3,120	399	112	68	64	48
23	91	3,530	1,730	3,020	802	9,880	2,770	377	108	68	68	48
24	194	14,800	1,480	2,460	1,070	8,200	2,340	355	96	60	68	34
25	127	12,700	1,290	2,060	1,730	7,420	2,040	366	250	40	64	37
26	90	5,380	1,180	1,850	1,310	17,600	1,840	410	578	37	60	48
27	72	8,510	1,090	1,620	1,630	12,200	1,720	355	476	34	52	60
28	60	8,200	1,680	1,510	2,190	7,600	1,610	325	305	72	56	60
29	52	3,410	4,680	1,390	-----	5,360	1,510	325	230	68	56	260
30	45	3,960	3,320	1,330	-----	4,360	1,400	300	192	52	64	524
31	42	-----	3,530	1,290	-----	3,740	-----	280	-----	52	88	-----
TOTAL	1,690	81,554	159,100	157,850	28,790	163,200	71,660	18,676	6,123	2,542	1,841	2,219
MEAN	54.5	2,718	5,132	5,092	1,028	5,265	2,389	602	204	82.0	59.4	74.0
MAX	194	14,800	18,700	24,500	2,190	17,600	6,160	1,330	578	170	88	524
MIN	33	34	1,090	1,170	690	1,380	1,080	280	96	25	37	25
AC-FT	3,350	161,800	315,600	313,100	57,100	323,700	142,100	37,040	12,140	5,040	3,650	4,400
(a)	5,300	4,790	4,220	4,410	3,990	4,380	4,030	4,580	4,730	4,730	4,410	4,740
CAL YR 1970	TOTAL 655,552.85	MEAN 1,796	MAX 30,000	MIN .75	AC-FT 1,300,000	a 59,790						
WTR YR 1971	TOTAL 695,245.00	MEAN 1,905	MAX 24,500	MIN 25	AC-FT 1,379,000	a 54,310						

a Diversion, in acre-feet, for municipal supply and industrial use, furnished by Humboldt Bay Municipal Water District.



## LITTLE RIVER BASIN

11481200 LITTLE RIVER AT CRANNELL, CALIF.

LOCATION.--Lat 41°00'40", long 124°04'50", in NE $\frac{1}{4}$  sec.8, T.7 N., R.1 E., Humboldt County, on right bank at Crannell 0.5 mile upstream from Coon Creek and 9.1 miles north of Arcata.

DRAINAGE AREA.--44.4 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 17.62 ft above mean sea level.

AVERAGE DISCHARGE.--16 years, 141 cfs (102,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,830 cfs Nov. 24 (gage height, 11.48 ft); minimum daily, 4.5 cfs Oct. 1-17.

Period of record: Maximum discharge, 8,830 cfs Nov. 24, 1970 (gage height, 11.48 ft), from rating curve extended above 3,100 cfs on basis of slope-area measurement at gage height 11.06 ft; minimum daily, 2.8 cfs Oct. 20-22, 1964.

Flood of Jan. 17, 18, 1953, reached a stage of 15.7 ft, observed by an employee of Hammond Lumber Co.

REMARKS.--Records fair. No storage or diversion above station.

REVISIONS (WATER YEARS).--WRD Calif. 1964: 1956-60.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	14	650	425	89	366	205	84	34	33	12	15
2	4.5	16	1,390	310	84	247	174	80	31	29	11	27
3	4.5	50	3,630	230	77	380	151	78	31	26	11	25
4	4.5	150	1,670	174	73	380	135	75	31	24	11	19
5	4.5	120	755	144	102	331	122	71	30	23	11	16
6	4.5	100	730	124	111	244	113	68	30	22	11	14
7	4.5	230	1,460	112	93	214	105	60	29	20	11	12
8	4.5	500	900	104	82	196	100	57	27	19	10	10
9	4.5	300	580	104	75	166	188	55	27	19	10	9.0
10	4.5	180	403	731	68	234	254	52	27	20	10	8.0
11	4.5	130	329	824	64	1,290	166	51	27	19	10	7.5
12	4.5	100	290	670	59	1,500	135	55	27	18	10	7.5
13	4.5	88	281	436	55	845	120	82	27	17	10	7.5
14	4.5	74	278	534	62	554	109	59	27	17	10	7.5
15	4.5	90	520	900	158	408	98	55	27	17	10	7.0
16	4.5	72	670	1,320	113	396	124	64	26	16	10	6.5
17	4.5	58	464	2,050	95	384	388	60	25	16	10	6.2
18	4.9	48	282	1,950	91	296	432	55	27	15	9.5	6.2
19	20	39	198	817	122	230	254	51	28	15	9.5	6.2
20	15	33	450	541	102	185	214	46	27	14	9.5	6.2
21	70	30	304	400	89	156	191	43	25	14	9.5	6.2
22	45	40	200	317	91	388	176	42	24	13	11	6.2
23	66	1,010	135	258	93	1,130	199	39	24	13	11	6.2
24	38	4,880	112	211	191	817	166	38	23	13	9.5	6.2
25	30	2,770	102	179	237	801	146	42	142	13	9.0	6.2
26	24	810	93	156	179	1,170	130	46	191	13	9.0	16
27	21	2,190	91	139	265	757	117	40	120	12	8.5	30
28	19	1,170	345	124	444	472	107	38	71	12	9.0	25
29	17	517	1,160	113	-----	352	100	36	47	12	9.5	214
30	16	531	480	104	-----	307	91	34	40	12	12	174
31	15	-----	560	96	-----	251	-----	34	-----	12	17	-----
TOTAL	477.4	16,340	19,512	14,597	3,364	15,447	5,010	1,690	1,272	538	321.5	713.3
MEAN	15.4	545	629	471	120	498	167	54.5	42.4	17.4	10.4	23.8
MAX	70	4,880	3,630	2,050	444	1,500	432	84	191	33	17	214
MIN	4.5	14	91	96	55	156	91	34	23	12	8.5	6.2
AC-FT	947	32,410	38,700	28,950	6,670	30,640	9,940	3,350	2,520	1,070	638	1,410
CAL YR 1970	TOTAL	84,513.3	MEAN	232	MAX	6,650	MIN	4.5	AC-FT	167,600		
WTR YR 1971	TOTAL	79,282.2	MEAN	217	MAX	4,880	MIN	4.5	AC-FT	157,300		

## PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1500	11.48	8,830	12- 3	1545	10.69	7,750
11-27	1115	6.95	3,450	1-17	2315	6.53	3,070

NOTE.--No gage-height record Dec. 6 to Jan. 8.

## 11482200 REDWOOD CREEK AT SOUTH PARK BOUNDARY, NEAR ORICK, CALIF.

LOCATION.--Lat 41°10'19", long 123°56'52", in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.16, T.9 N., R.2 E., Humboldt County, Redwood National Park (south boundary), on left bank 50 ft upstream from small right-bank tributary, 8.6 miles southeast of Orick, and 17 miles upstream from mouth.

DRAINAGE AREA.--183 sq mi.

PERIOD OF RECORD.--October 1970 to September 1971.

GAGE.--Water-stage recorder. Altitude of gage is 240 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 15,100 cfs Nov. 24 (gage height, 20.09 ft), from rating curve extended above 1,400 cfs; minimum daily, 6.1 cfs Oct. 7-17.

REMARKS.--Records poor. No regulation or diversion above station. Records of chemical analyses and suspended-sediment discharge for the current year are published in part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	24	2,320	1,550	560	792	1,500	521	191	116	39	50
2	6.6	20	3,330	1,240	510	744	1,360	499	184	108	38	67
3	6.6	19	6,310	1,010	465	1,840	1,200	491	178	103	36	53
4	6.6	91	7,320	858	430	2,140	1,040	460	173	99	35	41
5	6.6	363	5,110	754	455	1,570	930	432	168	93	35	34
6	6.6	526	3,420	671	435	1,310	830	409	165	93	35	32
7	6.1	464	4,430	611	410	1,490	740	386	158	89	34	31
8	6.1	900	3,760	550	385	1,430	560	364	155	85	33	30
9	6.1	2,610	1,700	517	370	1,180	996	351	152	85	31	30
10	6.1	974	1,550	1,690	350	1,870	1,700	329	152	87	31	30
11	6.1	704	1,460	2,440	334	3,370	1,030	311	150	83	30	29
12	6.1	1,300	1,240	1,800	334	6,500	809	318	142	79	30	28
13	6.1	820	1,130	1,440	334	3,960	721	440	139	77	30	28
14	6.1	424	1,010	1,580	350	2,490	693	400	134	73	30	27
15	6.1	311	1,200	3,530	545	1,950	627	373	129	71	29	25
16	6.1	390	2,340	7,670	430	1,820	699	405	124	67	28	24
17	6.1	200	1,790	10,500	375	1,770	1,610	360	119	63	27	22
18	11	183	1,450	9,060	420	1,430	1,960	319	121	60	26	21
19	13	172	1,200	3,940	585	1,220	1,390	294	129	60	26	20
20	41	255	1,200	2,630	465	1,050	1,220	284	121	56	26	20
21	55	400	1,700	1,950	415	924	1,050	263	111	55	25	20
22	103	625	1,130	1,550	425	1,570	974	245	103	53	27	19
23	140	7,270	952	1,300	425	4,330	1,130	239	101	50	28	19
24	220	11,800	820	1,120	550	3,310	957	232	99	49	28	18
25	144	8,830	732	1,020	810	2,870	836	239	213	48	25	19
26	77	5,140	660	960	654	6,720	770	263	235	45	24	67
27	57	5,800	605	890	750	4,350	704	226	191	43	24	99
28	43	5,300	1,430	830	858	2,940	655	216	147	43	25	69
29	33	2,690	3,300	750	-----	2,300	605	210	132	42	25	465
30	28	2,180	1,700	672	-----	2,020	556	203	124	45	30	387
31	24	-----	2,050	618	-----	1,760	-----	197	-----	41	50	-----
TOTAL	1,095.7	60,735	68,349	65,701	13,429	73,020	29,852	10,279	4,440	2,161	940	1,824
MEAN	35.3	2,025	2,205	2,119	480	2,355	995	332	148	69.7	30.3	60.8
MAX	220	11,800	7,320	10,500	858	6,720	1,960	521	235	116	50	465
MIN	6.1	19	605	517	334	744	556	197	99	41	24	18
AC-FT	2,170	120,500	135,600	130,300	26,640	144,800	59,210	20,390	8,810	4,290	1,860	3,620

WTR YR 1971 TOTAL 331,825.7 MEAN 909 MAX 11,800 MIN 6.1 AC-FT 658,200

PEAK DISCHARGE (BASE, 4,500 CFS)					
DATE	TIME	G.H.	DISCHARGE	DATE	TIME
11-24	1530	20.09	15,100	1-18	unknown
11-27	1830	12.28	7,280	3-12	unknown
12- 3	1745	13.88	8,880	3-26	unknown
12- 7	1600	10.90	5,890		

NOTE.--No gage-height record Oct. 1 to Nov. 22, Dec. 10 to Jan. 29, Mar. 11 to May 14.

## REDWOOD CREEK BASIN

## 11482500 REDWOOD CREEK AT ORICK, CALIF.

LOCATION.--Lat 41°17'20", long 124°03'30", in NE¼ sec.4, T.10 N., R.1 E., Humboldt County, on left bank at upstream side of bridge on U.S. Highway 101 at Orick, 0.9 mile downstream from Prairie Creek.

DRAINAGE AREA.--278 sq mi.

PERIOD OF RECORD.--September 1911 to September 1913, October 1953 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 5.16 ft above mean sea level. Sept. 10, 1911, to Aug. 9, 1913, nonrecording gage at different datum.

AVERAGE DISCHARGE.--20 years, 1,071 cfs (775,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 30,500 cfs Nov. 24 (gage height, 18.70 ft); minimum daily, 11 cfs Oct. 7-17.

Period of record: Maximum discharge, 50,500 cfs Dec. 22, 1964 (gage height, 24.0 ft from outside high-water marks); minimum, 10 cfs Sept. 22-24, 1911.

Flood of Jan. 18, 1953, reached a stage of 23.95 ft, from floodmarks (discharge, 50,000 cfs).

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1315-B: 1912-13.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	43	4,310	2,820	964	1,460	2,140	948	283	204	68	83
2	12	36	5,460	2,260	908	1,280	1,800	908	275	190	66	103
3	12	34	11,900	1,830	852	2,100	1,590	892	263	179	64	73
4	12	161	10,900	1,560	806	2,730	1,450	836	255	169	64	66
5	12	660	5,570	1,370	924	2,320	1,340	785	243	158	64	60
6	12	957	4,550	1,220	876	1,840	1,260	743	239	144	60	55
7	11	844	5,560	1,110	799	1,850	1,180	701	232	144	60	50
8	11	1,190	5,040	1,000	750	1,860	1,110	662	225	137	57	47
9	11	4,740	3,910	940	715	1,650	1,660	638	218	134	51	47
10	11	1,770	3,090	2,810	687	1,890	2,610	596	214	134	51	43
11	11	1,280	2,660	3,480	668	5,620	1,710	566	214	130	53	40
12	11	2,180	2,260	3,260	662	9,280	1,470	578	204	124	50	40
13	11	1,180	2,050	2,610	644	6,600	1,310	668	200	118	47	36
14	11	771	1,840	2,880	650	4,530	1,260	555	193	115	50	33
15	11	566	2,000	5,880	900	3,540	1,140	525	183	112	50	33
16	11	650	3,560	11,800	764	3,300	1,270	550	176	106	47	32
17	11	515	3,260	16,200	701	3,220	2,680	520	169	103	45	30
18	15	435	2,640	15,100	694	2,600	3,010	480	169	98	43	32
19	18	356	2,180	7,160	908	2,210	2,310	450	183	98	43	29
20	87	329	2,180	4,790	743	1,900	2,210	425	176	93	36	26
21	99	307	2,630	3,540	722	1,680	1,900	405	162	88	35	27
22	188	385	2,050	2,820	715	2,610	1,770	385	151	83	43	25
23	210	5,860	1,730	2,360	729	6,660	2,050	365	148	80	48	23
24	400	17,100	1,490	2,030	876	5,510	1,740	351	144	78	47	20
25	208	9,080	1,330	1,740	1,270	5,220	1,520	351	455	78	43	22
26	140	3,970	1,200	1,540	1,070	9,600	1,400	380	578	75	42	68
27	103	5,400	1,100	1,410	1,200	6,560	1,280	347	410	73	42	228
28	79	6,260	2,380	1,290	1,500	4,520	1,190	324	299	71	42	127
29	60	3,490	4,720	1,200	-----	3,490	1,100	315	247	71	42	590
30	50	3,650	3,100	1,110	-----	3,030	1,010	303	218	71	43	757
31	43	-----	3,360	1,040	-----	2,600	-----	287	-----	71	68	-----
TOTAL	1,893	74,199	110,010	110,160	23,697	113,260	49,470	16,839	7,126	3,529	1,564	2,845
MEAN	61.1	2,473	3,549	3,554	846	3,654	1,649	543	238	114	50.5	94.8
MAX	400	17,100	11,900	16,200	1,500	9,600	3,010	948	578	204	68	757
MIN	11	34	1,100	940	644	1,280	1,010	287	144	71	35	20
AC-FT	3,750	147,200	218,200	218,500	47,000	224,700	98,120	33,400	14,130	7,000	3,100	5,640

CAL YR 1970 TOTAL 483,630 MEAN 1,325 MAX 19,100 MIN 11 AC-FT 959,300  
WTR YR 1971 TOTAL 514,592 MEAN 1,410 MAX 17,100 MIN 11 AC-FT 1,021,000

## PEAK DISCHARGE (BASE, 9,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1845	18.70	30,500	1-18	0200	15.84	20,400
11-27	2230	12.39	9,630	3-12	1945	12.78	10,700
12- 3	2045	17.26	25,400	3-26	0330	12.58	10,100

## 11489500 ANTELOPE CREEK NEAR TENNANT, CALIF.

**LOCATION.**--Lat 41°32'48", long 121°55'02", in NW¼ sec.25, T.43 N., R.1 W., Siskiyou County, Shasta National Forest, on right bank 2.5 miles south of Tennant, 4 miles downstream from Frog Lake, and 17 miles southeast of town of Mount Hebron.

**DRAINAGE AREA.**--18.6 sq mi.

**PERIOD OF RECORD.**--May 1952 to current year.

**GAGE.**--Water-stage recorder and concrete control. Altitude of gage is 5,080 ft (from topographic map).

**AVERAGE DISCHARGE.**--19 years, 37.1 cfs (26,880 acre-ft per year).

**EXTREMES.**--Current year: Maximum discharge, 277 cfs May 27 (gage height, 3.17 ft); maximum gage height, 3.43 ft Jan. 7 (backwater from ice); minimum daily discharge, 12 cfs Oct. 3-17.

Period of record: Maximum discharge, 1,170 cfs Jan. 23, 1970 (gage height, 4.93 ft), from rating curve extended above 240 cfs on basis of slope-area measurement at gage height 4.00 ft; minimum daily, 3.6 cfs Jan. 5, 1960.

**REMARKS.**--Records excellent. No storage or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	26	22	26	26	27	54	112	49	20	16
2	13	14	31	20	26	30	28	58	96	48	20	16
3	12	14	29	17	26	22	29	80	88	46	19	15
4	12	29	56	14	25	22	30	109	85	45	19	15
5	12	66	46	13	25	22	33	97	84	43	19	15
6	12	33	50	13	25	22	35	91	90	42	18	15
7	12	24	44	14	25	22	34	107	100	41	18	15
8	12	26	38	18	24	21	32	137	106	40	18	14
9	12	43	34	25	24	21	50	127	107	42	18	14
10	12	27	33	24	25	21	44	126	114	41	17	14
11	12	46	32	22	26	22	39	131	107	37	17	14
12	12	33	31	22	26	22	38	152	105	35	17	14
13	12	27	30	26	26	24	39	163	102	34	17	14
14	12	25	29	28	26	22	42	143	97	34	17	14
15	12	23	27	22	27	21	44	136	92	33	16	14
16	12	23	30	30	26	21	43	122	92	32	16	14
17	12	22	28	34	26	20	41	109	89	33	16	14
18	13	21	26	34	26	21	38	103	85	34	16	14
19	13	21	24	30	26	20	40	100	81	32	16	14
20	18	20	25	29	26	21	42	96	82	31	16	13
21	16	20	23	28	25	22	38	86	81	31	16	13
22	15	24	20	28	25	22	37	88	80	29	16	13
23	24	25	18	26	24	27	37	96	76	27	16	13
24	17	56	17	26	24	26	35	107	71	26	15	13
25	16	41	16	26	24	26	35	124	73	25	15	13
26	15	33	14	26	26	39	39	147	71	24	15	15
27	14	24	17	26	24	28	42	146	63	23	15	16
28	14	28	22	26	24	28	45	188	57	23	15	16
29	14	31	23	26	-----	29	50	164	52	22	15	18
30	14	28	22	26	-----	30	54	144	50	21	15	17
31	15	-----	22	26	-----	27	-----	129	-----	21	17	-----
TOTAL	424	862	883	747	708	747	1,160	3,660	2,588	1,044	520	435
MEAN	13.7	28.7	28.5	24.1	25.3	24.1	38.7	118	86.3	33.7	16.8	14.5
MAX	24	66	56	34	27	39	54	188	114	49	20	18
MIN	12	14	14	13	24	20	27	54	50	21	15	13
AC-FT	841	1,710	1,750	1,480	1,400	1,480	2,300	7,260	5,130	2,070	1,030	863
CAL YR 1970	TOTAL 14,213 MEAN 38.9 MAX 806 MIN 12 AC-FT 28,190											
WTR YR 1971	TOTAL 13,778 MEAN 37.7 MAX 188 MIN 12 AC-FT 27,330											

## PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11- 5	0800	2.53	124	5-13	0100	2.86	193
5- 4	0100	2.53	124	5-27	2330	3.17	277
5- 7	2330	2.78	175	6-10	0300	2.48	121

## KLAMATH RIVER BASIN

11510700 KLAMATH RIVER BELOW JOHN C. BOYLE POWERPLANT, NEAR KENO, OREG.

LOCATION.--Lat 42°05'05", long 122°04'20", in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.14, T.40 S., R.6 E., Klamath County, on right bank 0.7 mile downstream from John C. Boyle powerplant, 8 miles downstream from Spencer Creek, and 8.5 miles southwest of Keno.

DRAINAGE AREA.--4,080 sq mi, approximately (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--January 1959 to current year. Prior to Oct. 1, 1961, published as "below Big Bend powerplant."

GAGE.--Water-stage recorder. Datum of gage is 3,274.82 ft above mean sea level (levels by Pacific Power and Light Co.).

AVERAGE DISCHARGE.--12 years, 1,815 cfs (1,315,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,270 cfs Mar. 27 (gage height, 8.66 ft); minimum, 327 cfs Oct. 10; minimum daily, 374 cfs Aug. 7.

Period of record: Maximum discharge, 9,480 cfs Jan. 27, 1970 (gage height, 8.73 ft); minimum, 283 cfs Feb. 17, 1968; minimum daily, 317 cfs July 25, 1968.

REMARKS.--Records excellent. Flow regulated by Upper Klamath Lake (see sta 11507000). Large diurnal fluctuation caused by John C. Boyle powerplant and 2 powerplants below Upper Klamath Lake. Large diversions for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,470	1,180	2,670	2,900	2,740	2,670	6,870	2,800	4,150	662	381	1,570
2	1,420	1,800	2,850	2,900	2,660	2,660	7,060	2,570	4,120	698	571	1,210
3	465	1,900	3,340	2,900	2,660	2,660	6,250	2,520	4,470	469	570	1,480
4	465	2,010	3,580	3,380	2,670	2,670	5,440	2,010	4,440	620	572	1,260
5	1,280	1,900	4,160	3,670	2,650	2,670	5,270	1,840	4,400	681	569	1,270
6	1,470	2,220	4,150	3,550	2,650	2,660	4,420	2,260	4,400	688	754	1,260
7	1,470	2,240	4,170	3,530	2,650	2,660	3,940	2,460	4,030	590	374	1,270
8	1,860	2,010	4,190	3,540	2,660	2,660	3,690	4,130	3,220	702	380	1,260
9	1,430	2,250	4,140	3,590	2,660	2,630	3,960	5,030	2,230	595	666	1,300
10	407	2,600	4,130	3,580	2,660	2,660	3,210	5,100	1,240	624	672	1,570
11	439	2,610	4,130	2,280	2,660	2,660	3,010	5,390	1,110	612	765	1,560
12	1,620	2,610	4,130	2,630	2,660	2,670	3,780	5,630	441	610	703	1,560
13	1,470	2,600	4,130	2,600	2,670	2,660	5,660	5,550	445	592	1,080	1,560
14	1,490	2,600	3,990	2,600	2,670	2,660	6,460	5,220	978	581	940	1,560
15	1,880	2,600	3,550	2,270	2,690	2,660	6,390	5,110	710	447	678	1,050
16	1,830	2,580	3,180	2,240	2,690	2,670	6,260	5,120	620	705	941	767
17	408	2,730	3,120	1,840	2,470	2,670	6,410	5,180	908	529	385	1,620
18	431	2,830	2,920	2,620	2,690	2,650	6,810	4,990	931	542	383	1,600
19	1,610	2,820	2,920	3,370	2,670	2,660	6,850	4,500	480	585	1,330	1,600
20	1,870	2,830	2,920	4,030	2,670	2,260	6,800	3,850	490	521	1,560	1,600
21	1,470	2,820	2,920	3,940	2,660	2,670	6,800	3,890	723	587	1,190	1,590
22	1,160	2,810	2,910	3,850	2,660	2,650	6,780	4,120	684	513	784	1,590
23	1,010	2,820	2,940	3,880	2,670	2,620	6,660	4,130	814	459	1,200	1,600
24	717	2,760	2,940	3,940	2,670	2,970	6,160	3,640	793	383	1,220	1,560
25	436	2,690	2,940	3,940	2,680	3,890	6,110	2,370	748	385	1,100	1,560
26	1,510	2,680	2,940	3,940	2,670	5,220	6,050	2,390	480	582	1,580	1,560
27	1,570	2,670	2,940	3,900	2,660	7,340	5,250	3,180	1,140	593	1,570	1,560
28	1,860	2,670	2,940	3,880	2,660	8,470	4,980	3,590	1,250	574	1,570	1,560
29	1,850	2,670	2,890	3,210	-----	8,510	4,480	4,550	1,030	610	1,570	1,070
30	1,890	2,670	2,910	2,800	-----	8,360	3,900	4,580	774	924	1,580	1,570
31	1,150	-----	2,900	2,800	-----	7,690	-----	4,300	-----	375	1,580	-----
TOTAL	39,408	74,180	104,540	100,100	74,530	113,210	165,710	122,000	52,249	18,038	29,218	43,147
MEAN	1,271	2,473	3,372	3,229	2,662	3,652	5,524	3,935	1,742	582	943	1,438
MAX	1,890	2,830	4,190	4,030	2,740	8,510	7,060	5,630	4,470	924	1,580	1,620
MIN	407	1,180	2,670	1,840	2,470	2,260	3,010	1,840	441	375	374	767
AC-FT	78,170	147,100	207,400	198,500	147,800	224,600	328,700	242,000	103,600	35,780	57,950	85,580
CAL YR 1970	TOTAL 745,785		MEAN 2,043	MAX 8,930	MIN 350	AC-FT 1,479,000						
WTR YR 1971	TOTAL 936,330		MEAN 2,565	MAX 8,510	MIN 374	AC-FT 1,857,000						

## RESERVOIRS IN KLAMATH RIVER BASIN, CALIF.

11511400 COPCO LAKE NEAR COPCO.--Lat 41°58'46", long 122°20'00", on east edge of SW $\frac{1}{4}$  sec.29, T.48 N., R.4 W., Siskiyou County, 12.7 miles northeast of Hornbrook. Drainage area, 4,300 sq mi. Period of record, October 1969 to current year. Gage is a pressure device and telemark read once daily. Datum of gage is at mean sea level (levels by Pacific Power and Light Co.). Extremes for current year: Maximum contents, 46,758 acre-ft July 6 (elevation, 2,607.39 ft); minimum, 30,360 acre-ft Aug. 19 (elevation, 2,589.24 ft). Extremes for period of record: Maximum contents, 46,818 acre-ft June 24, 1969 (elevation, 2,607.45 ft); minimum, 30,360 acre-ft Aug. 19, 1971 (elevation, 2,589.24 ft).

Reservoir is formed by gravity-type dam completed in 1922. Normal capacity at elevation 2,607.5 ft is 46,867 acre-ft. Records, including extremes, represent contents at 0800 hours. Record of contents furnished by Pacific Power and Light Co.

11516510 IRON GATE RESERVOIR NEAR HORN BROOK.--Lat 41°55'58", long 122°26'06", in SW $\frac{1}{4}$  sec.9, T.47 N., R.5 W., Siskiyou County, 6.6 miles northeast of Hornbrook. Drainage area, 4,573 sq mi. Period of record, October 1969 to current year. Gage is a pressure device and telemark read once daily. Datum of gage is at mean sea level (levels by Pacific Power and Light Co.). Extremes for current year: Maximum contents, 60,958 acre-ft Mar. 28 (elevation, 2,330.16 ft); minimum, 53,252 acre-ft Oct. 28 (elevation, 2,322.06 ft). Extremes for period of record: Maximum contents, 61,203 acre-ft Jan. 27, 1970 (elevation, 2,330.40 ft); minimum, 50,103 acre-ft Dec. 9, 1968 (elevation, 2,318.40 ft).

Reservoir is formed by earthfill and rockfill dam completed in 1962. Capacity is 58,794 acre-ft at elevation 2,328.0 ft (crest of spillway). Records, including extremes, represent contents at 0800 hours. Record of contents furnished by Pacific Power and Light Co.

## MONTHEND ELEVATIONS AND CONTENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

Date	Elevation (feet) <sup>a</sup>	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet) <sup>a</sup>	Contents (acre-feet)	Change in contents (acre-feet)
Copco Lake			Iron Gate Reservoir			
Oct. 31.....	2,606.71	46,087	+3,627	2,324.31	55,290	-111
Nov. 30.....	2,604.29	43,737	-2,350	2,328.66	59,447	+4,157
Dec. 31.....	2,604.90	44,323	+586	2,328.51	59,299	-148
CAL YR 1970.....	-	-	-446	-	-	+40
Jan. 31.....	2,603.44	42,925	-1,398	2,328.62	59,408	+109
Feb. 28.....	2,602.78	42,300	-625	2,328.56	59,348	-60
Mar. 31.....	2,601.52	41,117	-1,183	2,329.97	60,764	+1,416
Apr. 30.....	2,602.06	41,622	+505	2,329.04	59,824	-940
May 31.....	2,602.41	41,951	+329	2,329.19	59,976	+152
June 30.....	2,606.83	46,205	+4,254	2,326.16	57,020	-2,956
July 31.....	2,602.17	41,725	-4,480	2,326.60	57,440	+420
Aug. 31.....	2,603.25	42,745	+1,020	2,323.83	54,849	-2,591
Sept. 30.....	2,600.27	39,957	-2,788	2,326.21	57,068	+2,219
WTR YR 1971.....	-	-	-2,503	-	-	+1,667

<sup>a</sup> Elevation at 0800.

## KLAMATH RIVER BASIN

## 11516530 KLAMATH RIVER BELOW IRON GATE DAM, CALIF.

LOCATION.--Lat 41°55'41", long 122°26'35", in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.17, T.47 N., R.5 W., Siskiyou County, on left bank 0.1 mile downstream from Bogus Creek, 0.6 mile downstream from Iron Gate Dam, and 5.9 miles northeast of Hornbrook.

DRAINAGE AREA.--4,630 sq mi, approximately (excludes Lost River or Lower Klamath Lake basins).

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

GAGE.--Water-stage recorder. Datum of gage is 2,162.44 ft above mean sea level (levels by Pacific Power and Light Co.).

AVERAGE DISCHARGE.--11 years, 2,202 cfs (1,595,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 10,800 cfs Mar. 28 (gage height, 8.68 ft); minimum daily, 709 cfs July 25.

Period of record: Maximum discharge, 29,400 cfs Dec. 22, 1964 (gage height, 13.63 ft), from rating curve extended above 12,000 cfs on basis of slope-area measurement of maximum flow; minimum daily, 647 cfs Nov. 6, 1960, Sept. 24, Oct. 1, 1961.

REMARKS.--Records excellent. Complete regulation by Upper Klamath Lake (capacity, 584,000 acre-ft), other smaller reservoirs, and diversions above station. Iron Gate Dam, 0.6 mile upstream is a re-regulating reservoir (see sta 11516510). Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,320	1,770	3,470	3,300	3,520	3,240	8,270	3,690	4,840	830	1,010	1,320
2	1,330	1,770	3,480	3,170	3,530	3,240	7,810	3,420	4,840	836	1,020	1,320
3	1,330	1,770	4,210	3,090	3,490	3,250	7,930	2,840	5,020	836	1,020	1,320
4	1,320	1,770	4,480	3,130	3,490	3,260	7,140	3,080	5,180	836	1,020	1,320
5	1,310	1,780	5,170	2,960	3,640	3,240	7,160	3,450	5,100	836	1,000	1,320
6	1,330	1,790	5,380	2,920	3,640	3,240	6,540	3,550	5,080	836	1,000	1,320
7	1,340	2,270	6,420	3,120	3,580	3,250	5,680	4,200	4,640	836	1,010	1,320
8	1,340	2,610	5,860	3,140	3,560	3,010	5,340	5,640	3,420	830	1,010	1,320
9	1,340	2,790	5,480	3,090	3,520	3,330	5,680	6,580	3,050	830	1,010	1,320
10	1,310	2,990	5,150	2,110	3,460	3,250	5,340	6,800	2,700	830	1,010	1,320
11	1,300	3,200	5,090	2,490	3,470	3,490	4,670	6,660	2,180	824	1,020	1,310
12	1,300	3,450	5,040	3,260	3,520	4,230	4,920	6,660	1,430	819	1,020	1,310
13	1,300	3,380	5,000	3,190	3,590	3,960	7,350	6,730	1,080	819	1,020	1,320
14	1,310	3,260	5,000	3,240	3,630	3,830	7,880	5,640	915	814	1,020	1,620
15	1,320	3,230	4,540	3,840	3,660	3,790	7,880	6,080	820	814	1,020	1,710
16	1,330	3,070	4,210	4,410	3,550	3,770	7,640	6,210	820	802	1,020	1,710
17	1,320	3,070	3,970	5,800	3,460	3,670	7,810	6,140	820	758	1,020	1,710
18	1,310	3,090	3,500	6,040	3,280	3,630	7,900	6,120	826	758	1,020	1,710
19	1,300	3,090	3,350	5,720	3,290	3,470	8,070	5,540	820	753	1,020	1,720
20	1,310	3,090	3,360	5,780	3,310	3,070	8,050	4,650	820	720	1,020	1,720
21	1,330	3,090	3,380	5,340	3,310	3,110	7,950	4,620	820	720	1,020	1,720
22	1,330	3,120	3,300	5,040	3,320	3,770	7,880	5,280	820	720	1,020	1,720
23	1,330	3,130	3,230	4,950	3,310	4,750	7,930	5,540	826	714	1,010	1,720
24	1,310	3,790	3,170	4,930	3,280	4,780	7,260	4,640	826	714	1,010	1,720
25	1,300	3,970	3,160	4,880	3,290	6,340	7,090	3,420	838	709	1,000	1,720
26	1,290	3,540	3,140	4,820	3,280	9,590	7,090	2,780	850	714	1,000	1,720
27	1,470	3,700	3,170	4,790	3,280	9,540	6,520	3,490	832	714	1,000	1,720
28	1,750	3,790	3,230	4,750	3,260	10,600	6,010	3,910	856	714	1,010	1,730
29	1,750	3,560	3,230	4,140	-----	9,930	5,750	5,600	1,500	720	1,010	1,720
30	1,760	3,670	3,260	3,520	-----	9,880	5,120	5,750	1,170	726	1,020	1,700
31	1,770	-----	3,340	3,530	-----	9,520	-----	5,440	-----	736	1,030	-----
TOTAL	42,760	88,600	127,770	124,490	96,520	151,030	207,660	154,150	63,739	24,118	31,440	46,230
MEAN	1,379	2,953	4,122	4,016	3,447	4,872	6,922	4,973	2,125	778	1,014	1,541
MAX	1,770	3,970	6,420	6,040	3,660	10,600	8,270	6,800	5,180	836	1,030	1,730
MIN	1,290	1,770	3,140	2,110	3,260	3,010	4,670	2,780	820	709	1,000	1,310
AC-FT	84,810	175,700	253,400	246,900	191,400	299,600	411,900	305,800	126,400	47,840	62,360	91,700

CAL YR 1970 TOTAL 923,501 MEAN 2,530 MAX 12,700 MIN 694 AC-FT 1,832,000  
WTR YR 1971 TOTAL 1,158,507 MEAN 3,174 MAX 10,600 MIN 709 AC-FT 2,298,000

## 11516600 COTTONWOOD CREEK AT HORN BROOK, CALIF.

LOCATION.--Lat 41°55'06", long 122°33'45", in SW1/4SE1/4 sec.17, T.47 N., R.6 W., Siskiyou County, on right bank 0.5 mile upstream from Rancheria Gulch and 0.6 mile northwest of Hornbrook.

DRAINAGE AREA.--89.8 sq mi.

PERIOD OF RECORD.--October 1964 to September 1971 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 2,160 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 59.9 cfs (43,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,210 cfs Jan. 26 (gage height, 7.54 ft); minimum daily, 0.64 cfs Oct. 1-5.

Period of record: Maximum discharge, 5,480 cfs Dec. 22, 1964 (gage heights, 10.94 ft in gage well, 11.3 ft, outside from floodmarks), from rating curve extended above 1,500 cfs on basis of slope-area measurement of maximum flow; minimum daily, 0.05 cfs Sept. 14-16, 1967.

REMARKS.--Records good. Some diversion above station for irrigation. Records of water temperatures for the water year 1971 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1970: 1966-69.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	10	145	99	178	92	242	125	75	28	7.9	4.7
2	.64	10	132	71	181	89	227	129	70	28	7.6	5.1
3	.64	9.7	159	58	157	97	217	162	68	27	6.7	4.8
4	.64	9.4	134	53	154	97	210	153	66	26	6.5	4.6
5	.64	20	131	50	178	92	213	150	63	25	6.2	4.4
6	.77	17	215	50	181	89	230	140	62	24	5.4	4.2
7	.77	14	564	49	167	90	240	136	60	23	5.7	4.6
8	.83	41	348	49	150	89	215	171	59	22	5.3	4.4
9	.84	74	215	62	144	84	240	152	57	22	5.1	4.0
10	.90	34	154	120	157	90	229	141	55	23	5.1	3.7
11	.92	41	123	110	178	170	202	138	52	22	5.1	3.7
12	.92	40	100	88	196	360	188	137	48	21	4.8	3.7
13	.96	28	86	76	207	288	182	131	46	20	4.7	3.5
14	1.0	24	76	78	206	258	178	122	44	19	4.9	3.1
15	1.0	21	150	351	209	225	174	117	40	17	5.0	2.9
16	1.0	20	193	865	190	219	172	112	38	16	4.7	2.9
17	1.1	18	119	1,580	174	197	168	106	35	16	4.2	2.5
18	1.1	17	90	1,110	164	177	159	101	35	17	4.3	2.6
19	1.2	16	74	856	149	167	150	99	35	17	4.0	3.0
20	1.5	15	72	661	135	169	149	96	34	20	3.6	3.3
21	2.6	15	68	430	127	173	142	90	32	19	4.0	3.7
22	5.4	20	62	316	125	288	137	85	30	16	4.0	4.0
23	28	49	57	267	121	553	134	83	29	14	4.2	3.9
24	18	371	53	223	118	420	128	80	29	13	3.9	4.1
25	11	365	48	192	112	595	125	86	33	11	3.7	4.4
26	11	129	45	170	103	908	124	99	39	8.8	3.4	5.2
27	8.9	231	45	160	100	496	124	82	35	9.1	3.4	5.8
28	8.5	186	56	157	98	376	125	81	32	8.8	3.6	7.2
29	8.0	140	70	154	-----	325	126	78	31	8.0	3.7	13
30	8.4	207	66	157	-----	295	124	76	30	7.6	4.3	12
31	9.7	-----	130	160	-----	266	-----	75	-----	7.6	5.2	-----
TOTAL	137.51	2,192.1	3,980	8,822	4,359	7,834	5,274	3,533	1,362	555.9	150.2	139.0
MEAN	4.44	73.1	128	285	156	253	176	114	45.4	17.9	4.85	4.63
MAX	28	371	564	1,580	209	908	242	171	75	28	7.9	13
MIN	.64	9.4	45	49	98	84	124	75	29	7.6	3.4	2.5
AC-FT	273	4,350	7,890	17,500	8,650	15,540	10,460	7,010	2,700	1,100	298	276
CAL YR 1970	TOTAL 25,218.54	MEAN 69.1	MAX 1,100	MIN 0.37	AC-FT 50,020							
WTR YR 1971	TOTAL 38,338.71	MEAN 105	MAX 1,580	MIN .64	AC-FT 76,040							

## PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1400	5.47	682	1-16	2230	7.54	2,210
12-7	1330	5.82	870	3-11	2230	5.21	486
12-15	1800	5.07	454	3-26	0030	6.81	1,600



## KLAMATH RIVER BASIN

11516900 LITTLE SHASTA RIVER NEAR MONTAGUE, CALIF.

LOCATION.--Lat 41°45'11", long 122°17'42", in NW¼NW¼ sec.15, T.45 N., R.4 W., Siskiyou County, on right bank 0.5 mile downstream from Dry Creek and 12 miles east of Montague.

DRAINAGE AREA.--48.2 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,360 ft (from topographic map). Prior to May 27, 1965, water-stage recorder at site 0.2 mile downstream at different datum.

AVERAGE DISCHARGE.--14 years, 18.6 cfs (13,480 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 211 cfs May 3 (gage height, 3.05 ft); minimum daily, 4.0 cfs Oct. 5, 6.

Period of record: Maximum discharge, 5,910 cfs Dec. 22, 1964 (gage height, 12.2 ft, present site and datum), from slope-area measurement of maximum flow; minimum daily, 0.60 cfs Jan. 4, 1966.

REMARKS.--No known diversion or regulation above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.4	15	8.9	41	18	58	77	92	27	12	9.2
2	4.2	4.4	15	7.8	39	20	63	80	86	26	12	9.1
3	4.2	4.5	12	6.8	31	20	66	151	78	25	12	8.7
4	4.1	4.6	13	6.2	31	19	71	140	71	24	11	8.7
5	4.0	7.5	20	5.9	45	17	76	113	67	23	11	8.4
6	4.0	6.5	41	5.9	46	18	76	103	64	22	11	8.9
7	4.1	5.5	52	5.9	38	20	71	111	62	21	11	9.1
8	4.2	7.8	38	6.4	33	20	66	134	60	21	11	8.7
9	4.3	20	28	8.2	31	20	75	125	59	22	11	8.5
10	4.3	8.0	22	17	41	19	79	121	59	21	10	8.5
11	4.2	13	21	15	48	29	69	119	55	20	10	8.3
12	4.1	16	17	13	48	44	66	129	53	19	9.9	8.3
13	4.1	7.9	16	12	46	39	65	130	50	18	9.4	8.1
14	4.1	6.6	14	13	43	33	61	120	47	18	9.4	8.0
15	4.1	5.8	13	14	55	30	63	116	45	17	9.7	7.9
16	4.1	5.7	13	39	43	29	63	105	43	17	9.6	7.8
17	4.1	5.4	13	145	38	26	62	99	42	16	9.6	7.7
18	4.5	5.4	12	179	32	26	63	97	43	16	9.5	7.6
19	4.4	5.4	12	130	30	32	61	95	42	16	9.4	7.7
20	4.8	5.0	11	106	27	48	66	90	39	16	9.2	7.6
21	4.8	5.2	10	68	25	58	66	86	37	16	9.4	7.7
22	5.1	6.8	9.7	53	25	94	67	86	36	15	9.5	7.6
23	9.1	12	9.7	46	23	159	68	85	35	14	9.2	7.5
24	6.0	58	8.9	40	24	124	54	83	33	14	8.9	7.5
25	4.6	68	8.9	36	20	113	49	88	36	14	8.7	7.5
26	4.4	33	8.5	34	21	135	58	97	44	13	8.7	8.2
27	4.2	17	8.2	35	20	85	68	86	35	13	8.7	8.6
28	4.4	13	8.2	36	17	75	71	94	32	13	8.7	8.7
29	4.4	19	8.1	37	-----	77	74	85	30	12	8.5	12
30	4.4	20	8.3	39	-----	72	78	81	28	12	9.1	10
31	4.4	-----	9.5	41	-----	59	-----	85	-----	12	9.9	-----
TOTAL	139.9	401.4	496.0	1,210.0	961	1,578	1,993	3,211	1,503	553	307.0	252.1
MEAN	4.51	13.4	16.0	39.0	34.3	50.9	66.4	104	50.1	17.8	9.90	8.40
MAX	9.1	68	52	179	55	159	79	151	92	27	12	12
MIN	4.0	4.4	8.1	5.9	17	17	49	77	28	12	8.5	7.5
AC-FT	277	796	984	2,400	1,910	3,130	3,950	6,370	2,980	1,100	609	500
CAL YR 1970	TOTAL	7,497.9	MEAN	20.5	MAX	269	MIN	4.0	AC-FT	14,870		
WTR YR 1971	TOTAL	12,605.4	MEAN	34.5	MAX	179	MIN	4.0	AC-FT	25,000		

## 11517500 SHASTA RIVER NEAR YREKA, CALIF.

LOCATION.--Lat 41°49'23", long 122°35'40", in SE 1/4 sec. 24, T.46 N., R.7 W., Siskiyou County, on right bank 0.5 mile upstream from mouth and 7 miles north of Yreka.

DRAINAGE AREA.--793 sq mi.

PERIOD OF RECORD.--October 1933 to December 1941, December 1944 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,000 ft (from topographic map). Prior to Nov. 2, 1933, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--34 years, 184 cfs (133,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,450 cfs Mar. 26 (gage height, 5.66 ft); minimum daily, 18 cfs Aug. 7.

Period of record: Maximum discharge, 21,500 cfs Dec. 22, 1964 (gage height, 12.92 ft in gage well, 13.85 ft, from floodmarks), from rating curve extended above 4,100 cfs on basis of slope-area measurement of maximum flow; minimum, 3.4 cfs Aug. 13, 1939, when about 2 cfs was being diverted around gage.

REMARKS.--Records good. Flow partly regulated by Lake Dwinnell beginning in 1928; storage limited to 50,000 acre-ft. Many diversions above station for irrigation. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	188	428	334	362	267	470	248	443	156	33	47
2	140	184	419	307	358	257	441	261	472	146	36	46
3	124	188	468	281	343	270	422	432	433	128	28	48
4	121	184	730	272	343	267	403	588	366	120	33	54
5	120	203	586	258	343	259	392	591	304	103	29	50
6	124	214	482	267	356	259	382	527	261	80	23	67
7	123	219	707	266	343	258	381	439	247	64	18	71
8	124	228	792	264	330	256	356	486	231	65	23	65
9	132	254	675	273	322	255	366	537	197	66	28	62
10	165	261	485	301	318	261	393	520	194	67	26	63
11	162	252	412	314	330	276	373	437	186	61	22	68
12	159	270	377	301	335	463	350	376	182	53	38	76
13	156	248	356	286	343	592	323	382	169	51	30	84
14	159	230	337	293	343	462	296	354	167	54	32	69
15	162	221	393	418	351	396	287	329	164	42	30	55
16	165	213	697	696	339	406	277	329	145	51	31	60
17	165	210	566	1,040	326	427	275	322	134	44	36	60
18	168	209	436	1,300	309	386	258	300	124	45	41	60
19	172	209	376	1,140	305	359	226	255	127	53	40	87
20	176	208	350	902	293	345	240	215	124	67	41	103
21	184	209	346	706	288	352	286	208	124	71	45	97
22	192	216	335	592	297	387	284	209	117	66	58	116
23	217	222	315	534	293	650	293	202	114	65	52	124
24	225	278	297	495	288	703	274	197	106	56	36	125
25	209	457	281	460	280	712	260	204	117	51	41	129
26	204	373	275	430	276	1,290	260	406	134	51	40	121
27	200	655	272	402	276	870	234	426	168	40	34	121
28	192	821	303	381	272	695	234	384	168	36	27	115
29	188	432	424	368	-----	612	210	351	176	37	35	130
30	188	449	363	362	-----	564	216	307	160	38	35	172
31	188	-----	341	364	-----	505	-----	308	-----	37	49	-----
TOTAL	5,125	8,505	13,624	14,607	8,962	14,061	9,462	11,130	6,054	2,064	1,070	2,545
MEAN	165	284	439	471	320	454	315	359	202	66.6	34.5	84.8
MAX	225	821	792	1,300	362	1,290	470	591	472	156	58	172
MIN	120	184	272	258	272	255	210	197	106	36	18	46
AC-FT	10,170	16,870	27,020	28,970	17,780	27,890	18,770	22,080	12,010	4,090	2,120	5,050
CAL YR 1970	TOTAL 98,817	MEAN 271	MAX 4,010	MIN 11	AC-FT 196,000							
WTR YR 1971	TOTAL 97,209	MEAN 266	MAX 1,300	MIN 18	AC-FT 192,800							

## PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-25	1130	4.23	552	1-18	0430	5.54	1,350
11-27	1930	5.30	1,180	3-12	2230	4.44	666
12- 4	0300	4.68	774	3-26	0500	5.66	1,450
12- 7	1800	5.03	991	5- 4	1230	4.40	646
12-16	0330	4.60	730	6- 1	2030	4.09	503
12-29	0030	4.14	512				



11517900 EAST FORK SCOTT RIVER BELOW HOUSTON CREEK, NEAR CALLAHAN, CALIF.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.9	13	10	30	14	33	56	56	24	7.2	4.1
2	1.2	3.2	12	7.2	30	14	32	58	52	24	7.2	3.8
3	1.2	2.9	11	4.4	28	14	32	71	50	23	6.9	3.8
4	1.4	7.5	12	5.0	28	13	32	81	54	21	6.6	3.5
5	1.4	19	15	6.0	26	12	36	79	61	20	6.2	3.5
6	1.6	8.6	24	11	25	12	42	71	68	19	5.9	3.5
7	1.6	6.6	32	9.0	24	12	41	79	71	17	5.9	3.5
8	1.9	7.6	25	9.0	22	11	36	155	69	17	5.6	3.2
9	1.9	31	20	9.7	21	11	42	144	66	16	5.6	2.9
10	2.1	14	17	11	23	11	40	131	66	16	5.3	2.9
11	2.1	17	16	11	25	12	36	129	63	15	5.0	2.9
12	1.9	15	15	11	30	16	33	131	61	14	5.6	2.6
13	2.1	11	14	11	34	14	33	122	60	14	5.0	2.6
14	2.3	10	13	11	33	13	33	106	55	13	4.7	2.6
15	2.1	9.0	13	10	32	12	34	103	52	12	4.7	2.3
16	2.1	8.6	13	47	30	14	35	91	56	12	4.7	2.3
17	1.9	8.0	12	136	28	14	33	78	55	13	4.4	2.3
18	2.1	7.6	12	210	26	14	32	74	51	13	4.4	2.3
19	2.1	7.2	11	143	24	14	31	74	50	13	4.4	2.6
20	3.5	6.9	11	97	23	15	32	70	51	14	4.4	2.3
21	3.2	6.9	12	72	21	16	31	63	49	14	4.4	2.6
22	3.2	6.9	11	60	20	70	31	67	46	13	4.4	2.6
23	5.0	8.3	11	52	20	51	31	78	44	10	4.4	2.6
24	3.2	30	10	44	19	48	29	89	38	9.3	4.1	2.6
25	2.9	30	10	39	17	47	29	95	39	8.8	4.1	2.6
26	2.6	20	10	35	16	64	32	88	41	8.4	4.7	2.9
27	2.6	15	10	32	16	48	36	84	35	8.8	4.1	3.5
28	2.6	16	10	31	15	40	41	98	30	8.4	3.8	3.5
29	2.6	15	10	29	-----	39	47	97	27	7.6	3.5	4.1
30	2.6	14	9.7	29	-----	38	52	79	25	7.2	3.5	4.1
31	2.6	-----	10	29	-----	36	-----	64	-----	7.2	4.1	-----
TOTAL	70.8	365.7	424.7	1,221.3	686	759	1,057	2,805	1,541	432.7	154.8	90.6
MEAN	2.28	12.2	13.7	39.4	24.5	24.5	35.2	90.5	51.4	14.0	4.99	3.02
MAX	5.0	31	32	210	34	70	52	155	71	24	7.2	4.1
MIN	1.2	2.9	9.7	4.4	15	11	29	56	25	7.2	3.5	2.3
AC-FT	140	725	842	2,420	1,360	1,510	2,100	5,560	3,060	858	307	180
CAL YR 1970	TOTAL -		MEAN -		MAX -		MIN -	AC-FT -				
WTR YR 1971	TOTAL 9,608.6		MEAN 26.3		MAX 210		MIN 1.2	AC-FT 19,060				



11517950 EAST FORK SCOTT RIVER ABOVE KANGAROO CREEK, NEAR CALLAHAN, CALIF.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	2.3	38	32	59	30	73	101	88	27	2.9	1.3
2	.62	3.1	37	26	58	30	68	103	70	24	2.4	1.2
3	.62	3.6	30	29	55	29	68	148	70	23	1.9	1.2
4	.62	12	34	30	52	28	70	155	71	22	1.7	1.2
5	.62	45	53	30	50	27	73	150	84	21	1.7	1.1
6	.62	25	76	28	48	27	88	129	92	19	1.8	1.1
7	.62	16	112	28	46	26	84	140	104	16	1.8	1.1
8	.62	15	92	28	44	25	73	281	104	15	1.7	1.1
9	.66	55	67	31	43	25	94	250	102	15	1.7	1.1
10	.66	38	57	38	44	25	88	219	102	15	1.6	1.1
11	.66	39	52	36	48	27	73	213	97	12	1.7	1.1
12	.66	40	46	34	55	40	65	219	91	10	1.6	1.1
13	.66	30	44	33	65	33	56	202	91	9.6	1.5	1.1
14	.66	24	40	33	63	32	46	175	83	9.2	1.4	1.1
15	.66	20	40	51	62	30	52	166	72	8.5	1.4	1.0
16	.66	18	42	152	56	33	58	148	75	8.2	1.4	1.0
17	.66	15	40	305	52	33	58	121	73	8.5	1.4	1.0
18	.75	14	38	449	48	30	56	103	73	10	1.4	1.0
19	.85	13	34	335	45	31	53	104	71	10	1.4	1.0
20	.96	12	32	250	42	33	63	106	70	13	1.4	.99
21	1.2	12	32	189	42	35	65	94	69	13	1.3	.99
22	1.4	12	32	150	40	51	61	90	62	14	1.3	.99
23	2.2	14	31	123	37	105	58	103	58	10	1.3	.99
24	2.2	38	30	101	36	100	56	123	51	7.8	1.3	.94
25	2.1	52	28	89	35	101	53	148	55	6.9	1.3	.94
26	2.1	41	30	79	33	174	53	150	61	6.7	1.3	.94
27	2.3	37	27	73	34	121	56	120	51	6.1	1.3	.94
28	2.1	40	28	67	32	98	67	152	43	4.8	1.3	.99
29	2.0	40	27	64	-----	90	77	154	37	3.3	1.3	1.0
30	1.8	40	28	61	-----	89	90	127	33	3.0	1.4	1.1
31	2.1	-----	32	61	-----	80	-----	100	-----	3.0	1.4	-----
TOTAL	34.96	766.0	1,329	3,035	1,324	1,638	1,995	4,594	2,203	374.6	48.3	31.71
MEAN	1.13	25.5	42.9	97.9	47.3	52.8	66.5	148	73.4	12.1	1.56	1.06
MAX	2.3	55	112	449	65	174	94	281	104	27	2.9	1.3
MIN	.62	2.3	27	26	32	25	46	90	33	3.0	1.3	.94
AC-FT	69	1,520	2,640	6,020	2,630	3,250	3,960	9,110	4,370	743	96	63

CAL YR 1970 TOTAL - MEAN - MAX - MIN - AC-FT -  
WTR YR 1971 TOTAL 17,373.57 MEAN 47.6 MAX 449 MIN 0.62 AC-FT 34,460

## KLAMATH RIVER BASIN

11518050 EAST FORK SCOTT RIVER AT CALLAHAN, CALIF.

LOCATION.--Lat 41°18'15", long 122°46'32", in SE $\frac{1}{4}$  NW $\frac{1}{4}$  sec.22, T.40 N., R.8 W., Siskiyou County, on right bank 1.0 mile downstream from Big Mill Creek and 1.4 miles east of Callahan.

DRAINAGE AREA.--110 sq mi.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,200 ft (from topographic map). Prior to July 26, 1961, at site 1.6 miles downstream at different datum. July 26, 1961, to Aug. 23, 1971, at datum 0.46 ft higher.

AVERAGE DISCHARGE.--12 years, 104 cfs (75,350 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,350 cfs Mar. 25 (gage height, 5.98 ft); minimum daily, 0.76 cfs Oct. 2, 3, 13-17.

Period of record: Maximum discharge, 7,480 cfs Dec. 22, 1964 (gage heights, 9.93 ft in gage well, 9.73 ft, from floodmarks), from rating curve extended above 3,000 cfs on basis of slope-area measurements at gage heights 9.05 and 9.93 ft; minimum daily, 0.72 cfs Aug. 22, 23, Sept. 23, 24, 1970.

REMARKS.--Records good. Small diversions 0.5 mile upstream from station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	5.0	121	86	148	68	171	265	201	65	13	4.9
2	.76	5.3	114	75	143	65	163	261	168	63	12	4.9
3	.76	5.3	104	73	132	63	158	369	160	60	10	4.9
4	.80	68	104	72	125	61	160	387	166	56	10	4.9
5	.80	249	150	70	121	58	174	396	188	55	9.0	4.9
6	.80	102	261	68	123	56	214	334	214	52	8.5	4.9
7	.80	68	480	70	118	55	198	396	240	48	8.0	4.9
8	.80	75	298	70	110	55	171	667	234	46	8.0	4.9
9	.84	214	214	75	110	55	336	570	220	44	8.5	4.6
10	.84	129	168	98	116	53	290	505	214	42	8.0	4.6
11	.84	148	153	96	141	75	210	500	201	36	7.5	4.2
12	.80	141	138	90	155	141	177	520	188	33	7.2	3.8
13	.76	102	125	86	182	108	166	475	185	33	6.0	3.8
14	.76	83	114	88	171	90	163	392	168	33	6.0	3.8
15	.76	68	114	233	171	83	168	373	155	31	6.0	3.8
16	.76	60	116	515	153	86	177	339	160	30	6.3	3.8
17	.76	51	110	829	138	86	168	279	155	31	6.0	3.8
18	.80	46	104	997	127	81	155	247	150	34	5.6	3.8
19	.80	43	98	719	118	79	150	247	143	33	5.6	3.8
20	1.3	39	88	510	106	81	160	247	146	33	5.0	4.2
21	2.1	36	88	406	100	86	155	220	138	36	5.0	4.2
22	4.7	42	84	326	98	165	150	214	129	33	5.0	4.2
23	9.0	61	81	272	92	434	143	254	121	29	5.0	4.2
24	8.5	213	77	234	88	298	138	310	106	27	5.0	4.2
25	6.3	194	75	198	84	433	129	339	116	26	5.0	4.2
26	5.6	146	73	177	75	640	129	326	121	24	5.0	4.2
27	5.6	132	72	166	77	322	143	272	100	21	4.9	4.6
28	5.3	132	75	158	73	247	168	326	84	20	4.9	4.9
29	5.6	125	73	150	-----	223	204	351	75	18	4.9	5.2
30	6.3	134	75	146	-----	217	244	290	70	16	4.9	6.0
31	5.6	-----	83	148	-----	185	-----	227	-----	15	4.9	-----
TOTAL	80.94	2,916.6	4,030	7,301	3,395	4,749	5,332	10,898	4,716	1,123	210.7	133.1
MEAN	2.61	97.2	130	236	121	153	178	352	157	36.2	6.80	4.44
MAX	9.0	249	480	997	182	640	336	667	240	65	13	6.0
MIN	.76	5.0	72	68	73	53	129	214	70	15	4.9	3.8
AC-FT	161	5,790	7,990	14,480	6,730	9,420	10,580	21,620	9,350	2,230	418	264
CAL YR 1970	TOTAL	44,645.34	MEAN	122	MAX	2,440	MIN	.72	AC-FT	88,550		
WTR YR 1971	TOTAL	44,885.34	MEAN	123	MAX	997	MIN	.76	AC-FT	89,030		

## PEAK DISCHARGE (BASE, 550 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 7	1200	5.14	673	3-25	2330	5.98	1,350
1-18	0400	5.67	1,050	5- 8	0330	5.29	808
3-23	0100	4.94	592				

## 11518310 CEDAR GULCH NEAR CALLAHAN, CALIF.

LOCATION.--Lat 41°20'40", long 122°49'47", near center of sec.1, T.40 N., R.9 W., Siskiyou County, on left bank at culvert on county road, 2.9 miles northwest of Callahan.

DRAINAGE AREA.--0.99 sq mi.

PERIOD OF RECORD.--Water years 1961-66 (annual maximum), February 1966 to current year.

GAGE.--Water-stage recorder, crest-stage gages, and float-operated rain gage. Altitude of gage is 3,040 ft (from topographic map). Prior to Feb. 11, 1966, crest-stage gages only at same site and datum.

EXTREMES.--Current year: Maximum discharge, 56 cfs Jan. 16 (gage height, 7.93 ft), from rating curve extended as explained below; no flow for several months.

Period of record: Maximum discharge, 144 cfs Dec. 22, 1964 (gage height, 10.18 ft, from floodmarks), from rating curve extended above 7 cfs on basis of computations of flow through culvert at gage heights 6.15, 8.25, and 10.18 ft; no flow for several months in each year.

REMARKS.--Records good. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	1.8	.35	.50	.18	.94	.36	.30	.09		
2	0	0	1.5	.34	.46	.18	.84	.36	.24	.08		
3	0	0	1.8	.34	.46	.24	.70	.39	.24	.06		
4	0	0	2.2	.37	.42	.24	.66	.33	.24	.06		
5	0	0	2.2	.42	.39	.21	.62	.30	.21	.08		
6	0	0	3.7	.42	.36	.21	.62	.30	.16	.12		
7	0	0	8.0	.42	.36	.21	.62	.78	.18	.14		
8	0	0	4.5	.42	.36	.21	.62	3.0	.18	.09		
9	0	.02	2.9	.42	.30	.21	.74	1.8	.18	.09		
10	0	.03	2.1	.54	.30	.21	.70	.99	.18	.09		
11	0	.06	1.8	.54	.30	.33	.62	.74	.16	.09		
12	0	.12	1.5	.46	.24	1.4	.62	.62	.12	.04		
13	0	.04	1.3	.42	.27	1.4	.58	.54	.09	.03		
14	0	.02	1.2	.42	.27	1.4	.54	.46	.09	.03		
15	0	.02	1.9	1.5	.27	1.4	.50	.42	.09	.02		
16	0	.01	2.8	23	.27	1.8	.50	.39	.12	.02		
17	0	.01	2.4	9.2	.24	1.6	.50	.39	.14	.06		
18	0	.01	1.6	5.0	.21	1.2	.46	.36	.16	.14		
19	0	0	.95	2.9	.21	.99	.50	.39	.16	.12		
20	0	0	.80	2.1	.18	.89	.54	.36	.14	.08		
21	0	0	.70	1.7	.21	.74	.54	.36	.12	.06		
22	0	0	.60	1.3	.21	2.1	.50	.33	.12	.04		
23	0	.10	.50	1.1	.21	4.0	.46	.30	.09	.03		
24	.01	2.8	.42	.94	.18	2.7	.42	.30	.08	.01		
25	.01	3.6	.40	.84	.18	3.7	.39	.33	.18	0		
26	0	.99	.40	.79	.21	6.3	.39	.30	.21	0		
27	0	2.9	.39	.79	.18	3.0	.39	.27	.16	0		
28	0	2.5	.39	.70	.18	1.8	.39	.27	.12	0		
29	0	1.9	.38	.66	-----	1.5	.39	.27	.12	0		
30	0	2.0	.38	.58	-----	1.2	.36	.27	.09	0		
31	0	-----	.37	.54	-----	1.0	-----	.27	-----	0		
TOTAL	.02	17.13	51.88	59.52	7.93	42.55	16.65	16.55	4.67	1.67	0	0
MEAN	.0006	.57	1.67	1.92	.28	1.37	.56	.53	.16	.054	0	0
MAX	.01	3.6	8.0	23	.50	6.3	.94	3.0	.30	.14	0	0
MIN	0	0	.37	.34	.18	.18	.36	.27	.08	0	0	0
AC-FT	.04	34	103	118	16	84	33	33	9.3	3.3	0	0
(a)	1.76	7.54	-	3.20	.30	4.24	.84	2.07	.02	0	0	0

CAL YR 1970 TOTAL 250.91 MEAN .69 MAX 25 MIN 0 AC-FT 498  
WTR YR 1971 TOTAL 218.57 MEAN .60 MAX 23 MIN 0 AC-FT 434

a Precipitation, in inches (some precipitation falling as snow may not be included).



## KLAMATH RIVER BASIN

11519500 SCOTT RIVER NEAR FORT JONES, CALIF.

LOCATION.--Lat 41°38'28", long 123°00'54", in NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.29, T.44 N., R.10 W., Siskiyou County, on right bank 1.7 miles upstream from Snow Creek and 10.8 miles downstream from Fort Jones.

DRAINAGE AREA.--653 sq mi.

PERIOD OF RECORD.--December 1941 to current year. Monthly discharge only October to December 1941, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 2,623.80 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1966, water-stage recorder 400 ft downstream at datum 2.00 ft higher.

AVERAGE DISCHARGE.--30 years, 666 cfs (482,500 acre-ft per year); median of yearly mean discharges, 590 cfs (427,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 16,300 cfs Jan. 18 (gage height, 17.63 ft); minimum daily, 32 cfs Oct. 6.

Period of record: Maximum discharge, 54,600 cfs Dec. 22, 1964 (gage height, 25.34 ft, from floodmarks, site and datum then in use), from rating curve extended above 15,000 cfs on basis of slope-area measurement at 21.40 ft; minimum, 20 cfs Sept. 14, 15, 1955.

REMARKS.--Records good. Diversions for irrigation of about 30,000 acres above station. Records of chemical analyses for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	86	1,300	896	1,550	813	1,810	1,220	1,340	725	151	76
2	55	86	1,210	835	1,520	777	1,670	1,230	1,190	680	145	75
3	54	86	1,170	736	1,430	777	1,550	1,740	1,110	620	136	74
4	54	89	1,330	721	1,370	768	1,500	1,950	1,140	595	132	73
5	49	180	1,320	689	1,320	728	1,540	1,980	1,220	550	125	70
6	32	345	1,590	668	1,300	697	1,680	1,820	1,330	496	117	56
7	33	240	3,000	655	1,250	689	1,730	1,810	1,540	474	111	62
8	36	275	3,390	649	1,200	669	1,590	2,490	1,600	436	109	66
9	37	1,340	2,260	667	1,160	657	1,770	2,780	1,600	412	105	81
10	80	933	1,720	801	1,160	657	2,060	2,550	1,520	388	102	85
11	78	659	1,500	910	1,310	790	1,710	2,530	1,540	364	102	79
12	63	865	1,340	864	1,430	1,390	1,490	2,740	1,440	352	100	76
13	58	602	1,220	825	1,590	1,450	1,400	2,780	1,370	336	95	76
14	56	467	1,120	807	1,630	1,290	1,330	2,370	1,380	330	94	75
15	55	404	1,170	1,210	1,750	1,180	1,330	2,100	1,260	326	91	173
16	54	358	1,600	3,710	1,630	1,160	1,330	1,960	1,280	305	89	109
17	54	328	1,360	11,900	1,490	1,200	1,330	1,680	1,260	294	83	102
18	54	299	1,170	14,800	1,360	1,080	1,200	1,450	1,210	312	78	99
19	54	274	1,050	9,570	1,300	1,030	1,130	1,360	1,250	336	70	95
20	58	253	1,000	6,290	1,180	1,020	1,120	1,360	1,290	316	62	94
21	58	232	957	4,580	1,110	985	1,100	1,240	1,160	302	60	92
22	58	240	896	3,580	1,080	1,220	1,060	1,160	1,100	294	59	92
23	68	861	848	2,970	1,020	3,930	1,010	1,290	1,060	280	54	91
24	86	4,570	800	2,530	980	3,800	960	1,590	966	266	53	89
25	109	5,200	764	2,190	965	3,200	916	1,900	1,010	249	59	89
26	96	4,000	735	1,940	898	5,950	900	1,900	1,290	238	61	91
27	88	2,250	713	1,790	894	3,940	938	1,670	1,140	223	74	91
28	88	1,830	757	1,680	858	2,840	1,010	1,750	944	205	73	89
29	87	1,560	1,020	1,570	-----	2,450	1,100	2,040	844	199	71	95
30	88	1,570	919	1,550	-----	2,250	1,150	1,900	760	175	75	99
31	89	-----	903	1,550	-----	2,000	-----	1,540	-----	160	78	-----
TOTAL	1,985	30,482	40,132	84,133	35,735	51,427	40,414	57,880	37,054	11,238	2,814	2,614
MEAN	64.0	1,016	1,295	2,714	1,276	1,659	1,347	1,867	1,235	363	90.8	87.1
MAX	109	5,200	3,390	14,800	1,750	5,950	2,060	2,780	1,600	725	151	173
MIN	32	86	713	649	858	657	900	1,160	760	160	53	56
AC-FT	3,940	60,460	79,600	166,900	70,880	102,000	80,160	114,800	73,500	22,290	5,580	5,180
CAL YR 1970	TOTAL 346,391											
WTR YR 1971	TOTAL 395,908											
MEAN	1,085											
MAX	17,200											
MIN	32											
AC-FT	687,100											
AC-FT	785,300											

## PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-25	0430	12.54	6,970	3-26	1415	12.70	6,900
12-7	2400	10.97	4,590	4-10	0345	8.88	2,260
1-18	0830	17.63	16,300	5-9	0645	9.71	2,990
3-23	1945	11.06	4,700	5-29	0830	8.76	2,160

## 11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CALIF.

LOCATION.--Lat 41°51'14", long 123°13'52", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.3, T.46 N., R.12 W., Siskiyou County, Klamath National Forest, on left bank 0.4 mile upstream from Bittenbender Creek, 1.4 miles downstream from Grider Creek, and 2.2 miles west of Seiad Valley.

DRAINAGE AREA.--6,940 sq mi, approximately (excludes Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--October 1912 to September 1925, July 1951 to current year. Monthly discharges only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 1,320 ft (from river-profile map). November 1912 to June 1925, nonrecording gage at site 3.5 miles upstream at different datum.

AVERAGE DISCHARGE.--33 years, 4,120 cfs (2,985,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 51,800 cfs Jan. 17 (gage height, 18.50 ft); minimum daily, 1,300 cfs July 31.

Period of record: Maximum discharge, 165,000 cfs Dec. 23, 1964 (gage height, 33.75 ft, from floodmarks), from rating curve extended above 25,000 cfs on basis of slope-area measurements at gage heights 20.1 and 29.2 ft; minimum daily, 320 cfs Nov. 25, 1917.

REMARKS.--Records good. Flow considerably regulated by reservoirs and powerplants above station. Large diversions above station for irrigation. Records of water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,560	2,230	7,100	5,990	7,740	5,520	14,200	7,640	8,950	2,860	1,360	1,520
2	1,580	2,230	6,850	5,650	7,650	5,400	12,900	6,880	8,700	2,630	1,530	1,730
3	1,590	2,220	7,250	5,270	7,410	5,430	12,600	7,420	8,600	2,510	1,520	1,720
4	1,580	2,230	7,950	5,130	7,200	5,430	12,000	7,900	8,440	2,430	1,500	1,700
5	1,560	2,460	9,030	5,020	7,220	5,310	11,600	8,200	8,380	2,330	1,500	1,690
6	1,550	2,700	10,400	4,720	7,320	5,220	11,600	8,020	8,460	2,240	1,470	1,670
7	1,560	2,710	13,300	4,910	7,080	5,200	10,900	8,360	8,520	2,160	1,460	1,660
8	1,560	3,860	12,200	4,910	6,920	5,090	9,730	10,600	7,400	2,090	1,450	1,660
9	1,590	5,580	11,200	5,000	6,720	5,070	9,920	12,400	6,680	2,040	1,450	1,660
10	1,590	5,150	9,900	5,000	6,720	5,180	10,900	12,600	6,230	2,010	1,430	1,680
11	1,660	4,730	9,100	4,830	7,020	5,830	9,040	12,700	5,730	1,950	1,420	1,680
12	1,630	5,490	8,750	5,580	7,460	8,160	8,480	12,900	5,040	1,900	1,430	1,680
13	1,610	4,910	8,400	5,690	7,900	8,930	10,300	13,000	4,440	1,840	1,420	1,680
14	1,620	4,450	8,030	5,540	8,030	7,810	11,600	11,400	4,160	1,820	1,400	1,780
15	1,630	4,260	7,750	7,200	8,280	7,350	11,700	11,000	3,840	1,810	1,390	1,990
16	1,640	4,040	8,300	13,500	7,940	7,180	11,500	10,800	3,810	1,770	1,380	2,090
17	1,650	3,910	7,850	34,300	7,460	7,220	11,500	10,300	3,810	1,730	1,390	2,050
18	1,650	3,860	7,150	42,000	7,080	6,880	11,600	9,820	3,790	1,720	1,390	2,050
19	1,650	3,840	6,500	30,200	6,740	6,640	11,400	9,590	3,840	1,730	1,390	2,060
20	1,720	3,770	6,050	23,000	6,440	6,080	11,400	8,480	3,770	1,680	1,390	2,100
21	1,740	3,740	5,890	17,700	6,260	6,060	11,300	8,020	3,700	1,660	1,380	2,090
22	1,800	3,840	5,740	14,600	6,190	7,070	11,300	8,120	3,600	1,640	1,370	2,100
23	1,940	5,400	5,470	12,800	6,100	13,400	11,100	8,880	3,510	1,580	1,380	2,120
24	2,030	13,300	5,250	11,800	5,990	14,100	10,500	8,980	3,250	1,530	1,350	2,120
25	1,850	15,000	5,110	10,900	5,920	13,700	9,730	8,040	3,460	1,480	1,340	2,130
26	1,820	13,800	5,020	10,000	5,780	25,600	9,680	7,280	3,840	1,440	1,360	2,160
27	1,770	11,600	4,970	9,430	5,740	22,100	9,520	8,020	3,600	1,410	1,370	2,160
28	2,130	9,950	5,130	9,200	5,670	19,900	8,880	9,050	3,180	1,380	1,380	2,180
29	2,220	8,600	5,920	8,760	-----	18,700	8,880	10,900	3,200	1,350	1,360	2,290
30	2,220	7,500	5,740	7,740	-----	17,700	8,280	10,700	3,410	1,330	1,380	2,300
31	2,220	-----	6,010	7,630	-----	16,900	-----	9,950	-----	1,300	1,450	-----
TOTAL	53,920	167,360	233,310	344,000	193,980	300,160	324,040	297,950	157,340	57,350	43,790	57,500
MEAN	1,739	5,579	7,526	11,100	6,928	9,683	10,800	9,611	5,245	1,850	1,413	1,917
MAX	2,220	15,000	13,300	42,000	8,280	25,600	14,200	13,000	8,950	2,860	1,530	2,300
MIN	1,550	2,220	4,970	4,720	5,670	5,070	8,280	6,880	3,180	1,300	1,340	1,520
AC-FT	107,000	332,000	462,800	682,300	384,800	595,400	642,700	591,000	312,100	113,800	86,860	114,100
CAL YR 1970	TOTAL	1,774,707	MEAN	4,862	MAX	47,600	MIN	956	AC-FT	3,520,000		
WTR YR 1971	TOTAL	2,230,700	MEAN	6,112	MAX	42,000	MIN	1,300	AC-FT	4,425,000		

## KLAMATH RIVER BASIN

## 11521500 INDIAN CREEK NEAR HAPPY CAMP, CALIF.

LOCATION.--Lat 41°50'07", long 123°22'55", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.26, T.17 N., R.7 E., Siskiyou County, on left bank 0.2 mile upstream from Slater Creek, 3.0 miles north of Happy Camp, and 3.5 miles upstream from mouth.

DRAINAGE AREA.--120 sq mi (revised).

PERIOD OF RECORD.--September 1911 to September 1921 (fragmentary), December 1956 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 1,200 ft (from topographic map). Prior to December 1956, nonrecording gages at sites 0.2 mile upstream at different datums. December 1956 to Sept. 20, 1969, water-stage recorder at site 0.8 mile upstream at different datum.

AVERAGE DISCHARGE.--17 years (1911-14, 1957-71), 442 cfs (320,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,100 cfs Jan. 17 (gage height, 12.96 ft); minimum daily, 33 cfs Oct. 14-17.

Period of record: Maximum discharge, 39,000 cfs Dec. 22, 1964 (gage height, 36.59 ft, from floodmarks in gage well, site and datum then in use, 24.3 ft, from floodmarks, present site and datum), from rating curve extended above 6,000 cfs on basis of slope-area measurement at gage height 29.0 ft; minimum observed, 20 cfs Aug. 19 to Sept. 6, 1914.

Flood of Dec. 21, 1955, reached a stage of 29.0 ft, site and datum then in use, from floodmarks (discharge, 23,000 cfs on basis of slope-area measurement of peak flow).

REMARKS.--Records good. Small diversions above station for irrigation.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	61	740	675	824	470	981	878	620	300	108	86
2	36	60	590	554	824	450	932	953	590	288	108	92
3	36	59	490	471	770	465	911	1,260	620	268	106	82
4	36	79	455	419	722	465	939	1,290	668	256	104	76
5	35	316	500	380	750	440	1,040	1,210	692	244	100	73
6	36	363	1,500	350	710	425	1,110	1,090	698	232	96	70
7	35	240	2,200	332	690	440	1,020	1,140	686	220	96	69
8	35	1,380	1,640	332	700	435	974	1,360	662	213	94	68
9	35	1,050	1,070	363	730	430	1,310	1,330	632	213	92	66
10	35	405	866	585	780	500	1,240	1,270	608	206	90	65
11	34	629	749	608	836	1,090	1,060	1,400	602	196	88	64
12	34	790	661	545	988	1,530	953	1,510	575	185	86	63
13	34	451	601	500	1,070	1,070	939	1,360	550	189	86	61
14	33	315	557	480	1,070	890	960	1,140	525	182	84	59
15	33	252	736	1,540	1,340	776	981	1,070	505	179	82	57
16	33	283	1,000	3,760	1,090	746	988	960	515	176	82	56
17	33	233	792	8,860	932	674	925	836	500	182	81	55
18	37	195	667	6,540	830	632	860	788	515	189	81	54
19	39	172	577	3,820	746	602	824	800	500	185	79	54
20	67	155	542	2,730	674	608	812	800	465	185	77	53
21	86	143	483	1,860	626	638	758	734	445	188	79	52
22	89	221	429	1,510	590	1,060	722	740	435	161	79	52
23	240	1,900	394	1,220	555	2,150	680	866	410	147	77	52
24	161	3,900	364	1,010	575	1,900	638	1,020	377	142	75	52
25	104	3,050	342	890	575	2,120	614	1,020	530	134	73	52
26	96	2,700	326	810	535	3,220	650	911	465	129	72	68
27	77	1,550	311	746	530	1,900	740	854	386	124	73	73
28	68	1,200	394	728	500	1,430	800	967	336	122	73	78
29	62	850	472	710	-----	1,290	806	946	318	118	72	152
30	59	990	495	728	-----	1,230	812	812	309	115	73	105
31	60	-----	820	782	-----	1,110	-----	692	-----	113	82	-----
TOTAL	1,834	23,989	21,763	44,838	21,562	31,186	26,979	32,007	15,739	5,781	2,648	2,059
MEAN	59.2	800	702	1,446	770	1,006	899	1,032	525	186	85.4	68.6
MAX	240	3,900	2,200	8,860	1,340	3,220	1,310	1,510	698	300	108	152
MIN	33	59	311	332	500	425	614	692	309	113	72	52
AC-FT	3,640	47,580	43,170	88,940	42,770	61,860	53,510	63,490	31,220	11,470	5,250	4,080

CAL YR 1970 TOTAL 180,230 MEAN 494 MAX 6,510 MIN 33 AC-FT 357,500  
WTR YR 1971 TOTAL 230,385 MEAN 631 MAX 8,860 MIN 33 AC-FT 457,000

## PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-8	1745	8.06	2,870	3-11	2115	7.72	2,350
11-24	unknown	10.73	6,750	3-25	2400	9.42	4,630
1-17	1715	12.96	11,100				

## 11522500 SALMON RIVER AT SOMES BAR, CALIF.

LOCATION.--Lat 41°22'40", long 123°28'35", in NE¼ sec.3, T.11 N., R.6 E., Siskiyou County, Klamath National Forest, on left bank at Somes Bar, 1.0 mile upstream from mouth.

DRAINAGE AREA.--751 sq mi.

PERIOD OF RECORD.--September 1911 to September 1915, October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 482.97 ft above mean sea level. Prior to October 1927, non-recording gage, at different datum, October 1927 to Dec. 22, 1964, water-stage recorder at site 0.5 mile upstream at datum 6.54 ft higher.

AVERAGE DISCHARGE.--48 years, 1,789 cfs (1,296,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 65,500 cfs Jan. 18 (gage height, 23.23 ft), from rating curve extended above 19,000 cfs; minimum daily, 112 cfs Oct. 18.

Period of record: Maximum discharge, 133,000 cfs Dec. 22, 1964 (gage height, 46.6 ft, present site and datum, from floodmarks), from rating curve extended above 33,000 cfs; minimum, 70 cfs Aug. 25, Sept. 4, 5, 1931.

REMARKS.--Records good. No storage or large diversion above station. Record of water temperatures for the current year is published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1285: 1912, 1914, 1915(M), 1946(M), 1948(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

CAY	CCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	245	4,510	2,760	3,710	2,040	5,460	3,720	3,270	2,220	562	355
2	121	250	3,970	2,540	3,610	1,980	4,900	3,940	3,070	2,190	545	380
3	118	255	5,420	2,230	3,220	2,030	4,560	4,740	3,250	2,030	535	338
4	115	330	5,300	2,050	2,860	2,070	4,360	5,140	3,460	1,900	510	318
5	115	1,080	4,220	1,890	2,680	1,980	4,420	5,240	3,720	1,810	495	302
6	115	1,500	5,470	1,790	2,450	1,930	4,650	4,740	3,990	1,710	480	297
7	115	1,120	13,400	1,690	2,260	1,970	4,490	5,010	4,270	1,590	465	290
8	121	2,170	11,300	1,680	2,140	1,920	4,160	6,240	4,220	1,530	445	286
9	121	9,200	6,920	1,680	2,020	1,900	4,690	5,920	4,180	1,490	430	274
10	121	4,500	4,890	2,800	2,040	2,040	4,900	5,980	3,920	1,410	415	270
11	118	3,700	4,020	3,010	2,530	3,020	4,200	6,460	4,000	1,280	405	263
12	115	5,380	3,450	2,700	3,580	6,170	3,800	7,060	3,730	1,210	395	260
13	115	4,100	3,130	2,430	4,170	5,750	3,720	6,840	3,550	1,190	385	256
14	118	3,100	2,820	2,340	4,080	4,220	3,730	5,600	3,490	1,190	370	249
15	115	2,700	2,990	4,260	4,430	3,380	3,780	5,180	3,400	1,190	360	249
16	115	2,550	4,140	18,000	3,980	3,300	3,940	4,650	3,700	1,180	350	242
17	115	2,380	3,570	48,300	3,630	3,470	3,840	3,960	3,700	1,150	342	239
18	112	2,220	2,950	54,800	3,360	3,150	3,490	3,670	3,750	1,400	334	232
19	125	2,160	2,670	33,300	2,990	2,820	3,330	3,750	3,700	1,170	330	232
20	155	2,080	2,530	22,600	2,720	2,690	3,330	3,810	3,580	1,110	322	228
21	185	1,970	2,320	16,900	2,560	2,650	3,150	3,520	3,490	1,100	318	228
22	270	1,830	2,080	13,200	2,470	4,050	2,970	3,460	3,360	1,030	318	225
23	430	2,400	1,940	11,200	2,350	16,800	2,920	4,040	3,240	922	318	225
24	365	22,000	1,820	8,690	2,380	14,000	2,740	5,050	2,850	859	318	225
25	340	19,700	1,720	6,600	2,420	10,700	2,630	5,540	3,720	796	306	225
26	320	9,710	1,650	5,490	2,220	22,400	2,630	4,880	4,200	747	294	294
27	305	7,420	1,580	4,320	2,250	14,200	2,810	4,290	3,190	712	290	346
28	295	6,290	1,600	4,040	2,150	10,200	3,120	5,200	2,500	684	290	310
29	275	4,620	2,560	3,650	-----	8,350	3,400	5,720	2,260	652	282	628
30	235	4,690	2,440	3,520	-----	7,150	3,460	4,940	2,190	616	274	545
31	240	-----	2,730	3,650	-----	6,240	-----	3,830	-----	586	350	-----
TOTAL	5,646	131,650	120,110	294,150	81,260	174,570	113,580	152,120	104,950	38,654	11,833	8,811
MEAN	182	4,388	3,875	5,489	2,902	5,631	3,786	4,907	3,498	1,247	382	294
MAX	430	22,000	13,400	54,800	4,430	22,400	5,460	7,060	4,270	2,220	562	628
MIN	112	245	1,580	1,680	2,020	1,900	2,630	3,460	2,190	586	274	225
AC-FT	11,200	261,100	238,200	583,400	161,200	346,300	225,300	301,700	208,200	76,670	23,470	17,480
CAL YR 1970	TOTAL	951,859	MEAN	2,608	MAX	41,000	MIN	112	AC-FT	1,888,000		
WTR YR 1971	TOTAL	1,237,334	MEAN	3,390	MAX	54,800	MIN	112	AC-FT	2,454,000		

## PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11- 9	unknown	-	10,500	1-18	0100	23.23	65,500
11-24	1745	17.28	38,800	3-23	0615	12.77	18,600
12- 7	1430	12.71	20,400	3-28	0330	14.91	28,100

## KLAMATH RIVER BASIN

## 11523000 KLAMATH RIVER AT ORLEANS, CALIF.

LOCATION.--Lat 41°18'13", long 123°32'00", in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.31, T.11 N., R.6 E., Humboldt County, Six Rivers National Forest on right bank at Orleans, 25 ft upstream from highway bridge, and 0.2 mile downstream from Cheenitch Creek.

DRAINAGE AREA.--8,475 sq mi (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1965, published as "at Somesbar."

GAGE.--Water-stage recorder. Datum of gage is 355.98 ft above mean sea level. Prior to Oct. 1, 1965, at site 6.7 miles upstream at datum 90.68 ft higher.

AVERAGE DISCHARGE.--44 years, 8,044 cfs (5,828,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 190,000 cfs Jan. 17 (gage height, 30.96 ft); minimum daily, 1,980 cfs Oct. 6, 7.  
Period of record: Maximum discharge, 307,000 cfs Dec. 22, 1964 (gage height, 76.5 ft, from floodmarks, site and datum then in use), from rating curve extended above 80,000 cfs by slope-conveyance study; minimum daily 320 cfs Aug. 25, Sept. 1, 1951.

REMARKS.--Records good. Flow considerably regulated by reservoirs and powerplants above station. Large diversions above station for irrigation. Records of water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1565: 1935(M), 1949.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,990	3,020	19,500	17,200	19,200	11,400	31,000	17,500	16,300	6,400	2,570	2,190
2	1,990	3,020	17,900	14,900	17,000	11,000	26,900	16,200	14,900	6,000	2,600	2,340
3	2,030	3,000	20,500	12,800	17,600	11,100	25,000	19,000	14,800	5,700	2,610	2,350
4	2,010	3,090	23,000	11,300	16,700	11,400	24,600	20,900	15,500	5,410	2,560	2,310
5	2,000	5,060	21,200	10,600	16,500	11,100	24,100	21,200	16,100	5,200	2,510	2,270
6	1,980	6,580	25,400	9,700	16,300	10,800	25,700	19,800	16,600	5,000	2,480	2,240
7	1,980	5,710	51,900	9,270	15,700	10,900	24,100	19,800	17,200	4,780	2,430	2,220
8	1,990	9,810	53,400	9,250	15,000	10,800	21,500	24,900	16,300	4,640	2,390	2,210
9	2,010	23,800	34,500	9,360	14,500	10,500	23,800	29,400	14,800	4,540	2,360	2,190
10	2,040	13,000	25,800	12,600	14,200	11,300	28,300	30,000	13,500	4,450	2,340	2,190
11	2,040	11,100	21,700	13,500	15,500	16,800	23,100	31,600	13,100	4,300	2,300	2,190
12	2,100	14,900	19,000	13,200	17,500	30,000	20,100	34,000	11,800	4,140	2,280	2,180
13	2,040	11,200	17,000	13,100	19,200	28,600	19,900	33,900	10,500	4,020	2,280	2,180
14	2,030	8,650	15,400	12,500	19,000	23,000	23,300	28,300	9,930	3,920	2,270	2,160
15	2,040	7,470	15,400	22,100	21,300	19,700	24,500	24,400	9,380	3,900	2,260	2,270
16	2,050	7,200	22,700	65,700	19,600	18,700	25,000	22,800	9,480	3,870	2,240	2,390
17	2,060	6,670	21,000	157,000	17,600	18,500	25,000	20,400	9,430	3,820	2,220	2,390
18	2,090	6,250	17,800	153,000	16,200	17,200	23,600	18,900	9,430	3,970	2,220	2,370
19	2,110	6,020	14,800	96,900	15,100	16,000	22,500	18,700	9,550	3,800	2,210	2,360
20	2,500	5,840	13,600	65,000	14,100	15,300	22,400	17,700	9,150	3,690	2,190	2,380
21	2,640	5,690	12,800	46,800	13,400	14,800	21,500	15,900	8,730	3,610	2,190	2,380
22	2,970	6,370	11,500	37,200	13,000	17,400	20,600	15,400	8,480	3,570	2,190	2,370
23	3,680	22,000	10,700	32,000	12,600	50,300	20,100	17,600	8,050	3,370	2,180	2,380
24	4,630	83,900	10,000	28,300	12,500	51,900	19,300	20,700	7,420	3,210	2,160	2,390
25	3,200	70,100	9,380	25,500	12,800	43,300	17,700	21,200	8,580	3,070	2,120	2,390
26	2,980	36,600	8,860	23,400	12,000	86,500	17,500	18,700	10,000	2,960	2,100	2,550
27	2,740	28,200	8,620	21,700	12,100	67,000	18,100	16,400	8,530	2,890	2,100	2,700
28	2,690	26,600	9,590	20,500	11,800	50,600	18,100	18,700	7,100	2,830	2,090	3,200
29	3,020	21,000	13,600	19,700	-----	44,200	18,100	21,000	6,500	2,770	2,070	4,000
30	3,020	19,000	14,000	18,600	-----	39,700	17,700	21,600	6,670	2,700	2,050	3,900
31	3,000	-----	17,000	18,500	-----	35,600	-----	18,600	-----	2,620	2,160	-----
TOTAL	75,650	480,850	597,550	1,021,2M	438,000	815,400	673,100	675,200	337,810	125,150	70,730	73,640
MEAN	2,440	16,030	19,280	32,940	15,640	26,300	22,440	21,780	11,260	4,037	2,282	2,455
MAX	4,630	83,900	53,400	157,000	21,300	86,500	31,000	34,000	17,200	6,400	2,610	4,000
MIN	1,980	3,000	8,620	9,250	11,800	10,500	17,500	15,400	6,500	2,620	2,050	2,160
AC-FT	150,100	953,800	1,185M	2,026M	868,800	1,617M	1,335M	1,339M	670,000	248,200	140,300	146,100
CAL YR 1970	TOTAL	4,384,630	MEAN	12,010	MAX	145,000	MIN	1,540	AC-FT	8,697,000		
WTR YR 1971	TOTAL	5,384,260	MEAN	14,750	MAX	157,000	MIN	1,980	AC-FT	10,680,000		

## PEAK DISCHARGE (BASE, 40,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1945	22.96	111,000	3-23	2345	17.29	60,600
12- 7	1945	19.10	76,200	3-26	1530	21.08	94,000
1-17	2100	30.96	190,000				

## 11523200 TRINITY RIVER ABOVE COFFEE CREEK, NEAR TRINITY CENTER, CALIF.

LOCATION.--Lat 41°06'29", long 122°42'23", on line between secs.31 and 32, T.38 N., R.7 W., Trinity County, Shasta National Forest, on right bank 250 ft downstream from Chinquapin Gulch, 1.8 miles upstream from Coffee Creek, and 8.5 miles north of Trinity Center.

DRAINAGE AREA.--149 sq mi.

PERIOD OF RECORD.--September 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,533.36 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 424 cfs (307,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,270 cfs May 8 (gage height, 6.19 ft); minimum daily, 31 cfs Oct. 2-5.

Period of record: Maximum discharge, 20,800 cfs Dec. 22, 1964 (gage height, 12.30 ft in gage well, 13.4 ft, from floodmarks), from rating curve extended above 5,000 cfs on basis of slope-area measurement at gage height 9.91 ft; minimum daily, 27 cfs Nov. 3, 1966.

Flood of Dec. 22, 1955, reached a stage of 10.5 ft, from floodmarks (discharge, 11,400 cfs).

REMARKS.--Records excellent. No regulation or diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	53	384	214	850	301	658	1,330	742	256	77	56
2	31	52	343	203	837	289	667	1,250	694	245	75	56
3	31	51	315	191	714	285	701	1,590	707	231	74	54
4	31	247	301	193	620	276	770	1,820	756	219	72	51
5	31	869	296	185	570	264	924	1,800	824	208	70	49
6	32	307	457	182	557	256	1,090	1,490	914	197	68	49
7	33	199	963	183	552	255	976	1,680	950	186	67	50
8	35	278	859	194	544	251	854	2,640	931	178	66	48
9	35	771	680	225	530	250	1,430	2,200	855	171	65	47
10	35	359	521	301	584	253	1,390	2,060	819	163	62	46
11	35	431	435	319	844	421	969	2,150	758	155	61	46
12	33	388	380	300	1,070	755	805	2,270	721	148	61	45
13	33	257	350	276	1,160	522	801	2,060	671	142	60	44
14	33	199	321	277	1,030	438	851	1,690	615	135	58	42
15	33	168	334	458	922	388	995	1,620	605	129	57	42
16	33	148	327	646	798	397	997	1,420	624	123	56	42
17	33	134	291	1,470	692	398	878	1,160	591	122	56	42
18	36	123	271	2,530	616	382	737	1,080	547	137	55	42
19	38	116	250	2,070	548	385	701	1,140	512	125	54	42
20	76	109	251	1,510	494	423	791	1,140	502	133	54	42
21	76	106	244	1,130	454	480	688	999	474	128	54	42
22	70	145	222	876	424	596	628	1,040	448	116	54	42
23	112	287	214	740	396	1,240	588	1,120	410	107	54	42
24	86	1,480	206	710	382	1,090	548	1,620	368	102	53	40
25	59	1,220	200	640	368	1,070	525	1,570	428	97	51	40
26	53	721	198	590	344	1,580	604	1,540	473	92	51	42
27	49	570	196	530	337	1,010	774	1,290	368	88	50	46
28	48	478	211	557	320	808	980	1,410	310	86	50	47
29	48	422	206	584	-----	797	1,190	1,640	280	83	49	60
30	48	445	201	676	-----	847	1,330	1,340	263	80	51	65
31	51	-----	217	811	-----	722	-----	875	-----	79	59	-----
TOTAL	1,409	11,133	10,644	19,771	17,557	17,429	25,840	48,034	18,160	4,461	1,844	1,401
MEAN	45.5	371	343	638	627	562	861	1,549	605	144	59.5	46.7
MAX	112	1,480	963	2,530	1,160	1,580	1,430	2,640	950	256	77	65
MIN	31	51	196	182	320	250	525	875	263	79	49	40
AC-FT	2,790	22,080	21,110	39,220	34,820	34,570	51,250	95,280	36,020	8,850	3,660	2,780
CAL YR 1970	TOTAL 165,871	MEAN 454	MAX 9,200	MIN 28	AC-FT 329,000							
WTR YR 1971	TOTAL 177,683	MEAN 487	MAX 2,640	MIN 31	AC-FT 352,400							

## PEAK DISCHARGE (BASE, 1,900 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1700	5.47	2,390	5- 8	0430	6.19	3,270
1-18	1900	5.72	2,670	5-12	2300	5.83	2,570
3-26	0200	5.11	2,000	5-29	1130	5.03	1,920
4- 9	1930	5.15	2,040				

## KLAMATH RIVER BASIN

## 11525400 CLAIR ENGLE LAKE NEAR LEWISTON, CALIF.

LOCATION.--Lat 40°48'05", long 122°45'44", in sec.15, T.34 N., R.8 W., Trinity County, Trinity National Forest, on side of intake structure of Trinity Dam on Trinity River, 9 miles north of Lewiston.

DRAINAGE AREA.--692 sq mi.

PERIOD OF RECORD.--November 1960 to current year. Prior to October 1963 published as Trinity Lake near Lewiston.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Jan. 4, 1962, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 2,454,000 acre-ft May 30 (elevation, 2,370.38 ft); minimum, 1,820,000 acre-ft Nov. 2, 3 (elevation, 2,328.13 ft).  
Period of record: Maximum contents, 2,548,600 acre-ft Apr. 15, 1963 (elevation, 2,376.02 ft); minimum since lake first filled, 1,305,600 acre-ft Dec. 9, 1968 (elevation, 2,286.22 ft).

REMARKS.--The lake is formed by an earthfill dam completed in November 1960. Storage began Nov. 23, 1960. Usable capacity, 2,437,700 acre-ft between elevations 1,995.5 ft (elevation of invert of river outlets) and 2,370.0 ft (gross pool elevation) above mean sea level. Dead storage, 10,000 acre-ft. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Bureau of Reclamation, contents rounded to Geological Survey standards.

## CAPACITY TABLE (ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET)

1,960	670	2,100	162,231
1,970	1,894	2,140	292,850
1,980	4,131	2,190	529,611
2,000	12,373	2,250	955,140
2,020	26,436	2,310	1,584,000
2,040	47,023	2,380	2,617,000
2,070	92,906		

## CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,870	1,821	1,946	2,048	2,188	2,213	2,316	2,355	2,451	2,400	2,282	2,185
2	1,868	1,820	1,950	2,050	2,187	2,212	2,321	2,356	2,450	2,396	2,278	2,183
3	1,865	1,820	1,957	2,051	2,186	2,210	2,325	2,359	2,449	2,391	2,274	2,180
4	1,865	1,822	1,960	2,051	2,184	2,208	2,331	2,363	2,448	2,387	2,270	2,179
5	1,862	1,827	1,964	2,050	2,185	2,207	2,334	2,367	2,448	2,382	2,267	2,178
6	1,859	1,829	1,970	2,049	2,187	2,205	2,335	2,370	2,448	2,377	2,263	2,178
7	1,856	1,829	1,986	2,048	2,192	2,205	2,339	2,374	2,448	2,371	2,261	2,174
8	1,854	1,835	1,997	2,048	2,192	2,203	2,343	2,383	2,449	2,366	2,258	2,169
9	1,852	1,844	2,005	2,049	2,192	2,202	2,351	2,390	2,448	2,360	2,256	2,166
10	1,850	1,846	2,010	2,050	2,194	2,202	2,356	2,397	2,448	2,353	2,253	2,161
11	1,850	1,850	2,014	2,049	2,195	2,204	2,358	2,404	2,448	2,348	2,251	2,158
12	1,848	1,853	2,018	2,049	2,198	2,211	2,359	2,412	2,446	2,343	2,248	2,156
13	1,845	1,854	2,022	2,048	2,203	2,214	2,360	2,418	2,445	2,338	2,245	2,154
14	1,843	1,855	2,023	2,049	2,208	2,216	2,360	2,422	2,443	2,334	2,241	2,151
15	1,841	1,856	2,026	2,056	2,213	2,218	2,363	2,425	2,441	2,332	2,238	2,149
16	1,838	1,856	2,028	2,076	2,214	2,220	2,364	2,428	2,440	2,330	2,235	2,147
17	1,835	1,856	2,030	2,105	2,216	2,220	2,365	2,429	2,438	2,328	2,232	2,143
18	1,834	1,856	2,031	2,137	2,217	2,220	2,365	2,430	2,436	2,326	2,229	2,139
19	1,832	1,856	2,033	2,157	2,218	2,220	2,364	2,431	2,434	2,323	2,226	2,135
20	1,830	1,856	2,037	2,170	2,218	2,220	2,364	2,431	2,432	2,321	2,223	2,132
21	1,829	1,856	2,038	2,180	2,219	2,221	2,363	2,431	2,430	2,318	2,220	2,129
22	1,827	1,859	2,038	2,185	2,219	2,226	2,362	2,432	2,427	2,315	2,216	2,128
23	1,827	1,868	2,038	2,189	2,218	2,236	2,360	2,434	2,425	2,312	2,214	2,126
24	1,824	1,893	2,038	2,196	2,218	2,244	2,358	2,438	2,422	2,309	2,211	2,125
25	1,825	1,905	2,040	2,198	2,217	2,257	2,356	2,442	2,420	2,306	2,209	2,122
26	1,824	1,911	2,042	2,198	2,215	2,277	2,354	2,444	2,417	2,303	2,207	2,118
27	1,823	1,921	2,044	2,195	2,214	2,287	2,353	2,445	2,414	2,300	2,204	2,115
28	1,823	1,928	2,045	2,193	2,215	2,295	2,352	2,449	2,411	2,297	2,200	2,111
29	1,822	1,934	2,045	2,191	-----	2,300	2,353	2,453	2,408	2,293	2,197	2,109
30	1,821	1,941	2,045	2,189	-----	2,306	2,354	2,454	2,404	2,289	2,193	2,106
31	1,821	-----	2,045	2,188	-----	2,312	-----	2,453	-----	2,286	2,189	-----
MAX	1,870	1,941	2,045	2,198	2,219	2,312	2,365	2,454	2,451	2,400	2,282	2,185
MIN	1,821	1,820	1,946	2,048	2,184	2,202	2,316	2,355	2,404	2,286	2,189	2,106
(a)	2,328.20	2,336.83	2,344.02	2,353.57	2,355.34	2,361.59	2,364.24	2,370.32	2,367.34	2,359.93	2,353.64	2,348.14
(b)	-51	+120	+104	+143	+27	+97	+42	+99	-49	-118	-97	-83
(c)	2,510	410	40	--	--	--	2,960	5,440	7,150	9,330	8,620	5,250

CAL YR 1970 b -7

WTR YR 1971 b +234

a Elevation, in feet, at end of month.

b Change in contents, in thousands of acre-feet.

c Evaporation, in acre-feet.

## 11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CALIF.

LOCATION.--Lat 40°38'49", long 122°37'34", (unsurveyed), Shasta County, at powerplant 1.6 miles downstream from Mill Creek and 3.8 miles south of French Gulch.

PERIOD OF RECORD.--April 1963 to current year.

GAGE.--Recorded powerplant output.

EXTREMES.--Period of record: Maximum daily discharge, 3,910 cfs Feb. 11, 1970; no flow for several days in 1963, 1966, 1969.

REMARKS.--Water is diverted from Trinity River at NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.8, T.33 N., R.8 W., through a tunnel to powerplant and then into Whiskeytown Lake (see sta 11371700). See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	909	26	289	24	3,560	2,080	859	2,740	3,000	3,020	1,790	1,410
2	887	322	338	24	3,560	2,090	792	2,740	3,000	3,020	1,860	1,340
3	882	315	373	197	3,560	2,080	821	2,890	3,000	3,120	1,910	1,360
4	24	318	509	1,010	3,560	1,960	780	2,740	2,880	3,180	1,830	499
5	990	320	273	1,050	1,780	1,820	2,120	2,740	2,920	3,180	1,830	252
6	1,050	330	74	1,080	1,780	2,110	3,240	2,740	3,010	3,300	1,840	253
7	1,160	313	385	955	26	1,390	1,510	2,740	2,910	3,180	1,440	1,920
8	1,040	24	895	1,180	2,300	1,970	1,560	2,740	3,100	3,180	1,240	1,910
9	947	315	478	729	2,330	1,700	1,310	2,610	3,200	3,180	1,440	1,740
10	920	267	379	1,020	1,280	1,210	2,570	2,740	3,110	3,180	1,410	1,770
11	24	261	356	1,700	2,720	1,660	2,560	2,710	3,170	3,290	1,190	1,340
12	886	278	24	1,590	2,300	1,780	2,600	2,680	3,040	3,040	1,320	1,360
13	886	259	24	1,650	2,260	1,660	2,660	2,880	3,050	3,040	1,300	1,360
14	915	279	816	1,660	1,390	1,620	2,620	2,970	3,200	3,040	1,320	1,330
15	1,050	26	871	1,680	1,560	1,570	2,620	2,350	3,380	1,830	1,420	978
16	1,280	269	718	1,010	2,260	1,570	2,650	2,070	3,170	1,780	1,320	1,440
17	1,270	269	1,130	276	2,120	1,920	2,620	2,920	3,110	1,870	1,320	1,580
18	24	280	952	399	1,930	1,940	2,620	3,020	3,300	1,800	1,350	1,300
19	1,100	352	24	914	1,930	1,930	2,880	2,880	3,180	1,970	1,290	1,460
20	1,190	319	24	1,120	1,930	1,960	2,700	2,530	3,180	1,970	1,320	1,380
21	1,260	257	935	1,230	1,500	1,890	3,190	2,660	3,040	1,720	1,430	858
22	1,250	24	863	1,720	1,920	1,950	2,620	2,810	3,180	1,800	1,280	296
23	1,160	257	875	1,640	1,920	2,050	2,620	2,890	2,700	1,800	1,350	24
24	1,090	261	863	24	1,930	2,120	2,620	3,060	2,860	1,820	1,410	541
25	26	314	24	1,980	1,980	1,910	2,620	3,150	2,860	1,800	1,390	1,340
26	205	365	24	2,490	1,970	2,130	2,630	2,860	2,750	1,790	1,400	1,300
27	269	416	24	3,540	2,080	2,130	2,860	2,660	2,670	1,780	1,370	1,550
28	295	315	1,220	3,540	1,390	451	2,860	2,860	2,740	1,940	1,340	1,420
29	360	24	1,070	3,540	-----	1,440	2,740	3,000	3,020	1,790	1,380	1,550
30	269	340	1,210	3,560	-----	773	2,740	3,150	3,020	1,890	1,370	1,410
31	150	-----	1,060	3,560	-----	1,030	-----	3,090	-----	1,870	1,330	-----
TOTAL	23,768	7,715	17,100	46,092	58,826	53,894	69,592	86,620	90,750	75,170	44,790	36,271
MEAN	767	257	552	1,487	2,101	1,739	2,320	2,794	3,025	2,425	1,445	1,209
MAX	1,280	416	1,220	3,560	3,560	2,130	3,240	3,150	3,380	3,300	1,910	1,920
MIN	24	24	24	24	26	451	780	2,070	2,670	1,720	1,190	24
AC-FT	47,140	15,300	33,920	91,420	116,700	106,900	138,000	171,800	180,000	149,100	88,840	71,940
CAL YR 1970	TOTAL 697,730		MEAN 1,912		MAX 3,910		MIN 24		AC-FT 1,384,000			
WTR YR 1971	TOTAL 610,588		MEAN 1,673		MAX 3,560		MIN 24		AC-FT 1,211,000			



## KLAMATH RIVER BASIN

## 11525500 TRINITY RIVER AT LEWISTON, CALIF.

LOCATION.--Lat 40°43'10", long 122°48'09", in SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.17, T.33 N., R.8 W., Trinity County, on right bank 400 ft upstream from Deadwood Creek and 0.8 mile northeast of Lewiston.

DRAINAGE AREA.--719 sq mi.

PERIOD OF RECORD.--August 1911 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,810 ft (from topographic map). Prior to Oct. 16, 1930, nonrecording gage and Oct. 16, 1930, to Sept. 30, 1958, water-stage recorder, at site 1.1 miles downstream at different datum. Oct. 1, 1958, to July 6, 1964, water-stage recorder at site 0.8 mile downstream at different datum.

AVERAGE DISCHARGE (adjusted for storage, evaporation, and diversion).--60 years, 1,694 cfs (1,227,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 864 cfs May 9, 16, 17 (gage height, 4.48 ft); minimum daily, 139 cfs Aug. 4.

Period of record: Maximum discharge, 71,600 cfs Dec. 22, 1955 (gage height, 27.3 ft, from floodmarks, site and datum then in use); minimum, 23 cfs July 30, 1924. Maximum discharge since construction of Lewiston Dam in 1960, 12,700 cfs Apr. 20, 1963 (gage height, 12.38 ft); minimum daily, 125 cfs July 8, 1969.

Flood of December 1861 reached a stage of 21.6 ft, from floodmarks, at site 1.1 miles downstream at different datum (discharge, not determined).

REMARKS.--Records good. Flow regulated by Clair Engle Lake (see sta 11525400) beginning in November 1960. Diversion to Judge Francis Carr powerplant (see sta 11525430), began in April 1963. Small diversions above head of Trinity Lake for irrigation, power, and placer mining. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	245	177	155	157	150	154	815	606	149	179	177
2	198	242	162	154	157	153	153	819	605	151	141	206
3	198	239	160	153	157	150	153	822	604	151	140	205
4	200	245	160	153	155	150	155	818	605	150	139	206
5	200	245	155	154	155	150	155	817	608	150	143	205
6	200	242	160	159	155	150	155	827	608	149	148	205
7	200	242	164	157	155	148	155	830	559	148	147	206
8	198	245	160	157	154	148	154	834	415	149	148	205
9	198	245	157	158	153	148	154	840	332	150	147	205
10	198	242	155	159	153	150	155	822	314	148	146	208
11	198	245	150	158	154	155	156	812	311	148	147	210
12	198	242	155	159	150	160	156	816	311	144	149	206
13	198	245	155	158	153	155	157	813	288	152	150	205
14	200	242	153	157	153	155	171	797	241	145	152	204
15	225	218	155	161	150	153	213	803	162	142	157	206
16	248	195	157	178	149	153	264	844	148	142	156	200
17	245	195	157	164	152	150	300	845	151	145	156	199
18	245	198	157	159	152	150	314	830	152	147	151	201
19	245	200	157	156	150	150	364	801	152	147	146	201
20	248	198	155	157	153	150	420	718	152	145	147	201
21	245	195	155	156	153	150	475	625	153	143	148	202
22	245	198	155	155	153	153	535	606	153	144	147	207
23	248	198	155	157	153	153	610	609	152	144	148	205
24	242	200	155	157	155	150	672	608	149	144	148	205
25	242	200	155	156	155	169	733	602	149	143	148	204
26	242	200	155	156	153	164	784	597	150	142	147	204
27	242	200	153	158	153	158	804	605	150	142	147	203
28	236	203	153	157	150	157	801	614	151	142	147	203
29	242	200	153	155	-----	156	801	610	149	162	147	204
30	242	198	155	156	-----	157	808	608	149	241	147	200
31	242	-----	155	157	-----	159	-----	604	-----	265	147	-----
TOTAL	6,906	6,602	4,860	4,886	4,292	4,754	11,081	23,011	8,829	4,764	4,610	6,098
MEAN	223	220	157	158	153	153	369	742	294	154	149	203
MAX	248	245	177	178	157	169	808	845	608	265	179	210
MIN	198	195	150	153	149	148	153	597	148	142	139	177
MEAN a	204	2,506	2,402	3,974	2,728	3,471	3,449	5,227	2,624	798	169	99.0
AC-FT a	12,560	149,100	147,700	244,400	151,500	213,400	205,200	321,400	156,100	49,070	10,370	5,890
CAL YR 1970	TOTAL 106,991	MEAN 293	MAX 6,020	MIN 141	MEAN a 2,263	AC-FT a 1,638,000						
WTR YR 1971	TOTAL 90,693	MEAN 248	MAX 845	MIN 139	MEAN a 2,302	AC-FT a 1,667,000						

a Adjusted for change in contents, diversions, and evaporation from Clair Engle Lake. Data furnished by Bureau of Reclamation.

## 11526500 NORTH FORK TRINITY RIVER AT HELENA, CALIF.

LOCATION.--Lat 40°46'55", long 123°07'38", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.21, T.34 N., R.11 W., Trinity County, on right bank 500 ft downstream from East Fork of North Fork Trinity River, 0.6 mile north of Helena, 1.0 mile upstream from mouth, and 6 miles northwest of Junction City.

DRAINAGE AREA.--151 sq mi.

PERIOD OF RECORD.--August 1911 to September 1913, January 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,380 ft (from topographic map). August 1911 to September 1913, at site 0.8 mile downstream at different datum.

AVERAGE DISCHARGE.--16 years, 438 cfs (317,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,500 cfs Jan. 17 (gage height, 18.73 ft); minimum daily, 19 cfs Oct. 1-7.

Period of record: Maximum discharge, 35,800 cfs Dec. 22, 1964 (gage height, 27.93 ft, from floodmarks), from rating curve extended above 9,000 cfs on basis of slope-area measurement of maximum flow; minimum daily, 7.5 cfs Sept. 26, 1964.

REMARKS.--No known regulation or diversion above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	23	1,340	502	1,080	358	958	691	450	309	96	49
2	19	24	1,110	477	1,050	343	888	702	430	319	92	51
3	19	25	1,040	430	948	352	853	785	440	303	88	47
4	19	147	800	393	849	358	853	833	460	286	82	43
5	19	545	802	362	781	340	890	854	487	271	77	40
6	19	386	1,280	336	771	328	974	782	523	260	73	38
7	19	296	3,070	319	746	324	960	825	546	242	70	38
8	20	550	2,600	326	708	316	886	999	543	239	66	37
9	20	1,840	1,790	374	673	312	1,070	888	521	250	63	36
10	20	711	1,300	737	729	328	1,190	884	496	208	60	34
11	20	582	1,040	877	911	563	960	965	506	187	71	34
12	20	711	908	752	1,010	1,290	851	1,060	479	182	84	33
13	20	506	828	663	1,060	1,020	828	976	457	185	72	31
14	20	387	745	600	967	826	843	827	456	195	62	29
15	20	311	757	837	979	692	859	776	465	208	56	29
16	20	259	951	3,280	872	718	847	689	503	218	51	28
17	20	220	837	8,400	754	831	791	612	483	272	48	27
18	22	187	720	8,690	669	756	709	583	450	430	46	27
19	24	160	630	4,850	598	694	662	607	435	260	44	27
20	39	138	590	3,080	544	679	653	604	452	234	44	27
21	40	126	539	2,220	502	696	611	558	445	218	44	27
22	48	320	483	1,680	470	999	588	542	453	203	44	26
23	114	2,030	447	1,360	440	3,460	567	615	427	182	44	26
24	103	5,030	418	1,150	436	2,420	534	720	374	166	42	25
25	45	3,240	397	998	440	2,390	515	733	462	147	40	25
26	35	1,790	381	909	409	4,450	525	654	523	135	38	30
27	29	1,480	367	894	407	2,330	562	573	415	128	39	37
28	26	1,400	390	909	387	1,690	617	660	320	120	39	33
29	25	1,250	406	914	-----	1,400	647	688	289	113	39	65
30	24	1,430	411	963	-----	1,240	651	625	290	103	43	60
31	23	-----	451	1,050	-----	1,070	-----	511	-----	98	57	-----
TOTAL	930	26,104	27,828	49,332	20,190	33,573	23,342	22,821	13,580	6,671	1,814	1,059
MEAN	30.0	870	898	1,591	721	1,083	778	736	453	215	58.5	35.3
MAX	114	5,030	3,070	8,690	1,080	4,450	1,190	1,060	546	430	96	65
MIN	19	23	367	319	387	312	515	511	289	98	38	25
AC-FT	1,840	51,780	55,200	97,850	40,050	66,590	46,300	45,270	26,940	13,230	3,600	2,100
CAL YR 1970	TOTAL	199,245	MEAN	546	MAX	10,200	MIN	19	AC-FT	395,200		
WTR YR 1971	TOTAL	227,244	MEAN	623	MAX	8,690	MIN	19	AC-FT	450,700		

## KLAMATH RIVER BASIN

## 11527000 TRINITY RIVER NEAR BURNT RANCH, CALIF.

LOCATION.--Lat 40°47'20", long 123°26'20", in S½ sec.19, T.5 N., R.7 E., Trinity County, Trinity National Forest, on left bank 500 ft upstream from Cedar Flat Creek, 700 ft upstream from highway bridge at Cedar Flat, and 2.3 miles southeast of town of Burnt Ranch.

DRAINAGE AREA.--1,439 sq mi.

PERIOD OF RECORD.--October 1931 to September 1940, October 1956 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 944.05 ft above mean sea level. Oct. 1, 1931, to Jan. 19, 1940, at site 2 miles upstream at different datum.

AVERAGE DISCHARGE (unadjusted).--24 years, 2,260 cfs (1,637,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 25,000 cfs Jan. 17 (gage height, 17.01 ft); minimum daily, 280 cfs Oct. 1-3.

Period of record: Maximum discharge, 81,500 cfs Feb. 25, 1958 (gage height, 30.50 ft), from rating curve extended above 40,000 cfs on basis of slope-area measurement at gage height 43.2 ft; minimum, 82 cfs Aug. 31, 1939.

Flood of Dec. 22, 1955, reached a stage of 43.2 ft, from floodmarks (discharge, 172,000 cfs, on basis of slope-area measurement of maximum flow).

REMARKS.--Records good. Flow regulated by Clair Engle Lake 64 miles upstream since November 1960 (see sta 11525400). Small diversions above station for mining and irrigation. Record of water temperatures for the current year is published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	411	3,900	2,800	3,490	1,350	3,900	2,630	1,740	945	592	334
2	280	416	3,400	2,550	3,430	1,300	3,470	2,650	1,670	980	520	349
3	280	419	3,100	2,200	3,140	1,300	3,230	2,800	1,680	955	457	382
4	290	556	2,900	2,100	2,770	1,320	3,100	2,900	1,740	920	436	376
5	290	1,380	2,900	2,000	2,630	1,280	3,060	2,980	1,800	885	415	364
6	290	1,310	5,400	1,900	2,560	1,250	3,160	2,850	1,850	865	406	355
7	290	1,060	11,000	1,850	2,480	1,260	3,100	2,850	1,950	830	400	358
8	300	1,040	7,200	1,800	2,360	1,280	2,810	3,430	1,850	820	391	355
9	305	3,440	5,600	1,800	2,240	1,290	2,930	3,170	1,730	807	382	349
10	305	2,660	4,700	2,100	2,220	1,300	3,680	3,060	1,530	771	373	343
11	300	1,660	4,200	2,700	2,630	2,200	2,980	3,170	1,580	717	376	340
12	290	2,020	3,700	2,520	2,900	4,000	2,680	3,520	1,510	694	426	343
13	286	1,600	3,400	2,300	3,090	6,800	2,600	3,410	1,440	690	415	337
14	286	1,250	3,250	2,060	2,930	4,700	2,620	2,940	1,430	717	376	334
15	289	1,060	3,300	3,050	2,900	3,100	2,640	2,770	1,340	744	358	328
16	292	928	4,600	10,500	2,670	2,700	2,660	2,610	1,390	766	355	328
17	342	823	3,800	21,900	2,400	2,880	2,640	2,440	1,450	780	349	322
18	351	750	3,200	22,600	2,180	2,750	2,450	2,320	1,290	1,180	343	313
19	360	702	2,900	15,700	2,040	2,560	2,340	2,320	1,240	865	337	313
20	403	662	2,700	11,200	1,850	2,470	2,360	2,320	1,260	830	322	316
21	443	630	2,600	8,660	1,730	2,470	2,320	2,130	1,270	789	322	316
22	494	740	2,400	6,820	1,650	2,610	2,280	1,970	1,250	744	322	313
23	493	1,700	2,300	5,620	1,560	7,700	2,310	2,070	1,250	690	322	316
24	687	6,400	2,200	4,720	1,520	7,040	2,260	2,330	1,120	640	319	313
25	518	7,000	2,100	4,020	1,550	6,680	2,240	2,520	1,110	604	310	316
26	463	4,800	2,050	3,500	1,460	16,300	2,280	2,310	1,590	576	301	322
27	438	4,000	2,100	3,290	1,460	10,100	2,360	2,040	1,320	556	298	340
28	429	5,000	2,400	3,220	1,420	7,300	2,470	2,140	1,030	536	293	343
29	421	3,300	3,000	3,150	-----	6,010	2,540	2,380	935	517	298	379
30	418	3,700	2,800	3,220	-----	5,280	2,550	2,240	920	503	295	464
31	413	-----	2,800	3,400	-----	4,500	-----	1,930	-----	560	337	-----
TOTAL	11,326	61,417	111,900	165,250	65,260	123,080	82,020	81,200	43,265	23,476	11,446	10,261
MEAN	365	2,047	3,610	5,331	2,331	3,970	2,734	2,619	1,442	757	369	342
MAX	687	7,000	11,000	22,600	3,490	16,300	3,900	3,520	1,950	1,180	592	464
MIN	280	411	2,050	1,800	1,420	1,250	2,240	1,930	920	503	293	313
AC-FT	22,470	121,800	222,000	327,800	129,400	244,100	162,700	161,100	85,820	46,560	22,700	20,350

CAL YR 1970 TOTAL 745,720 MEAN 2,043 MAX 28,500 MIN 198 AC-FT 1,479,000  
WTR YR 1971 TOTAL 789,901 MEAN 2,164 MAX 22,600 MIN 280 AC-FT 1,567,000

## 11528500 HAYFORK CREEK NEAR HYAMPOM, CALIF.

LOCATION.--Lat 40°37'34", long 123°26'01", in SE¼NW¼ sec.19, T.3 N., R.7 E., Trinity County, Trinity National Forest, on right bank 1.2 miles upstream from mouth and 1.3 miles northeast of Hyampom.

DRAINAGE AREA.--378 sq mi.

PERIOD OF RECORD.--August 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,270.67 ft above mean sea level.

AVERAGE DISCHARGE.--18 years, 536 cfs (388,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 17,400 cfs Mar. 26 (gage height, 15.49 ft), from rating curve extended as explained below; minimum daily, 21 cfs Oct. 6.

Period of record: Maximum discharge, 28,800 cfs Dec. 22, 1964 (gage height, 19.14 ft), from rating curve extended above 6,700 cfs on basis of slope-area measurement at gage height 18.00 ft; minimum daily, 16 cfs Aug. 26, Sept. 27, Oct. 4, 5, 1964.

REMARKS.--Records good. No regulation; diversions for irrigation of about 700 acres above station. Record of water temperatures for the current year is published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1395: 1954(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	51	1,470	820	1,420	465	1,530	555	251	121	52	47
2	23	51	1,370	780	1,370	445	1,360	545	247	118	51	48
3	23	51	1,980	700	1,260	450	1,230	555	239	113	52	46
4	22	76	2,520	660	1,140	470	1,150	530	231	110	51	43
5	22	159	2,010	640	1,050	445	1,110	515	223	110	49	42
6	21	189	2,310	600	1,020	430	1,120	500	215	110	49	47
7	23	201	4,720	580	1,000	426	1,090	480	208	108	48	42
8	23	186	4,720	550	940	426	982	490	201	105	48	40
9	24	775	3,250	540	870	421	1,050	475	198	102	47	40
10	24	535	2,100	760	858	421	1,280	450	191	102	48	38
11	23	331	1,540	1,170	1,020	530	1,050	430	187	102	47	37
12	24	530	1,250	1,060	1,140	2,350	954	430	180	102	45	37
13	24	377	1,090	960	1,220	2,120	926	417	177	97	45	37
14	24	268	950	900	1,130	1,510	961	399	174	95	43	36
15	26	216	1,000	1,500	1,100	1,260	912	381	170	88	42	34
16	26	189	1,500	4,000	989	1,200	870	367	164	83	42	33
17	26	165	1,360	10,500	864	1,400	884	354	158	81	42	33
18	30	148	1,160	9,600	768	1,290	810	345	154	79	42	32
19	31	135	1,060	7,000	720	1,180	762	331	158	79	41	32
20	42	128	1,000	5,000	648	1,120	738	318	151	77	40	33
21	59	120	900	3,700	610	1,090	708	313	145	77	41	33
22	76	140	820	2,770	580	1,100	684	309	139	79	42	34
23	82	265	760	2,250	550	2,310	684	295	133	72	43	33
24	90	620	720	1,920	530	2,330	648	287	133	68	43	32
25	82	1,310	700	1,640	540	3,580	625	275	133	65	41	33
26	69	1,060	680	1,430	505	10,900	605	283	151	63	39	37
27	59	1,390	660	1,330	505	4,800	590	275	154	62	39	41
28	56	1,660	720	1,300	495	3,330	585	271	142	60	38	41
29	53	1,330	960	1,290	-----	2,550	575	267	133	58	38	53
30	53	1,850	860	1,310	-----	2,110	560	259	127	55	41	81
31	53	-----	780	1,390	-----	1,790	-----	255	-----	53	47	-----
TOTAL	1,235	14,506	46,920	68,650	24,842	54,249	27,033	11,956	5,267	2,694	1,376	1,195
MEAN	39.8	484	1,514	2,215	887	1,750	901	386	176	86.9	44.4	39.8
MAX	90	1,850	4,720	10,500	1,420	10,900	1,530	555	251	121	52	81
MIN	21	51	660	540	495	421	560	255	127	53	38	32
AC-FT	2,450	28,770	93,070	136,200	49,270	107,600	53,620	23,710	10,450	5,340	2,730	2,370
CAL YR 1970	TOTAL 266,918	MEAN 731	MAX 13,600	MIN 21	AC-FT 529,400							
WTR YR 1971	TOTAL 259,923	MEAN 712	MAX 10,900	MIN 21	AC-FT 515,600							

## PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 7	1745	11.47	8,140	3-28	0400	15.49	17,400
1-17	unknown	-	15,500				

## 11530000 TRINITY RIVER AT HOOPA, CALIF.

LOCATION.--Lat 41°03'00", long 123°40'15", in SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec.25, T.8 N., R.4 E., Humboldt County, in Hoopa Valley Indian Reservation, on left bank at Hoopa, 0.4 mile upstream from Supply Creek.

DRAINAGE AREA.--2,854 sq mi (revised).

PERIOD OF RECORD.--October 1911 to January 1914, October 1916 to September 1918, October 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as "near Hoopa" 1931-60.

GAGE.--Water-stage recorder. Datum of gage is 274.82 ft above mean sea level. Prior to October 1931, nonrecording gage at site 0.4 mile upstream at different datum. October 1931 to Dec. 22, 1964, water-stage recorder at site 2.5 miles upstream at datum 31.67 ft higher.

AVERAGE DISCHARGE (unadjusted).--44 years (1911-13, 1916-18, 1931-71), 5,422 cfs (3,928,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 96,900 cfs Jan. 18 (gage height, 37.42 ft); minimum, 418 cfs Oct. 2, 3.

Period of record: Maximum discharge, 231,000 cfs Dec. 22, 1964 (gage height, 40.3 ft, from floodmarks, site and datum then in use); minimum, 162 cfs Oct. 4, 1931.

REMARKS.--Records good. Flow regulated by Clair Engle Lake 84 miles upstream since November 1960 (see sta 11525400). Small diversions above station for mining and irrigation. Records of chemical analyses, water temperatures and suspended-sediment discharge for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1565: 1913. WRD Calif. 1970: 1969.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	424	666	16,900	7,700	10,100	4,130	12,700	6,860	3,850	2,000	1,030	738
2	418	666	14,300	7,420	9,880	3,950	11,000	6,950	3,650	2,010	1,030	762
3	418	658	18,500	6,630	9,080	4,190	10,100	7,320	3,640	1,970	938	778
4	430	866	33,200	5,940	8,360	4,500	9,760	7,340	3,700	1,910	906	762
5	433	2,080	21,900	5,670	7,840	4,300	9,880	7,360	3,780	1,850	874	738
6	434	3,140	22,500	5,340	7,520	4,070	9,920	7,160	3,850	1,810	850	714
7	434	2,630	33,900	5,070	7,260	4,090	9,680	6,980	3,930	1,760	834	698
8	446	2,600	47,100	4,900	6,890	4,100	9,040	7,680	3,840	1,710	818	698
9	460	10,600	33,500	4,920	6,610	4,090	9,370	7,600	3,620	1,700	794	682
10	468	8,000	23,100	6,800	6,440	4,260	11,700	7,160	3,340	1,660	738	666
11	457	5,000	16,700	10,800	7,040	7,160	10,500	7,400	3,320	1,570	762	658
12	450	6,000	12,600	9,950	7,760	18,300	10,400	8,040	3,200	1,500	762	642
13	450	4,200	10,100	8,090	8,180	20,600	10,200	8,080	3,080	1,460	834	646
14	450	3,200	7,900	7,490	7,840	13,900	10,200	6,910	3,040	1,460	762	625
15	450	2,800	7,400	13,300	7,920	10,500	10,100	6,410	2,940	1,460	738	608
16	450	2,420	15,100	49,600	7,320	9,400	10,100	6,010	2,940	1,470	714	584
17	506	2,200	13,200	87,000	6,640	10,700	10,200	5,560	2,940	1,470	698	569
18	514	2,020	10,300	88,200	6,140	9,250	10,100	5,270	2,840	1,800	698	552
19	530	1,890	8,140	64,700	5,980	8,120	10,000	5,240	2,780	1,690	682	537
20	642	1,780	7,430	46,400	5,380	7,700	10,000	5,200	2,700	1,490	674	530
21	754	1,700	7,050	34,000	5,060	7,600	10,000	4,900	2,680	1,480	658	534
22	826	1,960	6,330	24,800	4,810	8,200	8,890	4,650	2,590	1,410	658	534
23	1,060	7,330	5,830	19,400	4,580	24,000	7,440	4,770	2,550	1,310	666	533
24	1,310	30,300	5,410	15,300	4,520	23,100	6,980	5,150	2,370	1,240	658	530
25	1,090	33,400	5,100	12,100	4,810	26,100	6,700	5,450	2,430	1,170	650	530
26	906	20,700	4,870	10,700	4,440	66,900	6,660	5,200	3,170	1,120	634	620
27	802	16,300	4,700	10,100	4,470	47,100	6,660	4,650	2,930	1,090	642	690
28	754	20,600	5,210	9,970	4,410	32,800	6,750	4,660	2,390	1,070	634	698
29	706	14,200	8,490	9,780	-----	24,800	6,770	5,020	2,150	1,030	610	938
30	682	16,300	7,650	9,780	-----	20,100	6,700	4,770	2,030	994	626	1,300
31	682	-----	7,550	10,100	-----	16,400	-----	4,280	-----	1,010	706	-----
TOTAL	18,836	226,206	441,960	611,950	187,280	454,410	278,500	190,030	92,270	46,674	23,278	20,094
MEAN	608	7,540	14,260	19,740	6,689	14,660	9,283	6,130	3,076	1,506	751	670
MAX	1,310	33,400	47,100	88,200	10,100	66,900	12,700	8,080	3,930	2,010	1,030	1,300
MIN	418	658	4,700	4,900	4,410	3,950	6,660	4,280	2,030	994	610	530
AC-FT	37,360	448,700	876,600	1,214M	371,500	901,300	552,400	376,900	183,000	92,580	46,170	39,860
CAL YR 1970	TOTAL 2,429,735		MEAN 6,657		MAX 98,800		MIN 412		AC-FT 4,819,000			
WTR YR 1971	TOTAL 2,591,488		MEAN 7,100		MAX 88,200		MIN 418		AC-FT 5,140,000			

## PEAK DISCHARGE (BASE, 22,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	2145	28.36	41,800	1-18	0145	37.42	96,900
12- 4	0500	27.73	38,800	3-13	0430	25.76	29,900
12- 8	0115	31.18	57,000	3-26	1200	35.48	83,400

## 11530300 BLUE CREEK NEAR KLAMATH, CALIF.

LOCATION.--Lat 41°27'00", long 123°53'40", in NE¼NW¼ sec.12, T.12 N., R.2 E., Humboldt County, on left bank 600 ft downstream from West Fork, 3.0 miles upstream from mouth, and 9.2 miles southeast of Klamath.

DRAINAGE AREA.--120 sq mi.

PERIOD OF RECORD.--September 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 140.65 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 752 cfs (544,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,000 cfs Nov. 24 (gage height, 12.59 ft); minimum daily, 50 cfs Oct. 13-17.

Period of record: Maximum discharge, 25,100 cfs Jan. 6, 1966 (gage height, 15.97 ft, from high-water marks), from rating curve extended above 8,400 cfs on basis of step-backwater computation at 21.55 ft; minimum daily, 43 cfs Nov. 1, 1965.

Flood of Dec. 22, 1964, reached a stage of 21.55 ft, from floodmarks (discharge, 48,000 cfs, by step-backwater computation).

REMARKS.--Records fair. No regulation or diversion above station. Record of water temperatures for the current year is published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	87	2,410	3,400	1,100	810	1,570	923	458	398	123	153
2	54	83	2,280	2,380	1,050	780	1,420	910	434	383	119	200
3	54	80	3,910	1,840	967	2,200	1,310	980	434	368	119	125
4	54	103	3,630	1,370	954	2,500	1,250	948	450	353	117	105
5	54	353	2,980	1,010	954	1,800	1,240	905	454	338	117	98
6	54	714	3,420	929	954	1,400	1,220	875	450	323	115	96
7	54	614	4,930	850	916	1,100	1,130	890	438	308	111	93
8	52	2,640	3,790	800	835	980	1,200	929	418	293	109	92
9	52	2,430	2,820	795	790	910	1,590	885	404	280	107	89
10	52	1,150	2,130	1,810	785	1,420	1,590	880	386	268	107	88
11	52	1,370	1,770	1,630	825	3,820	1,380	942	380	255	105	86
12	52	1,970	1,490	1,370	880	4,390	1,280	980	368	243	104	86
13	50	1,150	1,310	1,200	905	3,330	1,250	942	350	230	104	86
14	50	770	1,170	1,160	942	2,650	1,200	825	335	218	104	84
15	50	604	1,300	2,300	1,330	2,260	1,160	810	323	205	101	83
16	50	755	1,930	5,790	1,070	2,150	1,290	780	317	193	99	83
17	50	600	1,610	10,700	929	1,970	1,500	685	308	180	99	82
18	61	496	1,370	7,360	916	1,740	1,450	645	356	168	98	80
19	64	432	1,190	5,050	905	1,600	1,340	645	353	160	96	80
20	127	390	1,180	4,390	845	1,520	1,310	635	305	157	96	79
21	148	360	1,380	3,370	785	1,470	1,200	594	283	153	95	78
22	189	548	1,220	2,500	775	2,610	1,170	586	268	147	105	78
23	509	5,490	1,010	2,090	730	4,740	1,180	630	258	145	101	77
24	338	11,200	880	1,750	875	4,230	1,090	680	245	141	95	77
25	203	7,800	750	1,520	1,260	4,090	1,020	695	910	139	92	77
26	213	4,360	640	1,340	930	4,950	999	635	875	133	89	109
27	153	5,580	570	1,230	890	3,720	1,010	582	620	133	92	131
28	122	4,230	1,000	1,150	850	2,890	992	602	510	131	90	129
29	106	3,090	1,560	1,100	-----	2,310	954	586	458	131	90	594
30	96	2,620	1,350	1,070	-----	2,060	910	554	414	129	105	380
31	91	-----	3,900	1,110	-----	1,770	-----	502	-----	125	123	-----
TOTAL	3,308	62,069	60,880	74,364	25,947	74,170	37,205	23,660	12,562	6,828	3,227	3,698
MEAN	107	2,069	1,964	2,399	927	2,393	1,240	763	419	220	104	123
MAX	509	11,200	4,930	10,700	1,330	4,950	1,590	980	910	398	123	594
MIN	50	80	570	795	730	780	910	502	245	125	89	77
AC-FT	6,560	123,100	120,800	147,500	51,470	147,100	73,800	46,930	24,920	13,540	6,400	7,330
CAL YR 1970	TOTAL	323,781	MEAN	887	MAX	11,200	MIN	50	AC-FT	642,200		
WTR YR 1971	TOTAL	387,918	MEAN	1,063	MAX	11,200	MIN	50	AC-FT	769,400		

## PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11- 8	2045	8.71	5,620	12- 7	1015	8.92	6,040
11-24	1345	12.59	15,000	1-17	2100	12.15	13,700
11-27	1330	9.43	7,060	3-25	2400	8.55	5,640
12- 3	1700	8.72	5,680				

11530500 KLAMATH RIVER NEAR KLAMATH, CALIF.  
(International Hydrological Decade Station).

LOCATION.--Lat 41°30'45", long 123°58'30", in SW $\frac{1}{4}$  sec.17, T.13 N., R.2 E., Del Norte County, on right bank 2.8 miles upstream from Turwar Creek and 3.3 miles east of Klamath.

DRAINAGE AREA.--12,100 sq mi (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--October 1910 to December 1926 (published as "near Requa"), October 1950 to current year.  
Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 5.60 ft above mean sea level (levels by Corps of Engineers).  
Prior to June 1926, nonrecording gage at same site at different datum.

AVERAGE DISCHARGE.--37 years, 17,350 cfs (12,570,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 334,000 cfs Jan. 18 (gage height, 36.39 ft, from peak-stage indicator); minimum daily, 2,780 cfs Oct. 3, 8, 9.  
Period of record: Maximum discharge, 557,000 cfs Dec. 23, 1964 (gage height, 55.3 ft, from floodmarks), from rating curve extended above 230,000 cfs on basis of flood-routing study; minimum observed, 1,340 cfs July 31, Aug. 1, 1924.

REMARKS.--Records fair. Flow considerably regulated by reservoirs and powerplants above station. Large diversions for irrigation above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1285: 1951(P). WSP 1445: 1918-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,800	4,280	48,700	35,200	36,500	20,400	51,500	28,900	23,600	10,500	4,220	3,760
2	2,800	4,200	47,800	31,800	35,500	20,000	47,400	28,200	22,000	9,940	4,210	3,980
3	2,780	4,180	56,100	27,800	33,500	21,200	43,700	29,400	21,500	9,550	4,290	4,090
4	2,830	4,270	78,000	24,800	32,000	22,500	42,000	31,800	21,200	9,020	4,220	3,980
5	2,850	5,510	58,300	22,600	31,000	22,000	41,800	31,800	22,000	8,660	4,180	3,880
6	2,850	5,770	58,100	20,800	30,200	21,000	41,700	31,400	22,600	8,300	4,120	3,800
7	2,800	5,890	78,500	19,300	29,000	21,000	39,800	30,700	23,200	7,980	4,010	3,740
8	2,780	6,330	111,000	18,700	27,800	21,000	37,000	32,600	22,800	7,630	3,960	3,710
9	2,780	10,800	82,600	18,400	26,800	20,500	37,700	35,800	21,000	7,420	3,920	3,690
10	2,830	18,300	61,900	24,800	25,800	21,000	43,000	36,900	19,700	7,280	3,880	3,650
11	2,830	20,700	49,900	32,100	27,000	30,000	38,800	37,900	19,200	7,020	3,840	3,630
12	2,850	27,900	42,200	32,000	28,200	54,000	35,400	40,000	17,800	6,690	3,810	3,610
13	2,900	23,800	37,000	29,700	31,000	62,000	34,100	41,000	15,800	6,520	3,800	3,590
14	2,830	17,300	33,600	28,400	31,800	50,000	35,100	37,700	14,800	6,340	3,820	3,570
15	2,830	14,000	31,400	45,000	33,000	45,000	35,900	33,600	14,500	6,260	3,710	3,540
16	2,830	12,800	41,000	110,000	32,900	41,800	35,500	32,600	14,200	6,220	3,680	3,720
17	2,830	12,000	42,100	230,000	29,300	40,100	36,800	30,300	14,300	6,110	3,640	3,760
18	3,000	10,700	36,600	260,000	27,000	38,200	39,000	27,900	14,000	6,110	3,610	3,760
19	3,100	9,890	32,100	184,000	26,200	35,800	37,300	27,300	14,800	6,490	3,570	3,760
20	3,700	9,200	29,100	120,000	24,800	33,600	35,100	26,800	14,000	5,990	3,520	3,760
21	4,490	8,750	28,300	94,000	23,200	31,900	33,800	24,700	13,500	5,850	3,520	3,780
22	5,440	9,030	25,400	77,000	22,000	34,100	33,000	24,000	13,200	5,690	3,530	3,780
23	5,820	31,800	23,100	65,000	21,000	58,000	32,800	24,600	12,600	5,510	3,540	3,780
24	8,340	115,000	21,000	58,000	20,300	79,900	31,800	27,000	12,800	5,210	3,510	3,800
25	6,420	139,000	19,700	49,500	22,100	65,500	31,500	29,200	12,800	4,990	3,450	3,920
26	5,160	86,900	18,600	45,500	21,500	120,000	29,000	27,300	16,800	4,770	3,380	4,330
27	4,670	68,400	17,800	42,500	21,400	110,000	29,500	24,600	15,500	4,590	3,360	5,260
28	4,280	70,800	19,900	40,500	21,300	84,500	29,700	25,000	12,700	4,500	3,370	4,370
29	4,210	52,500	32,900	39,000	-----	72,000	29,300	27,000	11,000	4,520	3,370	5,94

CAL YR 1970	TOTAL	8,379,480	MEAN	22,960	MAX	304,000	MIN	2,220	AC-FT	16,620,000
WTR YR 1971	TOTAL	9,379,830	MEAN	25,700	MAX	260,000	MIN	2,780	AC-FT	18,600,000

		PEAK DISCHARGE (BASE, 90,000 CFS)					
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	2345	25.04	158,000	1-18	0815	36.39	334,000
12- 8	0500	21.90	119,000	3-26	1800	-	160,000

NOTE.--No gage-height record Jan. 15 to June 23.

## 11532500 SMITH RIVER NEAR CRESCENT CITY, CALIF.

LOCATION.--Lat 41°47'22", long 124°03'14", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.10, T.16 N., R.1 E., (unsurveyed), Del Norte County, Six Rivers National Forest, on left bank 0.5 mile downstream from South Fork and 8 miles east of Crescent City.

DRAINAGE AREA.--609 sq mi.

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 89.61 ft above mean sea level.

AVERAGE DISCHARGE.--40 years, 3,808 cfs (2,759,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 128,000 cfs Jan. 16 (gage height, 36.58 ft); minimum daily, 195 cfs Oct. 14, 16.  
Period of record: Maximum discharge, 228,000 cfs Dec. 22, 1964 (gage height, 48.5 ft, from floodmarks), from rating curve extended above 69,000 cfs on basis of slope-area measurement at gage height 39.51 ft; minimum daily, 160 cfs Oct. 24, 25, 1964.

REMARKS.--Records good. No regulation or diversion above station. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	378	11,500	12,300	3,520	3,430	6,450	3,360	1,480	1,150	447	642
2	203	355	10,300	8,000	3,300	3,150	5,660	3,280	1,390	1,090	441	1,080
3	203	339	27,000	6,070	3,020	9,760	5,120	3,460	1,370	1,020	435	678
4	203	406	20,800	5,080	2,950	11,000	4,780	3,360	1,390	965	429	517
5	203	1,450	18,700	4,330	3,310	7,520	4,690	3,130	1,420	920	423	447
6	203	2,980	21,700	3,770	3,380	5,600	4,630	2,970	1,430	875	417	426
7	205	3,110	35,500	3,240	3,060	4,700	4,130	2,960	1,420	842	411	402
8	202	15,700	20,800	3,100	2,830	4,100	4,540	3,120	1,370	810	405	384
9	203	14,700	12,300	3,110	2,640	3,800	10,200	2,970	1,340	842	399	372
10	205	5,110	8,660	9,320	2,600	8,000	11,400	2,860	1,300	826	393	360
11	203	7,340	7,210	9,240	2,750	27,900	8,500	3,020	1,300	782	390	351
12	202	11,700	6,010	7,000	2,940	28,300	7,150	3,160	1,250	754	393	348
13	196	5,470	5,330	5,450	2,950	18,700	6,380	3,090	1,200	726	393	330
14	195	3,530	4,910	6,190	2,870	12,600	5,840	2,590	1,170	698	390	320
15	196	2,620	6,560	26,700	4,750	10,300	5,380	2,490	1,130	674	381	298
16	195	3,570	11,200	58,000	4,070	9,100	5,780	2,620	1,120	654	378	303
17	196	3,250	8,240	106,000	3,360	8,140	8,840	2,290	1,100	634	372	303
18	238	2,510	6,310	66,500	3,110	6,750	8,640	2,100	1,160	610	366	293
19	266	2,100	5,210	30,400	3,360	5,840	6,940	2,030	1,240	610	360	288
20	457	1,730	5,110	20,800	3,050	5,480	6,210	1,990	1,120	587	357	288
21	618	1,560	5,590	13,200	2,800	5,330	5,390	1,870	1,060	566	357	283
22	986	1,780	4,930	9,600	2,740	10,100	5,080	1,800	1,030	552	402	280
23	2,340	29,700	4,160	7,680	2,660	26,900	5,360	1,950	995	531	408	278
24	2,040	90,900	3,550	6,400	2,330	21,600	4,970	2,120	935	524	369	278
25	1,680	51,400	3,150	5,420	4,730	17,300	4,490	2,160	2,980	513	354	285
26	1,270	20,900	2,890	4,750	3,830	31,000	4,250	2,030	2,900	499	339	464
27	829	28,400	2,740	4,250	3,730	20,000	4,210	1,830	1,990	489	345	718
28	616	19,500	8,800	3,890	3,560	12,600	3,980	1,910	1,580	485	363	746
29	506	10,800	15,200	3,640	-----	9,520	3,670	1,850	1,370	482	351	4,120
30	443	10,300	13,200	3,580	-----	8,440	3,400	1,730	1,240	471	393	2,850
31	409	-----	23,000	3,600	-----	7,450	-----	1,580	-----	461	569	-----
TOTAL	15,514	353,648	340,560	460,610	90,200	364,410	176,060	77,680	41,780	21,642	12,230	18,732
MEAN	500	11,790	10,990	14,860	3,221	11,760	5,869	2,506	1,393	698	395	624
MAX	2,340	90,900	35,500	106,000	4,750	31,000	11,400	3,460	2,980	1,150	569	4,120
MIN	195	339	2,740	3,100	2,330	3,150	3,400	1,580	935	461	339	278
AC-FT	30,770	701,500	675,500	913,600	178,900	722,800	349,200	154,100	82,870	42,930	24,260	37,150
CAL YR 1970	TOTAL	1,865,093	MEAN	5,110	MAX	90,900	MIN	195	AC-FT	3,699,000		
WTR YR 1971	TOTAL	1,973,066	MEAN	5,406	MAX	106,000	MIN	195	AC-FT	3,914,000		

## PEAK DISCHARGE (BASE, 36,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-24	1345	35.19	117,000	12- 7	1015	25.72	50,600
11-27	1430	22.87	36,400	1-16	2130	36.58	128,000
12- 3	1530	25.37	48,900	3-11	2200	24.94	46,700



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 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-flow 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 partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

#### Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same or practically the same site.

#### Discharge measurements made at low-flow partial-record stations during water year 1971

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
SALINAS RIVER BASIN						
11147030	Cienega Creek near Templeton	Lat 35°31'39", long 120°51'23", in Asuncion Grant, San Luis Obispo County, 0.4 mile upstream from mouth, and 9.1 miles west of Templeton.	2.51	1967-71	10- 8-70 11-16-70 12-16-70 1-12-71 2-10-71 3- 8-71 5- 4-71 6- 3-71 7- 7-71	0.10 .06 3.1 12.8 .79 .46 .66 .16 .11
11147050	Santa Rita Creek tributary No. 2 near Templeton	Lat 35°32'15", long 120°50'16", in Asuncion Grant, San Luis Obispo County, 0.3 mile upstream from mouth, and 8.1 miles west of Templeton.	1.35	1967-71	11-16-70 12-16-70 1-12-71 2-10-71 5- 4-71	.03 .50 5.1 .76 0
11147060	South Fork Santa Rita Creek near Templeton	Lat 35°30'48", long 120°48'01", in Asuncion Grant, San Luis Obispo County, 1.1 miles upstream from mouth, and 6.0 miles west of Templeton.	3.02	1967-71	10- 8-70 11-16-70 12-16-70 1-12-71 2-10-71 3- 8-71 5- 3-71 6- 2-71	0 0 .54 8.8 .45 .34 .20 .08
NAPA RIVER BASIN						
11458120	Milliken Creek tributary near Napa	Lat 38°20'06", long 122°16'46", in Yajome Grant, Napa County, at upstream side of bridge, 0.7 mile upstream from mouth, and 2.6 miles north of Napa.	2.54	1971	11-29-70 3-25-71	29.2 .66
11458150	Sarco Creek near Napa	Lat 38°19'56", long 122°15'06", in Tulucay Grant, Napa County, at culvert on Vichy Avenue, 3 miles northwest of Napa.	3.56	1971	11-27-70 12-10-70 3-25-71	26.5 6.71 1.04
MAD RIVER BASIN						
11480390	Mad River above Ruth Reservoir, near Forest Glen	Lat 40°18'51", long 123°21'44", in NW¼NW¼ sec.11, T.2 S., R.7 E., Trinity County, Six Rivers National Forest, at bridge on Zenia Road, 0.5 mile southeast of Ruth, and 4.6 miles southwest of Forest Glen.	103	1971	9- 7-71	2.04
11480410	Mad River below Ruth Reservoir, near Forest Glen	Lat 40°21'30", long 123°25'27", in SW¼SE¼ sec.19, T.1 N., R.7 E., Trinity County, Six Rivers National Forest, 1,200 ft downstream from Ruth Dam, 4.1 miles northwest of Ruth, and 5.3 miles southwest of Forest Glen.	119	1971	9- 7-71	93.4

## Crest-stage partial-record stations

As explained on page 10 the California district publishes annual maxima on small streams at about 304 sites in a separate publication Floods From Small Drainage Areas. In addition, discharge measurements are generally made in times of drought or flood to give better coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

The following table contains annual maximum discharges for crest-stage stations not included in the above-mentioned report. A crest-stage gage 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 water year is given. Information on some lower floods may have been obtained but is not published herein. 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 in Part II during water year 1971

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
SALINAS RIVER BASIN							
11147030 <sup>1</sup> / <sub>1</sub>	Cienega Creek near Templeton	Lat 35°31'39", long 120°51'23", in Asuncion Grant, San Luis Obispo County, 0.4 mile upstream from mouth, and 9.1 miles west of Templeton.	2.51	1967-71	1-16-70 12-21-70	56.18 53.20	b 330 115
NAPA RIVER BASIN							
11458120 <sup>1</sup> / <sub>1</sub>	Milliken Creek tributary near Napa	Lat 38°20'06", long 122°16'46", in Yajome Grant, Napa County, on right bank at upstream side of bridge, 0.7 mile upstream from mouth, and 2.6 miles north of Napa.	2.54	1971	12- 3-70	53.96	237
11458140	Milliken Creek at Napa	Lat 38°19'31", long 122°16'24", in Yajome Grant, Napa County, on right bank at upstream side of West Trancas Road bridge, at Napa, and 0.7 mile upstream from mouth.	20.8	1971	12- 3-70	54.95	-
11458150 <sup>1</sup> / <sub>1</sub>	Sarca Creek near Napa	Lat 38°19'56", long 122°15'06", in Tulucay Grant, Napa County, on left bank at culvert on Vichy Avenue, 3 miles north-west of Napa.	3.56	1971	12- 3-70	52.23	333
RUSSIAN RIVER BASIN							
11460940	Russian River near Redwood Valley	Lat 39°19'10", long 123°13'20", in NW <sup>1</sup> / <sub>4</sub> sec.20, T.17 N., R.12 W., Mendocino County, on left bank 600 ft upstream from Rocky Creek, and 3.8 miles north of town of Redwood Valley.	14.1	a1964-68 1969-71	12- 3-70	7.80	1,880
11463940	Franz Creek near Kellogg	Lat 38°36'30", long 122°45'35", in Mallacomes Grant, Sonoma County, on left bank at downstream side of highway bridge, 100 ft downstream from Bidwell Creek, and 2 miles south of Kellogg.	15.7	1956 1958-62 a1963-68 1969-71	12- 3-70	4.57	618
ALBION RIVER BASIN							
11468010	Albion River near Comptche	Lat 39°15'40", long 123°37'00", in SW <sup>1</sup> / <sub>4</sub> sec.11, T.16 N., R.16 W., Mendocino County, on right bank 2,000 ft downstream from Morrison Gulch, and 1.7 miles west of Comptche.	14.4	a1961-69 1970-71	1-16-71	8.87	1,650
JACOBY CREEK BASIN							
11480000	Jacoby Creek near Freshwater	Lat 40°47'30", long 124°00'10", in NW <sup>1</sup> / <sub>4</sub> sec.30, T.5 N., R.2 E., Humboldt County, 3.7 miles northeast of Freshwater.	6.05	a1954-64 1966-71	11-24-70	5.13	936

See footnotes at end of table.

## Crest-stage partial-record stations--Continued

Annual maximum discharge at crest-stage partial-record stations in Part II during water year 1971

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
KLAMATH RIVER BASIN							
11522300	South Fork Salmon River near Forks of Salmon	Lat 41°13'20", long 123°15'00", in SE $\frac{1}{4}$ sec.30, T.39 N., R.12 W., Siskiyou County, on left bank 100 ft downstream from Methodist Creek, and 4.5 miles southeast of town of Forks of Salmon.	252	a1958-66 1967-71	1-17-71	13.56	12,500
11528400	Hayfork Creek near Hayfork	Lat 40°31'10", long 123°05'05", in SW $\frac{1}{4}$ sec.23, T.31 N., R.11 W., Trinity County, 5.8 miles southwest of Hayfork.	86.7	a1956-66 1967-71	1-16-71	11.28	4,190
SMITH RIVER BASIN							
11532000	South Fork Smith River near Crescent City	Lat 41°47'30", long 124°01'30", in SE $\frac{1}{4}$ sec.11, T.16 N., R.1 E., Del Norte County, 9.5 miles east of Crescent City.	291	a1911-13 a1954-61 1962-71	1-17-71	29.42	58,300

1. Also a low-flow partial-record station.

a Operated as a continuous-record gaging station.

b Revised.

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

## Discharge measurements made at miscellaneous sites

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water year)	Measurements	
					Date	Discharge (cfs)
MATTOLE RIVER BASIN						
Mattole River	Pacific Ocean	Lat 40°03'32", long 123°58'21", in NW $\frac{1}{4}$ sec.5, T.5 S., R.2 E., Humboldt County, 300 ft downstream from Shelter Cove Road bridge, and 0.7 mile southwest of Thorn Junction.	--	--	9-15-71	1.46
Bear Creek	Mattole River	Lat 40°08'11", long 123°55'51", in SW $\frac{1}{4}$ sec.6, T.4 S., R.2 E., Humboldt County, 200 ft downstream from bridge, and 0.2 mile southwest of Ettersburg.	--	--	9-15-71	4.24
Mattole River	Pacific Ocean	Lat 40°08'22", long 123°55'24", in SE $\frac{1}{4}$ sec.6, T.4 S., R.2 E., Humboldt County, 40 ft upstream from bridge, and 0.3 mile east of Ettersburg.	--	--	9-15-71	9.35
Mattole River	Pacific Ocean	Lat 40°14'39", long 124°07'17", in NE $\frac{1}{4}$ sec.1, T.3 S., R.1 W., Humboldt County, 300 ft downstream from bridge, and 0.1 mile west of Honeydew.	--	--	9-15-71	22.1
Upper North Fork Mattole River	Mattole River	Lat 40°14'43", long 124°07'51", in SW $\frac{1}{4}$ sec.36, T.2 S., R.1 W., Humboldt County, 30 ft downstream from bridge, and 0.5 mile west of Honeydew.	--	--	9-15-71	3.16
North Fork Mattole River	Mattole River	Lat 40°19'33", long 124°17'34", in NE $\frac{1}{4}$ sec.4, T.2 S., R.2 W., Humboldt County, at bridge 0.5 mile west of Petrolia, and 0.7 mile upstream from mouth.	37.6	a1951-57	9-15-71	5.71

See footnotes at end of table.

## Discharge measurements made at miscellaneous sites--Continued

Stream	Tributary to	Location	Drain- age area (sq mi)	Measured pre- viously (water year)	Measurements	
					Date	Discharge (cfs)
KLAMATH RIVER BASIN						
Fall Creek	Klamath River	NE $\frac{1}{4}$ sec.36, T.48 N., R.5 W., Siskiyou County, 1,500 ft upstream from mouth, and 0.8 mile south of Fall Creek powerplant and Copco Post Office.	14.6	a1928-59 1964-70	9- 1-71	b 42.0
Bogus Creek	Klamath River	NE $\frac{1}{4}$ sec.17, T.47 N., R.3 W., Siskiyou County, 0.5 mile downstream from Iron Gate Dam, and 6.0 miles north- east of Hornbrook.	--	1965-70	9- 1-71	b 19.2
Beaver Creek	Klamath River	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.30, T.47 N., R.8 W., Siskiyou County, 1.9 miles upstream from mouth, and 14.8 miles northwest of Yreka.	106	1953-58 a1959-65 1967-70	9- 9-71	b 47.8
South Fork Scott River	Scott River	SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.20, T.40 N., Siskiyou County, opposite unnamed tributary, 1.1 miles southwest of Callahan, and 1.5 miles above East Fork Scott River.	41.5	a1958-60 1964 1966-70	9-10-71	b 4.00
Moffett Creek	Scott River	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.27, T.44 N., R.8 W., Siskiyou County, 590 ft upstream from Soap Creek, and 5.1 miles east of Fort Jones.	69.8	a1958-67 1970	9-10-71	c .01
Elk Creek	Klamath River	NE $\frac{1}{4}$ sec.36, T.16 N., R.7 E., Siskiyou County, 4.0 miles upstream from mouth, and 4.0 miles south of Happy Camp.	90.4	a1956-64 1967-70	9- 8-71	b 42.6
Thompson Creek	Klamath River	SE $\frac{1}{4}$ sec.17, T.17 N., R.8 W., Siskiyou County, 50 ft upstream from highway bridge, 0.1 mile upstream from mouth, and 6.0 miles northeast of Happy Camp.	--	1966 1968-70	9- 8-71	b 19.6
Coffee Creek	Trinity River	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.2, T.37 N., R.8 W., Trinity County, 0.8 mile upstream from Little Boulder Creek, 3.2 miles upstream from mouth, and 8 miles north- west of new location of Trinity Center.	--	a1957-66 1968-70	9- 1-71	b 66.0
Deadwood Creek	Trinity River	SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.33 N., R.8 W., Trinity County, 300 ft upstream from mouth, and 0.7 mile northeast of Lewiston.	--	1965-70	9- 1-71	b .94
Weaver Creek	Trinity River	NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.36, T.33 N., R.10 W., Trinity County, 0.2 mile downstream from highway bridge, and 1.3 miles north of Douglas City.	48.4	a1958-70	8-30-71	b 2.82
Browns Creek	Trinity River	NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.10, T.32 N., R.10 W., Trinity County, 2 miles upstream from mouth, and 2.1 miles west of Douglas City.	71.6	a1957-67 1970	8-30-71	b 7.14

a Operated as a continuous-record gaging station.

b Base flow.

c Estimated.



# INDEX

	Page		Page
Accuracy of data.....	8	Cfs-day, definition of.....	3
Acre-foot, definition of.....	3	Chesbro Reservoir, contents of.....	362
Agua Caliente Creek near Warner Springs.....	137	China Spring Creek near Mountain Pass.....	42
Alameda Creek, at Union City.....	415	Chino Creek at Schaeffer Avenue, near Chino.....	202
near Niles.....	412	Cholame Creek near Shandon.....	344
Alamitos Creek near New Almaden.....	397	City Creek near Highland.....	169
Alamo Creek near Nipomo.....	311	Clair Engle Lake near Lewiston.....	506
Alamo Pintado Creek near Solvang.....	294	Collection and computation of data.....	5
Alamo River near Niland.....	49	Colma Creek at South San Francisco.....	391
Albion basin, crest-stage partial-record stations in.....	519	Colorado River, at Imperial Dam, Ariz.-Calif.....	24
Alisal Creek near Salinas.....	357	at Needles.....	14
Alisal Creek near Solvang.....	295	at northerly international boundary above Morelos Dam, near Andrade.....	26
Aliso Canyon Creek near New Cuyama.....	309	at Palo Verde Dam, Ariz.-Calif.....	23
Aliso Creek at El Toro.....	158	below Davis Dam, Ariz.-Nev.....	13
All-American Canal, below Pilot Knob wasteway... near Imperial Dam, Ariz.-Calif.....	30	below Imperial Dam, schematic diagram of.....	37
Almaden Reservoir, contents of.....	396	below Parker Dam, Ariz.-Calif.....	20
Amargosa River at Tecopa.....	41	below Yuma Main Canal wasteway, at Yuma, Ariz. near Topock, Ariz.....	25
Anderson Lake, contents of.....	402	Colorado River aqueduct near Parker Dam, Ariz.-Calif.....	17
Andreas Creek near Palm Springs.....	64	Conn Creek near Oakville.....	426
Antelope Creek near Tennant.....	487	Contents, definition of.....	3
Aptos Creek at Aptos.....	376	Control, definition of.....	3
Arch Creek near Earp.....	21	Convict Creek near Mammoth Lakes.....	89
Arroyo Burro Creek at Santa Barbara.....	276	Cooperation, record of.....	2
Arroyo Corte Madera del Presidio at Mill Valley.....	434	Copco Lake near Copco.....	489
Arroyo de la Cruz near San Simeon.....	330	Corn Springs Wash near Desert Center.....	46
Arroyo de la Laguna near Pleasanton.....	411	Corralitos Creek, at Freedom.....	375
Arroyo del Hambre at Martinez.....	421	near Corralitos.....	374
Arroyo del Rey at Del Rey Oaks.....	334	Corte Madera Creek at Ross.....	433
Arroyo Grande, above Phoenix Creek, near Arroyo Grande.....	321	Cottonwood Creek (Koehn Lake basin) near Cantil.....	87
at Arroyo Grande.....	325	Cottonwood Creek (Owens Lake basin) near Olancho.....	105
Arroyo Hondo near San Jose.....	405	Cottonwood Creek (Tijuana River basin) above Tecate Creek, near Dulzura.....	121
Arroyo Mocho, near Livermore.....	406	Cottonwood Creek (tributary to Antelope Valley) near Rosamond.....	82
near Pleasanton.....	407	Cottonwood Creek (tributary to Klamath River) at Hornbrook.....	491
Arroyo Seco (Los Angeles River basin) near Pasadena.....	233	Cottonwood Wash near Cottonwood Spring.....	68
Arroyo Seco (Salinas River basin), near Greenfield.....	353	Coyote Creek basin, reservoirs in.....	402
near Soledad.....	354	Coyote Creek (tributary to Salton Sea) near Borrego Springs.....	52
Arroyo Simi near Simi.....	244	Coyote Creek (tributary to San Francisco Bay) near Gilroy.....	401
Arroyo Trabuco near San Juan Capistrano.....	156	near Madrone.....	403
Arroyo Valle, above Lang Canyon, near Livermore. at Pleasanton.....	408	Coyote Creek (tributary to San Gabriel River) at Los Alamitos.....	224
near Livermore.....	409	Coyote Creek (tributary to Ventura River) near Oak View.....	266
Atascadero Creek at Puente Road, near Goleta....	277	near Ventura.....	268
Atascadero Creek near Goleta.....	279	Coyote Lake, contents of.....	402
Ballona Creek near Culver City.....	241	Crest-stage partial-record stations, discharge at.....	519
Bautista Creek near Valle Vista.....	194	Cubic foot per second, definition of.....	3
Big Bear Lake near Big Bear Lake.....	161	Cucamonga Creek, near Mira Loma.....	204
Big Pine Creek near Big Pine.....	98	near Upland.....	203
Big River, South Fork, near Comptche.....	453	Cushenbury Creek near Lucerne Valley.....	71
Big Rock Creek near Valyermo.....	79	Cuyama River, below Buckhorn Canyon, near Santa Maria.....	310
Big Sulphur Creek near Cloverdale.....	443	below Twitchell Dam.....	313
Big Sur River near Big Sur.....	331	Darwin Creek near Darwin.....	40
Bishop Creek below powerplant No. 6, near Bishop.....	93	Data, accuracy of.....	8
Black Butte River near Covelo.....	464	explanation of.....	5
Blue Creek near Klamath.....	515	other data available.....	9
Bodfish Creek near Gilroy.....	366	Day Creek near Etiwanda.....	189
Boom Creek near Barstow.....	77	Deep Creek (Mojave River basin) near Hesperia....	72
Bouquet Creek near Saugus.....	248	Deep Creek (Salton Sea basin) near Palm Desert..	65
Borrego Palm Creek near Borrego Springs.....	53	Definition of terms and abbreviations.....	3
Brea Creek below Brea Dam, near Fullerton.....	221	Devil Canyon Creek near San Bernardino.....	183
Bull Creek near Weott.....	475	Discharge, definition of.....	3
Butano Creek near Pescadero.....	388	Downstream order and station numbers.....	4
Cache Creek near Mojave.....	85	Drainage area, definition of.....	3
Cajon Creek near Keenbrook.....	181	Dry Creek (tributary to Alameda Creek) at Union City.....	413
Calero Reservoir, contents of.....	396	Dry Creek (tributary to Russian River), near Cloverdale.....	446
Calleguas Creek at Camarillo State Hospital.....	245	near Geyserville.....	447
Campo Creek near Campo.....	122	East Twin Creek near Arrowhead Springs.....	173
Carbon Creek below Carbon Canyon Dam.....	206		
Carmel River, at Robles del Rio.....	332		
near Carmel.....	333		
Carpinteria Creek near Carpinteria.....	271		
Caruthers Creek near Ivanpah.....	43		
Castaic Creek near Saugus.....	249		
Cedar Creek near Bell Station.....	360		
Cedar Gulch near Callahan.....	499		

	Page		Page
Eel River, at Fort Seward.....	469	Lakes and reservoirs--Continued	
at Scotia.....	476	Guadalupe Reservoir.....	396
at Van Arsdale Dam, near Potter Valley.....	461	Havasu, Lake, near Parker Dam, Ariz.-Calif....	18
below Scott Dam, near Potter Valley.....	459	Hemet, Lake, near Idyllwild.....	191
East Branch, South Fork, near Garberville.....	473	Iron Gate Reservoir near Hornbrook.....	489
Middle Fork, near Dos Rios.....	467	Jameson Lake.....	286
near Dos Rios.....	462	Lexington Reservoir.....	396
North Fork, near Mina.....	468	Mendocino Lake near Ukiah.....	439
South Fork, at Leggett.....	472	Mono Lake near Mono Lake.....	107
near Miranda.....	474	Nacimiento Reservoir near Bradley.....	347
El Toro Creek near Spreckels.....	356	Pillsbury, Lake, near Potter Valley.....	458
Elder Creek near Branscomb.....	470	Piru, Lake, near Piru.....	253
Elk Creek near Hearst.....	466	Rodriguez Reservoir at Rodriguez Dam, Baja	
Estrella River near Estrella.....	345	California, Mexico.....	124
Explanation of surface-water data.....	5	Ruth Reservoir near Forest Glen.....	480
		San Antonio Reservoir near Bradley.....	347
Fish Creek near Duarte.....	213	Santa Margarita Lake near Pozo.....	337
Forty-nine Palms Creek near Twenty-nine Palms.....	45	Stevens Creek Reservoir near Monte Vista.....	395
Foxen Creek near Sisquoc.....	316	Uvas Reservoir.....	362
Franklin Creek at Carpinteria.....	272	Vail Lake.....	148
Fullerton Creek, at Richman Avenue, near		Las Flores Creek near Oceanside.....	153
Fullerton.....	223	Lee Vining Creek near Lee Vining.....	119
below Fullerton Dam, near Brea.....	222	Lexington Reservoir, contents of.....	396
Gabilan Creek near Salinas.....	358	Little Dalton Creek near Glendora.....	216
Gage height, definition of.....	3	Little River at Crannell.....	484
Gaging station, definition of.....	4	Little Rock Creek near Little Rock.....	80
Garcia River near Point Arena.....	451	Little San Geronio Creek near Beaumont.....	171
Gaviota Creek near Gaviota.....	284	Little Shasta River near Montague.....	492
Gibraltar Reservoir, contents of.....	287	Little Tujunga Creek near San Fernando.....	230
Gila Gravity Main Canal at Imperial Dam,		Llagas Creek near Morgan Hill.....	363
Ariz.-Calif.....	27	Lone Pine Creek near Keenbrook.....	182
Goler Gulch near Randsburg.....	84	Long Creek near Desert Hot Springs.....	60
Guadalupe Reservoir, contents of.....	396	Lopez Creek near Arroyo Grande.....	323
Guadalupe River at San Jose.....	399	Los Angeles River, at Long Beach.....	240
Guadalupe River basin, reservoirs in.....	396	at Los Angeles.....	232
Gualala River, South Fork, near Annapolis.....	450	at Sepulveda Dam.....	225
Guejito Creek near San Pasqual.....	135	near Downey.....	234
		Los Angeles River basin, schematic diagram of...	210
Hayfork Creek near Hyampom.....	511	Los Berros Creek near Nipomo.....	326
Hopper Creek near Piru.....	255	Los Gatos Creek (Guadalupe River basin) at	
Huasna River near Arroyo Grande.....	312	Los Gatos.....	398
Huerhuero Creek near Creston.....	343	Los Penasquitos Creek, below Poway Creek, near	
Hydrologic bench-mark station.....	4	Poway.....	131
Hydrologic conditions.....	10	near Poway.....	132
		Low-flow partial record stations, measurements	
Independence Creek below Pinyon Creek, near		at.....	518
Independence.....	101	Lytle Creek, at Colton.....	184
Indian Creek near Happy Camp.....	502	near Fontana.....	179
International Hydrological Decade (IHD) River			
Stations.....	4	Maacama Creek near Kellogg.....	444
Introduction.....	1	Mad River, near Arcata.....	483
Inyo Creek near Lone Pine.....	103	near Forest Glen.....	481
Iron Gate Reservoir near Hornbrook.....	489	near Kneeland.....	482
		Mad River basin, discharge measurements at	
Jack Creek near Templeton.....	339	low-flow partial-record stations in.....	518
Jacoby Creek basin, crest-stage partial-record		Majors Creek near Santa Cruz.....	383
stations in.....	519	Malibu Creek at Crater Camp, near Calabasas.....	243
Jalama Creek near Lompoc.....	285	Maria Ygnacio at University Drive, near	
Jameson Lake, contents of.....	286	Goleta.....	278
Jamul Creek near Jamul.....	126	Matadero Creek at Palo Alto.....	394
Judge Francis Carr powerplant near French Gulch,	507	Matilija Creek, at Matilija Hot Springs.....	262
		North Fork, at Matilija Hot Springs.....	263
Keys Creek tributary at Valley Center.....	143	Mattole River basin, discharge measurements at	
Klamath River, at Orleans.....	504	miscellaneous sites in.....	520
below Iron Gate Dam.....	490	Mattole River near Petrolia.....	457
below John C. Boyle powerplant, near Keno,		Mazourka Creek near Independence.....	102
Oreg.....	488	Meeks and Daley Canal near Colton.....	178
near Klamath.....	516	Miguelito Creek at Lompoc.....	304
near Seiad Valley.....	501	Mill Creek (Eel River basin) near Covelo.....	465
Klamath River basin, crest-stage partial-record		Mill Creek (Mono Lake) below Lundy Lake, near	
stations in.....	520	Mono Lake.....	108
discharge measurements at miscellaneous sites		Mill Creek (Santa Ana River basin) near	
in.....	521	Yucaipa.....	165
La Brea Creek near Sisquoc.....	315	Mill Creek, North Fork, near La Canada.....	227
Laguna Creek near Davenport.....	384	Milliken Creek near Napa.....	428
Laguna de Santa Rosa near Graton.....	448	Miscellaneous sites, measurements at.....	520
Lakes and reservoirs:		Mission Creek (Los Angeles River basin) near	
Almaden Reservoir.....	396	Montebello.....	237
Anderson Lake.....	402	Mission Creek (Mission Creek basin) near Mission	
Big Bear Lake near Big Bear Lake.....	161	Street, at Santa Barbara.....	274
Cachuma, Lake, near Santa Ynez.....	291	Mission Creek (Salton Sea basin) near Desert Hot	
Calero Reservoir.....	396	Springs.....	59
Chesbro Reservoir.....	362	Mojave River, at Afton.....	78
Clair Engle Lake near Lewiston.....	506	at Barstow.....	76
Copco Lake near Copco.....	489	at lower narrows, near Victorville.....	74
Coyote Lake.....	402	near Hodge.....	75
Elsman, Lake.....	396	West Fork, near Hesperia.....	73
Gibraltar Reservoir.....	287	Mono Lake near Mono Lake.....	107
		Morro Creek at Morro Bay.....	327
		Murrieta Creek at Temecula.....	149

	Page		Page
Nacimiento Reservoir near Bradley.....	347	Reclamation ditch near Salinas.....	259
Nacimiento River, below Nacimiento Dam, near Bradley.....	348	Redwood Creek (tributary to Napa Creek) near Napa.....	429
near Bryson.....	346	Redwood Creek (tributary to Pacific Ocean) at Orick.....	486
Napa River, at Napa.....	430	at South Park boundary, near Orick.....	485
near Napa.....	427	Redwood Creek (tributary to San Francisco Bay) at Redwood City.....	391
near St. Helena.....	425	Return surface flows below Imperial Dam, Ariz.-Calif.....	31
Napa River basin, crest-stage partial-record stations in.....	519	Rheem Creek at San Pablo.....	419
discharge measurements at low-flow partial- record stations in.....	518	Rio Hondo, above Whittier Narrows Dam.....	235
Navarro River near Navarro.....	452	below Whittier Narrows Dam.....	238
New River (Salton Sea basin) near Westmorland,..	50	near Downey.....	239
Ninemile Creek near Brown.....	88	near Montebello.....	236
Novato Creek at Novato.....	432	Riverside Narrows Water Quality Control Plant at Riverside Narrows, near Arlington.....	187
Noyo River near Fort Bragg.....	454	Rock Creek at Little Round Valley, near Bishop.....	90
Oak Creek near Mojave.....	83	Rodeo-San Pasqual Creek near Lompoc.....	306
Oso Creek at Crown Valley Parkway, near Mission Viejo.....	157	Rodriguez Reservoir at Rodriguez Dam, Baja California, Mexico.....	124
Other data available.....	9	Rush Creek, above Grant Lake, near June Lake.....	118
Outlet Creek near Longvale.....	463	below Agnew Lake, near June Lake.....	113
Owens River, at Keeler Bridge, near Lone Pine... near Big Pine.....	104	Russian River, East Fork, near Calpella.....	438
	100	East Fork, near Ukiah.....	440
Pacheco Creek near Dunneville.....	361	near Cloverdale.....	442
Pacoima Creek near San Fernando.....	226	near Guerneville.....	449
Pajaro River, at Chittenden.....	373	near Healdsburg.....	445
near Gilroy.....	364	near Hopland.....	441
Pajaro River basin, reservoirs in.....	362	near Ukiah.....	437
Palm Canyon Creek, near Palm Springs.....	63	Russian River basin, crest-stage partial-record stations in.....	519
tributary near Anza.....	62	Ruth Reservoir near Forest Glen.....	480
Palo Verde Canal near Blythe.....	22	Salinas River, above Pilitos Creek, near Santa Margarita.....	338
Partial-record stations, definition of.....	4	at Paso Robles.....	342
discharge at.....	518	at Soledad.....	352
Patterson Creek at Union City.....	414	near Bradley.....	350
Pauma Creek near Pauma Valley.....	139	near Pozo.....	335
Perris Valley Storm Drain at Nuevo Road, near Perris.....	195	near Spreckels.....	355
Pescadero Creek (tributary to Pacific Ocean) near Pescadero.....	387	Salinas River basin, crest-stage partial-record stations in.....	519
Pescadero Creek (tributary to San Benito River) near Chittenden.....	372	discharge measurements at low-flow partial- record stations in.....	518
Pilarcitos Creek at Half Moon Bay.....	390	Salmon Creek at Bodega.....	436
Pilot Knob powerplant and wasteway near Pilot Knob.....	29	Salmon River at Somes Bar.....	503
Pine Creek at division box, near Bishop.....	91	Salsipuedes Creek, near Lompoc.....	300
Pine Tree Creek near Mojave.....	86	near Pozo.....	336
Pinole Creek at Pinole.....	420	Salt Creek near Mecca.....	48
Pipes Creek near Yucca Valley.....	70	Salton Sea, inflow to.....	47
Piru Creek, above Lake Piru.....	252	near Westmorland.....	47
near Piru.....	254	San Antonio Creek (Santa Ana River basin), below San Antonio Dam.....	201
Plunge Creek near East Highlands.....	167	near Claremont.....	199
Pomerado Creek at Poway Road, near Poway.....	130	San Antonio Creek (tributary to Pacific Ocean), at Los Alamos.....	307
Potter Valley powerhouse tailrace near Potter Valley.....	460	near Casmalia.....	308
Precipitation:		San Antonio Creek (Ventura River basin) at Casitas Springs.....	265
Aliso Canyon Creek near New Cuyama.....	309	San Antonio Reservoir near Bradley.....	347
Arch Creek near Earp.....	21	San Antonio River near Lockwood.....	349
Boom Creek near Barstow.....	77	San Benito River, at State Highway 156, near Hollister.....	371
Cache Creek near Mojave.....	85	near Hollister.....	370
Cedar Gulch near Callahan.....	499	near Willow Creek School.....	368
China Spring Creek near Mountain Pass.....	42	San Diego Creek near Irvine.....	159
Colma Creek at South San Francisco.....	391	San Diego River near Santee.....	129
Corn Springs Wash near Desert Center.....	46	San Dimas Creek below San Dimas Dam.....	215
Cottonwood Wash near Cottonwood Spring.....	68	San Felipe Creek, near Julian.....	51
Darwin Creek near Darwin.....	40	near Westmorland.....	55
Fortynine Palms Creek near Twentynine Palms... Elder Creek near Branscomb.....	45	San Francisquito Creek at Stanford University... San Gabriel River, above Whittier Narrows Dam... at Pico.....	393
Inyo Creek near Lone Pine.....	470	at Spring Street, near Los Alamitos.....	218
Los Penasquitos Creek below Poway Creek, near Poway.....	103	below Santa Fe Dam, near Baldwin Park.....	219
Mission Creek near Desert Hot Springs.....	131	East Fork, near Camp Bonita.....	220
Palm Canyon Creek tributary near Anza.....	59	West Fork, at Camp Rincon.....	214
Perris Valley Storm Drain at Nuevo Road, near Perris.....	62	San Gabriel River basin, schematic diagram of... San Gorgonio River near White Water.....	211
Pescadero Creek near Chittenden.....	372	San Gregorio Creek at San Gregorio.....	212
San Luis Rey River tributary near Pala.....	141	San Jacinto River, near Elsinore.....	210
Santa Rita Creek near Templeton.....	341	near San Jacinto.....	389
Tar Spring Creek near Arroyo Grande.....	324	San Jose Creek (tributary to Pacific Ocean), at Goleta.....	196
Temecula Creek at Vail Dam.....	148	near Goleta.....	192
Vallecito Creek near Julian.....	54	San Jose Creek (tributary to San Gabriel River) near El Monte.....	281
Wildrose Creek near Wildrose Station.....	38	San Juan Creek near San Juan Capistrano.....	280
Wilson Creek tributary near Dulzura.....	120		217
Publications.....	9		154
Pudding Creek near Fort Bragg.....	455		
Purissima Creek near Lompoc.....	302		
Quail Wash near Joshua Tree.....	44		



	Page		Page
San Lorenzo Creek (Salinas River basin) below Bitterwater Creek, near King City.....	351	Smith River basin, crest-stage partial-record stations in.....	520
San Lorenzo Creek (tributary to San Francisco Bay), at Hayward.....	416	Smith River near Crescent City.....	517
at San Lorenzo.....	417	Snow Creek near White Water.....	58
San Lorenzo River, at Big Trees.....	382	Sonoma Creek at Agua Caliente.....	431
near Boulder Creek.....	380	Soquel Creek, at Soquel.....	379
San Luis Rey River, at Monserate Narrows, near Pala.....	142	near Soquel.....	378
at Oceanside.....	146	West Branch, near Soquel.....	377
near Bonsall.....	145	Special networks and programs.....	4
tributary near Pala.....	141	Spencer Canyon Creek near Fairmont.....	81
West Fork, near Warner Springs.....	138	Stage-discharge relation, definition of.....	4
San Pedro Creek at Goleta.....	282	Stevens Creek Reservoir near Monte Vista.....	395
San Ramon Creek, at San Ramon.....	422	Sweetwater River near Descanso.....	127
at Walnut Creek.....	423	Sycamore Creek at Santa Barbara.....	273
San Timoteo Creek near Loma Linda.....	172	Tahquitz Creek near Palm Springs.....	61
Santa Agueda Creek near Santa Ynez.....	293	Tar Spring Creek near Arroyo Grande.....	324
Santa Ana Creek near Oak View.....	267	Tecolotito Creek near Goleta.....	283
Santa Ana River, at E Street, near San Bernardino.....	176	Temecula Creek, at Vail Dam.....	148
at Mission Boulevard, at Riverside.....	185	near Aguanga.....	147
at MWD Crossing, near Arlington.....	186	Temescal Creek, at Corona.....	198
at Prado Park, near Corona.....	190	near Corona.....	197
at Riverside Narrows, near Arlington.....	188	Tenmile Creek near Laytonville.....	471
at Santa Ana.....	209	Tenmile River, Middle Fork, near Fort Bragg.....	456
below Prado Dam.....	205	Tepusquet Creek near Sisquoc.....	317
near Mentone.....	162	Terms and abbreviations, definition of.....	3
Santa Ana River basin, schematic diagram of.....	160	Tijuana River, near Dulzura.....	123
Santa Ana River spreading diversion near Mentone.....	164	near Nestor.....	125
Santa Clara River, above Railroad Station, near Lang.....	246	Topanga Creek near Topanga Beach.....	242
at Los Angeles-Ventura County line.....	251	Toro Creek near Morro Bay.....	328
at Montalvo.....	261	Tres Pinos Creek near Tres Pinos.....	369
Santa Cruz Creek near Santa Ynez.....	290	Trinity River, above Coffee Creek, near Trinity Center.....	505
Santa Margarita Lake near Pozo.....	337	at Hoopa.....	514
Santa Margarita River, at Ysidora.....	152	at Lewiston.....	508
near Fallbrook.....	151	near Burnt Ranch.....	510
near Temecula.....	150	North Fork, at Helena.....	509
Santa Maria Creek near Ramona.....	136	South Fork, below Hyampom.....	512
Santa Maria River at Guadalupe.....	320	Tujunga Creek, below Hansen Dam.....	231
Santa Paula Creek near Santa Paula.....	259	below Mill Creek, near Colby Ranch.....	228
Santa Rita Creek, near Templeton.....	341	near Sunland.....	229
tributary near Templeton.....	340	Upper Penitencia Creek at San Jose.....	404
Santa Rosa Creek (tributary to Pacific Ocean) near Cambria.....	329	Uvas Creek, above Uvas Reservoir, near Morgan Hill.....	365
Santa Ynez River, above Gibraltar Dam, near Santa Barbara.....	287	near Gilroy.....	367
at Cooper's Reef, near Lompoc.....	299	Uvas Reservoir, contents of.....	362
at Jameson Lake, near Montecito.....	286	Vail Lake, contents of.....	148
at narrows, near Lompoc.....	301	Vallecito Creek near Julian.....	54
at Pine Canyon, near Lompoc.....	305	Van Duzen River, near Bridgeville.....	478
at Solvang.....	296	near Dinsmores.....	477
at 13th Street, near Lompoc.....	303	Ventura River, near Meiners Oaks.....	264
below Gibraltar Dam, near Santa Barbara.....	288	near Ventura.....	269
below Los Laureles Canyon, near Santa Ynez.....	289	Victoria Street drain at outlet, near Santa Barbara.....	275
near Buellton.....	298	Walker Creek near Tamales.....	435
near Santa Ynez.....	292	Walnut Creek (Pacheco Creek basin) at Concord.....	424
Santa Ysabel Creek, near Ramona.....	133	Warm Creek, floodway at San Bernardino.....	175
near San Pasqual.....	134	near San Bernardino.....	177
Santiago Creek, at Modjeska.....	207	Wasteway No. 1 near Mecca.....	69
at Santa Ana.....	208	Waterman Canyon Creek near Arrowhead Springs.....	174
San Vincente Creek near Davenport.....	385	Whitewater River, at Indio.....	66
Saratoga Creek at Saratoga.....	400	at White Water.....	56
Saticoy diversion near Saticoy.....	260	near Mecca.....	67
Scott Creek, above Little Creek, near Davenport.....	386	Wildcat Creek at Richmond.....	418
near Fort Jones.....	500	Wildrose Creek near Wildrose Station.....	38
Scott River, East Fork, above Kangaroo Creek, near Callahan.....	496	Willow Creek near Willow Creek.....	513
at Callahan.....	498	Wilson Creek tributary near Dulzura.....	120
below Houston Creek, near Callahan.....	494	Wittenberg Creek near Arroyo Grande.....	322
Selected references.....	11	WRD, definition of.....	4
Sespe Creek, near Fillmore.....	257	WSP, definition of.....	4
near Wheeler Springs.....	256	Yager Creek near Carlotta.....	479
Shasta River near Yreka.....	493	Zaca Creek near Buellton.....	297
Silver Canyon Creek near Laws.....	92	Zayante Creek at Zayante.....	381
Sisquoc River, near Garey.....	318		
near Sisquoc.....	314		







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