

A.E. Long

1970

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 1970

OCTOBER 1969

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1970

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for
California**

Part 1. Surface Water Records

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



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DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

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

Water-resources records, 1970, 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

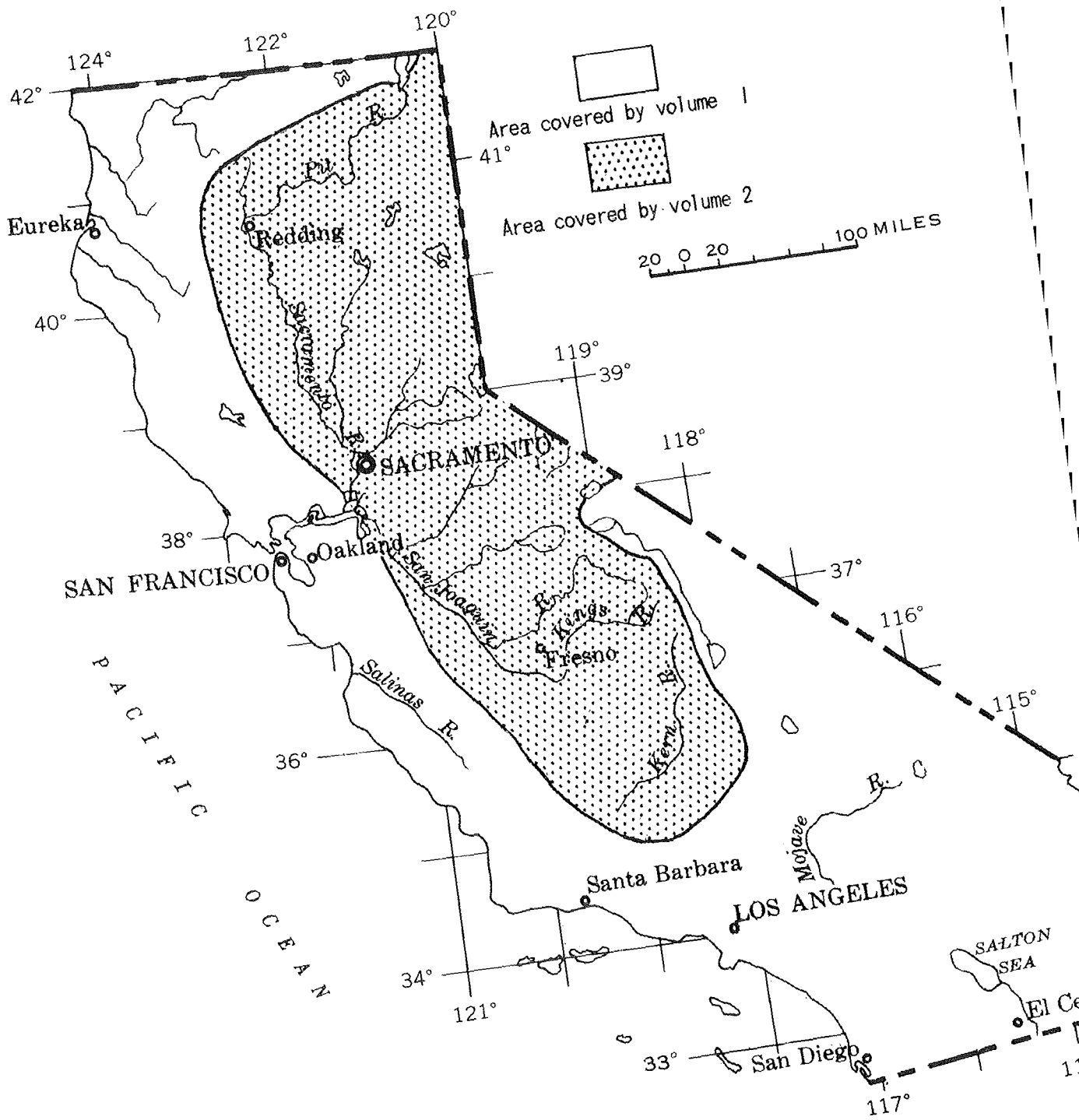
2. Water Resources Data for California
Part 1: Surface Water Records
Volume 2: Northern Great Basin and Central Valley

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
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
Kings River Conservation District
Lake County Flood Control and Water Conservation District
Madera Irrigation District
Marin County
Montecito County Water District
Monterey 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 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 County Flood Control and Water Conservation District
Santa Maria Valley Water Conservation District
Santa Ynez River Water Conservation District
Siskiyou County
Tehachapi-Cummings County Water District
Terra Bella Irrigation District
Turlock Irrigation District
University of California (Berkeley)
Ventura (county) Department of Public Works
Ventura River Municipal Water District
Woodbridge Irrigation District
Corps of Engineers, U.S. Army
Bureau of Reclamation, 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.....	484
Low-flow partial-record stations.....	484
Crest-stage partial-record stations.....	485
Discharge measurements at miscellaneous sites.....	486
Santa Ana River seepage investigation, Mentone to Rubidoux.....	488
MWD Crossing to Prado Dam.....	489
Index.....	491

ILLUSTRATIONS

	Page
Figure 1. Map showing runoff for the 1970 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.....	141
4. San Gabriel and Los Angeles river basins.....	195

VI GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

Page

COLORADO RIVER BASIN

COLORADO RIVER:

Colorado River below Davis Dam, Ariz.-Nev..... 13
 Colorado River at Needles..... 14
 Colorado River near Topock, Ariz..... 15

LAKE HAVASU:

DIVERSION FROM LAKE HAVASU

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

TRIBUTARIES AND DIVERSIONS BETWEEN PARKER DAM AND PALO VERDE DAM

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

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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

THE GREAT BASIN

PANAMINT VALLEY

Wildrose Creek near Wildrose Station..... 38
 Darwin Creek near Darwin..... 39

DEATH VALLEY

Amargosa River at Tecopa..... 40
 Horse Thief Creek near Tecopa..... 41

IVANPAH VALLEY

China Spring Creek near Mountain Pass..... 42

BRISTOL LAKE BASIN

Caruthers Creek near Ivanpah..... 43

DANBY LAKE BASIN

Sunflower Wash near Essex..... 44

DALE LAKE BASIN

Quail Wash near Joshua Tree..... 45
 Fortynine Palms Creek near Twentynine Palms..... 46

CHUCKWALLA VALLEY

Corn Springs Wash near Desert Center..... 47

SALTON SEA BASIN

Salton Sea near Westmorland..... 48
 Inflow to Salton Sea..... 48
 Salt Creek near Mecca..... 49
 Alamo River near Niland..... 50

Myer Creek:

Myer Creek tributary near Jacumba..... 51
 New River near Westmorland..... 52
 San Felipe Creek near Julian..... 53
 Coyote Creek near Borrego Springs..... 54
 Borrego Palm Creek near Borrego Springs..... 55

Carrizo Creek:

Vallecito Creek near Julian..... 56
 San Felipe Creek near Westmorland..... 57
 Whitewater River at White Water..... 58
 San Gorgonio River near White Water..... 59
 Snow Creek near White Water..... 60
 Mission Creek near Desert Hot Springs..... 61

Morongo Wash:

Long Creek near Desert Hot Springs..... 62
 Tahquitz Creek near Palm Springs..... 63

Palm Canyon Creek:

Palm Canyon Creek tributary near Anza..... 64

	Page
THE GREAT BASIN--Continued	
SALTON SEA BASIN--Continued	
Whitewater River--Continued	
Palm Canyon Creek near Palm Springs.....	65
Andreas Creek near Palm Springs.....	66
Deep Creek near Palm Desert.....	67
Whitewater River at Indio.....	68
Whitewater River near Mecca.....	69
Cottonwood Wash near Cottonwood Spring.....	70
Wasteway No. 1 near Mecca.....	71
EMERSON LAKE BASIN	
Pipes Creek near Yucca Valley.....	72
LUCERNE DRY LAKE BASIN	
Cushenbury Creek near Lucerne.....	73
MOJAVE RIVER BASIN	
Deep Creek (head of Mojave River) near Hesperia.....	74
West Fork Mojave River near Hesperia.....	75
Mojave River at lower narrows, near Victorville.....	76
Mojave River at Wild Crossing, near Helendale.....	77
Mojave River at Barstow.....	78
Boom Creek near Barstow.....	79
Mojave River at Afton.....	80
ANTELOPE VALLEY	
Big Rock Creek near Valyermo.....	81
Little Rock Creek near Little Rock.....	82
Spencer Canyon Creek near Fairmont.....	83
Cottonwood Creek near Rosamond.....	83
Oak Creek near Mojave.....	84
KOEHN LAKE BASIN	
Goler Gulch near Randsburg.....	85
Cache Creek near Mojave.....	86
Pine Tree Creek near Mojave.....	86
Cottonwood Creek near Cantil.....	86
INDIAN WELLS VALLEY	
Ninemile Creek near Brown.....	87
OWENS LAKE BASIN	
Owens River:	
Convict Creek near Mammoth Lakes.....	88
Rock Creek at Little Round Valley, near Bishop.....	89
Pine Creek at diversion box, near Bishop.....	90
Silver Canyon Creek near Laws.....	91
Big Pine Creek near Big Pine.....	92
Owens River near Big Pine.....	94
Independence Creek below Pinyon Creek, near Independence.....	95
Mazourka Creek near Independence.....	96
Inyo Creek near Lone Pine.....	97
Owens River at Keeler Bridge, near Lone Pine.....	98
Cottonwood Creek near Olancho.....	99
MONO LAKE BASIN	
Mono Lake near Mono Lake.....	101
Rush Creek above Grant Lake, near June Lake.....	102
Lee Vining Creek near Lee Vining.....	103
<u>PACIFIC SLOPE BASINS IN CALIFORNIA</u>	
TIJUANA RIVER BASIN	
Cottonwood Creek (head of Tijuana River):	
Wilson Creek:	
Wilson Creek tributary near Dulzura.....	104
Cottonwood Creek above Tecate Creek, near Dulzura.....	105
Tecate Creek:	
Campo Creek near Campo.....	106
Tijuana River near Dulzura.....	107
Rodriguez Reservoir at Rodriguez Dam, Baja California, Mex.....	108
Tijuana River near Nestor.....	109
OTAY RIVER BASIN	
Jamul Creek (head of Otay River) near Jamul.....	110

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
SWEETWATER RIVER BASIN	
Sweetwater River near Descanso.....	111
SAN DIEGO RIVER BASIN	
San Diego River near Santee.....	113
LOS PENASQUITOS CREEK BASIN	
Los Penasquitos Creek near Poway.....	114
SAN DIEGUITO RIVER BASIN	
Santa Ysabel Creek (head of San Dieguito River) at Sutherland Dam.....	115
Santa Ysabel Creek near Ramona.....	116
Santa Ysabel Creek near San Pasqual.....	117
Guejito Creek near San Pasqual.....	118
Santa Maria Creek near Ramona.....	119
SAN LUIS REY RIVER BASIN	
San Luis Rey River:	
Agua Caliente Creek near Warner Springs.....	120
West Fork San Luis Rey River near Warner Springs.....	121
Pauma Creek near Pauma Valley.....	122
San Luis Rey tributary near Pala.....	124
San Luis Rey River at Monserate Narrows, near Pala.....	125
San Luis Rey River near Bonsall.....	126
San Luis Rey River at Oceanside.....	127
SANTA MARGARITA RIVER BASIN	
Temecula Creek (head of Santa Margarita River) near Aguanga.....	128
Temecula Creek at Vail Dam.....	129
Murrieta Creek at Temecula.....	130
Santa Margarita River near Temecula.....	131
Santa Margarita River near Fallbrook.....	132
Santa Margarita River at Ysidora.....	133
LAS FLORES CREEK BASIN	
Las Flores Creek near Oceanside.....	134
SAN JUAN CREEK BASIN	
San Juan Creek near San Juan Capistrano.....	135
Arroyo Trabuco near San Juan Capistrano.....	137
Oso Creek at Crown Valley Parkway, near Mission Viejo.....	138
ALISO CREEK BASIN	
Aliso Creek at El Toro.....	139
PETERS CANYON WASH BASIN	
Peters Canyon Wash:	
San Diego Creek near Irvine.....	140
SANTA ANA RIVER BASIN	
Santa Ana River:	
Bear Creek:	
Big Bear Lake near Big Bear Lake.....	142
Santa Ana River near Mentone.....	143
Santa Ana River spreading diversion near Mentone.....	145
Mill Creek near Yucaipa.....	146
Plunge Creek near East Highlands.....	148
City Creek near Highland.....	150
Santa Ana River at Waterman Avenue, at San Bernardino.....	152
San Timoteo Creek:	
Little San Gorgonio Creek near Beaumont.....	153
San Timoteo Creek near Loma Linda.....	154
Warm Creek:	
East Twin Creek near Arrowhead Springs.....	155
Waterman Canyon Creek near Arrowhead Springs.....	156
Warm Creek Floodway at San Bernardino.....	157
Santa Ana River at E Street, near San Bernardino.....	158
Warm Creek near San Bernardino.....	159
Meeks and Daley Canal near Colton.....	160
Lytle Creek near Fontana.....	161
Cajon Creek near Keenbrook.....	163
Lone Pine Creek near Keenbrook.....	164
Devil Canyon Creek near San Bernardino.....	165
Lytle Creek at Colton.....	166

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
SANTA ANA RIVER BASIN--Continued	
Santa Ana River at MWD Crossing, near Arlington.....	167
Riverside Narrows Water Quality Control Plant at Riverside Narrows, near Arlington.....	168
Santa Ana River at Riverside Narrows, near Arlington.....	172
Day Creek near Etiwanda.....	173
San Jacinto River:	
Lake Hemet near Idyllwild.....	175
San Jacinto River near San Jacinto.....	176
Bautista Creek near Valle Vista.....	178
Perris Valley Storm Drain at Nuevo Road, near Perris.....	179
San Jacinto River near Elsinore.....	180
Temescal Creek near Corona.....	181
Temescal Creek at Corona.....	182
Chino Creek:	
San Antonio Creek near Claremont.....	183
San Antonio Creek below San Antonio Dam.....	185
Chino Creek at Schaeffer Avenue, near Chino.....	186
Cucamonga Creek near Upland.....	187
Cucamonga Creek near Mira Loma.....	188
Santa Ana River below Prado Dam.....	189
Carbon Creek below Carbon Canyon Dam.....	190
Santiago Creek at Modjeska.....	191
Santiago Creek at Santiago Dam, near Villa Park.....	192
Santiago Creek at Santa Ana.....	193
Santa Ana River at Santa Ana.....	194
SAN GABRIEL RIVER BASIN	
East Fork San Gabriel River (head of San Gabriel River) near Camp Bonita..	196
West Fork San Gabriel River at Camp Rincon.....	197
Fish Creek near Duarte.....	198
San Gabriel River below Santa Fe Dam, near Baldwin Park.....	199
Walnut Creek:	
Dalton Creek:	
San Dimas Creek below San Dimas Dam.....	200
Little Dalton Creek near Glendora.....	201
San Jose Creek near El Monte.....	202
San Gabriel River above Whittier Narrows Dam.....	203
Rio Hondo Flood-Flow Channel at Whittier Narrows Dam.....	204
San Gabriel River at Pico.....	205
San Gabriel River at Spring Street, near Los Alamitos.....	206
Coyote Creek:	
Brea Creek below Brea Dam, near Fullerton.....	207
Fullerton Creek below Fullerton Dam, near Brea.....	208
Fullerton Creek at Richman Avenue, near Fullerton.....	209
Coyote Creek at Los Alamitos.....	210
LOS ANGELES RIVER BASIN	
Los Angeles River at Sepulveda Dam.....	211
Pacoima Creek near San Fernando.....	212
Tujunga Creek:	
Mill Creek:	
North Fork Mill Creek near La Canada.....	213
Tujunga Creek below Mill Creek, near Colby Ranch.....	214
Tujunga Creek near Sunland.....	215
Little Tujunga Creek near San Fernando.....	216
Tujunga Creek below Hansen Dam.....	217
Los Angeles River at Los Angeles.....	218
Arroyo Seco near Pasadena.....	219
Los Angeles River near Downey.....	220
Rio Hondo:	
Santa Anita Creek near Sierra Madre.....	221
Rio Hondo above Whittier Narrows Dam.....	222
Rio Hondo near Montebello.....	223
Mission Creek near Montebello.....	224
Mission Creek below Whittier Narrows Dam.....	225

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
LOS ANGELES RIVER BASIN--Continued	
Rio Hondo below Whittier Narrows Dam.....	226
Rio Hondo near Downey.....	227
Los Angeles River at Long Beach.....	228
BALLONA CREEK BASIN	
Ballona Creek near Culver City.....	229
TOPANGA CREEK BASIN	
Topanga Creek near Topanga Beach.....	230
MALIBU CREEK BASIN	
Malibu Creek at Crater Camp, near Calabasas.....	231
CALLEGUAS CREEK BASIN	
Calleguas Creek:	
Arroyo Simi near Simi.....	232
Calleguas Creek at Camarillo State Hospital.....	233
SANTA CLARA RIVER BASIN	
Santa Clara River at Los Angeles-Ventura County line.....	234
Piru Creek above Lake Piru.....	235
Lake Piru near Piru.....	236
Piru Creek near Piru.....	237
Hopper Creek near Piru.....	238
Sespe Creek near Wheeler Springs.....	239
Sespe Creek near Fillmore.....	240
Santa Paula Creek near Santa Paula.....	242
Saticoy diversion near Saticoy.....	243
Santa Clara River at Montalvo.....	245
VENTURA RIVER BASIN	
Matilija Creek (head of Ventura River) at Matilija Hot Springs.....	246
North Fork Matilija Creek at Matilija Hot Springs.....	247
Ventura River near Meiners Oaks.....	248
San Antonio Creek at Casitas Springs.....	249
Coyote Creek near Oak View.....	250
Santa Ana Creek near Oak View.....	251
Coyote Creek near Ventura.....	252
Ventura River near Ventura.....	253
CARPINTERIA CREEK BASIN	
Carpinteria Creek near Carpinteria.....	255
ATASCADERO CREEK BASIN	
Atascadero Creek near Goleta.....	256
SAN JOSE CREEK BASIN	
San Jose Creek near Goleta.....	257
GAVIOTA CREEK BASIN	
Gaviota Creek near Gaviota.....	258
JALAMA CREEK BASIN	
Jalama Creek near Lompoc.....	259
SANTA YNEZ RIVER BASIN	
Santa Ynez River at Jameson Lake, near Montecito.....	260
Santa Ynez River above Gibraltar Dam, near Santa Barbara.....	261
Santa Ynez River below Gibraltar Dam, near Santa Barbara.....	262
Santa Ynez River below Los Laureles Canyon, near Santa Ynez.....	263
Santa Cruz Creek near Santa Ynez.....	264
Lake Cachuma near Santa Ynez.....	265
Santa Ynez River near Santa Ynez.....	266
Santa Agueda Creek near Santa Ynez.....	267
Alisal Creek near Solvang.....	268
Santa Ynez River at Solvang.....	269
Zaca Creek near Buellton.....	270
Santa Ynez River near Buellton.....	271
Santa Ynez River at Cooper's Reef, near Lompoc.....	272
Salsipuedes Creek near Lompoc.....	273
Santa Ynez River at narrows, near Lompoc.....	274
Santa Ynez River at 13th Street, near Lompoc.....	275
Santa Ynez River at Pine Canyon, near Lompoc.....	276

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

SAN ANTONIO CREEK BASIN

San Antonio Creek near Casmalia.....	277
San Antonio Creek tributary near Casmalia.....	278

SANTA MARIA RIVER BASIN

Cuyama River (head of Santa Maria River):	
Aliso Canyon Creek near New Cuyama.....	279
Cuyama River below Buckhorn Canyon, near Santa Maria.....	280
Alamo Creek near Nipomo.....	281
Huasna River near Arroyo Grande.....	282
Cuyama River below Twitchell Dam.....	283
Sisquoc River near Sisquoc.....	284
La Brea Creek near Sisquoc.....	285
Foxen Creek near Sisquoc.....	286
Tepusquet Creek near Sisquoc.....	287
Sisquoc River near Garey.....	288
Santa Maria River at Guadalupe.....	289

ARROYO GRANDE BASIN

Arroyo Grande above Phoenix Creek near Arroyo Grande.....	290
Wittenburg Creek near Arroyo Grande.....	291
Lopez Creek near Arroyo Grande.....	292
Tar Spring Creek near Arroyo Grande.....	293
Arroyo Grande at Arroyo Grande.....	294
Los Berros Creek near Nipomo.....	295

SANTA ROSA CREEK BASIN

Santa Rosa Creek near Cambria.....	296
------------------------------------	-----

ARROYO DE LA CRUZ BASIN

Arroyo de la Cruz near San Simeon.....	297
--	-----

BIG SUR RIVER BASIN

Big Sur River near Big Sur.....	298
---------------------------------	-----

CARMEL RIVER BASIN

Carmel River at Robles del Rio.....	299
Carmel River near Carmel.....	300
Arroyo del Rey at Del Rey Oaks.....	301

SALINAS RIVER BASIN

Salinas River near Pozo.....	302
Salsipuedes Creek near Pozo.....	303
Santa Margarita Lake near Pozo.....	304
Salinas River above Pilitas Creek, near Santa Margarita.....	305
Jack Creek near Templeton.....	306
Santa Rita Creek:	
Santa Rita Creek tributary near Templeton.....	307
Santa Rita Creek near Templeton.....	308
Salinas River at Paso Robles.....	309
Huerhuero Creek near Creston.....	310

Estrella River:

Cholame Creek near Shandon.....	311
Estrella River near Estrella.....	312
Nacimiento River near Bryson.....	313
Nacimiento River below Nacimiento Dam, near Bradley.....	314
San Antonio River near Lockwood.....	316
Reservoirs in Salinas River basin.....	317
Salinas River near Bradley.....	318
San Lorenzo Creek below Bitterwater Creek, near King City.....	319
Salinas River at Soledad.....	320
Arroyo Seco near Greenfield.....	321
Arroyo Seco near Soledad.....	322
Salinas River near Spreckels.....	323
El Toro Creek near Spreckels.....	324

PAJARO RIVER BASIN

Pajaro River:	
Cedar Creek near Bell Station.....	325
Pacheco Creek near Dunneville.....	326

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
PAJARO RIVER BASIN--Continued	
Pajaro River--Continued	
Llagas Creek near Morgan Hill.....	327
Pajaro River near Gilroy.....	328
Carnadero Creek:	
Uvas Creek above Uvas Reservoir, near Morgan Hill.....	329
Reservoirs in Pajaro River basin.....	330
Bodfish Creek near Gilroy.....	331
Uvas Creek near Gilroy.....	332
San Benito River near Willow Creek School.....	333
Pescadero Creek near Paicines.....	334
Tres Pinos Creek near Tres Pinos.....	335
San Benito River near Hollister.....	336
Pajaro River at Chittenden.....	337
Corralitos Creek near Corralitos.....	338
Corralitos Creek at Freedom.....	339
APTOS CREEK BASIN	
Aptos Creek at Aptos.....	340
SOQUEL CREEK BASIN	
Soquel Creek:	
West Branch Soquel Creek near Soquel.....	341
Soquel Creek near Soquel.....	342
Soquel Creek at Soquel.....	343
SAN LORENZO RIVER BASIN	
San Lorenzo River near Boulder Creek.....	344
Zayante Creek at Zayante.....	345
San Lorenzo River at Big Trees.....	346
MAJORS CREEK BASIN	
Majors Creek near Santa Cruz.....	347
LAGUNA CREEK BASIN	
Laguna Creek near Davenport.....	348
SAN VINCENTE CREEK BASIN	
San Vincente Creek near Davenport.....	349
SCOTT CREEK BASIN	
Scott Creek above Little Creek, near Davenport.....	350
PESCADERO CREEK BASIN	
Pescadero Creek near Pescadero.....	351
Butano Creek near Pescadero.....	352
SAN GREGORIO CREEK BASIN	
San Gregorio Creek at San Gregorio.....	353
PILARCITOS CREEK BASIN	
Pilarcitos Creek at Half Moon Bay.....	354
COLMA CREEK BASIN	
Colma Creek at South San Francisco.....	355
REDWOOD CREEK BASIN	
Redwood Creek at Redwood City.....	356
SAN FRANCISQUITO CREEK BASIN	
San Francisquito Creek below Ladera damsite, near Stanford University....	357
San Francisquito Creek at Stanford University.....	358
MATADERO CREEK BASIN	
Matadero Creek at Palo Alto.....	359
STEVENS CREEK BASIN	
Stevens Creek Reservoir near Monte Vista.....	360
GUADALUPE RIVER BASIN	
Alamitos Creek (head of Guadalupe River) near New Almaden.....	361
Guadalupe River:	
Ross Creek at San Jose.....	362
Reservoirs in Guadalupe River basin.....	363
Los Gatos Creek at Los Gatos.....	364
Guadalupe River at San Jose.....	365
Saratoga Creek at Saratoga.....	366

PACIFIC SLOPE BASINS IN CALIFORNIA--Continued

COYOTE CREEK BASIN	
Coyote Creek near Gilroy.....	367
Reservoirs in Coyote Creek basin.....	368
Coyote Creek near Madrone.....	369
Upper Penitencia Creek at San Jose.....	370
ALAMEDA CREEK BASIN	
Alameda Creek:	
Calaveras Creek:	
Arroyo Hondo near San Jose.....	371
Arroyo de la Laguna:	
Arroyo Mocho near Livermore.....	372
Arroyo Mocho near Pleasanton.....	373
Arroyo Valle above Lang Canyon, near Livermore.....	374
Arroyo Valle near Livermore.....	375
Arroyo Valle at Pleasanton.....	376
Arroyo de la Laguna near Pleasanton.....	377
Alameda Creek near Niles.....	378
Dry Creek at Union City.....	379
Patterson Creek at Union City.....	380
Alameda Creek at Union City.....	381
SAN LORENZO CREEK BASIN	
San Lorenzo Creek at Hayward.....	382
San Lorenzo Creek at San Lorenzo.....	383
CASTRO CREEK BASIN	
Castro Creek:	
Wildcat Creek at Richmond.....	384
RHEEM CREEK BASIN	
Rheem Creek at San Pablo.....	385
PINOLE CREEK BASIN	
Pinole Creek at Pinole.....	386
ARROYO DEL HAMBRE BASIN	
Arroyo del Hambre at Martinez.....	387
PACHECO CREEK BASIN	
Walnut Creek (head of Pacheco Creek):	
San Ramon Creek at San Ramon.....	388
San Ramon Creek at Walnut Creek.....	389
Walnut Creek at Concord.....	390
NAPA RIVER BASIN	
Napa River near St. Helena.....	391
Napa River near Napa.....	392
Napa Creek:	
Redwood Creek near Napa.....	393
SONOMA CREEK BASIN	
Sonoma Creek at Agua Caliente.....	394
NOVATO CREEK BASIN	
Novato Creek at Novato.....	395
CORTE MADERA CREEK BASIN	
Corte Madera Creek at Ross.....	396
ARROYO CORTE MADERA DEL PRESIDIO BASIN	
Arroyo Corte Madera del Presidio at Mill Valley.....	397
PINE CREEK BASIN	
Pine Creek at Bolinas.....	398
WALKER CREEK BASIN	
Walker Creek near Tomales.....	399
SALMON CREEK BASIN	
Salmon Creek at Bodega.....	400
RUSSIAN RIVER BASIN	
Russian River near Ukiah.....	401
East Fork Russian River near Calpella.....	402
Lake Mendocino near Ukiah.....	403
East Fork Russian River near Ukiah.....	404

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
RUSSIAN RIVER BASIN--Continued	
Russian River near Hopland.....	405
Russian River near Cloverdale.....	406
Big Sulphur Creek near Cloverdale.....	407
Maacama Creek near Kellogg.....	408
Russian River near Healdsburg.....	409
Dry Creek near Cloverdale.....	410
Dry Creek near Geyserville.....	411
Santa Rosa Creek near Santa Rosa.....	412
Laguna de Santa Rosa near Graton.....	413
Russian River near Guerneville.....	414
GUALALA RIVER BASIN	
South Fork Gualala River (head of Gualala River) near Annapolis.....	415
GARCIA RIVER BASIN	
Garcia River near Point Arena.....	416
NAVARRO RIVER BASIN	
Navarro River near Navarro.....	417
BIG RIVER BASIN	
Big River:	
South Fork Big River near Comptche.....	418
NOYO RIVER BASIN	
Noyo River near Fort Bragg.....	419
PUDDING CREEK BASIN	
pudding Creek near Fort Bragg.....	420
TENMILE RIVER BASIN	
Tenmile River:	
Middle Fork Tenmile River near Fort Bragg.....	421
MATTOLE RIVER BASIN	
Mattole River near Petrolia.....	422
EEL RIVER BASIN	
Eel River:	
Cold Creek:	
Cold Creek tributary near Elk Creek.....	423
Lake Pillsbury near Potter Valley.....	424
Eel River below Scott Dam, near Potter Valley.....	425
Potter Valley powerhouse tailrace near Potter Valley.....	426
Eel River at Van Arsdale Dam, near Potter Valley.....	427
Tomki Creek near Willits.....	428
Eel River near Dos Rios.....	429
Outlet Creek near Longvale.....	430
Middle Fork Eel River above Black Butte River, near Covelo.....	431
Black Butte River near Covelo.....	432
Mill Creek near Covelo.....	433
Elk Creek near Hearst.....	434
Middle Fork Eel River near Dos Rios.....	435
North Fork Eel River near Mina.....	436
Eel River at Fort Seward.....	437
South Fork Eel River near Branscomb.....	438
Elder Creek near Branscomb.....	439
Tenmile Creek near Laytonville.....	440
South Fork Eel River at Leggett.....	441
East Branch South Fork Eel River near Garberville.....	442
South Fork Eel River near Miranda.....	443
Bull Creek near Weott.....	444
Eel River at Scotia.....	445
Van Duzen River near Dinsmores.....	446
Van Duzen River near Bridgeville.....	447
Yager Creek near Carlotta.....	448
MAD RIVER BASIN	
Ruth Reservoir near Forest Glen.....	449
Mad River near Forest Glen.....	450

	Page
PACIFIC SLOPE BASINS IN CALIFORNIA--Continued	
MAD RIVER BASIN--Continued	
Mad River near Kneeland.....	451
Mad River near Arcata.....	452
LITTLE RIVER BASIN	
Little River at Crannell.....	453
REDWOOD CREEK BASIN	
Redwood Creek at Orick.....	454
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.....	455
KLAMATH RIVER BASIN	
Klamath River below John C. Boyle powerplant, near Keno, Oreg.....	456
Reservoirs in Klamath River basin.....	457
Klamath River below Iron Gate Dam.....	458
Cottonwood Creek at Hornbrook.....	459
Shasta River:	
Little Shasta River near Montague.....	461
Shasta River near Yreka.....	462
Scott River:	
East Fork Scott River at Callahan.....	463
Cedar Gulch near Callahan.....	464
Scott River near Fort Jones.....	465
Klamath River near Seiad Valley.....	466
Indian Creek near Happy Camp.....	467
Salmon River at Somes Bar.....	468
Klamath River at Orleans.....	469
Trinity River above Coffee Creek, near Trinity Center.....	470
Clair Engle Lake near Lewiston.....	471
Judge Francis Carr powerplant near French Gulch.....	472
Trinity River at Lewiston.....	473
North Fork Trinity River at Helena.....	474
Trinity River near Burnt Ranch.....	475
South Fork Trinity River:	
Hayfork Creek near Hyampom.....	476
South Fork Trinity River below Hyampom.....	477
Willow Creek near Willow Creek.....	478
Trinity River at Hoopa.....	479
Blue Creek near Klamath.....	481
Klamath River near Klamath.....	482
SMITH RIVER BASIN	
Smith River near Crescent City.....	483

WATER RESOURCES DATA FOR CALIFORNIA, 1970

PART 1. SURFACE-WATER RECORDS

INTRODUCTION

Surface water records for the 1970 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, W. G. Catlin, manager-secretary.
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.
Coachella Valley County Water District, Lowell O. Weeks, general manager-
chief engineer.
Contra Costa County Flood Control and Water Conservation District,
C. C. Rich, deputy chief engineer.
East Bay Municipal Utility District, D. G. Larkin, chief engineer-
assistant general manager.
Georgetown Divide Public Utility District, C. F. Gierau, general manager.
Imperial Irrigation District, R. F. Carter, general manager.
Kings River Conservation District, Vivian D. Kester, secretary.
Lake County Flood Control and Water Conservation District,
Willard D. Hansen, manager.
Madera Irrigation District, F. G. Bandy, secretary-manager.
Marin County, J. F. McInnis; chairman, board of supervisors.
Montecito County Water District, E. A. Elevatorski, general manager.
Monterey County Flood Control and Water Conservation District,
Loran Bunte, Jr., district engineer.
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,
B. H. Richter, chief.
San Benito County Water Conservation and Flood Control District,
Ralph E. Towle, secretary.
San Bernardino Valley Municipal Water District, Jack A. Beaver, manager.
San Bernardino Valley Water Conservation District, E. F. Dibble, engineer-
secretary.
San Diego (county), Department of Sanitation and Flood Control,
C. J. Houson, director.
San Diego (city), Water Utilities, Roy E. Dodson, director.
San Luis Obispo County Flood, George Protopapas, county engineer.
San Mateo County, Don S. Wilson, county engineer and road commissioner.
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. Currllin,
manager-counsel.
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, Andrew T. Petersen, president.
Siskiyou County, A. R. Cansino, district engineer.
Tehachapi-Cummings County Water District, Robert J. Jasper, secretary-
general manager.
Terra Bella Irrigation District, John E. Boudreau, manager.

Turlock Irrigation District, R. S. Tillner, secretary-general manager.
University of California (Berkeley), A. Starker Leopold, professor of zoology.
Ventura (county), Department of Public Works, A. P. Stokes, director.
Ventura River Municipal Water District, Robert McKinney, general manager-chief engineer.
Woodbridge Irrigation District, Kenneth S. Welsh, superintendent.

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; and the city and county of San Francisco.

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., Irvine Ranch, 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., United Water Conservation District, 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 1969 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

During the current year the runoff over the State averaged considerably above normal due primarily to holdover conditions from the preceding year of near-record runoff which produced extreme flooding in southern California and also because of heavy storms in northern and central California occurring December and January. These storms were accompanied by relatively high temperatures causing high runoff from premature snowmelt. For the remainder of the year precipitation was below normal and the temperatures were above normal. Runoff reduced gradually, becoming deficient in southern California near the end of the water year.

The effects of the previous year's heavy precipitation were clearly evident in the runoff patterns observed in October and November. Flows in October were well-above normal at all points reducing gradually to near-normal values by the end of November. This downward trend continued through December in southern California, but excessive runoff occurred in northern California in response to the December storms.

A series of warm heavy storms in January melted much of the snowpack from the December storms producing high sustained runoff in areas in northern and central California extending north along the coast from Santa Cruz and as far south as the Kings River drainage in the Sierra Nevada. Peaks in these areas ranged from 50 to 110 percent of previously recorded maximums, and runoff volumes were extremely high. Inflow into many major reservoirs was exceeded only by that which occurred in 1964. Maximum allowable releases were required at several reservoirs to maintain flood-control reserves. Minor flooding occurred in some communities on the Pit and North Fork Feather Rivers and in the bypass channels of the Sacramento River.

In contrast to the previous two months, the runoff in February was near or below normal over most of the State. Precipitation was below normal but temperatures were generally above normal, and since there was little snow left to melt at intermediate elevations the runoff from mountainous areas was less than normal.

Runoff for the remainder of the year was generally near or somewhat below normal over most of the State except in southern California where it became deficient. During the summer months hot dry weather and hot winds in southern California increased the usual fire hazard resulting in many destructive fires. In excess of one-third million acres of brush and timber land were burned in the mountainous areas. More than 300 homes were destroyed by fires and eight lives were lost.

The early high runoff filled most reservoirs in northern California and at the end of the year the contents of major reservoirs in that area, although about 90 percent of that a year ago, were still about 120 percent of average. Contents of reservoirs in southern California were generally low at the end of the year.

Figure 1 shows the runoff for index stations in California for the 1970 water year expressed in percentage of the 1930-60 median.

SELECTED REFERENCES

- 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.
- Corbett, D. M., and others, 1943, Stream-gaging procedure, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.
- Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

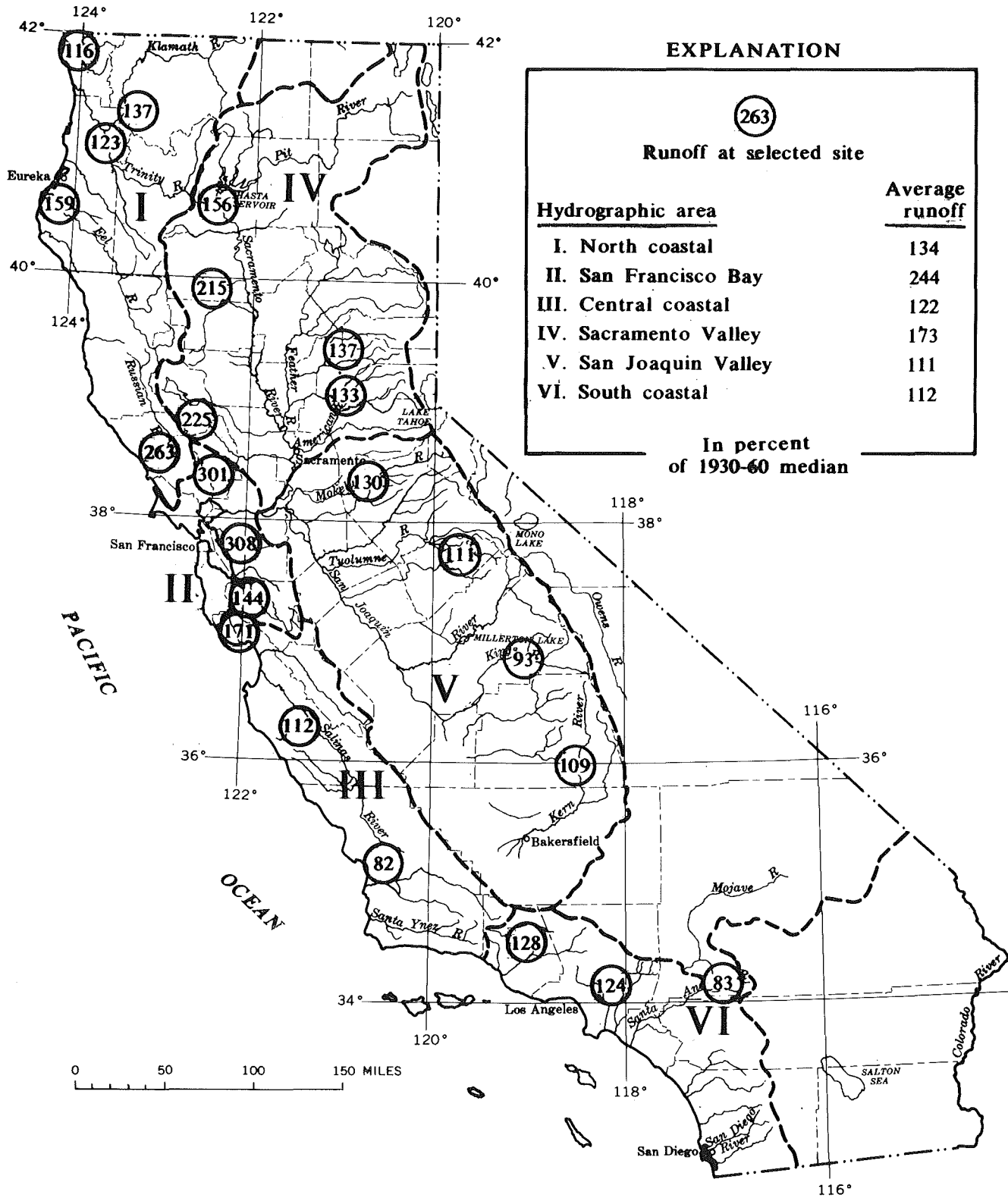


FIGURE 1.--Runoff for the 1970 water year.

COLORADO RIVER MAIN STEM

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

LOCATION.--Lat 35°11'30", long 114°34'17", in SE¹/₄NE¹/₄ 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).--21 years (1949-70), 12,880 cfs (9,332,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 26,600 cfs July 18 (elevation, 506.04 ft); minimum daily, 2,010 cfs Feb. 12.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,800	7,500	6,810	10,000	8,940	6,970	16,700	14,700	13,000	14,300	15,900	7,350
2	11,100	7,860	6,660	9,550	6,860	2,190	16,400	15,200	11,400	14,000	16,400	7,890
3	10,700	7,250	4,140	10,100	10,100	2,050	17,500	10,100	10,800	14,200	15,100	10,800
4	10,900	7,430	3,630	9,650	9,570	4,150	17,000	14,200	12,700	15,600	15,000	8,760
5	9,000	7,530	5,950	9,060	11,400	5,560	9,860	13,700	14,500	15,000	13,700	10,700
6	11,800	7,160	6,130	9,390	9,360	5,460	18,600	13,600	15,200	13,900	13,500	10,700
7	10,600	7,340	6,530	8,610	9,290	6,100	18,600	12,200	12,200	13,800	14,300	10,200
8	11,200	6,780	6,000	9,110	9,340	7,150	18,700	13,600	16,500	13,300	13,500	10,900
9	10,700	6,020	5,640	8,440	8,200	8,740	18,500	14,000	14,000	14,300	15,300	11,300
10	9,850	3,660	6,950	8,510	4,050	9,060	18,700	10,000	13,800	14,900	14,700	11,400
11	9,850	2,100	7,910	9,750	2,020	10,300	18,600	14,400	14,500	15,700	14,300	11,800
12	9,070	2,050	7,940	8,640	2,010	12,400	9,990	13,900	16,000	15,500	12,600	10,600
13	11,000	2,070	7,930	5,570	4,810	14,200	18,100	14,600	15,400	16,100	13,800	10,700
14	9,360	3,340	6,110	3,640	6,200	16,400	18,400	15,200	12,000	15,500	11,300	10,800
15	7,060	3,120	6,720	3,680	8,590	10,500	18,200	15,200	14,400	14,100	12,700	11,400
16	8,340	3,400	6,860	5,480	10,500	16,900	18,300	14,900	12,700	14,600	8,960	10,700
17	8,790	3,540	7,640	4,570	12,400	17,900	17,400	9,810	12,200	16,000	9,600	10,600
18	8,950	4,260	8,030	6,080	12,500	17,300	17,300	14,800	14,800	16,200	9,940	10,600
19	7,520	4,030	8,310	6,240	13,800	17,700	10,000	16,000	15,100	15,900	11,300	11,000
20	8,030	4,110	7,200	6,260	14,000	18,200	16,500	15,900	14,700	15,100	11,800	11,200
21	5,930	4,760	4,430	6,560	14,100	17,100	16,500	12,900	12,000	12,700	12,500	10,500
22	7,150	4,410	6,320	6,750	8,640	10,400	14,500	13,900	17,700	13,300	12,300	10,400
23	7,930	4,760	6,200	6,730	13,600	17,800	15,900	14,500	17,900	15,300	12,100	10,100
24	7,410	7,520	7,040	7,100	15,100	18,800	16,400	9,810	17,500	14,100	11,800	10,700
25	7,220	6,930	6,450	6,600	15,900	18,200	16,900	14,000	14,200	15,500	12,000	10,300
26	7,650	7,810	8,330	7,610	16,000	18,600	10,000	12,600	14,400	15,100	7,700	10,500
27	7,740	7,770	7,900	7,280	15,000	18,900	15,200	11,300	15,300	15,200	5,760	13,400
28	6,760	7,180	6,200	7,190	15,900	18,400	13,900	11,800	12,700	14,700	8,790	10,300
29	6,730	7,260	9,510	8,030	-----	9,730	14,000	12,300	18,600	15,000	12,300	11,300
30	7,500	5,560	9,370	8,990	-----	18,700	14,000	12,500	16,900	14,200	12,200	11,000
31	7,470	-----	9,610	8,610	-----	18,500	-----	11,700	-----	14,600	9,470	-----
TOTAL	274,110	164,510	214,450	233,780	288,180	394,360	480,650	413,320	433,100	457,700	380,620	317,900
MEAN	8,842	5,484	6,918	7,541	10,290	12,720	16,020	13,330	14,440	14,760	12,280	10,600
MAX	11,800	7,860	9,610	10,100	16,000	18,900	18,700	16,000	18,600	16,200	16,400	13,400
MIN	5,930	2,050	3,630	3,640	2,010	2,050	9,860	9,810	10,800	12,700	5,760	7,350
AC-FT	543,700	326,300	425,400	463,700	571,600	782,200	953,400	819,800	859,100	907,800	755,000	630,600
CAL YR 1969	TOTAL	3,988,080	MEAN	10,930	MAX	16,900	MIN	1,900	AC-FT	7,910,000		
WTR YR 1970	TOTAL	4,052,680	MEAN	11,100	MAX	18,900	MIN	2,010	AC-FT	8,038,000		

COLORADO RIVER MAIN STEM

09423500 COLORADO RIVER AT NEEDLES, CALIF.

LOCATION.--Lat 34°51'06", long 114°36'33", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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, 470.33 ft Mar. 28; minimum, 459.06 ft Nov. 14.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64.07	62.39	61.53	63.68	63.07	65.55	67.43	65.86	65.14	67.90	66.80	62.93
2	64.55	62.97	62.10	63.97	63.46	60.44	67.22	66.53	65.18	66.30	67.40	62.87
3	64.39	62.64	62.15	63.42	63.96	59.43	67.44	65.31	64.29	66.07	67.60	63.46
4	64.33	62.72	60.06	63.91	63.89	59.30	67.20	65.07	64.85	66.37	66.80	64.55
5	63.71	62.71	60.39	63.35	64.10	61.47	65.85	65.95	65.33	67.21	66.40	63.33
6	64.09	62.76	62.03	63.25	64.19	61.69	65.91	65.70	66.27	66.29	66.32	64.59
7	64.52	62.35	61.68	63.62	63.37	61.52	68.42	65.40	66.05	65.44	65.89	64.42
8	64.63	62.67	62.31	63.25	63.18	61.91	67.79	65.15	65.79	66.86	66.29	64.05
9	64.33	61.93	61.34	63.20	63.73	63.26	67.49	66.00	66.44	65.66	65.86	64.54
10	64.49	61.98	61.54	62.95	62.31	63.23	68.08	64.94	65.87	66.37	66.62	64.62
11	63.83	59.57	62.43	63.17	59.89	63.56	68.06	64.88	65.85	66.99	66.41	65.03
12	63.69	59.26	62.66	63.85	59.67	64.17	66.37	66.03	66.33	67.00	66.15	64.77
13	64.22	59.16	62.84	62.46	59.89	65.77	65.62	65.73	66.79	66.80	65.44	64.38
14	64.03	59.13	62.68	61.09	61.24	66.46	67.97	66.26	65.44	67.40	65.58	64.16
15	63.31	60.06	61.77	60.57	61.82	66.06	67.78	66.25	65.52	66.80	65.11	64.81
16	62.49	59.81	62.21	60.41	63.48	65.15	67.82	66.29	65.76	66.20	65.23	64.68
17	63.15	60.05	61.94	61.34	64.19	67.54	67.74	65.46	65.43	66.40	63.16	64.51
18	63.28	60.44	63.04	60.87	64.94	67.20	67.42	64.79	64.84	67.30	63.70	64.27
19	63.26	60.57	62.76	61.72	65.59	67.51	65.75	66.39	66.53	67.20	64.62	65.19
20	62.77	60.35	62.75	62.04	65.60	67.81	65.43	66.44	66.48	67.10	65.31	64.64
21	62.85	60.72	62.22	61.73	65.70	67.39	67.18	66.38	65.65	66.80	64.95	64.00
22	61.84	61.07	60.70	61.98	64.64	66.63	66.77	65.74	66.21	65.50	65.50	64.18
23	62.41	60.91	61.84	62.12	64.54	65.02	65.72	65.83	67.69	66.40	64.78	64.25
24	62.88	60.95	61.76	61.69	65.62	67.96	67.31	65.18	68.11	66.70	65.25	64.31
25	62.58	62.88	62.03	62.18	66.68	67.90	67.09	64.84	67.17	66.00	65.31	64.26
26	62.97	62.39	62.09	62.43	66.66	67.89	65.72	65.73	65.99	66.30	64.64	64.26
27	62.80	62.56	62.97	62.41	66.49	68.03	65.00	64.72	66.37	66.40	61.88	64.54
28	62.65	62.66	62.26	62.39	66.90	67.89	66.18	64.70	66.15	67.00	62.52	65.57
29	62.00	62.83	62.21	62.49	-----	66.47	66.17	64.99	66.90	67.00	64.38	64.25
30	62.51	62.15	63.49	62.77	-----	65.97	65.97	64.94	68.20	67.00	65.36	64.64
31	62.65	-----	63.49	63.27	-----	67.86	-----	64.99	-----	66.50	65.13	-----
MAX	64.63	62.97	63.49	63.97	66.90	68.03	68.42	66.53	68.20	67.90	67.60	65.57
MIN	61.84	59.13	60.06	60.41	59.67	59.30	65.00	64.70	64.29	65.44	61.88	62.87
MEAN	63.40	61.42	62.11	62.50	63.89	65.10	66.86	65.56	66.09	66.62	65.37	64.34

09424000 COLORADO RIVER NEAR TOPOCK, ARIZ.

LOCATION.--Lat 34°41'15", long 114°27'43", in SW¹/₄NW¹/₄ 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.

DRAINAGE AREA.--172,300 sq mi, approximately.

PERIOD OF RECORD.--January 1917 to current year. Daily mean elevations published since October 1938.

GAGE.--Water-stage recorder. Datum of gage is 423.02 ft above mean sea level; gage readings have been reduced to elevations above mean sea level. Prior to Dec. 3, 1922, at site about 1 mile upstream at different datum.

AVERAGE DISCHARGE.--17 years (1917-34), 20,260 cfs (14,670,000 acre-ft per year); 36 years (1934-70), 13,200 cfs (9,563,000 acre-ft per year), unadjusted.

EXTREMES.--Current year: Maximum discharge, 19,800 cfs Mar. 28 (elevation, 455.84 ft); minimum daily, 2,160 cfs Feb. 12; minimum elevation, not determined.

1917-34: Maximum discharge probably exceeded 200,000 cfs June 22, 1921; minimum, 1,480 cfs Aug. 17, 1934.

1934 to current year: Maximum discharge, 35,700 cfs Jan. 29, 1942; maximum elevation, 457.37 ft July 9, 1959; minimum discharge, 375 cfs Feb. 14, 1935; minimum daily, 422 cfs Feb. 14, 1935.

Discharge of about 300,000 cfs (based on determination at Lees Ferry gaging station) occurred about July 10, 1884. Discharge in excess of 400,000 cfs (estimated) probably occurred within the period 1857-68 and most likely in 1862.

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

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

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	9,870	6,990	5,360	8,850	8,070	13,800	17,400	13,500	11,600	15,700	14,200	9,080
2	10,500	7,320	5,930	9,350	7,940	6,670	16,000	14,400	12,200	14,300	15,000	7,750
3	10,700	7,470	6,400	9,200	9,450	2,820	15,700	14,200	11,300	13,800	14,900	8,300
4	10,200	7,370	3,980	9,400	9,350	2,320	16,500	11,600	11,000	14,000	14,500	10,300
5	10,100	7,280	3,350	8,900	9,200	3,940	15,600	13,700	12,300	15,200	13,900	9,190
6	9,050	7,580	5,500	8,530	10,100	5,230	11,500	13,700	13,400	14,100	13,200	10,100
7	10,900	7,030	5,590	8,780	8,880	5,020	17,200	13,500	13,600	13,700	13,100	10,300
8	10,100	7,110	6,300	8,280	8,580	5,860	17,500	12,800	12,300	14,000	13,600	9,790
9	10,600	6,570	5,610	8,350	8,810	6,990	17,000	13,800	14,200	13,000	13,100	10,200
10	10,100	6,240	5,350	7,940	7,950	8,170	17,300	13,500	13,000	13,900	14,200	10,600
11	9,200	3,860	6,550	7,890	3,820	8,680	17,500	11,400	12,700	14,600	14,100	10,800
12	9,150	2,700	7,220	8,880	2,160	9,820	16,400	13,700	13,600	14,900	13,800	11,000
13	9,130	2,510	7,490	7,870	2,180	12,100	11,000	13,300	14,400	14,600	12,500	10,300
14	10,200	2,430	7,390	5,550	4,310	13,600	15,700	13,600	13,700	15,200	13,000	10,100
15	8,930	3,320	6,220	3,930	5,800	14,900	16,600	13,800	12,200	14,600	11,700	10,500
16	7,320	3,320	6,530	3,710	7,800	10,700	16,600	14,100	13,400	13,800	12,300	10,800
17	8,010	3,320	6,460	5,080	9,400	15,500	16,600	13,700	12,500	13,900	9,720	10,300
18	8,550	3,450	7,220	4,510	10,700	16,400	16,000	10,800	12,100	15,000	10,000	10,100
19	8,580	4,150	7,680	5,610	11,300	16,600	15,100	13,300	13,800	15,200	9,890	11,100
20	7,580	4,030	7,620	5,970	12,300	17,300	10,600	14,100	14,200	15,100	11,300	10,900
21	7,780	4,100	7,010	5,950	12,500	17,500	14,800	14,200	13,600	14,300	11,200	10,200
22	6,360	4,790	4,680	6,160	12,200	16,400	14,500	12,700	12,400	12,600	11,700	10,100
23	6,950	4,320	5,920	6,400	8,900	10,900	13,300	13,000	15,600	13,000	11,300	10,300
24	7,660	4,510	6,030	6,110	11,500	16,300	14,900	13,100	16,800	14,300	11,500	10,300
25	7,350	6,800	6,590	6,530	13,400	17,700	15,000	10,700	16,100	13,700	11,400	10,500
26	7,390	6,530	6,180	6,420	14,100	17,600	15,000	12,800	13,700	14,400	11,200	10,300
27	7,820	7,110	7,600	6,970	14,100	17,800	11,100	12,000	14,000	14,300	7,730	10,500
28	7,730	6,800	7,160	6,630	14,100	18,000	13,900	11,400	14,400	14,500	6,860	12,800
29	6,760	6,950	6,050	6,780	-----	17,200	13,600	11,800	13,500	14,200	8,900	10,700
30	6,900	6,880	8,300	7,450	-----	11,800	13,600	12,000	17,100	14,200	11,400	11,100
31	7,320	-----	8,550	7,960	-----	16,800	-----	11,900	-----	13,800	11,300	-----

TOTAL	268,790	162,840	197,820	219,940	258,900	374,420	453,500	402,100	404,700	441,900	372,500	308,310
MEAN	8,671	5,428	6,381	7,095	9,246	12,080	15,120	12,970	13,490	14,250	12,020	10,280
MAX	10,900	7,580	8,550	9,400	14,100	18,000	17,500	14,400	17,100	15,700	15,000	12,800
MIN	6,360	2,430	3,350	3,710	2,160	2,320	10,600	10,700	11,000	12,600	6,860	7,750
AC-FT	533,100	323,000	392,400	436,300	513,500	742,700	899,500	797,600	802,700	876,500	738,900	611,500

CAL YR 1969 TOTAL 3,891,230 MEAN 10,660 MAX 16,100 MIN 2,100 AC-FT 7,718,000
 WTR YR 1970 TOTAL 3,865,720 MEAN 10,590 MAX 18,000 MIN 2,160 AC-FT 7,668,000

COLORADO RIVER MAIN STEM

09424000. Colorado River near Topock, Ariz.--Continued

MEAN ELEVATION, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.52	51.39	50.67	52.11	51.85	54.18	55.03	53.82	53.68	54.80	-	52.38
2	52.73	51.55	50.96	52.30	51.79	51.21	54.56	54.13	53.91	54.32	-	51.79
3	52.79	51.63	51.21	52.24	52.41	49.25	54.48	54.08	53.56	54.14	54.54	52.01
4	52.63	51.57	49.92	52.34	52.36	48.88	54.72	53.16	53.47	54.23	54.38	52.79
5	52.59	51.54	49.54	52.14	52.31	49.91	54.43	53.93	53.91	54.63	54.16	52.34
6	52.21	51.68	50.70	52.00	52.66	50.61	52.99	53.94	54.29	54.26	53.96	52.67
7	52.92	51.42	50.75	52.13	52.17	50.43	55.01	53.90	54.37	54.11	53.89	52.76
8	52.67	51.46	51.10	51.95	51.90	50.81	55.17	53.66	53.89	54.23	54.08	52.54
9	52.85	51.19	50.72	52.00	-	51.32	55.04	54.03	54.57	53.88	53.91	52.71
10	52.71	51.03	50.56	51.84	-	51.79	55.17	53.97	54.12	54.19	54.30	52.86
11	52.35	49.71	51.15	51.82	-	51.95	55.25	53.21	54.00	54.44	54.24	52.92
12	52.33	48.97	51.47	52.23	-	52.34	54.92	54.06	54.31	54.55	54.14	52.98
13	52.32	48.80	51.57	51.80	-	53.18	53.04	53.95	54.59	54.43	53.68	52.72
14	52.71	48.73	51.50	50.67	-	53.73	54.77	54.06	54.32	54.66	53.87	52.59
15	52.24	49.31	50.92	49.80	-	54.19	55.05	54.15	53.77	54.44	53.39	52.76
16	51.55	49.33	51.07	49.67	51.88	52.66	55.07	54.26	54.19	54.16	53.62	52.86
17	51.86	49.33	51.03	50.43	52.38	54.40	55.07	54.13	53.84	54.19	52.63	52.65
18	52.09	49.42	51.40	50.12	52.88	54.69	54.85	53.12	53.68	54.56	52.77	52.57
19	52.10	49.81	51.62	50.70	53.09	54.77	54.52	54.07	54.29	54.65	52.72	52.91
20	51.67	49.75	51.59	50.89	53.48	54.99	52.91	54.36	54.41	54.59	53.24	52.80
21	51.77	49.80	51.30	50.89	53.57	55.08	54.43	54.40	54.20	54.33	53.22	52.54
22	51.09	50.21	50.11	51.00	53.46	54.70	54.33	53.88	53.76	53.71	53.40	52.47
23	51.37	49.97	50.75	51.12	52.26	52.76	53.87	54.02	54.86	53.87	53.23	52.50
24	51.72	50.09	50.81	50.96	53.28	54.67	54.42	54.08	55.27	54.33	53.30	52.49
25	51.56	51.27	51.10	51.16	53.97	55.12	54.41	53.21	55.01	54.12	53.28	52.48
26	51.58	51.18	50.89	51.12	54.22	55.10	54.40	54.00	54.17	54.37	53.20	52.38
27	51.79	51.48	51.58	51.39	54.24	55.18	52.99	53.73	54.26	-	51.84	52.51
28	51.74	51.34	51.37	51.23	54.27	55.25	53.96	53.51	54.40	-	51.44	53.34
29	51.28	51.43	50.82	51.27	-----	54.97	53.86	53.67	54.08	-	52.33	52.54
30	51.35	51.42	51.89	51.59	-----	53.09	53.86	53.77	55.30	-	53.27	52.66
31	51.56	-----	51.99	51.80	-----	54.84	-----	53.78	-----	-	53.24	-----
MAX	52.92	51.68	51.99	52.34	54.27	55.25	55.25	54.40	55.30	-	-	53.34
MIN	51.09	48.73	49.54	49.67	-	48.88	52.91	53.12	53.47	-	51.44	51.79

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

DIVERSIONS FROM LAKE HAVASU

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

LOCATION.--Lat 34°18'58", long 114°09'23", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 154 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.--31 years, 744 cfs (539,000 acre-ft per year).

EXTREMES.--Period of record: Maximum daily diversion, 3,969 acre-ft (2,001 cfs) July 8 and Sept. 21, 1969; 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 1969 TO SEPTEMBER 1970

Month	Total percolation	Diversions			
		Maximum	Minimum	Mean	Total
October.....	316	3,437	3,076	3,273	101,461
November.....	276	3,832	2,960	3,252	97,550
December.....	310	3,889	2,889	3,322	102,967
CAL YR 1969.....	4,270	3,969	559	3,092	1,128,575
January.....	365	3,874	0	2,532	78,502
February.....	326	3,824	3,359	3,495	97,871
March.....	347	3,587	2,203	2,984	92,515
April.....	303	3,647	3,278	3,496	104,883
May.....	376	3,782	3,460	3,547	109,970
June.....	374	3,932	3,345	3,561	106,837
July.....	344	3,643	3,421	3,526	109,301
August.....	381	3,609	2,896	3,413	105,789
September.....	373	3,919	2,824	3,432	102,971
WER YR 1970.....	4,090	3,932	0	3,317	1,210,617

COLORADO RIVER MAIN STEM

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

LOCATION.--Lat 34°18'58", long 114°09'23", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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, 620,600 acre-ft June 18 (elevation, 450.60 ft); minimum, 528,100 acre-ft Feb. 25 (elevation, 445.73 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, reregulation 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	562,000	558,100	552,800	538,900	547,200	556,500	548,500	599,400	614,400	616,000	603,200	582,500
2	561,600	556,900	551,900	538,000	545,900	564,200	551,000	601,600	615,000	616,800	601,200	571,600
3	562,400	556,200	555,400	540,900	546,300	561,100	550,100	603,400	614,000	615,400	599,600	573,900
4	561,100	555,000	556,900	540,900	548,100	554,600	548,100	599,000	611,800	613,600	601,400	573,000
5	561,100	554,400	555,000	540,700	549,500	553,900	546,700	600,400	609,600	613,600	602,000	571,800
6	556,900	556,400	553,500	540,000	552,400	555,000	533,000	603,000	610,200	611,600	603,800	571,600
7	557,700	556,700	551,200	540,000	552,600	554,400	530,300	609,600	610,400	611,000	604,200	569,000
8	557,500	557,300	548,800	540,900	551,500	553,300	533,200	609,000	605,600	610,800	604,800	569,700
9	558,800	558,400	549,000	543,100	549,400	549,700	538,600	607,600	608,400	609,800	603,800	570,500
10	560,200	564,000	546,700	542,700	556,400	550,600	541,100	607,600	610,600	609,200	602,600	571,600
11	556,700	564,800	547,000	542,700	558,600	549,700	545,400	600,800	609,800	608,800	604,200	570,500
12	554,400	562,500	546,500	544,500	556,900	548,300	547,200	602,000	608,200	607,600	605,400	569,000
13	554,100	560,300	546,300	550,300	551,700	546,500	539,500	602,200	613,400	606,000	604,000	566,500
14	556,200	557,300	545,900	552,400	548,300	545,000	541,300	605,400	616,000	605,800	605,000	564,400
15	558,400	556,400	544,100	552,600	546,500	546,500	549,500	605,400	614,400	607,000	603,000	564,800
16	559,200	555,400	542,700	552,400	544,500	537,300	559,200	605,400	616,000	606,200	600,600	566,500
17	560,300	554,600	540,900	552,600	542,900	535,500	566,500	606,200	617,400	605,400	593,400	566,900
18	559,200	553,900	540,900	551,900	542,300	533,300	571,300	599,400	615,400	604,200	587,600	566,700
19	559,200	554,400	541,600	549,000	540,900	533,000	572,800	598,000	612,600	603,800	583,800	567,500
20	556,400	554,800	545,200	548,600	540,500	533,300	566,500	602,000	610,200	603,600	584,600	566,900
21	557,900	553,000	548,100	548,600	541,800	536,000	570,700	607,600	608,000	605,400	584,900	565,600
22	557,300	552,600	550,300	549,000	540,400	537,700	576,000	608,000	603,000	605,400	585,100	566,100
23	557,700	550,400	548,800	549,000	531,700	530,500	577,900	609,200	605,400	605,200	584,200	565,000
24	558,800	547,900	547,700	547,900	528,800	530,600	580,400	611,200	611,800	606,600	583,800	567,500
25	558,200	548,100	546,700	547,400	529,900	538,600	582,700	606,600	616,600	604,800	583,400	565,000
26	557,900	548,800	545,400	544,500	531,900	549,500	585,300	609,000	615,000	603,800	588,400	561,800
27	557,700	552,100	545,600	543,800	535,000	548,800	581,700	611,800	614,400	603,400	589,300	559,200
28	558,400	552,100	547,900	544,100	538,600	552,100	585,300	614,000	609,800	603,200	583,800	561,500
29	558,600	553,000	542,200	544,900	-----	553,700	588,700	614,600	606,200	603,200	579,200	558,800
30	559,400	555,000	540,000	545,900	-----	546,300	594,600	615,000	612,600	605,400	579,400	556,700
31	559,000	-----	538,900	546,300	-----	546,300	-----	616,400	-----	604,800	581,900	-----
MAX	562,400	564,800	556,900	552,600	558,600	564,200	594,600	616,400	617,400	616,800	605,400	582,500
MIN	554,100	547,900	538,900	538,000	528,800	530,500	530,300	598,000	603,000	603,200	579,200	556,700
(a)	-6,000	-4,000	-16,100	+7,400	-7,700	+7,700	+48,300	+21,800	-33,600	-7,800	-22,900	-25,200

CAL YR 1969..... a +1,200

WTR YR 1970..... a -8,300

a Change in contents, in acre-feet.

COLORADO RIVER MAIN STEM

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

ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	447.59	447.38	447.10	446.33	446.79	447.30	446.86	449.54	450.29	450.37	449.73	448.67
2	447.57	447.32	447.05	446.28	446.72	447.71	447.00	449.65	450.32	450.41	449.63	448.10
3	447.61	447.28	447.24	446.44	446.74	447.54	446.95	449.74	450.27	450.34	449.55	448.22
4	447.54	447.22	447.32	446.44	446.84	447.20	446.84	449.52	450.16	450.25	449.64	448.17
5	447.54	447.19	447.22	446.43	446.92	447.16	446.76	449.59	450.05	450.25	449.67	448.11
6	447.32	447.29	447.14	446.39	447.08	447.22	446.00	449.72	450.08	450.15	449.76	448.10
7	447.36	447.31	447.01	446.39	447.09	447.19	445.85	450.05	450.09	450.12	449.78	447.96
8	447.35	447.34	446.88	446.44	447.03	447.13	446.01	450.02	449.85	450.11	449.81	448.00
9	447.42	447.40	446.89	446.56	447.91	446.93	446.31	449.95	449.99	450.06	449.76	448.04
10	447.49	447.70	446.76	446.54	447.29	446.98	446.45	449.95	450.10	450.03	449.70	448.10
11	447.31	447.74	446.78	446.54	447.41	446.93	446.69	449.61	450.06	450.01	449.78	448.04
12	447.19	447.62	446.75	446.64	447.32	446.85	446.79	449.67	449.98	449.95	449.84	447.96
13	447.17	447.50	446.74	446.96	447.04	446.75	446.36	449.68	450.24	449.87	449.77	447.83
14	447.28	447.34	446.72	447.08	446.85	446.67	446.46	449.84	450.37	449.86	449.82	447.72
15	447.40	447.29	446.62	447.09	446.75	446.75	446.92	449.84	450.29	449.92	449.72	447.74
16	447.44	447.24	446.54	447.08	446.64	446.24	447.44	449.84	450.37	449.88	449.60	447.83
17	447.50	447.20	446.44	447.09	446.55	446.14	447.83	449.88	450.44	449.84	449.24	447.85
18	447.44	447.16	446.44	447.05	446.52	446.02	448.08	449.54	450.34	449.78	448.94	447.84
19	447.44	447.19	446.48	446.89	446.44	446.00	448.16	449.47	450.20	449.76	448.74	447.88
20	447.29	447.21	446.68	446.87	446.42	446.02	447.83	449.67	450.08	449.75	448.78	447.85
21	447.37	447.11	446.84	446.87	446.49	446.17	448.05	449.95	449.97	449.84	448.80	447.78
22	447.34	447.09	446.96	446.89	446.41	446.26	448.33	449.97	449.72	449.84	448.81	447.81
23	447.36	446.97	446.88	446.89	445.93	445.86	448.43	450.03	449.84	449.83	448.76	447.75
24	447.42	446.83	446.82	446.83	445.77	445.87	448.56	450.13	450.16	449.90	448.74	447.88
25	447.39	446.84	446.76	446.80	445.83	446.31	448.68	449.90	450.40	449.81	448.72	447.75
26	447.37	446.88	446.69	446.64	445.94	446.79	448.82	450.02	450.32	449.76	448.98	447.58
27	447.36	447.06	446.70	446.60	446.11	446.88	448.63	450.16	450.29	449.74	449.03	447.44
28	447.40	447.06	446.83	446.62	446.31	447.06	448.82	450.27	450.06	449.73	448.74	447.56
29	447.41	447.11	446.51	446.66	-----	447.15	449.00	450.30	449.88	449.73	448.50	447.42
30	447.45	447.22	446.39	446.72	-----	446.74	449.30	450.32	450.20	449.84	448.51	447.31
31	447.43	-----	446.33	446.74	-----	446.74	-----	450.39	-----	449.81	448.64	-----
MAX	447.61	447.74	447.32	447.09	447.91	447.71	449.30	450.39	450.44	450.41	449.84	448.67
MIN	447.17	446.83	446.33	446.28	445.77	445.86	445.85	449.47	449.72	449.73	448.50	447.31
CAL YR 1969				MAX 450.36	MIN 445.63							
WAT YR 1970				MAX 450.44	MIN 445.77							

COLORADO RIVER MAIN STEM

09427520 COLORADO RIVER BELOW PARKER DAM, CALIF.

LOCATION.--Lat 34°17'44", long 114°08'22", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ 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.

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

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."

GAGE.--Water-stage recorder. Datum of gage is 300.54 ft above mean sea level. Prior to Oct. 1, 1967, water-stage recorder at site 3.8 miles downstream at datum 346.23 ft above mean sea level (now used as supplementary gage).

AVERAGE DISCHARGE (unadjusted).--36 years, 12,480 cfs (9,042,000 acre-ft per year).

EXTREMES --Current year: Maximum discharge, 19,400 cfs Aug. 3 (gage height, 72.18 ft); minimum daily, 1,730 cfs Nov. 10.

Period of record: Maximum discharge, 42,400 cfs Feb. 8, 1937; no flow at Parker Dam for parts of several days in 1942 when gates in dam were closed; minimum daily discharge, 1,440 cfs Feb. 15, 1935.

An unregulated discharge of probably less than 1,350 cfs occurred Aug. 18, 1934 (lowest unregulated discharge since 1917 and probably since a much earlier date).

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 water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1313: 1941(M).

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	9,200	5,610	5,200	7,350	4,800	4,840	14,100	10,100	10,400	12,900	13,400	7,750
2	8,400	5,900	4,700	7,610	7,060	3,010	13,100	10,800	10,200	12,300	14,300	8,500
3	9,080	6,520	3,230	6,210	7,140	3,440	14,400	11,300	10,100	12,600	14,200	8,110
4	9,020	5,970	2,080	7,490	7,010	5,030	15,300	10,700	9,600	13,100	13,400	7,970
5	8,630	5,620	3,230	7,570	6,720	4,290	14,700	10,600	11,300	13,500	12,900	8,200
6	9,040	4,590	4,140	7,330	7,170	4,410	15,900	9,590	11,500	13,300	11,000	8,570
7	8,900	5,160	5,200	7,200	7,490	4,510	15,800	8,090	12,500	12,300	11,600	8,780
8	8,580	4,860	5,650	6,290	7,570	5,660	14,500	10,500	12,300	12,500	11,800	8,990
9	8,630	4,440	4,410	5,810	7,410	7,920	13,000	11,300	11,800	11,700	12,200	9,110
10	9,360	1,730	5,160	6,550	3,630	7,810	14,000	11,500	11,500	12,700	13,100	8,770
11	8,820	1,760	4,720	6,650	1,870	8,250	13,700	11,500	11,100	13,100	12,600	8,890
12	8,430	1,840	6,130	6,790	1,790	9,380	14,100	11,300	12,200	14,100	12,200	9,720
13	7,570	1,830	6,030	5,660	3,320	11,800	14,200	11,300	11,000	14,200	10,700	8,960
14	7,540	1,800	5,600	4,890	4,440	13,200	12,400	10,600	10,900	14,000	11,500	10,200
15	6,390	1,850	5,820	4,200	5,200	13,100	11,000	12,000	11,000	12,900	11,700	9,850
16	5,160	1,840	5,830	3,810	7,280	13,800	10,400	12,100	10,400	12,400	10,400	9,240
17	6,040	1,810	5,980	5,380	8,870	14,500	11,900	12,100	10,200	13,300	12,200	7,900
18	7,030	1,810	5,480	4,610	9,660	14,900	12,400	12,200	11,000	14,100	11,000	8,590
19	7,060	1,790	5,820	5,320	10,100	14,500	12,400	12,300	12,900	14,000	10,500	8,910
20	7,070	1,790	4,450	5,230	10,800	14,900	12,300	11,100	13,900	14,000	9,780	8,740
21	5,430	3,260	3,540	5,190	11,300	14,300	11,200	10,400	13,400	11,900	9,820	9,210
22	4,940	3,330	2,070	4,980	11,400	13,700	10,800	10,900	12,200	11,500	10,500	8,490
23	4,880	3,410	4,570	5,630	11,800	13,400	11,400	10,800	13,100	10,800	9,920	8,160
24	5,190	3,900	5,030	5,840	11,800	13,600	11,900	10,800	12,300	12,700	10,100	8,050
25	5,980	5,080	4,990	5,730	11,900	12,400	11,900	10,900	12,800	13,400	10,100	8,760
26	5,740	4,760	5,470	6,820	11,800	11,800	11,900	9,760	12,500	13,300	7,680	9,670
27	6,100	3,560	5,740	6,560	11,600	13,900	11,100	9,140	12,800	13,200	5,890	9,430
28	5,730	5,440	5,420	5,540	11,900	14,100	10,100	8,070	14,300	13,100	7,770	9,900
29	5,030	5,030	5,930	4,980	-----	14,500	9,850	9,510	13,900	12,700	9,180	10,000
30	4,410	4,670	7,330	5,710	-----	14,500	8,500	9,810	12,700	11,600	9,780	9,800
31	5,470	-----	7,500	6,070	-----	14,100	-----	10,200	-----	12,200	8,910	-----
TOTAL	218,850	110,960	156,450	185,000	222,830	329,550	378,250	331,270	355,800	399,400	340,130	267,220
MEAN	7,060	3,699	5,047	5,968	7,958	10,630	12,610	10,690	11,860	12,880	10,970	8,907
MAX	9,360	6,520	7,500	7,610	11,900	14,900	15,900	12,300	14,300	14,200	14,300	10,200
MIN	4,410	1,730	2,070	3,810	1,790	3,010	8,500	8,070	9,600	10,800	5,890	7,750
AC-FT	434,100	220,100	310,300	366,900	442,000	653,700	750,300	657,100	705,700	792,200	674,600	530,000
CAL YR 1969	TOTAL	3,245,730	MEAN	8,892	MAX	14,200	MIN	1,550	AC-FT	6,438,000		
WTR YR 1970	TOTAL	3,295,710	MEAN	9,029	MAX	15,900	MIN	1,730	AC-FT	6,537,000		

09428530 ARCH CREEK NEAR EARP, CALIF.

LOCATION.--Lat 34°09'55", long 114°22'20", in NE $\frac{1}{4}$ 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.

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

AVERAGE DISCHARGE.--10 years, 0.009 cfs (6.5 acre-ft per year); median of yearly mean discharges, 0.0025 cfs (1.8 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 366 cfs Mar. 1 (gage height, 8.22 ft), from rating curve extended as explained below; no flow all year except Feb. 28, Mar. 1, 2.

Period of record: Maximum discharge, 379 cfs July 6, 1968 (gage height, 8.38 ft), from rating curve based on computation of flow through culvert at gage heights 3.98, 5.00, 6.98, and 13.24 ft; 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 maximum flow through culvert).

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

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					0	15						
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	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					.03	0						
29					-----	0						
30					-----	0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	.03	15.07	0	0	0	0	0	0
MEAN	0	0	0	0	.001	.49	0	0	0	0	0	0
MAX	0	0	0	0	.03	15	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	.06	30	0	0	0	0	0	0
(a)	0	.7	0	.1	.6	1.9	0	0	0	.1	.2	0

CAL YR 1969 TOTAL 1.30 MEAN .0036 MAX 1.1 MIN 0 ACFT 2.6 a 3.6
 WAT YR 1970 TOTAL 15.10 MEAN .041 MAX 15 MIN 0 ACFT 30 a 3.6

a Precipitation, in inches.

TRIBUTARIES AND DIVERSIONS BETWEEN PARKER DAM AND PALO VERDE DAM

09429000 PALO VERDE CANAL NEAR BLYTHE, CALIF.

LOCATION.--Lat 33°43'54", long 114°30'43", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ 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 43 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.--20 years (1950-70), 1,188 cfs (860,700 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 1969 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,020	930	827	1,200	880	722	1,500	1,500	1,330	1,740	1,770	1,270
2	1,110	820	813	1,200	954	616	1,570	1,450	1,370	1,780	1,810	1,300
3	1,090	797	804	1,030	915	567	1,600	1,430	1,450	1,690	1,850	1,410
4	1,080	925	815	0	990	528	1,630	1,530	1,580	1,650	1,840	1,540
5	962	951	814	0	1,010	502	1,520	1,480	1,630	1,550	1,720	1,570
6	936	950	740	0	1,000	496	1,560	1,670	1,470	1,640	1,680	1,480
7	972	904	743	0	931	420	1,520	1,750	1,390	1,690	1,640	1,480
8	934	822	725	0	901	421	1,570	1,640	1,590	1,840	1,590	1,440
9	922	746	708	0	955	497	1,580	1,460	1,510	1,750	1,550	1,350
10	949	604	886	0	381	602	1,620	1,370	1,630	1,810	1,520	1,270
11	853	532	845	0	636	606	1,500	1,550	1,560	1,810	1,530	1,390
12	885	564	899	0	577	680	1,460	1,500	1,490	1,700	1,550	1,370
13	996	515	818	0	569	707	1,620	1,520	1,380	1,800	1,590	1,370
14	1,010	500	725	0	603	848	1,620	1,530	1,290	1,810	1,700	1,500
15	950	507	746	0	613	913	1,690	1,630	1,410	1,880	1,740	1,510
16	835	426	700	0	785	1,060	1,690	1,550	1,490	1,870	1,220	1,480
17	839	493	738	0	950	1,160	1,620	1,480	1,510	1,820	1,080	1,480
18	911	519	743	1,190	1,160	1,410	1,610	1,660	1,470	1,750	1,110	1,400
19	828	600	676	1,280	1,280	1,490	1,460	1,750	1,450	1,740	1,130	1,270
20	788	614	729	1,250	1,280	1,540	1,620	1,760	1,460	1,740	1,190	1,240
21	688	665	673	1,230	1,190	1,480	1,550	1,740	1,590	1,760	1,220	1,290
22	783	708	776	1,270	1,140	1,350	1,590	1,580	1,650	1,680	1,150	1,230
23	715	649	779	1,200	1,240	1,340	1,560	1,470	1,660	1,730	1,090	1,250
24	724	713	621	1,110	1,320	1,420	1,530	1,340	1,670	1,800	1,180	1,160
25	668	774	489	967	1,360	1,420	1,500	1,360	1,740	1,800	1,310	1,240
26	655	827	647	1,070	1,450	1,450	1,470	1,370	1,750	1,680	1,470	1,230
27	665	854	747	1,090	1,420	1,460	1,470	1,440	1,750	1,650	1,330	1,040
28	657	1,030	840	1,050	1,360	1,400	1,540	1,360	1,740	1,700	1,170	916
29	749	966	885	1,080	-----	1,300	1,540	1,210	1,720	1,820	1,130	1,050
30	855	753	1,100	1,100	-----	1,380	1,570	1,240	1,770	1,780	1,020	1,090
31	888	-----	1,160	998	-----	1,410	-----	1,180	-----	1,750	1,160	-----
TOTAL	26,917	21,658	24,211	19,365	28,350	31,195	46,880	46,500	46,490	54,210	44,030	39,616
MEAN	868	722	781	625	1,013	1,006	1,563	1,500	1,550	1,743	1,420	1,321
MAX	1,110	1,030	1,160	1,280	1,450	1,540	1,690	1,760	1,770	1,880	1,850	1,570
MIN	655	426	489	0	569	420	1,460	1,180	1,290	1,550	1,020	916
AC-FT	53,390	42,960	48,020	38,410	56,230	61,880	92,990	92,230	92,210	107,500	87,330	78,580
(a)	43,200	36,200	36,880	29,500	31,620	38,320	40,940	43,350	38,400	40,780	44,570	42,250

CAL YR 1969 TOTAL 447,943 MEAN 1,227 MAX 2,030 MIN 0 ACFT 888,500 a 494,900
WTR YR 1970 TOTAL 429,422 MEAN 1,176 MAX 1,880 MIN 0 ACFT 851,800 a 466,000

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 $\frac{1}{4}$ NE $\frac{1}{4}$ 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, 13,200 cfs Apr. 8; minimum daily, 1,360 cfs Nov. 19, 20.
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 SECCND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,710	4,420	3,460	5,450	5,260	10,700	10,700	6,720	7,610	9,320	9,250	6,120
2	8,100	4,590	3,950	5,510	5,290	4,470	11,300	8,090	8,020	9,480	10,300	5,610
3	6,880	4,840	3,530	5,670	6,310	2,590	10,700	8,740	7,390	8,980	11,000	6,060
4	7,280	5,000	1,830	6,820	6,390	3,290	11,600	8,770	7,310	9,410	10,200	5,680
5	7,300	4,620	1,510	5,940	5,950	4,090	12,500	8,330	6,870	10,200	9,540	5,420
6	6,050	4,550	2,490	6,800	6,050	3,460	12,000	7,710	8,640	10,100	8,010	5,830
7	7,250	3,540	3,230	6,970	6,110	3,660	13,100	6,580	8,900	9,800	7,460	6,150
8	7,350	4,100	3,930	6,000	6,320	3,730	13,200	6,020	9,600	8,970	8,010	6,380
9	6,830	4,040	4,390	5,600	6,480	4,720	10,500	8,010	9,280	9,180	8,270	7,180
10	7,530	3,480	3,230	5,800	6,010	6,380	11,100	9,000	9,150	8,480	8,810	6,320
11	7,380	2,120	3,540	6,130	2,380	6,280	11,200	8,880	8,500	9,250	9,530	6,420
12	7,440	1,790	3,490	6,190	1,450	6,660	11,400	8,660	8,720	9,910	9,050	6,460
13	6,840	1,700	4,770	6,130	1,510	7,730	11,900	8,880	9,360	10,400	8,610	7,010
14	6,030	1,420	4,890	6,000	2,640	10,100	10,900	8,570	8,490	10,500	7,490	6,570
15	6,030	1,600	4,450	5,000	3,340	10,900	9,580	8,150	8,610	10,000	8,050	7,410
16	5,180	1,700	4,720	4,000	3,710	10,800	9,080	9,280	8,550	9,480	8,720	7,250
17	4,140	1,600	4,650	4,200	5,270	11,800	8,240	9,750	8,100	9,360	10,100	6,800
18	4,780	1,530	4,830	3,610	6,570	11,500	9,300	9,200	7,490	10,600	9,200	6,100
19	5,680	1,360	4,560	3,750	7,210	12,000	10,200	9,320	8,210	10,500	7,070	6,500
20	5,790	1,360	4,700	4,180	7,870	11,700	10,000	9,050	10,400	10,800	7,550	6,800
21	5,870	1,480	3,470	4,070	8,100	11,900	9,940	8,170	10,200	10,500	6,990	6,700
22	4,420	2,460	2,780	4,060	8,940	11,700	8,840	7,730	10,400	8,730	7,430	7,020
23	4,070	2,710	2,180	3,930	9,140	11,100	8,610	8,100	10,200	8,340	7,910	6,380
24	4,020	2,290	3,910	4,560	9,250	10,300	9,060	8,290	9,780	7,910	7,770	6,420
25	4,340	2,840	4,390	4,920	9,360	11,200	9,510	8,250	9,100	9,580	6,920	6,470
26	5,110	4,030	4,120	5,090	9,060	9,580	9,630	8,220	9,590	10,200	7,210	6,650
27	4,730	3,340	4,280	5,570	8,970	9,590	9,350	7,330	9,760	10,200	4,490	7,500
28	5,070	2,560	4,440	5,370	9,210	11,100	8,760	6,720	9,350	10,200	3,700	7,330
29	4,700	3,910	4,170	4,470	-----	11,500	7,840	6,080	11,200	9,730	5,270	7,720
30	4,010	3,900	4,340	4,050	-----	11,900	7,240	7,170	9,830	9,320	6,530	8,220
31	3,480	-----	5,380	4,820	-----	11,900	-----	7,510	-----	8,540	7,020	-----
TOTAL	180,390	88,880	120,010	160,700	174,150	268,330	307,280	251,280	268,610	297,970	247,460	198,480
MEAN	5,819	2,963	3,871	5,184	6,220	8,656	10,240	8,106	8,954	9,612	7,983	6,616
MAX	8,100	5,000	5,380	6,970	9,360	12,000	13,200	9,750	11,200	10,800	11,000	8,220
MIN	3,480	1,360	1,510	3,610	1,450	2,590	7,240	6,020	6,870	7,910	3,700	5,420
AC-FT	357,800	176,300	238,000	318,700	345,400	532,200	605,500	498,400	532,800	591,000	490,800	353,700

WAT YR 1970 TOTAL 2,563,540 MEAN 7,023 MAX 13,200 MIN 1,360 ACFT 5,085,000

COLORADO RIVER MAIN STEM

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

LOCATION.--Forebay gage: Lat 32°53'29", long 114°27'57", in NW1SW1 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).--36 years (1934-70), 11,590 cfs (8,397,000 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 spurling 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.

DAY	DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234	264	164	61	164	1,650	334	497	222	317	322	242
2	234	264	164	62	164	4,340	334	332	322	481	322	242
3	234	264	333	61	164	5,040	334	332	222	479	322	242
4	234	264	437	61	164	2,110	334	232	222	524	322	242
5	234	264	401	62	164	244	334	232	222	400	322	242
6	234	264	164	63	164	314	484	232	222	480	374	242
7	244	264	164	63	154	721	484	474	222	317	552	242
8	244	264	164	102	154	684	334	232	222	317	489	242
9	244	264	182	249	154	362	590	232	222	317	327	242
10	244	1,760	237	397	384	344	855	232	388	317	327	242
11	244	1,830	110	244	901	344	604	232	388	317	327	242
12	244	1,020	80	65	899	344	334	232	222	317	327	242
13	244	446	62	65	980	344	334	232	222	317	487	242
14	244	504	48	66	283	344	334	232	222	317	332	242
15	244	869	27	65	154	344	334	232	489	317	332	242
16	244	1,160	27	85	254	344	334	232	405	317	332	242
17	244	556	27	96	254	344	334	232	317	317	332	326
18	244	591	27	97	254	344	334	232	317	317	332	317
19	254	255	37	97	254	344	367	232	317	317	416	242
20	254	164	61	98	254	334	416	482	317	317	572	242
21	254	302	61	98	254	334	581	397	317	480	411	242
22	254	172	61	98	254	518	498	398	317	480	337	242
23	254	172	60	98	254	846	334	232	317	463	337	242
24	254	172	60	98	254	334	334	232	317	317	342	242
25	254	172	60	98	254	334	334	232	317	317	342	242
26	254	170	61	165	244	334	334	232	317	317	342	242
27	254	165	61	164	244	334	334	315	317	317	342	242
28	254	165	62	176	244	334	498	232	317	317	342	242
29	256	165	63	165	-----	334	495	232	317	317	342	242
30	264	165	63	164	-----	334	662	232	317	482	342	250
31	264	-----	61	164	-----	334	-----	232	-----	317	242	-----
TOTAL	7,656	13,351	3,589	3,647	8,319	23,609	12,546	8,663	8,872	11,243	11,189	7,427
MEAN	247	445	116	118	297	762	418	279	296	363	361	248
MAX	264	1,830	437	397	980	5,040	855	497	489	524	572	326
MIN	234	164	27	61	154	244	334	232	222	317	242	242
AC-FT	15,190	26,480	7,120	7,230	16,500	46,830	24,880	17,180	17,600	22,300	22,190	14,730
(a)	6,785	3,777	4,751	5,732	6,340	9,074	11,380	8,785	9,224	10,130	9,387	7,386
(b)	417,200	224,700	292,100	352,500	352,100	558,000	676,900	540,200	548,900	622,600	577,200	439,500
(c)	6,350	9,530	2,600	6,320	4,940	7,120	6,400	8,130	4,390	7,550	7,860	4,190
(d)	-	-	-	-	-	-	-	-	388	837	140	0
CAL YR 1969	TOTAL 120,668	MEAN 331	MAX 1,840	MIN 27	ACFT 239,300	a7,757	b5,616,000	d -				
WAT YR 1970	TOTAL 120,111	MEAN 329	MAX 5,040	MIN 27	ACFT 238,200	a7,738	b5,602,000	d -				

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.

COLORADO RIVER BASIN STEM

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

LOCATION.--Lat 32°43'54", long 114°37'55", in SW¼SW¼ 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.--7 years, 890 cfs (644,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,040 cfs Mar. 3 (gage height, 15.05 ft); minimum daily, 260 cfs Jan. 17.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	644	719	575	383	664	593	963	1,410	948	547	487	1,570
2	660	678	585	371	670	3,190	923	1,410	841	551	535	1,370
3	648	734	575	371	668	4,630	902	1,340	865	572	614	1,320
4	662	696	568	375	671	4,090	629	1,290	837	685	550	1,060
5	638	748	607	371	668	1,450	606	1,310	882	570	554	1,030
6	657	706	575	367	684	696	595	1,320	877	531	578	1,020
7	643	721	694	359	652	865	611	1,280	887	545	514	1,050
8	658	712	1,020	363	653	994	809	1,230	888	542	522	1,020
9	678	687	1,280	400	657	883	610	1,050	906	534	525	1,030
10	641	1,200	1,300	408	613	659	608	915	921	526	898	999
11	720	2,180	1,340	400	991	644	602	888	1,230	562	804	977
12	687	2,000	749	363	1,290	650	759	897	410	709	577	999
13	697	815	387	343	828	1,030	571	911	427	584	514	995
14	737	660	375	277	725	1,010	575	936	406	535	473	1,020
15	719	850	359	294	930	719	572	933	403	518	506	987
16	727	1,350	355	284	1,230	687	567	952	432	527	523	579
17	760	1,080	335	260	545	679	545	972	434	541	521	570
18	772	836	331	273	760	681	903	947	470	554	512	548
19	731	721	312	602	860	615	1,060	953	706	533	522	551
20	692	649	343	860	616	624	698	989	655	530	501	558
21	677	683	375	707	551	630	634	988	519	520	516	549
22	710	689	422	646	571	632	629	1,020	491	505	468	551
23	704	662	367	624	566	634	629	978	492	505	489	521
24	701	627	359	629	546	567	839	1,000	513	510	504	515
25	681	672	359	618	566	577	804	962	514	510	504	518
26	669	629	339	654	554	613	620	985	510	540	532	513
27	687	596	335	675	549	874	640	992	520	818	595	507
28	751	599	351	679	543	885	584	978	508	673	608	492
29	706	592	339	698	-----	1,050	617	1,010	520	560	520	503
30	740	589	371	697	-----	1,030	1,490	1,010	530	512	599	530
31	726	-----	367	702	-----	989	-----	1,050	-----	501	1,440	-----
TOTAL	21,523	25,080	16,649	15,053	19,821	33,870	21,594	32,906	19,542	17,350	18,365	24,452
MEAN	694	836	537	486	708	1,093	720	1,061	651	560	592	815
MAX	772	2,180	1,340	860	1,290	4,630	1,490	1,410	1,230	818	1,440	1,570
MIN	638	589	312	260	543	567	545	888	403	501	468	492
AC-FT	42,690	49,750	33,020	29,860	39,310	67,180	42,830	65,270	38,760	34,410	36,430	48,500
CAL YR 1969	TOTAL 271,073		MEAN 743		MAX 2,180	MIN 312		AC-FT 537,700				
WTR YR 1970	TOTAL 266,205		MEAN 729		MAX 4,630	MIN 260		AC-FT 528,000				

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, 6,560 cfs Mar. 4; maximum elevation, 108.04 ft Mar. 4; minimum discharge, 495 cfs Sept. 28; minimum elevation, 101.88 ft Sept. 25.

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, 101.88 ft Sept. 25, 1970.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	718	701	650	2,160	700	2,520	3,660	1,400	1,190	2,360	2,650	1,490
2	700	708	650	2,140	710	4,130	3,640	1,400	1,110	2,380	2,620	1,400
3	718	671	660	2,270	680	6,050	3,680	1,430	1,130	2,400	2,600	1,400
4	704	738	637	2,290	721	6,040	3,680	1,380	1,080	2,400	2,600	1,210
5	700	708	670	2,320	690	3,170	3,640	1,400	1,110	2,400	2,600	1,140
6	707	743	650	2,360	710	2,270	3,620	1,420	1,110	2,410	2,650	1,130
7	692	707	721	2,380	700	2,560	3,670	1,420	1,110	2,360	2,640	1,160
8	716	731	1,040	2,350	690	2,630	3,680	1,400	1,100	2,380	2,640	1,160
9	722	731	1,380	2,390	710	2,340	3,700	1,240	1,120	2,380	2,650	1,170
10	686	1,010	1,420	2,360	922	2,360	3,720	1,100	1,110	2,380	2,640	1,160
11	734	1,890	1,410	2,350	2,000	2,400	3,700	1,090	1,440	2,400	2,620	1,120
12	720	1,900	1,440	2,330	2,470	2,380	3,750	1,110	1,780	2,350	2,620	1,120
13	731	923	1,440	2,390	1,080	2,380	3,700	1,110	2,020	2,360	2,620	1,130
14	753	646	1,410	2,380	754	2,380	3,700	1,120	2,040	2,350	2,620	1,140
15	746	785	1,370	2,390	1,000	2,380	3,680	1,110	2,050	2,610	2,620	1,200
16	750	1,300	1,370	2,350	1,380	2,730	3,670	1,110	2,040	2,590	2,590	660
17	765	1,160	1,380	2,000	1,740	2,830	3,680	1,110	2,050	2,620	2,600	611
18	798	811	1,370	1,640	2,010	2,960	3,690	1,110	2,060	2,610	2,590	598
19	769	753	1,350	1,380	2,010	3,260	3,620	1,110	2,040	2,640	2,650	590
20	747	635	1,360	1,020	1,980	3,580	3,640	1,100	2,040	2,640	2,660	600
21	736	668	1,400	782	2,000	3,670	3,680	1,110	2,050	2,620	2,660	604
22	762	721	1,470	700	2,000	3,660	3,720	1,120	2,050	2,620	2,650	600
23	756	646	1,400	703	2,010	3,660	3,700	1,120	2,080	2,620	2,640	620
24	753	644	1,410	690	2,010	3,600	3,440	1,140	2,050	2,600	2,650	610
25	719	672	1,420	680	2,060	3,610	3,100	1,120	2,060	2,620	2,650	600
26	712	645	1,400	690	2,080	3,620	2,760	1,110	2,080	2,640	2,510	590
27	696	650	1,380	710	2,180	3,600	2,330	1,130	2,080	2,620	2,240	580
28	701	643	1,400	710	2,180	3,580	2,000	1,130	2,080	2,640	2,050	574
29	688	649	1,440	721	-----	3,650	1,730	1,140	2,100	2,600	2,160	573
30	704	648	1,790	710	-----	3,670	1,430	1,160	2,200	2,650	1,810	610
31	733	-----	2,010	721	-----	3,670	-----	1,200	-----	2,830	1,410	-----
TOTAL	22,536	24,837	38,898	51,067	40,177	101,340	101,410	37,150	51,560	78,080	77,910	27,150
MEAN	727	828	1,255	1,647	1,435	3,269	3,380	1,198	1,719	2,519	2,513	905
MAX	798	1,900	2,010	2,390	2,470	6,050	3,750	1,430	2,200	2,830	2,660	1,490
MIN	686	635	637	680	680	2,270	1,430	1,090	1,080	2,350	1,410	573
AC-FT	44,700	49,260	77,150	101,300	79,690	201,000	201,100	73,690	102,300	154,900	154,500	53,850

CAL YR 1969 TOTAL 665,427 MEAN 1,823 MAX 3,910 MIN 596 ACFT 1,320,000
WAT YR 1970 TOTAL 652,115 MEAN 1,787 MAX 6,050 MIN 573 ACFT 1,293,000

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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

LOCATION.--Lat 32°52'34", 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.--11 years (1959-70), 1,196 cfs (866,500 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 1969 calendar year, water was used for irrigation of 96,761 acres divided as follows: North and South Gila Valleys, 16,114 acres; Yuma Mesa Division, 17,222 acres; Wellton-Mohawk Division, 60,124 acres; Yuma Mesa Auxiliary Division, 3,301 acres. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

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	1,420	624	960	411	466	914	2,030	1,430	1,670	1,850	1,840	1,630
2	1,340	649	1,090	670	705	378	1,970	1,250	1,600	1,670	1,800	1,740
3	1,240	970	751	796	827	325	1,680	1,060	1,930	1,680	1,900	1,660
4	1,060	928	391	780	986	395	1,290	1,620	1,920	1,560	2,040	1,660
5	926	1,020	316	700	1,110	299	929	1,840	1,780	1,430	2,130	1,580
6	1,330	747	313	925	975	255	1,760	1,840	1,790	1,780	2,090	1,300
7	1,580	832	313	1,020	828	262	1,890	1,800	1,510	2,060	1,900	1,650
8	1,460	644	500	740	539	212	1,830	1,780	1,750	1,910	1,690	1,670
9	1,420	421	513	509	1,150	727	2,070	1,550	1,790	1,760	1,620	1,590
10	1,240	158	583	433	1,030	665	1,690	1,280	1,760	1,970	1,920	1,600
11	1,040	307	614	328	764	926	1,420	1,800	1,810	1,750	1,960	1,560
12	933	355	511	670	762	935	1,390	1,860	1,750	1,490	1,770	1,450
13	1,040	254	407	865	665	954	1,910	1,850	1,460	1,720	1,910	1,110
14	1,280	180	323	806	462	901	1,860	1,900	1,390	1,820	1,940	1,770
15	1,350	198	750	690	331	841	1,780	1,810	1,620	1,970	1,640	1,890
16	1,050	127	803	627	649	1,420	1,760	1,540	1,660	1,940	1,330	1,900
17	827	521	900	308	770	1,810	1,450	1,420	1,580	1,860	1,590	1,670
18	630	485	877	333	948	1,690	1,210	1,850	1,730	1,690	1,730	1,630
19	409	846	837	589	909	1,710	934	2,000	1,690	1,400	1,710	1,430
20	887	807	552	622	962	1,620	1,650	1,900	1,570	1,790	1,580	1,210
21	1,100	60	598	667	852	1,280	1,640	1,910	1,450	1,890	1,550	1,450
22	1,180	4.3	723	644	709	1,030	1,780	1,750	1,740	1,900	1,210	1,530
23	1,170	1.0	581	476	1,200	1,340	1,810	1,590	1,830	1,970	1,250	1,520
24	985	.2	233	485	1,450	1,540	1,700	1,190	1,840	1,970	1,660	1,530
25	637	0	50	457	1,540	1,620	1,430	1,830	1,980	1,710	1,810	1,540
26	497	.1	538	971	1,320	1,650	1,410	1,880	2,000	1,470	1,850	1,150
27	953	540	704	1,040	1,180	1,180	1,760	1,790	1,630	1,880	1,690	1,010
28	1,040	694	701	1,150	1,180	852	1,810	1,700	1,250	2,050	1,610	1,540
29	919	918	821	1,060	-----	746	1,800	1,680	1,750	2,090	1,320	1,550
30	832	591	1,070	943	-----	1,520	1,650	1,470	1,780	2,090	1,130	1,580
31	645	-----	812	606	-----	1,810	-----	1,220	-----	2,100	1,440	-----
TOTAL	32,420	13,881.6	19,135	21,321	25,269	31,807	49,293	51,390	51,010	56,220	52,610	46,100
MEAN	1,046	463	617	688	902	1,026	1,643	1,658	1,700	1,814	1,697	1,537
MAX	1,580	1,020	1,090	1,150	1,540	1,810	2,070	2,000	2,000	2,100	2,130	1,900
MIN	409	0	50	308	331	212	929	1,060	1,250	1,400	1,130	1,010
AC-FT	64,310	27,530	37,950	42,290	50,120	63,090	97,770	101,900	101,200	111,500	104,400	91,440
CAL YR 1969	TOTAL	447,340.60	MEAN	1,226	MAX	2,080	MIN	0	AC-FT	887,300		
WTR YR 1970	TOTAL	450,456.60	MEAN	1,234	MAX	2,130	MIN	0	AC-FT	893,500		

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 SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.15 S., R.24 E., San Bernardino meridian, in California, Imperial County, on left bank 8,000 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.--29 years (1941-70), 7,008 cfs (5,077,000 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,030	4,390	3,090	5,060	4,360	6,130	9,970	7,020	5,830	8,380	7,910	5,460
2	6,190	4,100	3,290	5,360	4,420	4,340	10,200	7,020	6,140	8,310	7,720	5,550
3	6,140	4,320	3,320	5,680	4,790	3,770	10,100	6,580	6,180	7,570	7,790	5,430
4	6,280	4,140	3,390	5,560	4,950	3,700	10,300	6,800	6,750	7,370	8,360	4,860
5	6,080	4,460	3,550	5,600	5,190	3,270	10,000	6,900	6,490	7,440	8,450	5,330
6	6,030	4,470	3,180	6,000	5,330	3,290	9,990	7,330	6,490	7,570	8,120	5,340
7	6,080	4,300	3,070	6,150	5,390	3,290	10,500	6,890	6,460	7,710	8,130	4,890
8	6,220	4,290	3,140	6,050	5,070	3,450	10,100	6,560	6,660	8,000	7,640	5,060
9	6,370	3,850	3,250	5,940	5,210	3,540	10,200	6,500	6,810	8,310	7,420	5,110
10	6,410	1,850	3,680	5,980	4,360	4,370	9,970	6,110	6,940	7,930	7,110	5,230
11	6,420	1,740	4,110	5,480	4,180	4,930	10,100	6,170	6,940	7,930	7,390	5,230
12	6,120	1,900	4,140	4,980	3,760	6,310	9,940	6,530	7,160	7,650	7,650	5,550
13	6,130	1,710	4,440	5,280	2,490	6,510	10,100	7,320	7,200	7,880	7,770	5,660
14	6,110	1,710	4,410	5,320	2,680	7,160	9,760	7,520	7,310	7,850	7,650	5,760
15	5,850	1,480	4,630	5,700	2,830	7,630	10,100	7,460	7,270	8,400	7,630	5,750
16	5,810	1,470	4,650	5,290	2,810	8,270	10,000	7,390	7,210	8,560	7,200	5,590
17	5,710	1,530	4,560	4,870	3,820	8,730	9,380	7,090	7,220	8,330	7,440	5,760
18	5,440	1,490	4,920	4,230	4,380	9,340	8,810	7,420	7,380	8,270	7,610	5,610
19	5,050	1,720	4,640	4,020	5,190	10,000	8,250	7,480	7,180	8,130	7,690	5,630
20	5,150	1,970	4,570	3,690	6,000	10,300	8,540	7,370	7,550	8,260	8,090	5,440
21	5,110	2,380	4,710	3,820	6,400	10,300	8,520	7,400	7,620	8,380	7,870	5,480
22	5,030	2,520	4,810	4,020	6,430	10,000	8,520	6,980	7,980	8,340	7,800	5,850
23	5,130	2,630	4,290	4,160	6,720	10,000	9,050	6,820	8,040	8,460	7,200	5,900
24	4,360	2,740	3,620	4,340	6,970	10,000	8,890	6,570	7,980	7,770	7,020	5,970
25	4,350	3,060	2,870	4,090	7,180	9,990	8,640	6,450	8,030	7,540	6,970	5,740
26	4,210	3,010	3,480	3,930	7,660	10,100	8,360	6,660	7,890	7,350	6,940	5,950
27	4,210	3,340	4,040	4,030	7,650	9,840	8,070	6,620	7,860	7,320	6,420	6,100
28	4,580	3,340	3,970	4,130	7,720	9,210	7,950	6,820	7,770	7,440	5,730	6,040
29	4,390	3,110	4,410	4,650	-----	9,040	7,850	6,300	8,130	7,740	5,750	6,320
30	4,810	3,050	5,090	4,680	-----	9,480	7,260	6,240	8,180	7,850	5,270	6,470
31	4,460	-----	5,230	4,640	-----	9,600	-----	5,970	-----	7,970	5,400	-----
TOTAL	170,260	86,070	124,550	152,730	143,940	225,890	279,420	212,290	216,650	246,010	227,140	168,060
MEAN	5,492	2,869	4,018	4,927	5,141	7,287	9,314	6,848	7,222	7,936	7,327	5,602
MAX	6,420	4,470	5,230	6,150	7,720	10,300	10,500	7,520	8,180	8,560	8,450	6,470
MIN	4,210	1,470	2,870	3,690	2,490	3,270	7,260	5,970	5,830	7,320	5,270	4,860
AC-FT	337,700	170,700	247,000	302,900	285,500	448,100	554,200	421,100	429,700	488,000	450,500	333,300
CAL YR 1969	TOTAL 2,263,220	MEAN 6,201	MAX 9,980	MIN 1,470	ACFT 4,489,000							
WAT YR 1970	TOTAL 2,253,010	MEAN 6,173	MAX 10,500	MIN 1,470	ACFT 4,469,000							

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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

LOCATION.--Lat 32°44'15", long 114°42'56", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	1,680	0	1,890	2,900		0	1,490	1,780	
2		0	0	1,680	0	1,900	2,900		0	1,470	1,710	
3		0	0	1,780	0	1,900	2,920		0	1,470	1,610	
4		0	0	1,780	0	1,900	2,950		0	1,360	1,670	
5		0	0	1,820	0	1,410	2,900		0	1,490	1,710	
6		0	0	1,870	0	1,600	2,900		0	1,500	1,690	
7		0	0	1,870	0	1,700	2,930		0	1,490	1,720	
8		0	0	1,850	0	1,700	2,610		0	1,520	1,740	
9		0	0	1,860	0	1,340	2,800		0	1,520	1,760	
10		6.0	0	1,870	298	1,550	2,830		0	1,490	1,470	
11		0	0	1,850	1,190	1,600	2,850		0	1,490	1,450	
12		0	513	1,880	1,380	1,620	2,730		1,170	1,310	1,670	
13		0	962	1,960	22	1,260	2,850		1,390	1,430	1,760	
14		0	961	1,990	0	1,270	2,830		1,400	1,470	1,820	
15		0	961	1,990	0	1,570	2,840		1,400	1,720	1,810	
16		0	962	1,920	47	1,950	2,880		1,360	1,700	1,750	
17		0	959	1,600	1,170	2,060	2,880		1,380	1,720	1,750	
18		0	961	1,200	1,240	2,250	2,600		1,340	1,690	1,800	
19		0	960	671	1,130	2,550	2,320		1,060	1,690	1,860	
20		0	960	0	1,320	2,830	2,660		1,080	1,710	1,850	
21		0	962	0	1,400	2,890	2,770		1,210	1,710	1,810	
22		0	963	0	1,400	2,850	2,790		1,250	1,710	1,860	
23		0	961	0	1,400	2,860	2,790		1,300	1,760	1,810	
24		0	960	0	1,420	2,900	2,290		1,270	1,760	1,800	
25		0	961	0	1,450	2,930	1,960		1,280	1,700	1,800	
26		0	962	0	1,480	2,890	1,800		1,290	1,660	1,670	
27		0	961	0	1,600	2,590	1,480		1,280	1,410	1,120	
28		0	961	0	1,610	2,620	1,210		1,300	1,520	1,160	
29		0	1,060	0	-----	2,760	1,050		1,280	1,640	1,340	
30		0	1,370	0	-----	2,850	0		1,360	1,690	1,100	
31		-----	1,540	0	-----	2,880	-----		-----	1,990	0	-----
TOTAL	0	6.0	19,860	33,121	19,557	66,870	74,220	0	24,400	49,280	49,850	0
MEAN	0	.20	641	1,068	698	2,157	2,474	0	813	1,590	1,608	0
MAX	0	6.0	1,540	1,990	1,610	2,930	2,950	0	1,400	1,990	1,860	0
MIN	0	0	0	0	0	1,260	0	0	0	1,310	0	0
AC-FT	0	12	29,390	65,700	38,790	132,600	147,200	0	48,400	97,750	98,880	0
(a)	0	12	0	0	0	0	0	0	0	0	0	0
CAL YR 1969	TOTAL	338,729.0	MEAN	928	MAX	3,060	MIN	0	ACFT	671,900		a 111
WAT YR 1970	TOTAL	337,164.0	MEAN	924	MAX	2,950	MIN	0	ACFT	668,800		a 12

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 NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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.--9 years, 4,648 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 1969 TO SEPTEMBER 1970												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,010	3,610	2,590	2,960	3,560	3,740	6,160	5,420	4,820	5,970	5,190	4,130
2	5,080	3,460	2,740	3,130	3,610	2,220	6,320	5,470	4,980	5,930	5,190	4,200
3	5,050	3,420	2,850	3,490	3,890	1,550	6,210	5,490	4,890	5,280	5,340	4,070
4	5,220	3,430	2,960	3,440	3,930	1,490	6,490	5,550	5,200	5,300	5,730	3,690
5	5,120	3,440	3,070	3,380	4,140	1,540	6,350	5,410	5,080	5,360	5,820	4,120
6	5,020	3,540	2,740	3,600	4,270	1,460	6,280	5,470	5,140	5,400	5,650	4,290
7	5,040	3,400	2,450	3,780	4,420	1,400	6,610	5,070	5,150	5,440	5,600	3,850
8	5,220	3,380	2,260	3,760	4,270	1,560	6,540	4,760	5,260	5,480	5,190	3,860
9	5,300	3,110	2,400	3,640	4,320	1,910	6,580	4,910	5,420	5,790	5,000	3,870
10	5,450	1,630	2,610	3,700	3,370	2,350	6,450	4,760	5,460	5,500	4,860	4,000
11	5,420	1,560	2,930	3,350	2,550	2,770	6,490	4,890	5,470	5,550	5,000	3,970
12	5,440	1,660	2,900	2,850	1,970	4,010	6,440	5,150	5,120	5,570	5,080	4,240
13	5,380	1,470	2,980	2,970	1,860	4,590	6,410	5,780	5,060	5,580	5,110	4,350
14	5,280	1,490	3,060	2,990	1,690	5,210	6,200	6,070	5,140	5,510	5,030	4,420
15	5,050	1,340	3,250	3,280	1,930	5,560	6,410	6,060	5,090	5,700	5,120	4,530
16	4,760	1,260	3,320	3,030	1,830	5,780	6,290	6,010	5,020	5,780	5,010	4,650
17	4,580	1,530	3,180	2,980	2,320	6,090	5,710	5,830	5,030	5,640	5,150	4,870
18	4,400	1,380	3,370	2,860	2,610	6,300	5,440	5,990	5,190	5,580	5,250	4,810
19	4,150	1,620	3,210	2,800	3,200	6,420	5,450	5,990	5,240	5,530	5,190	4,810
20	4,260	1,680	3,170	2,890	3,730	6,350	5,420	5,810	5,630	5,590	5,270	4,610
21	4,220	2,100	3,320	3,020	4,060	6,430	5,120	5,840	5,650	5,700	5,170	4,680
22	4,210	2,240	3,390	3,150	4,280	6,490	5,220	5,570	5,840	5,730	5,120	4,900
23	4,360	2,210	2,860	3,380	4,640	6,570	5,430	5,500	5,850	5,790	4,870	4,980
24	3,700	2,260	2,270	3,480	4,850	6,410	5,520	5,330	5,840	5,190	4,660	5,060
25	3,650	2,390	1,630	3,400	4,990	6,370	5,600	5,240	5,870	5,060	4,650	4,860
26	3,600	2,360	2,170	3,240	5,190	6,400	5,870	5,340	5,770	4,970	4,770	5,070
27	3,690	2,690	2,620	3,280	5,130	6,430	5,710	5,280	5,720	5,150	4,820	5,260
28	3,800	2,770	2,600	3,380	5,270	5,960	5,880	5,440	5,640	5,040	4,060	5,220
29	3,670	2,500	2,870	3,560	-----	5,760	5,870	4,960	5,910	5,140	3,920	5,390
30	3,770	2,480	3,080	3,630	-----	6,020	5,460	4,880	5,920	5,160	3,710	5,490
31	3,620	-----	3,120	3,660	-----	6,040	-----	4,740	-----	5,110	4,280	-----
TOTAL	142,520	71,410	87,970	102,060	101,880	141,180	179,930	168,010	161,400	169,520	154,810	136,250
MEAN	4,597	2,380	2,838	3,292	3,639	4,554	5,998	5,420	5,380	5,468	4,994	4,542
MAX	5,450	3,610	3,390	3,780	5,270	6,570	6,610	6,070	5,920	5,970	5,820	5,490
MIN	3,600	1,260	1,630	2,800	1,690	1,400	5,120	4,740	4,820	4,970	3,710	3,690
AC-FT	282,700	141,600	174,500	202,400	202,100	280,000	356,900	333,200	320,100	336,200	307,100	270,300
CAL YR 1969	TOTAL	1,621,610	MEAN	4,443	MAX	6,370	MIN	1,000	ACFT	3,216,000		
WAT YR 1970	TOTAL	1,616,940	MEAN	4,430	MAX	6,610	MIN	1,260	ACFT	3,207,000		

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.

09525000. YUMA MAIN CANAL WASTEWAY.--See daily table elsewhere in this report.

09527000. PILOT KNOB POWERPLANT AND WASTEWAY.--See daily table elsewhere in this report.

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-flow meter 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 determined from pump rating.

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 NW $\frac{1}{4}$ 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 1970 water year 3,240 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 total-flow meter 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 total-flow meter 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-flow meter 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 to September 1970.
 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 (M.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.--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

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.--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).

09532000. COOPER WASTEWAY.

LOCATION.--Water-stage recorder and weir, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.28, T.8 S., R.24 W., 0.4 mile downstream from Morelos Dam.

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).

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 Parshall flume 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.

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).

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).

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

MONTHLY RETURN FLOWS, IN ACRE-FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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.....	2.7	94	1,080	31	318	3,230
November.....	7.3	83	1,030	29	256	2,980
December.....	283	74	950	25	237	2,580
CAL YR 1969.....	5,270	1,400	12,880	435	3,300	35,930
January.....	1,050	65	934	25	219	2,420
February.....	801	56	835	22	197	2,330
March.....	1,570	89	978	27	215	2,930
April.....	1,190	93	1,100	30	230	3,020
May.....	354	104	1,130	31	267	3,380
June.....	450	96	1,060	30	274	3,140
July.....	594	104	1,050	33	293	3,540
August.....	403	105	1,020	34	311	3,740
September.....	6.2	82	873	30	283	2,800
WTR YR 1970.....	6,720	1,040	12,040	347	3,100	36,090

Month	Yuma Mesa Outlet Drain 09530200	Reservation Drain No. 11 09530400	Drain 8-B 09530500	M.O.D.E. 2 (above Morelos Dam) 09531800	M.O.D.E. 3 (below Morelos Dam) 09531900
October.....	0	28	145	0	17,940
November.....	0	46	196	0	18,480
December.....	0	24	138	2,660	16,370
CAL YR 1969.....	0	313	1,320	98,000	105,100
January.....	0	11	90	3,760	14,890
February.....	0	7.1	72	2,220	13,460
March.....	0	28	106	8,270	8,080
April.....	0	18	161	14,060	1,580
May.....	0	14	139	5,940	11,210
June.....	0	11	112	9,520	7,530
July.....	63	17	126	15,060	3,460
August.....	300	15	122	14,720	2,800
September.....	486	6.9	113	3,050	13,560
WTR YR 1970.....	849	226	1,520	79,270	129,400

Month	Cooper Wasteway 09532000	Eleven Mile wasteway 09532500	Twenty-one Mile wasteway 09533000	Main Drain 09534000	East Main Canal wasteway 09534500
October.....	125	383	242	11,810	585
November.....	43	716	318	10,830	505
December.....	63	226	85	10,240	436
CAL YR 1969.....	1,110	3,650	2,240	128,800	5,340
January.....	62	369	222	10,020	499
February.....	110	265	207	9,610	512
March.....	70	272	223	11,190	346
April.....	94	259	249	11,320	343
May.....	106	160	194	12,010	288
June.....	73	152	113	11,330	377
July.....	65	210	159	11,400	310
August.....	69	369	174	11,060	535
September.....	99	117	152	10,930	282
WTR YR 1970.....	979	3,500	2,340	131,800	5,020

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 1969 TO SEPTEMBER 1970

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	251	510	27	58
November.....	0	31	417	24	43
December.....	0	97	369	18	70
CAL YR 1969.....	24	2,180	6,330	370	472
January.....	0	96	323	21	55
February.....	0	173	305	13	41
March.....	0	93	369	26	61
April.....	0	132	377	48	30
May.....	0	147	430	55	40
June.....	0	171	530	48	29
July.....	0	181	593	43	27
August.....	0	166	430	53	213
September.....	0	145	514	43	48
WTR YR 1970.....	0	1,680	5,170	419	715

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.....	22	2.5	18	260	38
November.....	50	2.0	60	621	2.4
December.....	16	69	43	1,900	3.4
CAL YR 1969.....	1,380	13,980	443	18,470	2,030
January.....	18	1,270	6	1,760	60
February.....	14	561	17	1,380	15
March.....	12	2,230	49	2,560	88
April.....	14	2,170	42	2,280	0
May.....	31	9.2	37	460	.5
June.....	7.5	535	18	811	6.4
July.....	.7	1,490	25	2,510	0
August.....	159	363	31	1,540	16
September.....	13	16	24	13	41
WTR YR 1970.....	356	8,710	370	16,110	270

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.....	17,460	17,010	1,330	30	91
November.....	17,730	17,060	2,170	23	66
December.....	19,910	19,100	2,590	15	40
CAL YR 1969.....	218,300	210,100	25,370	328	1,210
January.....	19,520	18,890	2,520	6.1	18
February.....	16,100	15,790	2,120	6.3	13
March.....	18,500	18,240	2,500	47	29
April.....	18,090	17,690	2,300	85	88
May.....	17,430	17,230	1,160	30	53
June.....	17,650	17,220	2,330	23	59
July.....	19,300	18,650	2,650	18	56
August.....	18,190	17,570	2,390	24	45
September.....	16,990	16,620	2,230	59	86
WTR YR 1970.....	216,900	211,100	26,290	366	644

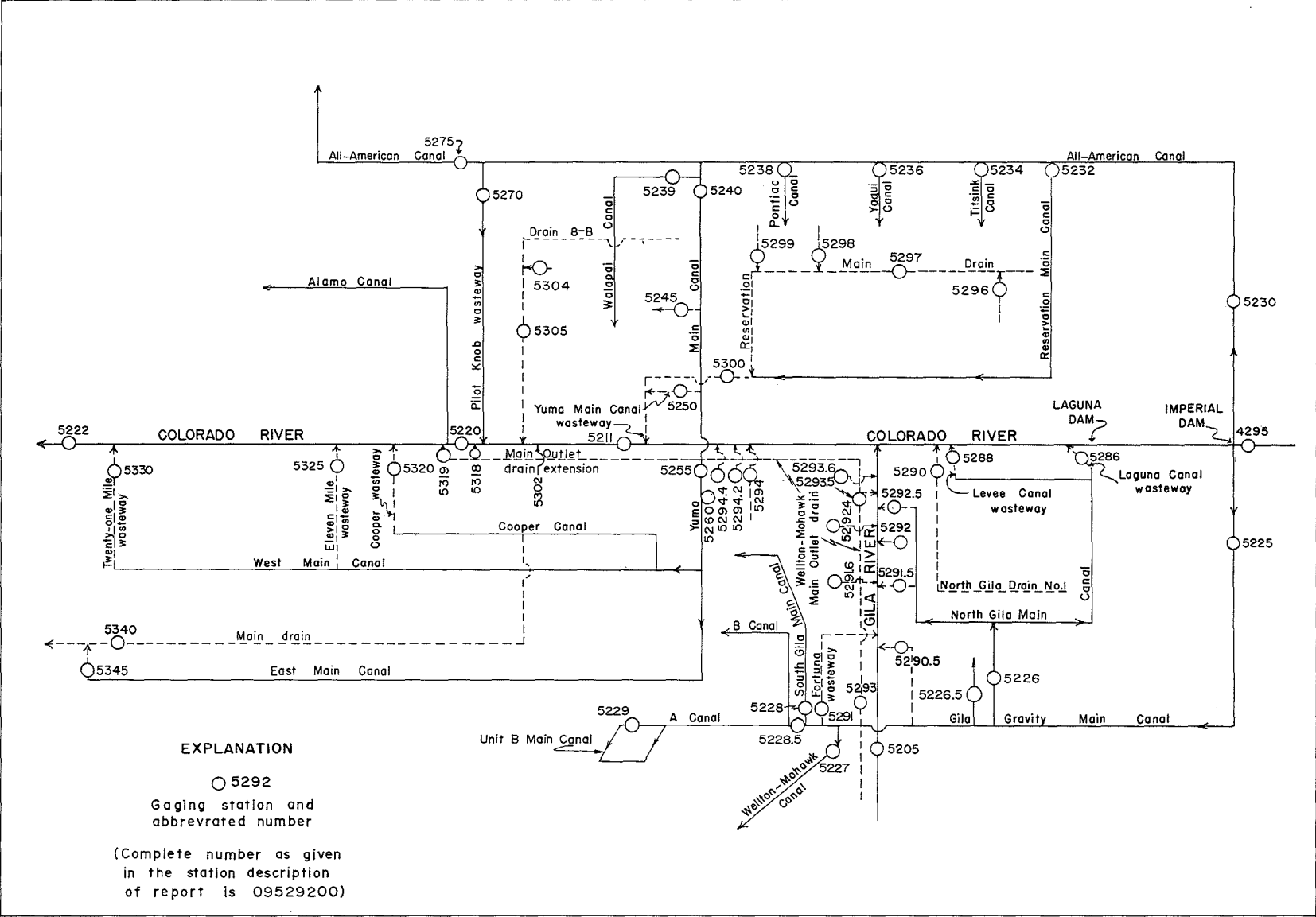


Figure 2.--Schematic diagram showing gaging stations on streams, diversions, and return flows between Imperial Dam and the southerly international boundary

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.--10 years, 0.027 cfs (20 acre-ft per year); median of yearly mean discharges, 0.01 cfs (7 acre-ft per year).

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

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 most of each year.

REMARKS.--No flow since July 20, 1969. No regulation or diversion above station except spring diversion to ranger headquarters. Discharge for the calendar year 1969 is as follows: Maximum daily, 16 cfs; minimum, zero; mean, 0.05 cfs; total, 33 acre-ft.

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	
Sept. 3 to Oct. 14	12.88	-	-	27.8	2.8	-
Oct. 14 to Dec. 17	8.80	12.2	-11.1	17.8	-4.4	-
Dec. 17 to Feb. 24	5.17	-	-	13.3	-5.6	-
Feb. 24 to Apr. 28	10.13	23.9	-10.0	15.6	-20.0	-
Apr. 28 to Jul. 21	29.48	-	-	37.8	12.2	2.06

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 1969.....	0.05	0.30	0.08	0.02	0.01	0.04	0.1							
November.....	.22	.57	.86	.62	.18	1.19	.8							
December.....	0	.02	0	0	0	0	0							
CAL YR 1969.....	-	13.66	17.33	16.62	9.98	14.63	13.1							
January 1970.....	0	.08	.09	0	0	.04	0							
February.....	2.49	3.89	1.84	2.19	1.27	1.92	1.5							
March.....	.50	.56	.64	.17	.22	1.00	.8							
April.....	0	0	0	0	0	0	0							
May.....	0	0	0	.08	0	0	0							
June.....	0	0	0	.18	0	0	0							
July.....	.80	.61	.18	.28	0	0	.1							
August.....	1.01	1.41	.69	1.10	.05	0	0							
September.....	0	0	0	0	0	0	0							
WTR YR 1970.....	5.07	7.44	4.38	4.64	1.73	4.19	3.3							

Average Wind Velocity (mph) at location and altitude:

Month	117°05'05", 36°13'05"		117°06'40", 36°15'10"	
	9,990 ft		5,750 ft	
October 1969....	9.24		5.55	
November.....	10.50		5.54	
December.....	12.83		4.75	
January 1970....	13.00		4.29	
February.....	12.33		4.68	
March.....	12.75		7.29	
April.....	10.91		7.08	
May.....	9.54		5.66	
June.....	7.92		5.83	
July.....	6.81		5.65	
August.....	6.12		5.78	
September.....	9.17		6.29	

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. Prior to Aug. 6, 1970, at site 190 ft downstream.

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 non-recording rain gage at Darwin. Prior to Aug. 6, 1970, at site 190 ft downstream at same datum.

AVERAGE DISCHARGE.--8 years, 0.612 cfs (443 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 0.70 cfs Aug. 21 (gage height, 2.70 ft); minimum daily, 0.05 cfs Aug. 30 to Sept. 4.

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 except those for period of no gage-height record, which are poor. No regulation above station. Town of Darwin pumps water above station for municipal supply.

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	.17	.24	.23	.23	.22	.20	.19	.17	.14	.11	.05
2	.18	.17	.24	.23	.23	.23	.20	.19	.17	.14	.11	.05
3	.18	.17	.24	.23	.23	.23	.20	.19	.17	.14	.11	.05
4	.18	.17	.24	.21	.23	.23	.20	.19	.17	.14	.11	.05
5	.18	.17	.24	.21	.23	.23	.20	.19	.17	.14	.11	.07
6	.17	.19	.24	.21	.24	.23	.20	.19	.16	.14	.10	.07
7	.17	.24	.24	.21	.24	.23	.20	.19	.16	.14	.10	.07
8	.17	.25	.24	.21	.24	.23	.20	.19	.16	.14	.10	.07
9	.17	.25	.24	.21	.26	.23	.20	.19	.16	.14	.14	.10
10	.17	.25	.24	.21	.28	.21	.20	.19	.16	.14	.14	.10
11	.17	.24	.24	.21	.30	.21	.20	.19	.16	.13	.19	.07
12	.17	.24	.24	.26	.30	.21	.20	.19	.16	.13	.25	.07
13	.17	.24	.24	.26	.30	.21	.20	.19	.16	.13	.25	.07
14	.17	.24	.24	.25	.29	.21	.20	.19	.16	.13	.25	.07
15	.17	.24	.24	.26	.29	.21	.20	.19	.16	.13	.25	.10
16	.17	.24	.24	.27	.28	.21	.20	.18	.15	.13	.41	.10
17	.17	.24	.24	.27	.28	.21	.20	.18	.15	.13	.41	.10
18	.17	.24	.24	.26	.28	.21	.20	.18	.15	.13	.41	.10
19	.17	.24	.24	.26	.28	.21	.20	.18	.15	.13	.41	.10
20	.17	.24	.23	.26	.28	.21	.20	.18	.15	.13	.41	.10
21	.17	.24	.23	.25	.26	.21	.19	.18	.15	.13	.32	.10
22	.17	.24	.23	.25	.24	.21	.19	.18	.15	.13	.32	.10
23	.17	.24	.23	.25	.22	.21	.19	.18	.15	.13	.32	.10
24	.17	.24	.23	.25	.21	.21	.19	.18	.15	.13	.25	.10
25	.17	.24	.23	.25	.21	.21	.19	.18	.15	.13	.25	.10
26	.17	.24	.23	.25	.21	.20	.19	.17	.14	.12	.25	.10
27	.17	.24	.23	.24	.21	.20	.19	.17	.14	.12	.19	.10
28	.17	.24	.23	.24	.21	.20	.19	.17	.14	.12	.10	.14
29	.17	.24	.23	.24	-----	.20	.19	.17	.14	.12	.07	.19
30	.17	.24	.23	.24	-----	.20	.19	.17	.14	.12	.05	.19
31	.17	-----	.23	.24	-----	.20	-----	.17	-----	.12	.05	-----
TOTAL	5.32	6.83	7.32	7.42	7.06	6.62	5.90	5.67	4.65	4.07	6.54	2.78
MEAN	.17	.23	.24	.24	.25	.21	.20	.18	.16	.13	.21	.093
MAX	.18	.25	.24	.27	.30	.23	.20	.19	.17	.14	.41	.19
MIN	.17	.17	.23	.21	.21	.20	.19	.17	.14	.12	.05	.05
AC-FF	11	14	15	15	14	13	12	11	9.2	8.1	13	5.5
(a)	0	.10	0	.13	.34	.12	0	0	.05	.17	.04	0

CAL YR 1969	TOTAL	716.94	MEAN	1.96	MAX	432	MIN	.17	ACFT	1,420
WAT Y 1970	TOTAL	70.18	MEAN	.19	MAX	.41	MIN	.05	ACFT	139

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

a Precipitation, in inches.

NOTE.--No gage-height record Oct. 1 to Aug. 5.

DEATH VALLEY

10251300 AMARGOSA RIVER AT TECOPA, CALIF.

LOCATION.--Lat 35°50'53", long 116°13'43", in NW¹/₄NW¹/₄SE¹/₄ 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.--9 years, 2.89 cfs (2,090 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 168 cfs Aug. 16 (gage height, 3.24 ft); no flow July 22-24, 28-31. Period of record: Maximum discharge, 5,000 cfs (estimated) Feb. 26, 1969 (gage height, 18.34 ft, from floodmark); no flow for 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.52	1.1	1.5	1.7	9.7	.91	.72	.14	.01	.01	.02
2	.18	.48	1.1	1.0	1.4	12	.93	.54	.11	.01	.01	.02
3	.18	.52	1.1	1.2	1.5	5.5	1.0	.68	.13	.01	.01	.01
4	.15	.57	1.1	1.5	1.8	5.1	.76	.68	.15	.03	.01	.02
5	.13	.46	1.2	1.5	1.8	24	.98	.58	.13	.04	.01	.02
6	.19	.44	.92	1.6	1.9	6.9	1.0	.43	.05	.03	.02	.02
7	.23	1.2	1.1	2.0	2.0	7.1	.91	.45	.05	.01	.01	.02
8	.24	.86	1.3	1.9	1.9	6.6	.99	.62	.05	.01	.01	.01
9	.22	.78	1.4	1.9	1.8	5.3	1.0	.64	.03	.02	.01	.02
10	.31	.75	1.4	1.6	3.0	3.5	.95	.48	.03	.01	.02	.02
11	.24	.72	1.4	1.9	4.1	3.9	.78	.35	.02	.01	.01	.02
12	.14	.68	1.4	2.1	2.5	2.9	.76	.30	.03	.01	.01	.02
13	.17	.73	1.4	2.0	2.1	2.3	.60	.49	.03	.01	.01	.01
14	.18	.71	1.4	2.0	2.1	1.9	.48	.56	.02	.01	.01	.02
15	.30	.75	1.4	2.0	1.8	1.5	.81	.30	.02	.01	.01	.02
16	.25	.73	1.5	1.9	1.9	1.0	.90	.33	.05	.01	.25	.02
17	.13	.89	1.5	1.9	1.8	1.2	1.0	.37	.06	.01	.35	.02
18	.21	.56	1.5	1.9	1.7	.87	.94	.30	.05	.01	.05	.05
19	.37	.71	1.5	1.9	1.4	.87	.70	.14	.08	.01	.02	.06
20	.36	.75	1.5	1.9	1.3	1.0	.71	.09	.09	.01	.01	.10
21	.35	.80	1.5	1.9	13	1.1	.57	.17	.08	.01	.01	.13
22	.45	.87	1.5	2.1	13	1.2	.83	.27	.06	0	.01	.04
23	.42	.87	1.3	2.1	48	1.2	.92	.30	.02	0	.02	.02
24	.43	.85	1.5	1.7	35	1.2	.90	.24	.01	0	.01	.02
25	.44	.89	1.4	1.9	19	1.2	.83	.20	.01	.01	.01	.03
26	.44	.97	1.3	2.0	9.4	.90	.43	.23	.03	.06	.01	.06
27	.53	3.5	1.3	1.9	5.6	.71	.35	.19	.04	.01	.02	.13
28	.53	.99	.98	1.8	3.9	.77	.80	.10	.01	0	.02	.14
29	.46	1.0	.66	1.4	-----	.92	.95	.13	.01	0	.01	.14
30	.29	.98	1.2	1.7	-----	1.0	.80	.18	.01	0	.01	.15
31	.45	-----	1.2	1.9	-----	1.0	-----	.25	-----	0	.02	-----
TOTAL	9.20	25.53	40.06	55.6	186.4	114.34	24.49	11.31	1.60	0.37	25.75	1.38
MEAN	.30	.85	1.29	1.79	6.66	3.69	.82	.36	.053	.012	.83	.046
MAX	.53	3.5	1.5	2.1	48	24	1.0	.72	.15	.06	.25	.15
MIN	.13	.44	.66	1.0	1.3	.71	.35	.09	.01	0	.01	.01
AC-FT	18	51	79	110	370	227	49	22	3.2	.7	51	2.7

CAL YR 1969 TOTAL 3,343.95 MEAN 9.16 MAX 1,500 MIN .04 AC-FT 6,630
 WTR YR 1970 TOTAL 496.03 MEAN 1.36 MAX 48 MIN 0 AC-FT 984

PEAK DISCHARGE (BASE, 15 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	1045	2.70	101	3-5	0515	1.91	36
2-23	1400	2.34	66	8-16	1230	3.24	168

10251350 HORSE THIEF CREEK NEAR TECOPA, CALIF.

LOCATION.--Lat 35°46'52", long 115°53'30", T.20 N., R.10 E., San Bernardino County, on left bank 0.6 mile north-west of Horse Thief Springs and 19.2 miles southeast of Tecopa.

DRAINAGE AREA.--3.06 sq mi.

PERIOD OF RECORD.--October 1960 to September 1970 (discontinued).

GAGE.--Water-stage recorder with rain-gage attachment. Altitude of gage is 4,600 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 0.017 cfs (12 acre-ft per year); median of yearly mean discharges, 0.002 cfs (1.4 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 200 cfs (estimated) Aug. 16 (gage height, 2.02 ft, from high-water mark in well); no flow all year except Aug. 16.

Period of record: Maximum discharge, 850 cfs Sept. 6, 1969 (gage height, 4.50 ft), on basis of slope-conveyance measurement 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 1969 TO SEPTEMBER 1970

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											8.3	
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	0	0	0	8.3	0
MEAN	0	0	0	0	0	0	0	0	0	0	.27	0
MAX	0	0	0	0	0	0	0	0	0	0	8.3	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	16	0
(a)	.10	.80	0	0	2.0	1.8	0	0	0	.04	.5	0

CAL YR 1969 TOTAL 44.1 MEAN .12 MAX 18 MIN 0 ACFT 87 a 19.4
 WAT YR 1970 TOTAL 8.3 MEAN .023 MAX 8.3 MIN 0 ACFT 16 a 5.24

a Precipitation, in inches.

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.--11 years (1960-70), 0.0008 cfs (0.6 acre-ft per year); median of yearly mean discharges, zero.

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

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.--No flow since Sept. 16, 1969. No regulation or diversion above station. Monthly precipitation, in inches, is as follows: October, 0.1; November, 0.5; January, 0.1; February, 0.9; March, 0.4; July, 0.7; August, 3.3; the water year, 6.0. Discharge for calendar year 1969 is as follows: Maximum daily, 0.29 cfs; minimum, zero; mean, 0.0008 cfs; total, 0.6 acre-ft.

BRISTOL LAKE BASIN

43

10252550 CARUTHERS CREEK NEAR IVANPAH, CALIF.

LOCATION.--Lat 35°14'33", long 115°17'58", in NW¼NW¼NE¼ 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.--7 years, 0.087 cfs (63 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 0.65 cfs Mar. 1 (gage height, 1.32 ft); no flow most of year.
Period of record: Maximum discharge, 418 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	.04						
2					0	.04						
3					0	.10						
4					0	.07						
5					0	.20						
6					0	.20						
7					0	.20						
8					0	.20						
9					0	.10						
10					.04	.10						
11					0	.07						
12					0	.02						
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					.02	0						
29					-----	0						
30					-----	0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	.06	1.34	0	0	0	0	0	0
MEAN	0	0	0	0	.002	.043	0	0	0	0	0	0
MAX	0	0	0	0	.04	.20	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	.1	2.7	0	0	0	0	0	0

CAL YR 1969 TOTAL 72.74 MEAN .20 MAX 13 MIN 0 ACFT 144
WAT YR 1970 TOTAL 1.40 MEAN .004 MAX .2 MIN 0 ACFT 2.8

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

DANBY LAKE BASIN

10253080 SUNFLOWER WASH NEAR ESSEX, CALIF.

LOCATION.--Lat 34°33'00", long 115°06'25", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.5, T.5 N., R.18 E., San Bernardino County, on left bank about 0.3 mile downstream from road crossing and 14.9 miles southeast of Essex.

DRAINAGE AREA.--3.04 sq mi.

PERIOD OF RECORD.--October 1962 to September 1970 (discontinued).

GAGE.--Flood-hydrograph recorder and crest-stage gage. Altitude of gage is 3,040 ft (from topographic map). Recording rain gage 2.3 miles upstream.

AVERAGE DISCHARGE.--8 years, 0.026 cfs (19 acre-ft per year).

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

Period of record: Maximum discharge, 972 cfs Sept. 18, 1963 (gage height, 4.17 ft), on basis of slope-area measurement of maximum flow; no flow most of each year.

REMARKS.--No flow since Sept. 18, 1963. No regulation or diversion above station. Monthly precipitation, in inches, is as follows: October, 0.45; November, 0.47; February, 0.85; March, 0.95; April, 0.12; August, 0.35; the water year, 3.19.

10253320 QUAIL WASH NEAR JOSHUA TREE, CALIF.

LOCATION.--Lat 34°07'04", long 116°18'27", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.1, T.1 S., R.6 E., San Bernardino County, on right bank 0.2 mile downstream from Coyote Hole Spring and 1.1 miles south of Joshua Tree.

DRAINAGE AREA.--100 sq mi.

PERIOD OF RECORD.--March 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,920 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 0.0018 cfs (1.3 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 41 cfs Aug. 26 (gage height, 2.40 ft); on basis of slope-conveyance measurement of maximum flow; no flow most of year.

Period of record: Maximum discharge, 41 cfs Aug. 26, 1970 (gage height, 2.40 ft); on basis of slope-conveyance measurement of maximum flow; no flow for all or most of each year.

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

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	.30										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										1.6	
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										1.8	
27	0										0	
28	0										0	
29	0				-----						0	
30	0				-----						0	
31	0	-----			-----		-----		-----		0	-----
TOTAL	.30	0	0	0	0	0	0	0	0	0	3.4	0
MEAN	.009	0	0	0	0	0	0	0	0	0	.11	0
MAX	.30	0	0	0	0	0	0	0	0	0	1.8	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.6	0	0	0	0	0	0	0	0	0	6.7	0

CAL YR 1969 TOTAL 0.34 MEAN .0009 MAX .30 MIN 0 ACFT .7
 WAT YR 1970 TOTAL 3.70 MEAN .010 MAX 1.8 MIN 0 ACFT 7.3

DALE LAKE BASIN

1Q253350 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 current year.

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

AVERAGE DISCHARGE.--8 years, 0.100 cfs (72 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 515 cfs July 19 (gage height, 3.39 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 poor. No regulation or diversion above station.

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										0	0	
2										0	0	
3										0	0	
4										0	0	
5										0	0	
6										0	0	
7										0	0	
8										0	0	
9										20	0	
10										0	0	
11										0	0	
12										0	0	
13										0	0	
14										0	0	
15										0	1.2	
16										0	1.7	
17										0	0	
18										3.3	0	
19										0	0	
20										0	0	
21										0	0	
22										0	0	
23										0	0	
24										0	0	
25										.25	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	0	0	0	0	23.55	2.9	0
MEAN	0	0	0	0	0	0	0	0	0	.76	.094	0
MAX	0	0	0	0	0	0	0	0	0	20	1.7	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	47	5.8	0
(a)	.2	.1	.2	0	.5	.4	.2	.4	0	2.1	1.1	.1

CAL YR 1969	TOTAL	0	MEAN	0	MAX	0	MIN	0	ACFT	0	a	3.8
WAT YR 1970	TOTAL	26.45	MEAN	.073	MAX	20	MIN	0	ACFT	52	a	5.3

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. Prior to Dec. 10, 1969, at site 45 ft upstream.

DRAINAGE AREA.--24.1 sq mi.

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

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.--7 years, 0.195 cfs (141 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 44 cfs (estimated) Feb. 11 (gage height, 2.72 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 good. No regulation or diversion above station. Monthly precipitation, in inches, is as follows: October, 0.02; November, 0.20; February, 1.21; March, 0.25; July, 0.08; August, 0.48; the water year, 2.24.

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					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					.54						0	
12					0						0	
13					0						0	
14					0						0	
15					0						0	
16					0						.45	
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					-----						.06	
30					-----						0	
31		-----			-----		-----		-----		0	-----
TOTAL	0	0	0	0	.54	0	0	0	0	0	.51	0
MEAN	0	0	0	0	.019	0	0	0	0	0	.017	0
MAX	0	0	0	0	.54	0	0	0	0	0	.45	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	1.1	0	0	0	0	0	1.0	0

CAL YR 1969 TOTAL 0.00 MEAN .0000 MAX .00 MIN 0 ACFT .0
WAT YR 1970 TOTAL 1.05 MEAN .0029 MAX .54 MIN 0 ACFT 2.1

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

SALTON SEA BASIN

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 May 22 to June 3; minimum, 232.9 ft below mean sea level Oct. 18-24.
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 1969 TO SEPTEMBER 1970

Date	Elevation (feet)	Date	Elevation (feet)
Sept. 30.....	232.7	Apr. 30.....	231.8
Oct. 31.....	232.8	May 31.....	231.7
Nov. 30.....	232.7	June 30.....	232.0
Dec. 31.....	232.6	July 31.....	232.1
Jan. 31.....	232.4	Aug. 31.....	232.4
Feb. 28.....	232.2	Sept. 30.....	232.7
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 1969 to September 1970 and the calendar year January to December 1969. 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	106,100	73,240	70,480	83,860	81,550	106,200	119,800	67,660	86,930	88,100	83,570	84,170
Coachella Valley	10,920	10,300	9,540	11,200	10,660	11,900	11,480	12,320	10,700	10,410	11,920	11,040
TOTAL CAL YR 1969	1,193,000	AC-FT										
TOTAL WTR YR 1970	1,184,000	AC-FT										

FLOW FROM MEXICO AT INTERNATIONAL BOUNDARY

Alamo River	123	134	134	161	149	148	114	114	98	141	114	149
New River	6,790	8,060	7,320	8,130	7,890	11,480	11,310	9,730	7,110	7,670	8,120	7,590
CAL YR 1969: Alamo River		1,600	AC-FT		WTR YR 1970:	1,580	AC-FT					
CAL YR 1969: New River		103,300	AC-FT		WTR YR 1970:	101,200	AC-FT					

SALTON SEA BASIN

10254050 SALT CREEK NEAR MECCA, CALIF.

LOCATION.--Lat 33°26'49", long 115°50'33", in NE¼SE¼SW¼ 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.--9 years, 5.91 cfs (4,280 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,150 cfs Sept. 4 (gage height, 6.76 ft), from rating curve extended as explained below; minimum daily, 0.75 cfs Aug. 22, 23.
 Period of record: Maximum discharge, 1,150 cfs Sept. 4, 1970 (gage height, 6.76 ft), from rating curve extended above 10 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	6.4	9.5	9.1	10	11	5.8	3.6	1.1	.90	1.2	1.3
2	4.6	7.2	9.5	9.5	9.8	20	5.1	3.4	1.3	1.0	1.3	1.0
3	4.6	6.4	9.1	9.5	9.8	17	5.3	3.2	1.5	1.1	1.3	1.0
4	4.2	6.7	11	9.5	10	11	6.1	3.0	1.5	1.1	1.3	144
5	3.3	6.7	10	9.8	11	9.1	5.3	3.0	1.5	1.0	1.2	90
6	4.0	7.8	9.1	10	11	9.1	5.3	3.0	1.5	.80	1.2	7.8
7	5.1	7.8	8.1	10	11	8.1	5.8	2.9	1.5	.90	1.2	3.0
8	4.6	7.5	8.1	11	11	7.5	5.5	2.9	1.5	.90	.90	1.5
9	5.1	8.4	8.1	11	12	7.8	5.8	2.8	1.4	1.4	.90	1.8
10	5.8	14	8.4	11	12	7.8	5.8	2.8	1.4	2.1	.80	1.8
11	5.5	20	8.1	11	21	7.2	5.8	2.7	1.3	1.5	.80	1.4
12	4.6	13	8.4	11	20	7.2	5.1	2.6	1.90	1.5	.90	1.4
13	4.4	10	8.4	11	14	7.2	4.8	2.4	1.2	1.2	.90	1.4
14	5.3	10	8.4	12	12	7.2	4.8	2.4	1.4	1.1	.80	1.4
15	5.8	9.8	8.4	12	11	6.7	4.6	2.4	1.4	1.3	.80	1.3
16	5.1	11	8.8	11	8.8	7.8	4.2	2.2	2.4	1.5	.90	1.3
17	5.1	11	8.8	11	8.8	6.4	5.1	2.0	7.2	1.5	.90	1.3
18	5.5	9.1	8.8	12	9.5	6.4	5.8	1.8	3.3	1.4	.90	1.3
19	5.8	7.5	8.4	11	8.1	5.8	5.5	1.8	2.8	1.3	1.0	1.3
20	6.1	8.1	8.8	12	6.7	5.5	5.3	1.8	2.7	1.1	1.2	1.3
21	6.1	8.8	9.1	12	7.0	5.8	5.1	1.7	2.2	1.1	1.2	1.4
22	7.0	9.5	9.5	12	8.1	6.1	4.6	1.8	2.2	1.2	.75	1.6
23	7.8	9.5	9.1	12	8.1	6.7	4.4	1.8	2.1	1.1	.75	1.5
24	7.8	8.8	8.8	12	8.4	7.0	4.4	1.8	1.8	.90	1.1	1.7
25	7.8	8.1	8.8	12	8.4	7.0	4.2	1.8	1.5	.90	1.3	1.5
26	7.8	8.8	9.1	12	8.4	6.1	4.2	2.0	1.0	1.2	1.2	1.3
27	7.8	8.8	9.5	12	8.8	5.5	4.0	2.1	1.0	1.2	1.6	1.3
28	7.5	8.8	8.4	11	9.8	4.8	4.0	2.1	1.0	1.0	1.7	1.3
29	7.2	7.8	8.1	11	-----	3.5	3.8	1.6	1.0	1.0	1.4	1.3
30	6.4	8.1	8.1	9.1	-----	5.5	3.8	1.1	1.1	.90	1.2	1.3
31	5.3	-----	8.4	10	-----	5.8	-----	1.1	-----	1.1	1.2	-----
TOTAL	177.8	275.4	273.1	339.5	294.5	239.6	149.3	71.6	53.70	36.20	33.80	280.8
MEAN	5.74	9.18	8.81	11.0	10.5	7.73	4.98	2.31	1.79	1.17	1.09	9.36
MAX	7.8	20	11	12	21	20	6.1	3.6	7.2	2.1	1.7	144
MIN	3.3	6.4	8.1	9.1	6.7	3.5	3.8	1.1	.90	.80	.75	1.0
AC-FT	353	546	542	673	584	475	296	142	107	72	67	557
CAL YR 1969	TOTAL	2,219.70	MEAN	6.08	MAX	86	MIN	2.1	ACFT	4,400		
WAT YR 1970	TOTAL	2,225.30	MEAN	6.10	MAX	144	MIN	.75	ACFT	4,410		

SALTON SEA BASIN

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,040	908	677	630	875	1,240	1,150	984	790	814	733	649
2	1,090	885	639	616	880	1,360	1,190	951	766	823	733	667
3	1,130	885	667	611	903	1,070	1,190	932	752	829	757	620
4	1,140	875	681	696	889	667	1,150	951	790	795	766	913
5	1,110	838	667	733	885	573	1,120	932	776	776	786	823
6	1,140	838	649	762	908	563	1,140	903	795	757	733	577
7	1,140	819	601	747	960	507	1,140	889	814	766	705	592
8	1,130	795	587	786	917	464	1,110	913	823	781	733	597
9	1,170	805	563	771	946	493	1,150	917	814	776	710	616
10	1,220	1,060	502	800	1,150	521	1,180	889	762	805	752	663
11	1,220	1,000	530	762	1,260	521	1,250	861	738	781	696	691
12	1,190	663	539	762	861	625	1,210	842	781	805	757	644
13	1,130	587	639	771	686	691	1,210	856	800	829	724	625
14	1,120	563	672	819	592	752	1,140	908	809	847	724	663
15	1,160	530	639	833	544	899	1,150	903	852	814	747	719
16	1,190	525	691	795	563	975	1,170	908	823	805	743	814
17	1,120	478	658	781	539	965	1,170	917	766	823	766	871
18	1,020	445	667	776	577	994	1,170	913	762	819	733	894
19	946	416	649	757	577	1,020	1,050	917	805	829	776	922
20	932	459	700	710	611	1,080	1,040	871	809	847	771	894
21	1,000	516	691	691	691	1,120	1,060	871	852	823	766	908
22	989	563	710	681	719	1,160	1,010	861	856	833	776	913
23	970	630	752	700	790	1,210	1,060	899	823	833	766	847
24	1,010	620	710	743	866	1,220	1,040	889	790	833	757	955
25	946	620	625	766	871	1,210	1,040	880	790	771	681	1,030
26	885	630	474	795	932	1,220	1,020	861	790	743	672	975
27	899	672	488	842	1,010	1,230	975	894	800	710	757	1,030
28	903	672	635	856	1,010	1,290	994	899	829	752	776	1,120
29	861	649	592	875	-----	1,240	1,030	885	781	747	776	1,120
30	776	667	597	880	-----	1,150	1,040	875	771	733	696	1,100
31	847	-----	611	894	-----	1,140	-----	842	-----	733	635	-----
TOTAL	32,424	20,613	19,502	23,641	23,012	29,170	33,349	27,813	23,909	24,632	22,903	24,452
MEAN	1,046	687	629	763	822	941	1,112	897	797	795	739	815
MAX	1,220	1,060	752	894	1,260	1,360	1,250	984	856	847	786	1,120
MIN	776	416	474	611	539	464	975	842	738	710	635	577
AC-FT	64,310	40,890	38,680	46,890	45,640	57,860	66,150	55,170	47,420	48,860	45,430	48,500
CAL YR 1969	TOTAL 298,723	MEAN 818	MAX 1,220	MIN 383	ACFT 592,500							
WAT YR 1970	TOTAL 305,420	MEAN 837	MAX 1,360	MIN 416	ACFT 605,800							

SALTON SEA BASIN

10255200 MYER CREEK TRIBUTARY NEAR JACUMBA, CALIF.

LOCATION.--Lat 32°40'25", long 116°04'50", in SW¹NE¹SE¹ sec.20, T.17 S., R.9 E., San Diego County, at culvert on U.S. Highway 80, 7.8 miles northeast of Jacumba.

DRAINAGE AREA.--0.11 sq mi.

PERIOD OF RECORD.--Water years 1960-66 (annual maximum), February 1966 to current year.

GAGE.--Flood-hydrograph recorder and crest-stage gage. Altitude of gage is 1,720 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 35 cfs Aug. 16 (gage height, 12.85 ft, from crest-stage gage); no flow all year except Aug. 16.
 Period of record: Maximum discharge, 41 cfs Aug. 12, 1965 (gage height, 12.97 ft, from crest-stage gage), on basis of computation of maximum flow through culvert; no flow all or most of each year.

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

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											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											1.5	
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	0	0	0	1.5	0
MEAN	0	0	0	0	0	0	0	0	0	0	.048	0
MAX	0	0	0	0	0	0	0	0	0	0	1.5	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	3.0	0
CAL YR 1969	TOTAL 0.0	MEAN .0000	MAX .00	MIN 0	ACFT .0							
WAT YR 1970	TOTAL 1.5	MEAN .0041	MAX 1.5	MIN 0	ACFT 3.0							

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	551	461	390	498	564	643	662	676	576	523	470	417
2	582	442	418	473	538	726	672	677	559	511	475	426
3	582	435	431	459	563	732	677	672	557	517	504	420
4	566	446	440	457	523	605	740	704	528	511	496	415
5	603	464	422	466	545	559	766	689	561	487	498	463
6	613	500	408	507	561	481	754	672	555	457	526	526
7	611	466	413	481	586	453	752	624	547	485	526	492
8	611	438	433	526	594	453	730	622	526	511	534	446
9	607	463	415	586	530	477	734	615	543	521	540	424
10	592	592	394	628	634	475	695	626	523	521	504	446
11	564	828	409	624	653	466	698	621	536	557	487	463
12	598	885	394	586	545	488	706	568	551	487	473	435
13	626	502	444	515	435	502	722	586	538	487	483	440
14	662	479	466	451	394	553	722	582	507	511	424	473
15	622	457	438	431	424	586	732	615	505	526	418	521
16	594	422	470	473	449	588	738	611	500	530	457	479
17	532	429	468	487	440	622	728	630	492	500	511	466
18	540	415	459	481	440	664	718	615	532	523	517	494
19	564	402	427	485	464	638	708	598	528	498	455	509
20	592	404	451	496	488	687	704	592	530	521	461	515
21	622	364	487	521	492	708	691	630	568	555	479	530
22	592	375	466	534	500	706	681	596	559	475	463	513
23	547	404	494	528	496	722	716	564	566	485	459	515
24	513	368	461	528	517	740	681	551	526	500	481	532
25	525	379	444	479	530	712	679	551	542	564	479	528
26	513	398	406	479	568	746	660	609	543	494	448	509
27	526	384	404	492	538	724	672	603	521	526	526	542
28	494	404	417	490	528	718	685	603	485	543	515	542
29	496	406	440	509	-----	776	664	632	477	485	440	538
30	490	426	453	519	-----	748	691	619	511	481	435	551
31	498	-----	485	530	-----	698	-----	607	-----	464	438	-----
TOTAL	17,628	13,838	13,547	15,719	14,539	19,396	21,178	19,160	15,992	15,756	14,922	14,570
MEAN	569	461	437	507	519	626	706	618	533	508	481	486
MAX	662	885	494	628	653	776	766	704	576	564	540	551
MIN	490	364	390	431	394	453	660	551	477	457	418	415
AC-FT	34,970	27,450	26,870	31,180	28,840	38,470	42,010	38,000	31,720	31,250	29,600	28,900
CAL YR 1969	TOTAL 189,289	MEAN 519	MAX 885	MIN 364	ACFT 375,500							
WAT YR 1970	TOTAL 196,245	MEAN 538	MAX 885	MIN 364	ACFT 389,300							

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.--12 years, 0.28 cfs (203 acre-ft per year); median of yearly mean discharges, 0.2 cfs (140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 121 cfs Aug. 26 (gage height, 2.53 ft); no flow much of year.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.21	.27	.34	2.9	.42	.31	.03	0	0	0
2	0	0	.22	.26	.31	1.2	.42	.29	.02	0	0	0
3	0	0	.23	.25	.32	.64	.41	.27	0	0	0	0
4	0	0	.22	.27	.34	.53	.39	.26	0	0	0	0
5	0	0	.21	.28	.34	.82	.40	.25	0	0	0	0
6	0	0	.21	.26	.34	.53	.40	.26	0	0	0	0
7	0	0	.23	.28	.36	.46	.40	.27	0	0	0	0
8	0	0	.23	.28	.42	.46	.40	.25	0	0	0	0
9	0	0	.24	.30	.40	.45	.40	.25	0	0	0	0
10	0	.46	.23	.32	1.2	.47	.37	.23	0	0	0	0
11	0	.29	.23	.34	1.5	.48	.32	.22	0	0	0	0
12	0	.17	.24	.34	.55	.45	.32	.20	0	0	0	0
13	0	.14	.24	.34	.50	.42	.33	.18	0	0	0	0
14	0	.14	.24	.34	.46	.42	.34	.17	0	0	0	0
15	0	.17	.24	.34	.43	.42	.36	.16	0	0	0	0
16	0	.21	.24	.34	.43	.41	.38	.15	0	0	6.1	0
17	0	.16	.26	.34	.45	.40	.41	.12	0	0	1.7	0
18	0	.14	.27	.34	.42	.38	.38	.09	0	0	0	0
19	0	.15	.27	.33	.42	.39	.38	.08	0	0	0	0
20	0	.17	.27	.34	.42	.39	.36	.08	0	0	0	0
21	0	.17	.27	.31	1.9	.41	.40	.10	0	0	0	0
22	0	.17	.27	.34	3.0	.41	.45	.10	0	0	0	0
23	0	.17	.27	.33	.43	.41	.39	.09	0	0	0	0
24	0	.17	.24	.34	.44	.41	.35	.08	0	0	0	0
25	0	.17	.24	.34	.39	.41	.33	.08	0	0	0	0
26	0	.18	.24	.32	.40	.41	.35	.09	0	0	12	0
27	0	.19	.24	.34	.40	.41	.42	.10	0	0	.64	0
28	0	.19	.24	.31	.88	.41	.51	.11	0	0	.14	0
29	0	.21	.24	.30	-----	.41	.42	.10	0	0	.08	0
30	0	.21	.24	.30	-----	.42	.35	.08	0	0	.01	0
31	0	-----	.25	.34	-----	.43	-----	.06	-----	0	0	-----
TOTAL	0	4.03	7.47	9.73	17.79	17.16	11.56	5.08	0.05	0	20.67	0
MEAN	0	.13	.24	.31	.64	.55	.39	.16	.002	0	.67	0
MAX	0	.46	.27	.34	3.0	2.9	.51	.31	.03	0	12	0
MIN	0	0	.21	.25	.31	.38	.32	.06	0	0	0	0
AC-FT	0	8.0	15	19	35	34	23	10	.1	0	41	0

CAL YR 1969 TOTAL 124.11 MEAN .34 MAX 18 MIN 0 AC-FT 246
 WTR YR 1970 TOTAL 93.54 MEAN .26 MAX 12 MIN 0 AC-FT 185

PEAK DISCHARGE (BASE, 50 CFS).--Aug. 26 (1515) 121 cfs (2.53 ft).

SALTON SEA BASIN

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.--20 years, 2.05 cfs (1,490 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,830 cfs Aug. 12 (gage height, 13.85 ft, from floodmarks), from rating curve extended above 2.0 cfs on basis of slope-area measurement of peak flow; minimum daily, 0.45 cfs Sept. 9.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	1.1	1.3	1.6	1.5	3.2	.98	1.2	.80	.93	1.0	.80
2	.77	1.1	1.3	1.6	1.5	3.5	.98	1.2	.78	.97	1.1	.70
3	.91	1.1	1.3	1.6	1.6	2.5	.99	1.2	.76	.96	1.2	.60
4	1.0	1.1	1.3	1.6	1.6	2.2	1.2	1.1	.76	.94	1.3	.60
5	1.0	1.1	1.3	1.5	1.6	2.1	1.4	1.1	.79	.94	1.2	.61
6	1.0	1.2	1.3	1.6	1.6	2.1	1.2	1.1	.80	.96	1.2	.61
7	.99	1.2	1.3	1.6	1.6	2.0	1.2	1.1	.84	.95	1.1	.57
8	.91	1.2	1.3	1.5	1.5	1.9	1.2	1.1	.84	1.2	1.4	.50
9	1.1	1.2	1.3	1.5	1.5	1.9	1.2	1.1	.88	2.7	1.3	.45
10	1.1	1.3	1.3	1.5	1.6	2.0	1.3	1.1	.92	3.6	1.3	.51
11	1.1	1.2	1.3	1.5	1.6	2.0	1.2	1.0	.94	1.6	1.4	.52
12	1.1	1.2	1.3	1.5	1.6	1.9	1.3	1.0	.94	1.5	4.0	.52
13	1.1	1.2	1.3	1.4	1.5	1.9	1.3	1.0	.96	1.8	3.0	.55
14	1.1	1.2	1.3	1.4	1.5	1.8	1.7	1.0	.95	1.8	1.6	.61
15	1.1	1.2	1.3	1.4	1.5	1.6	1.6	.99	.94	1.6	1.8	.66
16	1.1	1.2	1.3	1.4	1.5	1.4	1.6	.95	.93	1.6	8.2	.75
17	1.1	1.2	1.3	1.5	1.5	1.4	1.6	.91	.91	1.5	2.3	.63
18	1.1	1.2	1.3	1.5	1.4	1.4	1.5	.83	.90	1.5	1.7	.66
19	1.1	1.3	1.3	1.5	1.5	1.4	1.5	.84	.91	1.4	1.6	.53
20	1.1	1.3	1.3	1.5	1.5	1.3	1.5	.89	.89	1.5	1.5	.58
21	1.1	1.3	1.3	1.5	1.5	1.3	1.5	.89	.90	1.8	1.4	.61
22	1.1	1.2	1.3	1.5	1.4	1.3	1.5	.86	.92	1.5	1.2	.74
23	1.1	1.2	1.3	1.5	1.4	1.4	1.4	.83	.89	1.5	1.2	.84
24	1.1	1.2	1.3	1.5	1.4	1.4	1.4	.82	.87	1.5	1.3	1.0
25	1.1	1.2	1.3	1.6	1.4	1.2	1.4	.84	.84	1.4	1.2	1.1
26	1.1	1.3	1.3	1.6	1.5	1.3	1.3	.84	.83	1.3	4.7	1.0
27	1.1	1.2	1.5	1.6	1.4	1.4	1.3	.85	.85	1.1	1.5	1.1
28	1.1	1.2	1.7	1.6	1.6	1.0	1.3	.86	.89	1.0	1.3	1.0
29	1.1	1.3	1.6	1.6	-----	.94	1.3	.83	.91	1.1	1.1	1.4
30	1.1	1.3	1.6	1.6	-----	.95	1.2	.81	.93	1.0	1.0	1.6
31	1.1	-----	1.6	1.6	-----	.99	-----	.81	-----	.96	.90	-----
TOTAL	32.64	36.2	41.8	47.4	42.3	52.68	40.05	29.95	26.27	44.11	134.30	22.35
MEAN	1.05	1.21	1.35	1.53	1.51	1.70	1.34	.97	.88	1.42	4.33	.75
MAX	1.1	1.3	1.7	1.6	1.6	3.5	1.7	1.2	.96	3.6	4.7	1.6
MIN	.76	1.1	1.3	1.4	1.4	.94	.98	.81	.76	.93	.90	.45
AC-FT	65	72	83	94	84	104	79	59	52	87	266	44

CAL YR 1969 TOTAL 486.45 MEAN 1.33 MAX 64 MIN .29 AC-FT 965
 WTR YR 1970 TOTAL 550.05 MEAN 1.51 MAX 47 MIN .45 AC-FT 1,090

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
8-12	1700	13.85	1,830	8-28	1600	12.60	1,180
8-16	1415	8.95	191				

SALTON SEA BASIN

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.--20 years, 0.37 cfs (268 acre-ft per year); median of yearly mean discharges, 0.2 cfs (140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6.5 cfs Mar. 2 (gage height, 2.34 ft); no flow Oct. 1 to Jan. 2, May 30 to Sept. 30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.32	4.7	.36	.29				
2				0	.29	4.5	.32	.23				
3				.03	.32	2.6	.29	.23				
4				.06	.32	1.7	.26	.20				
5				.08	.32	2.1	.23	.18				
6				.09	.32	1.6	.20	.15				
7				.11	.32	1.2	.20	.13				
8				.13	.32	1.1	.18	.11				
9				.13	.32	.88	.18	.09				
10				.18	.88	.88	.15	.09				
11				.20	1.5	.82	.15	.08				
12				.26	.82	.70	.15	.06				
13				.29	.64	.64	.13	.06				
14				.29	.54	.59	.13	.05				
15				.26	.49	.59	.15	.05				
16				.26	.40	.59	.18	.05				
17				.36	.40	.54	.20	.05				
18				.32	.40	.54	.18	.05				
19				.29	.40	.54	.15	.05				
20				.29	.40	.54	.13	.05				
21				.29	.40	.54	.23	.05				
22				.29	.44	.49	.29	.04				
23				.32	.44	.49	.20	.04				
24				.32	.44	.44	.18	.03				
25				.32	.44	.44	.15	.03				
26				.32	.44	.44	.15	.03				
27				.32	.44	.40	.40	.03				
28				.32	1.0	.40	.64	.02				
29				.29	-----	.40	.49	.02				
30				.32	-----	.40	.36	0				
31		-----		.29	-----	.40	-----	0	-----			-----
TOTAL	0	0	0	7.03	13.76	32.19	7.01	2.54	0	0	0	0
MEAN	0	0	0	.23	.49	1.04	.23	.082	0	0	0	0
MAX	0	0	0	.36	1.5	4.7	.64	.29	0	0	0	0
MIN	0	0	0	0	.29	.40	.13	0	0	0	0	0
AC-FT	0	0	0	14	27	64	14	5.0	0	0	0	0

CAL YR 1969 TOTAL 360.85 MEAN .99 MAX 26 MIN 0 ACFT 716
WAT YR 1970 TOTAL 62.53 MEAN .17 MAX 4.7 MIN 0 ACFT 124

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.--7 years, 0.15 cfs (109 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7.0 cfs Aug. 16 (gage height, 1.92 ft); minimum daily, 0.02 cfs Oct. 16, 17, Sept. 19.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.03	.04	.07	.07	.09	.06	.06	.05	.03	.03	.04
2	.03	.03	.04	.07	.07	.08	.06	.06	.05	.03	.03	.05
3	.03	.04	.04	.07	.07	.08	.06	.06	.05	.03	.04	.05
4	.03	.04	.04	.07	.07	.07	.06	.05	.05	.03	.04	.05
5	.03	.04	.04	.07	.07	.13	.06	.05	.05	.03	.04	.04
6	.03	.04	.04	.07	.07	.07	.06	.05	.05	.03	.03	.04
7	.03	.04	.05	.07	.07	.08	.06	.06	.05	.03	.03	.04
8	.03	.04	.05	.07	.07	.07	.06	.06	.05	.04	.03	.04
9	.03	.04	.05	.07	.07	.06	.06	.06	.05	.05	.04	.04
10	.03	.05	.05	.07	.09	.07	.06	.06	.05	.05	.04	.04
11	.03	.04	.05	.07	.08	.06	.06	.06	.05	.04	.04	.04
12	.03	.04	.05	.07	.08	.06	.06	.05	.05	.03	.04	.04
13	.03	.05	.05	.07	.08	.06	.06	.05	.05	.03	.04	.03
14	.03	.05	.05	.06	.08	.07	.07	.05	.05	.04	.04	.03
15	.03	.05	.05	.06	.08	.07	.06	.05	.05	.04	.04	.04
16	.02	.05	.05	.06	.07	.07	.06	.05	.05	.04	.14	.04
17	.02	.04	.05	.06	.07	.07	.06	.04	.05	.04	.05	.04
18	.03	.04	.05	.06	.07	.07	.07	.04	.05	.03	.04	.03
19	.03	.04	.05	.06	.07	.07	.07	.04	.04	.03	.04	.02
20	.03	.05	.05	.06	.07	.07	.07	.04	.04	.04	.04	.03
21	.03	.05	.05	.06	.07	.06	.07	.04	.04	.04	.04	.03
22	.03	.04	.06	.06	.07	.06	.07	.05	.04	.04	.03	.03
23	.03	.04	.06	.06	.08	.06	.07	.04	.04	.04	.03	.03
24	.03	.05	.06	.06	.08	.06	.06	.04	.04	.04	.03	.03
25	.03	.04	.06	.06	.07	.07	.06	.05	.04	.03	.03	.03
26	.03	.05	.06	.06	.07	.07	.06	.05	.04	.04	.04	.03
27	.04	.05	.06	.06	.07	.07	.07	.05	.04	.04	.04	.03
28	.03	.05	.07	.06	.11	.06	.07	.05	.04	.04	.04	.03
29	.04	.04	.07	.06	-----	.06	.05	.05	.04	.04	.04	.03
30	.03	.04	.07	.07	-----	.06	.06	.05	.04	.04	.04	.03
31	.03	-----	.07	.07	-----	.06	-----	.05	-----	.03	.04	-----
TOTAL	0.93	1.29	1.63	2.01	2.09	2.16	1.88	1.56	1.38	1.13	1.26	1.07
MEAN	.030	.043	.053	.065	.075	.070	.063	.050	.046	.037	.041	.036
MAX	.04	.05	.07	.07	.11	.13	.07	.06	.05	.05	.14	.05
MIN	.02	.03	.04	.06	.07	.06	.05	.04	.04	.03	.03	.02
AC-FT	1.8	2.6	3.2	4.0	4.1	4.3	3.7	3.1	2.7	2.2	2.5	2.1
(a)	.19	.25	.06	.18	2.67	4.65	1.38	0	0	0	3.72	0

CAL YR 1969 TOTAL 63.56 MEAN .17 MAX 16 MIN .02 AC-FT 126
WTR YR 1970 TOTAL 18.39 MEAN .050 MAX .14 MIN .02 AC-FT 37

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

a Precipitation, in inches.

SALTON SEA BASIN

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.--9 years (1961-70), 4.35 cfs (3,150 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,600 cfs (estimated) Nov. 11 (gage height, 10.40 ft); 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 poor. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.18	.22	.22	86	.03	.01			0	.03
2		0	.18	.22	.22	81	.03	.01			0	.01
3		0	.18	.22	.22	2.0	.05	0			0	.01
4		0	.18	.22	.27	.93	.05	0			0	.01
5		0	.27	.22	.33	.93	.03	0			0	0
6		0	.33	.22	.46	1.0	.05	0			0	0
7		0	.27	.22	.82	1.0	.02	0			0	0
8		0	.27	.22	.63	1.0	.02	0			0	0
9		0	.27	.22	.39	.73	.02	0			0	0
10		0	.22	.22	3.3	.39	.02	0			0	0
11		122	.22	.22	1.0	.39	.01	0			0	0
12		5.9	.22	.22	.54	.22	.01	0			0	0
13		.22	.22	.22	.46	.15	.01	0			0	0
14		.20	.22	.22	.33	.05	.01	0			0	0
15		.18	.22	.22	.22	.05	.01	0			0	0
16		.18	.22	.22	.22	.12	.01	0			83	0
17		.18	.54	.22	.22	.12	.01	0			148	0
18		.18	.33	.22	.18	.07	.01	0			.16	0
19		.18	.27	.22	.18	.07	.01	0			0	0
20		.18	.27	.22	.46	.09	.01	0			0	0
21		.18	.27	.22	.39	.09	.01	0			0	0
22		.18	.27	.22	.18	.09	.01	0			0	0
23		.18	.27	.22	.18	.09	.01	0			0	0
24		.18	.22	.22	.15	.12	.01	0			0	0
25		.18	.22	.22	.15	.12	.01	0			0	0
26		.18	.22	.22	.12	.12	.01	0			439	0
27		.18	.22	.22	.12	.02	.01	0			157	0
28		.15	.15	.22	.09	.02	.01	0			3.0	0
29		.15	.15	.18	-----	.02	.01	0			1.3	0
30		.18	.18	.18	-----	.02	.01	0			.63	0
31		-----	.22	.22	-----	.02	-----	0	-----		.05	-----
TOTAL	0	131.14	7.47	6.74	12.05	177.04	.52	.02	0	0	832.14	.06
MEAN	0	4.37	.24	.22	.43	5.71	.017	.0006	0	0	26.8	.002
MAX	0	122	.54	.22	3.3	86	.05	.01	0	0	439	.03
MIN	0	0	.15	.18	.09	.02	.01	0	0	0	0	0
AC-FT	0	260	15	13	24	351	1.0	.04	0	0	1,650	.1
CAL YR 1969	TOTAL	679.52	MEAN 1.86	MAX 483	MIN 0	ACFT 1,350						
WAT YR 1970	TOTAL	1,167.18	MEAN 3.20	MAX 439	MIN 0	ACFT 2,320						

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-11	-	10.40	2,600	8-16	1300	9.00	1,510
3-1	1400	7.40	305	8-26	2200	9.55	2,080

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 Gorgonio River. Prior to Oct. 1, 1969, at site 1.5 miles downstream.

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).--22 years, 17.0 cfs (12,320 acre-ft per year).

(Combined river and infiltration line).--21 years (1949-70), 18.8 cfs (13,620 acre-ft per year); median of yearly mean discharges, 13 cfs (9,420 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 201 cfs Feb. 28 (gage height, 5.00 ft); minimum daily, 9.1 cfs July 25.

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 except those for period of no gage-height record, which are poor. 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 1970. 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 Gorgonio 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	41	49	36	30	43	28	29	16	14	12	16
2	56	42	47	37	32	40	28	28	17	14	12	15
3	56	42	47	35	31	37	26	26	17	14	12	15
4	53	42	47	35	31	37	27	25	17	12	12	15
5	50	44	48	35	30	37	25	24	17	12	12	15
6	51	43	45	36	31	36	23	22	16	13	12	15
7	51	41	45	36	30	35	26	20	16	13	13	16
8	51	39	47	36	30	34	24	20	17	12	12	15
9	50	38	46	36	31	33	22	18	18	12	12	15
10	50	37	45	35	43	34	23	18	19	13	12	14
11	48	43	45	35	37	31	23	20	15	11	12	14
12	48	46	45	35	35	31	24	20	17	11	12	13
13	49	46	44	35	33	31	26	20	15	12	12	13
14	49	47	43	36	32	30	30	21	15	12	13	13
15	49	46	43	37	31	31	30	20	17	12	12	13
16	48	44	42	38	31	31	29	19	17	12	18	13
17	48	45	42	37	32	32	28	20	16	13	16	12
18	48	44	44	37	32	32	26	19	17	12	19	13
19	48	44	42	39	32	32	28	19	17	12	17	13
20	50	44	40	39	32	32	29	19	16	13	16	14
21	48	47	40	38	31	31	29	19	14	13	17	14
22	46	47	40	38	31	29	29	17	16	12	15	13
23	45	46	40	37	34	28	30	17	16	12	14	13
24	45	48	38	36	34	29	29	17	16	12	15	14
25	43	49	37	35	34	28	28	18	16	9.1	15	14
26	44	50	37	36	33	27	27	18	16	9.2	15	14
27	46	49	37	35	33	29	29	18	14	10	17	14
28	45	50	34	33	45	27	29	17	14	11	17	14
29	44	49	35	33	-----	26	29	17	15	11	16	14
30	44	49	36	32	-----	27	29	16	15	10	14	14
31	44	-----	37	31	-----	28	-----	15	-----	12	16	-----
TOTAL	1,505	1,342	1,307	1,109	921	988	813	616	484	370.3	439	420
MEAN	48.5	44.7	42.2	35.8	32.9	31.9	27.1	19.9	16.1	11.9	14.2	14.0
MAX	58	50	49	39	45	43	30	29	19	14	19	16
MIN	43	37	34	31	30	26	22	15	14	9.1	12	12
AC-FT	2,990	2,660	2,590	2,200	1,830	1,960	1,610	1,220	960	734	871	833
(a)	3,050	2,720	2,660	2,280	1,900	2,040	1,680	1,290	1,020	793	926	889
(b)	230	164	153	137	107	116	111	136	186	158	155	133

CAL YR 1969 TOTAL 46,310.5 MEAN 127 MAX 4,970 MIN 8.5 ACFT 91,860 AC-FT a 92,760
 WAT YR 1970 TOTAL 10,314.3 MEAN 28.3 MAX 58 MIN 9.1 ACFT 20,460 AC-FT a 21,250

PEAK DISCHARGE (BASE, 100 CFS).--Feb. 10 (1030) 144 cfs (4.68 ft); Feb. 28 (1900) 201 cfs (5.00 ft).

a Combined discharge of river and infiltration line.

b Discharge diverted from basin 15 miles upstream.

NOTE.--No gage-height record Jan. 17 to Feb. 7, Feb. 11 to Mar. 4, May 13 to June 3, Sept. 4-25.

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, 66 cfs Mar. 1 (gage height, 2.15 ft), on basis of slope-conveyance measurement of peak flow; 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						4.0						
2						.41						
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						0						
30						0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	0	4.41	0	0	0	0	0	0
MEAN	0	0	0	0	0	.14	0	0	0	0	0	0
MAX	0	0	0	0	0	4.0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	8.8	0	0	0	0	0	0

CAL YR 1969 TOTAL 3,846.81 MEAN 10.5 MAX 1,500 MIN 0 ACFT 7,630
 WAT YR 1970 TOTAL 4.41 MEAN .012 MAX 4.0 MIN 0 ACFT 8.7

PEAK DISCHARGE (BASE, 50 CFS).--Mar. 1 (1700) 66 cfs (2.15 ft).

SALTON SEA BASIN

10256500 SNOW CREEK NEAR WHITE WATER, CALIF.

LOCATION.--Lat 33°52'12", 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 50 ft upstream from Southern Pacific Railroad diversion dam, 500 ft downstream from unnamed tributary, 2.8 miles upstream from mouth, and 4.5 miles southwest of White Water.

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 2,100 ft (from topographic map). Prior to September 1931, at various sites within 500 ft of present site at different datums.

AVERAGE DISCHARGE.--18 years (1922-26, 1928-31, 1959-70), 8.55 cfs (6,190 acre-ft per year); median of yearly mean discharges, 6.0 cfs (4,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 182 cfs Nov. 10 (gage height, 5.39 ft); minimum daily, 2.8 cfs July 23.

Period of record: Maximum discharge, 13,000 cfs Jan. 25, 1969 (gage height, 13.8 ft, from profile of floodmarks), 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	5.3	6.2	4.4	5.0	4.6	6.0	5.9	5.4	3.7	3.2	3.4
2	6.7	5.3	5.9	4.4	4.8	4.4	5.9	5.9	5.4	3.7	3.3	3.4
3	6.1	5.3	5.9	4.0	4.7	15	5.9	6.1	5.3	3.9	3.4	3.4
4	6.2	5.3	5.9	3.9	4.7	9.8	5.5	6.3	5.1	3.7	3.4	3.4
5	6.2	5.3	5.9	3.9	4.7	9.8	5.4	6.8	5.0	3.7	3.3	3.4
6	6.3	5.6	5.9	3.9	4.7	8.0	5.5	7.0	5.1	3.7	3.3	3.4
7	6.3	6.2	5.6	4.1	4.7	7.5	5.3	6.8	5.0	3.7	3.5	3.4
8	6.3	6.5	5.6	4.2	4.7	7.4	5.3	7.3	4.9	3.7	3.5	3.4
9	6.2	11	5.6	4.2	4.7	7.3	5.7	7.7	4.7	3.8	3.5	3.4
10	6.2	8.4	5.6	6.0	5.6	8.2	5.9	8.4	4.6	3.9	3.5	3.4
11	5.7	32	5.6	6.9	16	7.7	6.4	8.2	4.4	3.8	3.8	3.4
12	5.7	15	5.4	7.3	8.6	7.1	6.9	7.9	4.4	3.7	3.4	3.5
13	5.6	11	5.3	5.9	6.7	7.0	6.4	7.9	4.3	3.7	3.5	3.5
14	5.3	9.9	5.3	5.5	6.0	7.8	5.9	8.1	4.3	3.6	3.5	3.5
15	5.5	9.7	5.3	5.1	5.6	9.2	5.6	8.2	4.2	3.2	3.5	3.5
16	5.6	11	5.0	7.6	5.3	9.7	5.6	8.3	4.2	3.1	3.5	3.5
17	5.4	8.8	5.0	10	5.2	9.1	5.5	8.5	4.1	2.9	3.5	3.5
18	6.3	7.7	5.0	6.8	4.7	8.6	5.5	8.6	4.2	3.0	3.5	3.5
19	5.9	7.1	5.0	6.2	4.7	7.4	5.5	8.5	4.1	2.9	3.5	3.6
20	5.7	7.0	5.0	6.2	4.6	7.0	5.4	7.7	4.0	3.0	3.5	3.6
21	5.6	7.0	5.0	5.9	4.4	6.6	5.7	6.8	4.2	3.1	3.5	3.6
22	5.6	6.6	5.0	5.4	4.2	6.6	5.6	6.6	4.2	3.0	3.4	3.6
23	5.9	6.5	5.0	5.3	4.3	6.3	5.6	6.7	4.1	2.8	3.4	3.6
24	5.9	6.3	5.0	5.2	4.4	6.3	5.6	6.8	4.0	2.9	3.4	3.6
25	5.8	6.2	4.7	5.0	4.3	6.1	5.6	6.5	4.0	3.2	3.4	3.7
26	5.6	6.2	4.7	5.0	4.4	6.7	5.6	6.4	3.9	3.5	3.4	3.7
27	5.3	6.2	4.7	5.0	4.2	7.3	6.7	6.1	3.8	3.2	3.4	3.7
28	5.3	5.9	4.3	4.7	12	6.9	6.2	5.7	3.7	3.1	3.4	3.7
29	5.4	5.9	4.2	4.7	-----	6.5	5.8	5.8	3.5	3.3	3.4	3.7
30	5.4	7.1	4.3	4.7	-----	6.2	5.8	5.7	3.6	3.3	3.4	3.7
31	5.3	-----	4.4	4.7	-----	6.2	-----	5.4	-----	3.3	3.4	-----
TOTAL	181.0	324.9	161.3	166.1	157.9	315.3	173.3	218.6	131.7	105.1	106.6	105.7
MEAN	5.84	10.8	5.20	5.36	5.64	10.2	5.78	7.05	4.39	3.39	3.44	3.52
MAX	6.8	8.4	6.2	10	16	46	6.9	8.6	5.4	3.9	3.8	3.7
MIN	5.3	5.3	4.2	3.9	4.2	6.1	5.3	5.4	3.5	2.8	3.2	3.4
AC-FT	159	644	320	329	313	625	344	434	261	208	211	210

CAL YR 1969 TOTAL 12,384.6 MEAN 33.9 MAX 3,490 MIN 4.2 AC-FT 24,560
 APR YR 1970 TOTAL 2,147.5 MEAN 5.88 MAX 84 MIN 2.8 AC-FT 4,260

PEAK DISCHARGE (BASE, 50 CFS).--Nov. 10 (0715) 182 cfs (5.39 ft); Mar. 1 (0700) 86 cfs (5.06 ft).

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, 9.4 cfs Mar. 1 (gage height, 2.47 ft); minimum daily, 0.30 cfs Aug. 23.

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 most of each year.

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

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	3.7	3.5	3.5	2.6	2.6	7.6	3.3	2.6	1.4	1.2	.88	1.6
2	3.7	3.3	3.5	2.6	2.7	6.7	3.3	2.6	1.3	1.2	.88	1.6
3	3.9	3.1	3.5	2.2	2.7	5.3	3.1	2.6	1.3	1.2	.88	1.6
4	4.1	3.3	3.5	1.9	2.7	4.5	3.1	2.4	1.3	1.2	.80	1.5
5	4.1	3.5	3.5	1.9	2.7	5.0	3.1	2.2	1.3	1.2	.80	1.5
6	4.1	3.7	3.5	1.8	2.7	4.1	2.9	2.1	1.3	1.1	.72	1.5
7	3.9	3.9	3.5	1.9	2.6	3.9	2.9	2.1	1.3	1.1	.57	1.4
8	3.9	3.7	3.5	2.1	2.6	3.7	2.9	2.1	1.3	1.1	.64	1.3
9	3.9	3.7	3.5	2.2	2.6	3.7	2.9	1.9	1.4	1.3	.57	1.2
10	3.7	3.9	3.5	2.4	3.3	4.1	2.7	1.9	1.4	1.2	.51	1.2
11	3.9	3.7	3.3	2.4	3.7	3.9	2.7	1.9	1.4	1.1	.51	1.1
12	3.9	3.7	3.3	2.4	3.1	3.7	2.7	1.9	1.4	1.1	.51	1.1
13	3.9	3.5	3.1	2.4	3.1	3.7	2.9	1.9	1.5	1.1	.51	1.1
14	4.1	3.5	3.1	2.6	3.1	3.5	2.9	1.9	1.5	1.1	.51	1.1
15	4.1	3.7	3.1	2.6	2.9	3.5	2.9	1.8	1.4	1.1	.57	1.1
16	4.1	3.7	3.1	2.7	2.9	3.5	2.9	1.8	1.4	1.1	.57	1.1
17	3.9	3.7	3.1	2.7	2.9	3.5	2.9	1.8	1.4	1.1	.57	1.1
18	3.9	3.7	3.1	2.7	3.1	3.5	2.9	1.8	1.4	1.1	.51	1.1
19	3.9	3.7	3.1	2.7	3.1	3.7	2.9	1.8	1.3	1.1	.45	1.1
20	3.9	3.5	3.1	2.7	3.1	3.5	2.9	1.8	1.3	1.1	.39	1.1
21	3.9	3.5	3.1	2.7	2.9	3.5	2.9	1.8	1.2	1.2	.39	1.1
22	3.9	3.5	3.1	2.7	3.1	3.3	2.9	1.5	1.1	1.1	.34	1.1
23	3.7	3.5	3.1	2.7	3.1	3.3	2.7	1.5	1.1	.98	.30	.98
24	3.7	3.5	3.1	2.7	3.1	3.1	2.6	1.5	1.1	.88	.34	.98
25	3.7	3.5	3.1	2.7	3.1	3.1	2.6	1.5	1.1	.88	.34	.98
26	3.7	3.5	3.1	2.7	3.3	3.1	2.7	1.5	1.1	.88	.34	1.1
27	3.5	3.5	3.1	2.7	3.3	3.1	2.9	1.5	1.1	.88	2.6	.98
28	3.5	3.5	3.1	2.7	4.2	3.1	3.1	1.5	1.2	.88	2.2	.98
29	3.5	3.5	2.6	2.7	-----	3.1	2.9	1.5	1.2	.88	2.1	.98
30	3.5	3.5	2.6	2.7	-----	3.3	2.7	1.4	1.2	.88	1.9	.98
31	3.5	-----	2.6	2.6	-----	3.3	-----	1.4	-----	.88	1.8	-----
TOTAL	118.7	107.0	99.0	77.1	84.3	119.9	86.8	57.5	38.7	33.12	25.00	35.56
MEAN	3.83	3.57	3.19	2.49	3.01	3.87	2.89	1.85	1.29	1.07	.81	1.19
MAX	4.1	3.9	3.5	2.7	4.2	7.6	3.3	2.6	1.5	1.3	2.6	1.6
MIN	3.5	3.1	2.6	1.8	2.6	3.1	2.6	1.4	1.1	.88	.30	.98
AC-FT	235	212	196	153	167	238	172	114	77	66	50	71
(a)	.2	.4	0	.2	1.0	1.4	.1	0	0	.1	0	0

CAL YR 1969 TOTAL 4,175.93 MEAN 11.4 MAX 419 MIN 0 ACFT 8,280
 WAT YR 1970 TOTAL 882.68 MEAN 2.42 MAX 7.6 MIN .30 ACFT 1,750

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 current year.

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

AVERAGE DISCHARGE.--7 years, 0.002 cfs (1.4 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1.2 cfs Mar. 2 (gage height, 0.96 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	0	0					
2					0	.03	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	.02					
17					0	0	0					
18					0	0	0					
19					0	0	0					
20					0	0	0					
21					0	0	0					
22					0	0	0					
23					0	0	0					
24					0	0	0					
25					0	0	0					
26					0	0	0					
27					0	0	0					
28					.02	0	0					
29					-----	0	0					
30					-----	0	0					
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	.02	.03	.02	0	0	0	0	0
MEAN	0	0	0	0	.0007	.001	.0007	0	0	0	0	0
MAX	0	0	0	0	.02	.03	.02	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	.04	.06	.04	0	0	0	0	0
CAL YR 1969	TOTAL 1.94	MEAN .0053	MAX .79	MIN 0	ACFT 3.9							
WAT YR 1970	TOTAL 0.07	MEAN .0002	MAX .03	MIN 0	ACFT .1							

10258000 TAHQUITZ CREEK NEAR PALM SPRINGS, CALIF.

LOCATION.--Lat 33°48'18", long 116°33'30", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ 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 764.5 ft above mean sea level (levels by Riverside County Flood Control District).

AVERAGE DISCHARGE.--23 years, 4.17 cfs (3,020 acre-ft per year); median of yearly mean discharges, 1.8 cfs (1,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 40 cfs Nov. 10 (gage height, 3.24 ft); no flow Sept. 20-30.
Period of record: Maximum discharge, 2,900 cfs Nov. 22, 1965, Jan. 25, 1969 (gage height, 10.34 ft), 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 good. No regulation or diversion above station.

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	1.7	1.7	3.2	2.2	2.9	6.7	4.4	5.5	2.2	.39	.17	.24
2	1.8	1.7	3.1	2.2	2.5	8.5	4.2	5.5	2.1	.37	.16	.17
3	1.8	1.6	3.1	2.2	2.6	5.3	4.4	5.4	2.0	.36	.16	.12
4	1.8	1.6	3.2	2.2	2.6	4.7	4.4	5.4	1.8	.35	.16	.09
5	1.9	1.6	3.0	2.3	2.5	4.6	4.4	5.4	1.7	.33	.16	.07
6	1.9	1.7	3.0	2.3	2.5	3.8	4.4	5.3	1.6	.32	.16	.07
7	1.9	2.6	3.0	2.3	2.4	3.7	4.3	5.2	1.5	.31	.16	.08
8	1.7	2.7	3.0	2.3	2.4	3.8	4.3	5.2	1.4	.30	.16	.13
9	1.7	3.0	3.0	2.3	2.3	3.8	4.2	5.0	1.3	.29	.16	.16
10	1.7	2.2	2.9	3.1	3.5	3.8	4.2	4.8	1.2	.28	.16	.13
11	1.5	1.3	2.8	3.3	6.6	3.7	4.2	4.7	1.1	.27	.16	.08
12	1.6	7.3	2.9	3.4	4.7	3.5	4.2	4.5	1.1	.26	.16	.05
13	1.7	5.6	2.6	3.0	4.0	3.4	4.2	4.4	1.0	.25	.16	.06
14	1.7	5.0	2.6	2.9	3.5	3.7	4.2	4.4	.96	.24	.15	.07
15	1.8	5.0	2.6	2.9	3.2	4.4	4.2	4.4	.90	.23	.15	.05
16	1.8	5.3	2.6	3.7	3.0	4.7	4.2	4.3	.86	.23	.15	.05
17	1.8	4.4	2.6	8.2	3.0	4.8	4.2	4.3	.80	.22	.15	.04
18	2.0	4.0	2.5	5.0	2.8	5.1	4.1	4.2	.76	.22	.15	.03
19	2.4	3.7	2.5	4.2	2.6	4.7	4.1	4.1	.72	.21	.15	.01
20	2.4	3.6	2.5	4.0	2.5	4.4	4.1	4.0	.68	.21	.15	0
21	2.5	3.4	2.5	3.8	2.8	4.4	4.4	3.8	.64	.20	.15	0
22	2.8	3.3	2.5	3.6	2.5	4.4	4.6	3.5	.61	.20	.15	0
23	2.8	3.2	2.4	3.6	2.6	4.7	4.5	3.4	.58	.19	.15	0
24	2.7	3.1	2.4	3.4	2.5	4.7	4.2	3.1	.55	.19	.15	0
25	2.5	3.0	2.4	3.2	2.4	5.1	4.1	3.0	.52	.18	.36	0
26	2.2	3.0	2.4	3.1	2.4	5.6	4.0	3.0	.50	.18	.49	0
27	2.2	3.0	2.3	3.0	2.4	5.7	6.5	3.0	.48	.18	.64	0
28	2.1	2.9	2.2	2.9	4.5	5.3	6.1	2.9	.45	.17	.62	0
29	1.9	2.9	2.0	2.7	-----	5.0	5.9	2.8	.43	.17	.51	0
30	1.9	3.3	2.2	2.9	-----	5.0	5.7	2.6	.41	.17	.39	0
31	1.8	-----	2.4	2.7	-----	4.7	-----	2.4	-----	.17	.32	-----
TOTAL	62.0	128.2	82.4	98.9	84.2	145.7	134.9	129.5	30.85	7.64	7.07	1.70
MEAN	2.00	4.27	2.66	3.19	3.01	4.70	4.50	4.18	1.03	.25	.23	.057
MAX	2.8	22	3.2	8.2	6.6	8.5	6.5	5.5	2.2	.39	.64	.24
MIN	1.5	1.6	2.0	2.2	2.3	3.4	4.0	2.4	.41	.17	.15	0
AC-FT	123	254	163	196	167	289	268	257	61	15	14	3.4

CAL YR 1969 TOTAL 10,525.40 MEAN 28.8 MAX 1,080 MIN .28 ACFT 20,880
WAT YR 1970 TOTAL 913.06 MEAN 2.50 MAX 22 MIN 0 ACFT 1,810

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

NOTE.--No gage-height record Apr. 5 to May 12, June 2 to Aug. 25.

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, 3.8 cfs Feb. 28 (gage height, 4.91 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0			0	1.1					0	
2		0			0	.46					0	
3		0			0	.13					0	
4		0			0	.04					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		.16			0	0					0	
11		0			0	0					0	
12		0			0	0					0	
13		0			0	0					0	
14		0			0	0					0	
15		0			0	0					0	
16		0			0	0					.01	
17		0			0	0					0	
18		0			0	0					0	
19		0			0	0					0	
20		0			0	0					0	
21		0			0	0					0	
22		0			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			.37	0					0	
29		0			-----	0					0	
30		0			-----	0					0	
31		-----			-----	0	-----		-----		0	-----
TOTAL	0	.16	0	0	.37	1.73	0	0	0	0	.01	0
MEAN	0	.005	0	0	.013	.056	0	0	0	0	.0003	0
MAX	0	.16	0	0	.37	1.1	0	0	0	0	.01	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	.3	0	0	.7	3.4	0	0	0	0	.02	0
(a).	.1	3.6	.1	1.0	2.4	4.0	.3	0	0	1.8	.7	.1

CAL YR 1969 TOTAL 2.98 MEAN .008 MAX .75 MIN 0 ACFT 5.9 a 18.3
 WAT YR 1970 TOTAL 2.27 MEAN .006 MAX 1.1 MIN 0 ACFT 4.5 a 14.1

a Precipitation, in inches.

SALTON SEA BASIN

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.--34 years (1930-41, 1947-70), 3.68 cfs (2,670 acre-ft per year); median of yearly mean discharges, 0.7 cfs (510 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 126 cfs Mar. 1 (gage height, 2.68 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.01	.03	44	.57	.05				
2			0	0	0	55	.49	0				
3			0	.03	.03	12	.36	0				
4			0	.04	.03	5.9	.24	0				
5			0	.01	.01	8.9	.23	0				
6			0	.02	0	5.7	.23	0				
7			0	.03	0	4.0	.18	0				
8			0	.03	0	3.2	.15	0				
9			.01	.01	0	2.8	.12	0				
10			.02	.10	.16	2.8	.10	0				
11			.02	.20	.74	3.2	.02	0				
12			.04	.36	.42	2.4	.03	0				
13			.02	.36	.36	2.0	.05	0				
14			.02	.25	.20	1.9	.17	0				
15			.01	.20	.13	1.9	.18	0				
16			.01	.25	.13	1.7	.20	0				
17			.01	.74	.08	1.6	.30	0				
18			.01	.49	.02	1.6	.20	0				
19			.01	.42	.02	1.4	.05	0				
20			.01	.36	.02	1.2	.01	0				
21			.01	.30	0	1.0	.24	0				
22			0	.25	0	.94	.26	0				
23			0	.25	0	.84	.09	0				
24			0	.25	0	.74	0	0				
25			.01	.20	0	.74	0	0				
26			.01	.16	0	.65	0	0				
27			.01	.16	0	.57	.40	0				
28			.01	.07	3.8	.57	.74	0				
29			0	.05	-----	.57	.57	0				
30			0	.10	-----	.57	.26	0				
31		-----	0	.04	-----	.57	-----	0	-----			-----
TOTAL	0	0	.24	5.74	6.18	170.96	6.44	.05	0	0	0	0
MEAN	0	0	.007	.19	.22	5.51	.21	.001	0	0	0	0
MAX	0	0	.04	.74	3.8	55	.74	.05	0	0	0	0
MIN	0	0	0	0	0	.57	0	0	0	0	0	0
AC-FT	0	0	.5	11	12	339	13	.1	0	0	0	0

CAL YR 1969 TOTAL 2,792.77 MEAN 7.65 MAX 389 MIN 0 ACFT 5,540
WAT YR 1970 TOTAL 189.61 MEAN .52 MAX 55 MIN 0 ACFT 376

PEAK DISCHARGE (BASE, 100 CFS).--Mar. 1 (0900) 126 cfs (2.68 ft).

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.--22 years, 2.22 cfs (1,610 acre-ft per year); median of yearly mean discharges, 1.5 cfs (1,100 acre-ft er year).

EXTREMES.--Current year: Maximum discharge, 21 cfs Feb. 28 (gage height, 1.70 ft); minimum daily, 0.64 cfs Sept. 2, 18, 19, 25.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.5	3.0	2.5	2.3	9.2	2.8	1.9	1.5	1.4	1.0	.72
2	2.5	2.5	3.0	2.7	2.3	9.8	2.8	1.8	1.5	1.5	.98	.64
3	2.3	2.4	3.1	2.5	2.2	4.5	2.7	1.8	1.4	1.5	.95	.68
4	2.3	2.5	3.0	2.7	2.2	3.9	2.7	1.6	1.4	1.4	.94	.70
5	2.3	2.6	2.9	2.6	2.2	4.1	2.6	1.7	1.5	1.4	.92	.73
6	2.3	2.6	2.8	2.7	2.2	3.8	2.6	1.8	1.4	1.4	.90	.73
7	2.3	3.1	2.9	2.7	2.4	3.7	2.5	1.8	1.4	1.4	.90	.74
8	2.3	2.8	2.9	2.7	2.2	3.5	2.5	1.8	1.5	1.5	.89	.74
9	2.3	3.1	2.9	2.7	2.2	3.4	2.4	1.8	1.5	2.0	.88	.75
10	2.3	7.1	2.9	2.7	3.0	3.3	2.4	1.7	1.5	1.8	.87	.74
11	2.3	4.0	2.9	2.6	3.9	3.2	2.3	1.6	1.4	1.6	.86	.76
12	2.3	3.1	2.9	2.6	2.9	3.2	2.3	1.7	1.4	1.5	.85	.78
13	2.3	2.9	2.9	2.6	3.0	3.1	2.2	1.6	1.5	1.5	.84	.73
14	2.3	2.8	2.9	2.5	2.9	3.1	2.8	1.7	1.5	1.4	.83	.76
15	2.4	2.8	2.9	2.5	2.9	3.0	3.0	1.7	1.4	1.4	.82	.81
16	2.4	2.7	2.9	2.5	2.8	3.0	2.3	1.6	1.4	1.4	.81	.65
17	2.5	2.7	2.9	2.4	2.8	3.0	2.1	1.6	1.5	1.3	.81	.67
18	2.5	2.6	2.8	2.4	2.8	2.9	2.0	1.5	1.4	1.3	.80	.64
19	2.6	2.6	2.8	2.4	2.7	2.9	2.0	1.5	1.4	1.3	.78	.64
20	2.5	2.5	2.8	2.3	2.7	2.8	2.0	1.5	1.4	1.3	.77	.66
21	2.5	2.5	2.8	2.3	2.7	2.8	2.0	1.5	1.4	1.2	.76	.70
22	2.6	2.5	2.8	2.3	2.7	2.8	2.0	1.6	1.6	1.2	.76	.70
23	2.6	2.5	2.8	2.3	2.7	2.8	1.9	1.5	1.6	1.2	.73	.71
24	2.5	2.5	2.8	2.3	2.7	2.8	1.9	1.5	1.5	1.1	.72	.70
25	2.4	2.6	2.7	2.3	2.7	2.8	1.9	1.5	1.5	1.1	.99	.64
26	2.4	2.7	2.7	2.3	2.7	2.8	1.9	1.6	1.5	1.1	1.3	.67
27	2.4	2.6	2.7	2.3	2.7	2.8	1.9	1.6	1.4	1.1	1.4	.67
28	2.4	2.5	2.7	2.3	6.0	2.8	1.9	1.9	1.5	1.0	1.1	.66
29	2.3	2.7	2.6	2.3	-----	2.8	1.9	1.8	1.4	1.0	.82	.75
30	2.4	3.5	2.6	2.3	-----	2.8	1.8	1.7	1.5	1.0	.76	.73
31	2.4	-----	2.6	2.3	-----	2.8	-----	1.5	-----	1.0	.74	-----
TOTAL	74.2	86.5	87.9	76.6	77.5	110.2	68.1	51.4	43.8	41.3	27.48	21.20
MEAN	2.39	2.88	2.84	2.47	2.77	3.55	2.27	1.66	1.46	1.33	.89	.71
MAX	2.6	7.1	3.1	2.7	6.0	9.8	3.0	1.9	1.6	2.0	1.4	.81
MIN	2.3	2.4	2.6	2.3	2.2	2.8	1.8	1.5	1.4	1.0	.72	.64
AC-FT	147	172	174	152	154	219	135	102	87	82	55	42

CAL YR 1969 TOTAL 2,934.40 MEAN 8.04 MAX 220 MIN 1.8 ACFT 5,820
 WAT YR 1970 TOTAL 766.18 MEAN 2.10 MAX 9.8 MIN .64 ACFT 1,520

PEAK DISCHARGE (BASE, 30 CFS).--No peak above base.

NOTE.--No gage-height record or stage-discharge relation indefinite most of year.

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.--8 years, 0.728 cfs (527 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 74 cfs Mar. 1 (gage height, 2.86 ft); no flow many days.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.01	.15	.17	40	.33	.17	.03	0	0	
2		0	.01	.15	.17	32	.33	.15	.03	0	0	
3		0	.01	.15	.17	8.8	.33	.13	.03	0	0	
4		0	.01	.15	.17	3.3	.30	.13	.03	0	0	
5		0	.09	.15	.17	3.2	.27	.13	.04	0	0	
6		0	.15	.15	.17	2.1	.24	.13	.03	0	0	
7		0	.17	.15	.17	1.5	.24	.11	.03	0	0	
8		0	.17	.15	.15	1.3	.24	.11	.03	.02	0	
9		0	.17	.15	.15	1.2	.24	.09	.03	.03	0	
10		.21	.17	.17	.36	1.2	.21	.09	.03	.01	0	
11		.02	.15	.19	.70	1.1	.19	.09	.03	0	0	
12		.02	.15	.24	.60	.86	.19	.09	.03	0	0	
13		.01	.15	.24	.40	.80	.19	.07	.03	0	0	
14		.01	.15	.21	.33	.70	.19	.07	.03	0	0	
15		.01	.15	.21	.30	.70	.21	.07	.03	0	0	
16		.01	.15	.21	.27	.70	.24	.06	.03	0	0	
17		.01	.15	.21	.24	.70	.27	.06	.02	0	0	
18		.01	.15	.19	.24	.70	.24	.06	.02	0	0	
19		.01	.15	.19	.24	.65	.24	.06	.02	0	0	
20		.01	.15	.21	.24	.56	.21	.06	.02	0	0	
21		.01	.17	.21	.21	.52	.21	.06	.02	0	0	
22		.01	.17	.21	.21	.48	.21	.06	.01	0	0	
23		.01	.17	.21	.21	.44	.19	.05	.01	0	0	
24		.01	.17	.21	.21	.40	.19	.05	.01	0	0	
25		.01	.17	.19	.21	.36	.17	.05	.01	0	0	
26		.01	.17	.19	.21	.36	.17	.05	0	0	1.5	
27		.01	.17	.17	.21	.36	.19	.05	0	0	.60	
28		.01	.17	.17	.72	.36	.24	.05	0	0	0	
29		.01	.15	.17	-----	.36	.19	.05	0	0	0	
30		.01	.15	.17	-----	.36	.19	.05	0	0	0	
31		-----	.15	.17	-----	.36	-----	.04	-----	0	0	-----
TOTAL	0	.43	4.27	5.69	7.60	106.43	6.85	2.49	.63	.06	2.10	0
MEAN	0	.014	.14	.18	.27	3.43	.23	.080	.021	.001	.068	0
MAX	0	.21	.17	.24	.72	40	.33	.17	.04	.03	1.5	0
MIN	0	0	.01	.15	.15	.36	.17	.04	0	0	0	0
AC-FT	0	.9	8.5	11	15	211	14	4.9	1.3	.1	4.2	0

CAL YR 1969 TOTAL 532.08 MEAN 1.46 MAX 114 MIN 0 ACFT 1,060
WAT YR 1970 TOTAL 136.55 MEAN .37 MAX 40 MIN 0 ACFT 271

PEAK DISCHARGE (BASE, 20 CFS).--Mar. 1 (1600) 74 cfs (2.86 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).

EXTREMES.--Current year: Maximum discharge, 8.0 cfs Jan. 27 (gage height, 7.10 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 Nov. 22, 1965, reached a stage of 15.3 ft, from floodmarks (discharge, 14,100 cfs, on basis of slope-area measurement of maximum 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 1969 TO SEPTEMBER 1970

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				.02		0		0				
20				0		0		0				
21				0		0		0				
22				0		0		0				
23				0		0		0				
24				0		0		0				
25				0		0		0				
26				0		0		0				
27				.80		0		0				
28				0		0		0				
29				0		0		0				
30				0		.09		.51				
31		-----		0	-----	0	-----	0	-----			-----
TOTAL	0	0	0	.82	0	.09	0	.51	0	0	0	0
MEAN	0	0	0	.027	0	.002	0	.017	0	0	0	0
MAX	0	0	0	.80	0	.09	0	.51	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	1.6	0	.2	0	1.0	0	0	0	0
CAL YR 1969	TOTAL	6,611.53	MEAN	18.1	MAX	3,080	MIN	0	ACFT	13,110		
WAT YR 1970	TOTAL	1.42	MEAN	.004	MAX	0	MIN	0	ACFT	2.8		

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

SALTON SEA BASIN

69

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. Prior to July 23, 1970, at site 0.7 mile downstream.

DRAINAGE AREA.--1,497 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 225 ft below mean sea level (from topographic map). 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. Most of the flow represents seepage and return flow from irrigated areas.

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

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	99	104	99	92	120	124	111	130	105	104	102	117
2	98	107	98	92	121	125	111	128	105	103	102	117
3	98	109	98	94	121	123	111	126	105	103	102	117
4	98	108	96	95	120	122	110	123	105	102	102	115
5	97	108	96	97	120	122	110	122	105	102	103	115
6	97	107	94	97	119	122	110	122	107	102	103	114
7	97	106	93	99	119	121	110	122	108	100	105	113
8	97	105	92	101	118	120	110	122	108	98	105	113
9	98	105	92	102	118	120	112	121	106	96	103	110
10	98	105	92	105	118	118	112	121	105	96	102	108
11	98	106	92	107	112	115	112	121	103	94	101	108
12	99	107	92	108	112	112	112	121	102	92	101	108
13	99	108	92	108	111	110	113	121	102	88	100	109
14	98	110	92	107	111	108	113	121	102	87	100	106
15	97	110	92	105	111	107	113	121	101	87	99	106
16	97	111	91	101	111	107	113	120	98	92	98	106
17	96	113	88	100	111	107	112	119	96	96	98	108
18	96	112	86	100	112	109	112	118	93	98	98	108
19	95	112	86	98	111	111	112	118	93	102	99	109
20	95	111	87	100	111	112	112	115	96	108	102	109
21	95	111	90	101	112	112	111	113	100	108	110	109
22	95	111	92	103	112	112	110	112	101	107	113	110
23	95	110	92	105	112	114	110	112	102	106	119	110
24	95	110	92	108	114	114	112	111	103	105	119	110
25	95	109	90	109	117	115	115	111	103	104	120	111
26	95	108	90	110	119	115	118	110	105	104	119	111
27	96	108	90	110	121	114	135	109	105	104	118	111
28	96	105	88	112	122	113	133	108	107	103	117	111
29	98	103	88	115	-----	112	132	108	108	102	117	110
30	100	101	90	118	-----	112	131	107	107	102	117	110
31	102	-----	90	119	-----	111	-----	105	-----	102	117	-----
TOTAL	3,009	3,240	2,840	3,218	3,236	3,559	3,438	3,638	3,086	3,097	3,311	3,319
MEAN	97.1	108	91.6	104	116	115	115	117	103	99.9	107	111
MAX	102	113	99	119	122	125	135	130	108	108	120	117
MIN	95	101	86	92	111	107	110	105	93	87	98	106
AC-FT	5,970	6,430	5,630	6,380	6,420	7,060	6,820	7,220	6,120	6,140	6,570	6,580

CAL YR 1969 TOTAL 44,579 MEAN 122 MAX 2,500 MIN 86 ACFT 88,420
WAT YR 1970 TOTAL 38,991 MEAN 107 MAX 135 MIN 86 ACFT 77,340

NOTE.--No gage-height record Oct. 1 to Sept. 30.

SALTON SEA BASIN

10259600 COTTONWOOD WASH NEAR COTTONWOOD SPRING, CALIF.

LOCATION.--Lat 33°44'53", long 115°49'26", 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.--11 years, 0.0007 cfs (0.5 acre-ft per year); median of yearly mean discharges, zero.

EXTREMES.--Current year: Maximum discharge, 1.4 cfs Aug. 26 (gage height, 2.95 ft); no flow all year except Aug. 26.

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 1969 TO SEPTEMBER 1970

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											.02	
27											0	
28											0	
29											0	
30											0	
31											0	
TOTAL	0	0	0	0	0	0	0	0	0	0	.02	0
MEAN	0	0	0	0	0	0	0	0	0	0	.0006	0
MAX	0	0	0	0	0	0	0	0	0	0	.02	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	.04	0
(a)	0	.6	0	.2	1.1	.6	0	0	0	0	.9	0

CAL YR 1969 TOTAL 0 MEAN 0 MAX 0 MIN 0 ACFT 0 a 2.0
 WAT YR 1970 TOTAL 0.02 MEAN .0001 MAX .02 MIN 0 ACFT 0 a 3.4

a Precipitation, in inches.

10259920 WASTEWAY NO. 1 NEAR MECCA, CALIF.

LOCATION.--Lat 33°31'40", long 115°58'23", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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, 273 cfs Mar. 4, 1970; 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	4.4	3.8	2.6	4.8	5.5	4.8	67	40	4.8	5.9	4.8
2	5.0	4.4	3.8	2.6	4.8	6.7	3.0	8.2	4.8	4.8	5.5	5.5
3	5.0	4.4	3.8	2.8	5.2	160	3.0	66	4.1	4.8	5.5	5.9
4	5.0	4.7	3.5	3.0	6.3	273	3.8	77	3.8	57	5.5	5.9
5	4.7	4.7	3.5	3.0	7.2	216	3.5	2.7	3.8	24	5.5	5.2
6	4.7	4.7	3.5	3.0	7.2	159	4.8	3.2	4.1	35	5.9	5.5
7	4.4	4.7	3.2	3.0	8.2	61	5.2	3.8	4.8	5.5	5.9	16
8	4.4	4.7	3.2	3.0	9.2	2.0	4.4	5.5	16	4.8	5.9	4.4
9	4.4	4.4	3.0	27	9.6	2.7	4.8	6.7	6.3	4.8	5.5	4.4
10	4.4	4.7	2.8	26	9.2	2.7	5.2	8.6	5.5	5.2	6.7	4.4
11	4.4	4.7	2.8	10	9.6	2.7	6.3	9.6	6.7	5.2	5.9	4.4
12	4.3	4.4	2.8	11	60	2.7	8.2	11	5.5	5.2	5.9	4.8
13	6.5	4.4	2.8	6.4	130	2.7	8.6	25	5.5	5.2	5.9	4.8
14	5.7	4.4	2.8	13	89	3.0	9.2	4.1	49	5.2	5.9	4.8
15	5.4	4.4	2.8	6.1	192	3.5	9.2	4.4	26	5.2	5.9	4.4
16	5.4	4.4	2.8	18	75	3.8	7.2	5.2	78	5.5	5.5	5.2
17	5.0	4.4	2.8	21	4.1	3.8	6.7	5.9	12	5.9	5.5	4.8
18	5.0	4.1	2.6	20	3.8	4.4	121	3.8	11	5.9	5.5	4.8
19	5.0	4.1	2.6	15	3.5	4.8	164	2.4	52	5.5	5.5	4.8
20	5.0	4.1	2.6	6.5	3.8	4.8	72	3.8	12	5.5	5.2	5.5
21	5.0	4.1	2.6	4.1	4.4	6.3	9.6	3.0	7.8	5.2	5.5	5.5
22	4.7	4.0	2.6	4.1	4.4	7.2	4.4	3.0	5.9	5.2	5.9	5.9
23	4.7	3.8	4.7	4.1	17	8.6	4.1	2.2	5.5	5.5	5.9	6.3
24	4.7	3.5	4.4	4.4	4.4	9.2	4.4	2.2	5.9	5.5	5.5	5.5
25	4.7	3.5	3.0	4.1	3.8	8.2	4.8	13	5.2	5.5	5.5	5.2
26	4.7	3.8	2.0	4.1	4.1	5.5	4.4	3.1	5.2	5.2	5.5	5.5
27	4.7	3.8	2.0	4.1	5.2	5.2	3.8	2.4	4.8	5.2	5.2	6.7
28	4.7	3.8	2.2	4.1	5.5	4.8	3.8	24	4.8	5.2	5.2	5.5
29	4.7	3.8	2.2	4.1	-----	6.3	3.8	51	4.8	5.2	5.2	5.5
30	4.7	3.8	2.2	4.1	-----	115	4.1	32	4.8	5.5	5.5	5.2
31	4.4	-----	2.6	4.4	-----	76	-----	49	-----	5.9	5.5	-----
TOTAL	150.1	127.1	92.0	248.7	691.3	1,177.1	502.1	508.8	405.6	264.1	174.9	167.1
MEAN	4.84	4.24	2.97	8.02	24.7	38.0	16.7	16.4	13.5	8.52	5.64	5.57
MAX	6.5	4.7	4.7	27	192	273	164	77	78	57	6.7	16
MIN	4.3	3.5	2.0	2.6	3.5	2.0	3.0	2.2	3.8	4.8	5.2	4.4
AC-FT	298	252	182	493	1,370	2,330	996	1,010	805	524	347	331
WATER YEAR 1969	TOTAL	1,536.7	MEAN	4.21	MAX	11	MIN	2.0	ACFT	3,050		
WATER YEAR 1970	TOTAL	4,508.9	MEAN	12.4	MAX	273	MIN	2.0	ACFT	8,940		

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 current year.

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

AVERAGE DISCHARGE.--12 years, 0.030 cfs (22 acre-ft per year); median of yearly mean discharges, zero.

EXTREMES.--Current year: Maximum discharge, 37 cfs Aug. 26 (gage height, 3.17 ft), from rating curve extended above 6.0 cfs on basis of slope-conveyance measurement of peak flow; 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 1969 TO SEPTEMBER 1970

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											1.9	
27											.02	
28											0	
29					-----						0	
30					-----						0	
31		-----			-----		-----		-----		0	-----
TOTAL	0	0	0	0	0	0	0	0	0	0	1.92	0
MFA	0	0	0	0	0	0	0	0	0	0	.062	0
MAX	0	0	0	0	0	0	0	0	0	0	1.9	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	0	3.8	0
CAL YR 1969	TOTAL	93.79	MEAN .26	MAX 53	MIN 0	ACFT 186						
WAT YR 1970	TOTAL	1.92	MEAN .005	MAX 1.9	MIN 0	ACFT 3.8						

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 current year.

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

AVERAGE DISCHARGE.--13 years, 0.034 cfs (25 acre-ft per year); median of yearly mean discharges, 0.0003 cfs (0.2 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. Discharge for the calendar year 1969 is as follows: Maximum daily, 108 cfs; minimum, zero; mean, 0.39 cfs; total, 283 acre-ft.

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.--59 years, 69.4 cfs (50,280 acre-ft per year); median of yearly mean discharges, 45 cfs (32,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 559 cfs Feb. 28 (gage height, 2.99 ft); minimum daily, 1.5 cfs Aug. 14.

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

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	11	11	14	14	13	343	41	26	12	9.8	5.6	2.0
2	14	11	15	14	14	227	36	25	11	9.8	4.6	2.0
3	14	11	14	14	14	118	34	22	11	9.8	4.1	2.0
4	14	11	14	14	15	81	33	20	11	9.8	3.8	2.1
5	15	11	13	14	14	78	32	19	11	9.8	3.4	2.1
6	15	14	13	14	14	75	30	17	10	9.8	3.1	2.2
7	15	90	13	14	13	82	30	17	10	9.8	2.9	2.2
8	14	32	13	13	13	81	30	16	10	9.8	2.6	2.3
9	14	24	13	13	13	79	28	16	10	9.8	2.3	2.3
10	14	22	13	19	24	72	28	16	11	9.8	2.1	2.4
11	14	24	12	26	45	61	28	16	11	9.8	1.9	2.5
12	14	21	13	22	31	57	27	16	11	9.8	1.6	2.5
13	13	18	12	21	24	58	26	16	11	9.8	1.6	2.6
14	13	17	13	19	21	73	25	16	11	9.6	1.5	2.6
15	13	17	12	17	20	91	25	16	11	9.4	6.6	2.7
16	13	17	13	15	18	97	24	16	11	9.3	30	2.7
17	13	17	12	16	17	90	24	16	10	9.2	17	2.8
18	13	16	13	17	16	86	23	16	10	9.0	9.4	2.8
19	13	15	13	17	15	70	22	16	10	8.8	4.6	2.9
20	13	14	13	15	15	60	21	16	10	8.7	2.2	3.0
21	13	14	13	15	15	54	21	16	10	8.7	2.0	3.0
22	13	14	13	15	15	52	24	16	10	8.5	1.9	3.1
23	12	14	13	14	14	53	26	16	10	8.7	1.8	3.1
24	12	13	13	14	16	56	24	15	10	8.4	1.8	3.2
25	12	14	13	14	16	57	23	15	10	8.0	1.8	3.3
26	11	13	13	14	14	58	22	15	10	7.8	1.7	3.3
27	11	13	13	14	14	54	24	15	10	7.5	1.7	3.4
28	11	13	13	14	102	49	28	15	9.9	7.2	1.8	3.5
29	11	13	13	13	-----	44	25	14	9.9	6.9	1.8	3.6
30	11	14	14	13	-----	41	25	14	9.8	6.6	1.8	3.6
31	11	-----	14	14	-----	44	-----	13	-----	5.9	1.9	-----
TOTAL	400	548	406	482	575	2,541	809	518	312.6	275.6	130.9	81.8
MEAN	12.9	18.3	13.1	15.5	20.5	82.0	27.0	16.7	10.4	8.89	4.22	2.73
MAX	15	90	15	26	102	343	41	26	12	9.8	30	3.6
MIN	11	11	12	13	13	41	21	13	9.8	5.9	1.5	2.0
AC-FT	793	1,090	805	956	1,140	5,040	1,600	1,030	620	547	260	162

CAL YR 1969 TOTAL 110,544.0 MEAN 303.4 MAX 14,700 MIN 6.0 ACFT 219,300
 WAT YR 1970 TOTAL 7,079.9 MEAN 19.4 MAX 343 MIN 1.5 ACFT 14,040

PEAK DISCHARGE (BASE, 400 CFS).--Feb. 28 (2145) 559 cfs (2.99 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.--74.6 sq mi.

PERIOD OF RECORD.--October 1904 to September 1922, October 1929 to current year. 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.--59 years, 39.9 cfs (28,910 acre-ft per year); median of yearly mean discharges, 22 cfs (15,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 494 cfs Mar. 2 (gage height, 6.24 ft); no flow much 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 poor. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.02	.02	.50	.25	164	8.5	.04	.04		0	
2	0	.02	.02	1.0	.24	330	8.0	.04	.04		0	
3	0	.02	.02	1.5	.23	179	7.5	.04	.04		0	
4	0	.02	.02	2.0	.22	115	7.0	.04	.04		0	
5	0	.02	.02	2.5	.21	114	6.5	.04	.04		0	
6	0	3.0	.02	3.0	.20	40	6.0	.04	.03		0	
7	0	5.0	.02	4.3	.19	34	5.5	.04	.03		0	
8	0	4.0	.02	4.5	.18	29	5.0	.04	.03		0	
9	0	3.0	.02	4.5	.17	25	4.5	.04	.03		0	
10	0	2.0	.02	4.5	.16	22	4.0	.04	.03		0	
11	0	1.0	.02	10	15	22	3.5	.04	.02		0	
12	0	.50	.02	5.0	7.5	20	3.0	.04	.02		0	
13	0	.20	.02	4.0	5.0	20	2.5	.04	.02		0	
14	0	.10	.02	3.0	2.5	18	2.0	.04	.02		0	
15	0	.05	.02	2.0	2.0	16	1.5	.04	.02		0	
16	.01	.02	.02	1.0	1.5	16	1.0	.04	.02		.50	
17	.01	.02	.02	.50	1.0	16	.75	.04	.02		1.0	
18	.01	.02	.02	.50	.75	14	.50	.04	.02		.50	
19	.01	.02	.02	.50	.50	13	.40	.04	.02		0	
20	.01	.02	.02	.50	.25	13	.30	.04	.01		0	
21	.01	.02	.02	.30	.20	13	.25	.04	.01		0	
22	.01	.02	.02	.30	.20	12	.20	.04	.01		0	
23	.01	.02	.02	.30	.20	12	.15	.04	.01		0	
24	.02	.02	.02	.30	.20	12	.10	.04	.01		0	
25	.02	.02	.02	.30	.20	12	.05	.04	.01		0	
26	.02	.02	.02	.25	.20	11	.05	.04	0		0	
27	.02	.02	.02	.25	.20	11	.05	.04	0		0	
28	.02	.02	.02	.25	.20	10	.05	.04	0		0	
29	.02	.02	.02	.25	-----	10	.05	.04	0		0	
30	.02	.02	.02	.25	-----	9.5	.05	.04	0		0	
31	.02	-----	.02	.25	-----	9.0	-----	.04	-----		0	-----
TOTAL	.24	19.25	.62	58.30	39.65	1,341.5	78.95	1.24	.59	0	2.00	0
MEAN	.007	.64	.020	1.88	1.42	43.3	2.63	.040	.020	0	.065	0
MAX	.02	5.0	.02	10	15	330	8.5	.04	.04	0	1.0	0
MIN	0	.02	.02	.25	.16	9.0	.05	.04	0	0	0	0
AC-FT	.5	38	1.2	116	79	2,660	157	2.5	1.2	0	4.0	0

CAL YR 1969 TOTAL 62,400.60 MEAN 171 MAX 11,100 MIN 0 ACFT 123,800
 WAT YR 1970 TOTAL 1,542.34 MEAN 4.23 MAX 330 MIN 0 ACFT 3,060

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

NOTE.--No gage height record except Mar. 1-21.

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.--47 years, 76.8 cfs (55,640 acre-ft per year); median of yearly mean discharges, 38 cfs (27,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 169 cfs Mar. 2 (gage height, 3.83 ft); minimum daily, 9.6 cfs July 5, 20, 24, 25.

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). Diversions and pumping for irrigation of about 5,000 acres above station.

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	26	40	52	52	31	72	38	36	22	10	12	14
2	28	40	49	46	32	102	38	36	24	10	12	14
3	26	40	55	46	32	58	38	36	34	10	10	14
4	28	43	55	46	34	54	40	38	26	10	12	12
5	28	40	55	43	32	52	38	36	25	9.6	12	12
6	27	55	55	46	32	51	40	36	24	10	12	12
7	28	49	58	43	32	50	40	36	23	12	14	12
8	28	46	55	42	32	50	40	36	23	12	16	14
9	28	46	52	41	34	49	39	35	22	12	14	14
10	29	46	52	46	43	49	38	35	22	12	16	14
11	30	46	52	46	40	49	38	34	22	12	14	14
12	30	43	52	49	38	46	38	34	22	12	14	14
13	31	43	52	49	37	49	38	33	21	10	14	16
14	31	43	49	52	37	49	38	32	21	10	14	14
15	32	43	49	45	37	49	38	32	21	10	18	12
16	33	43	46	40	38	49	38	30	21	12	17	14
17	34	43	46	39	38	49	38	30	19	12	14	14
18	32	43	43	38	39	49	38	30	14	12	14	14
19	36	43	46	38	40	46	38	28	14	12	12	14
20	38	46	46	38	41	46	38	28	12	9.6	14	14
21	38	46	43	37	44	46	36	25	10	10	16	14
22	40	46	43	37	46	45	36	24	10	12	14	14
23	40	46	43	37	49	44	38	23	12	10	12	14
24	40	46	46	36	52	44	36	23	10	9.6	14	16
25	49	43	40	36	52	43	36	22	10	9.6	12	14
26	46	49	43	35	49	43	36	21	12	12	14	14
27	46	46	43	34	46	43	36	21	10	14	14	14
28	46	52	40	33	61	43	36	21	9.6	12	16	17
29	43	49	49	32	-----	40	36	21	10	12	16	18
30	46	46	52	32	-----	40	36	29	10	12	14	20
31	43	-----	46	31	-----	40	-----	26	-----	12	14	-----
TOTAL	1,080	1,350	1,507	1,265	1,118	1,539	1,131	927	535.6	344.4	431	427
MEAN	34.8	45.0	48.6	40.8	39.9	49.6	37.7	29.9	17.9	11.1	13.9	14.2
MAX	49	55	58	52	61	102	40	38	34	14	18	20
MIN	26	40	40	31	31	40	36	21	9.6	9.6	10	12
AC-FT	2,140	2,680	2,990	2,510	2,220	3,050	2,240	1,840	1,060	683	855	847

CAL YR 1969 TOTAL 148,381.0 MEAN 407 MAX 21,000 MIN 24 ACFT 294,300
 WAT YR 1970 TOTAL 11,655.0 MEAN 31.9 MAX 102 MIN 9.6 ACFT 23,120

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

NOTE.--Stage-discharge relation indefinite much of year.

10261900 MOJAVE RIVER AT WILD CROSSING, NEAR HELENDALE, CALIF.

LOCATION.--Lat 34°46'58", long 117°16'35", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.15, T.8 N., R.4 W., San Bernardino County, on downstream wingwall of bridge on Indian Trail Road at Wild Crossing, 4.7 miles northeast of Helendale.

DRAINAGE AREA.--960 sq mi.

PERIOD OF RECORD.--March 1966 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 2,360 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 75 cfs (estimated) Mar. 3 (gage height, unknown); no flow most of year.

Period of record: Maximum discharge, 32,200 cfs (estimated) Feb. 25, 1969 (gage height, 6.79 ft); no flow most of each year.

REMARKS.--Records poor. Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation). Diversions and pumping for irrigation of about 10,000 acres above station.

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		0	10	11	10	15	10	4.3				
2		0	10	10	10	30	10	4.1				
3		0	10	7.0	10	28	9.8	4.0				
4		0	10	6.5	10	26	9.5	3.9				
5		0	10	6.5	10	25	9.2	3.8				
6		0	10	6.5	10	24	9.0	3.6				
7		1.0	11	6.5	10	23	8.7	3.5				
8		1.0	11	7.0	10	22	8.5	3.4				
9		1.0	11	8.5	10	21	8.2	3.3				
10		1.0	12	10	10	20	8.0	3.1				
11		1.0	12	10	10	20	7.8	2.9				
12		1.0	12	10	11	19	7.6	2.7				
13		1.0	13	10	11	19	7.4	2.5				
14		1.0	13	10	11	18	7.2	2.3				
15		1.0	13	10	11	18	6.9	2.0				
16		1.0	14	10	11	17	6.7	1.7				
17		1.0	14	10	11	16	6.5	1.4				
18		5.0	14	10	11	16	6.3	1.1				
19		6.0	14	10	11	15	6.1	.80				
20		7.0	14	10	11	15	5.9	.60				
21		8.0	14	10	10	15	5.8	.40				
22		10	14	10	10	14	5.6	.20				
23		10	14	10	10	14	5.4	.10				
24		10	14	10	10	13	5.2	0				
25		10	14	10	10	13	5.1	0				
26		10	13	10	10	13	5.0	0				
27		10	13	10	10	12	4.8	0				
28		10	13	10	10	12	4.7	0				
29		10	13	10	-----	11	4.5	0				
30		10	12	10	-----	11	4.4	0				
31		-----	12	10	-----	11	-----	0	-----			-----
TOTAL	0	127.0	384	289.5	289	546	209.8	55.70	0	0	0	0
MEAN	0	4.23	12.4	9.34	10.3	17.6	6.99	1.80	0	0	0	0
MAX	0	10	14	11	11	30	10	4.3	0	0	0	0
MIN	0	0	10	6.5	10	11	4.4	0	0	0	0	0
AC-FT	0	252	762	574	573	1,080	416	110	0	0	0	0

CAL YR 1969 TOTAL 115,990.90 MEAN 318 MAX 17,000 MIN 0 ACFT 230,100
 WAT YR 1970 TOTAL 1,901.00 MEAN 5.2 MAX 30 MIN 0 ACFT 3,770

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

NOTE.--No gage-height record during year.

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.--40 years, 25.4 cfs (18,400 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. Discharge for the calendar year 1969 is as follows: Maximum daily, 14,800 cfs; minimum, zero; mean, 202 cfs; total, 146,600 acre-ft.

MOJAVE RIVER BASIN

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.

EXTREMES.--Current year: Maximum discharge, 33 cfs Aug. 26 (gage height, 10.12 ft, from crest-stage gage); no flow all year except Aug. 26.
 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.--Records fair. No regulation or diversion above station.

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											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											2.2	
27											0	
28											0	
29					-----						0	
30					-----						0	
31	-----				-----		-----		-----		0	-----
TOTAL	0	0	0	0	0	0	0	0	0	0	2.2	0
MEAN	0	0	0	0	0	0	0	0	0	0	.071	0
MAX	0	0	0	0	0	0	0	0	0	0	2.2	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	4.4	0
(a)	0	.2	0	.2	.1	.4	0	0	0	0	.8	0

CAL YR 1969	TOTAL	0.94	MEAN	.003	MAX	.94	MIN	0	ACFT	1.9	a	4.4
WAT YR 1970	TOTAL	2.2	MEAN	.006	MAX	2.2	MIN	0	ACFT	4.4	a	1.7

a Precipitation, in inches.

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.--21 years, 6.66 cfs (4,830 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 35 cfs July 24 (gage height, 3.27 ft); no flow July 19, 20, 23. 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 fair. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	.70	1.0	1.4	1.3	1.3	.89	1.1	.52	.16	.34	.10
2	.56	.70	1.0	1.4	1.3	1.3	.89	1.1	.52	.18	.38	.08
3	.56	.70	1.0	1.4	1.4	1.2	.82	1.1	.42	.18	.38	.07
4	.56	.70	1.0	1.4	1.4	1.2	.82	1.1	.30	.18	.42	.06
5	.56	.70	1.0	1.3	1.4	1.4	.89	1.0	.30	.27	.42	.06
6	.55	.75	1.1	1.3	1.4	1.2	.97	.97	.30	.16	.38	.12
7	.55	.75	1.2	1.2	1.4	1.2	.75	1.0	.30	.10	.34	.14
8	.55	.75	1.2	1.2	1.4	1.2	.82	1.0	.30	.16	.34	.14
9	.55	.75	1.2	1.2	1.4	1.2	.75	1.0	.34	.34	.27	.14
10	.55	.75	1.2	1.3	1.5	1.2	.75	1.0	.34	.27	.24	.12
11	.54	.80	1.3	1.4	1.4	1.2	.75	1.0	.38	.24	.24	.12
12	.54	.80	1.3	1.4	1.3	1.2	.82	.97	.38	.16	.21	.06
13	.54	.80	1.3	1.2	1.3	1.2	.82	.97	.42	.16	.24	.02
14	.54	.80	1.4	1.1	1.3	1.2	.75	.97	.52	.10	.27	.02
15	.54	.80	1.4	1.1	1.3	1.2	.89	.97	.52	.05	.24	.04
16	.54	.85	1.4	1.1	1.3	1.2	.89	.97	.52	.04	.30	.07
17	.54	.85	1.4	1.1	1.3	1.2	.89	.89	.52	.01	.38	.08
18	.54	.85	1.4	1.1	1.3	1.1	.82	.68	.47	.02	.34	.08
19	.54	.85	1.4	1.1	1.3	1.1	.82	.62	.47	.02	.27	.07
20	.54	.85	1.4	1.1	1.3	1.1	.89	.68	.38	0	.27	.05
21	.56	.90	1.4	1.1	1.3	1.0	.89	.68	.30	0	.21	.06
22	.58	.90	1.4	1.1	1.3	1.1	.97	.62	.27	.01	.16	.07
23	.60	.90	1.4	1.1	1.3	.97	1.0	.57	.27	0	.14	.10
24	.60	.90	1.4	1.1	1.3	.89	.97	.57	.24	3.2	.10	.10
25	.60	.90	1.4	1.1	1.3	.89	.97	.57	.21	.75	.14	.10
26	.62	.95	1.4	1.1	1.3	.82	.97	.57	.16	.68	.27	.10
27	.65	.95	1.4	1.2	1.3	.68	1.0	.47	.10	.38	.27	.12
28	.65	.95	1.4	1.3	1.3	.82	1.1	.47	.08	.34	.27	.12
29	.65	.95	1.4	1.3	-----	.82	1.1	.52	.08	.34	.24	.14
30	.65	.95	1.4	1.3	-----	.89	1.1	.52	.10	.34	.18	.14
31	.65	-----	1.4	1.3	-----	.89	-----	.47	-----	.30	.16	-----
TOTAL	17.76	24.75	40.0	37.8	37.4	33.87	26.76	25.12	10.03	9.14	8.41	2.69
MEAN	.57	.83	1.29	1.22	1.34	1.09	.89	.81	.33	.29	.27	.090
MAX	.65	.95	1.4	1.4	1.5	1.4	1.1	1.1	.52	3.2	.42	.14
MIN	.54	.70	1.0	1.1	1.3	.68	.75	.47	.08	0	.10	.02
AC-FT	35	49	79	75	74	67	53	50	20	18	17	5.3

CAL YR 1969 TOTAL 36,738.14 MEAN 101 MAX 9,500 MIN .30 ACFT 72,870
 WAT YR 1970 TOTAL 273.73 MEAN .75 MAX 3.2 MIN 0 ACFT 543

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

NOTE.--No gage-height record Oct. 1 to Dec. 17.

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.--47 years, 16.3 cfs (11,810 acre-ft per year); median of yearly mean discharges, 9.6 cfs (7,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 182 cfs Feb. 28 (gage height, 2.07 ft); minimum daily, 3.2 cfs for several days in September.

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 water year 1970 are published in Part 2 of this report.

COOPERATION.--One discharge measurement furnished by Los Angeles County Flood Control District.

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	12	9.9	10	10	8.2	106	17	11	8.4	8.3	5.5	3.6
2	12	10	10	10	8.1	69	16	11	8.5	7.9	5.5	3.6
3	12	10	9.8	11	3.0	42	16	11	8.5	8.0	5.5	3.6
4	12	11	9.8	10	8.0	35	15	11	8.4	8.0	5.5	3.4
5	11	11	9.9	10	7.3	31	15	12	8.6	7.6	5.5	3.6
6	11	13	9.7	11	7.6	24	14	12	8.7	7.0	5.1	3.5
7	11	13	9.0	11	7.7	22	14	13	8.8	6.9	5.0	3.4
8	10	12	9.0	11	7.6	20	14	13	8.9	7.0	4.8	3.4
9	11	12	9.0	11	11	19	14	13	9.0	7.1	4.7	3.3
10	11	13	9.0	12	33	19	15	13	9.0	7.1	4.6	3.2
11	11	13	9.0	12	40	19	15	13	9.0	6.8	4.5	3.2
12	11	13	8.9	11	13	18	15	13	9.0	6.3	4.8	3.2
13	11	13	8.8	11	11	18	15	12	9.2	6.2	4.7	3.2
14	11	13	8.6	11	10	20	15	12	9.1	6.0	4.4	3.4
15	11	12	8.5	11	10	25	14	11	9.1	5.9	4.4	3.4
16	12	12	8.5	10	10	26	14	11	9.0	5.9	5.3	3.3
17	12	12	8.5	9.5	9.5	25	14	11	8.7	5.9	4.8	3.3
18	13	12	8.5	9.0	9.5	25	13	11	8.4	5.8	4.4	3.2
19	12	12	9.0	8.5	9.5	22	13	11	8.1	5.9	4.4	3.2
20	12	12	9.0	8.5	9.0	20	13	11	8.1	5.7	4.3	3.3
21	12	12	9.0	8.1	9.0	19	13	11	8.0	5.7	4.1	3.3
22	12	12	9.0	8.0	8.5	18	13	10	7.9	5.8	5.2	3.3
23	12	12	9.5	8.0	8.5	18	13	10	7.8	5.8	3.9	3.2
24	12	12	9.5	8.9	8.5	19	12	9.9	7.6	5.7	3.9	3.2
25	12	11	9.5	9.0	8.5	20	12	11	7.3	5.9	3.8	3.2
26	11	10	9.5	8.9	8.0	21	12	12	7.7	5.9	3.7	3.3
27	9.9	10	10	8.7	8.0	21	13	11	8.2	5.9	3.8	3.2
28	9.7	10	9.8	9.0	9.8	20	13	10	8.4	5.9	3.7	3.2
29	9.9	10	9.6	8.7	-----	19	12	10	8.8	5.7	3.7	3.3
30	9.9	10	10	8.5	-----	19	11	9.8	8.6	5.7	3.6	3.2
31	9.9	-----	10	8.2	-----	18	-----	8.9	-----	5.7	3.6	-----
TOTAL	349.4	347.9	287.9	302.5	355.5	817	415	349.6	254.8	199.0	140.7	99.7
MEAN	11.3	11.6	9.29	9.76	12.7	26.4	13.8	11.3	8.49	6.42	4.54	3.32
MAX	13	13	10	12	58	106	17	13	9.2	8.3	5.5	3.6
MIN	9.3	9.9	8.5	8.0	7.6	18	11	8.9	7.3	5.7	3.6	3.2
AC-FT	693	690	571	600	705	1,620	823	693	505	395	279	198
CAU YR 1969	TOTAL 26,009.3		MEAN 71.3		MAX 2,370		MIN 3.8		AC-FT 51,590			
WTR YR 1970	TOTAL 3,919.0		MEAN 10.7		MAX 106		MIN 3.2		AC-FT 7,770			

PEAK DISCHARGE (BASE, 50 CFS).--Feb. 10 (2145) 118 cfs (1.81 ft); Feb. 28 (1715) 182 cfs (2.07 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.--38 years (1930-37, 1939-70), 17.1 cfs (12,390 acre-ft per year); median of yearly mean discharges, 9.6 cfs (7,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 287 cfs Feb. 10 (gage height, 7.27 ft); no flow Aug. 13 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	3.1	5.5	5.5	3.8	175	24	12	3.9	1.1	.20	
2	.55	3.1	5.5	5.0	4.4	110	21	11	2.8	.70	.10	
3	.55	3.1	5.5	5.0	5.0	71	19	11	2.2	.70	.10	
4	.55	3.1	5.5	5.0	5.0	51	19	11	1.6	.70	.10	
5	.55	3.1	5.0	3.8	5.5	46	17	10	1.1	.70	.10	
6	1.1	20	7.0	3.8	5.5	42	17	10	.55	.70	.10	
7	1.1	15	6.2	5.0	5.5	41	17	9.2	.55	.60	.10	
8	1.1	14	5.5	5.0	5.5	43	17	10	.55	.60	.10	
9	1.1	12	5.0	5.0	8.5	44	17	10	1.1	.60	.10	
10	.55	11	5.0	11	82	40	17	10	1.6	.60	.10	
11	.55	9.8	5.0	12	133	34	19	11	1.6	.60	.10	
12	.55	8.5	5.0	9.2	59	31	19	11	1.1	.50	.10	
13	.55	8.0	5.0	7.8	40	34	19	10	2.2	.50	0	
14	.55	7.5	5.5	6.2	29	34	19	10	2.8	.50	0	
15	.90	7.0	5.5	6.2	21	53	19	9.2	2.8	.50	0	
16	1.3	6.5	5.0	6.2	16	52	17	9.2	2.8	.40	0	
17	1.6	6.0	5.0	8.5	14	51	16	9.2	2.2	.40	0	
18	2.0	5.5	5.0	7.8	13	48	15	9.2	1.6	.40	0	
19	2.3	4.9	5.0	7.0	11	41	14	8.5	1.1	.40	0	
20	2.7	4.9	5.0	7.0	11	36	13	8.5	1.1	.30	0	
21	3.0	5.0	5.5	7.0	10	32	13	8.5	.50	.30	0	
22	3.4	5.1	6.2	6.2	10	30	12	7.8	.50	.30	0	
23	3.4	5.2	5.5	5.5	11	31	13	7.0	.50	.30	0	
24	3.4	5.2	5.5	6.2	10	31	12	5.5	.40	.30	0	
25	3.3	5.3	6.2	5.5	9.2	33	12	5.5	.40	.30	0	
26	3.3	5.3	7.0	5.0	9.2	34	12	6.2	.40	.30	0	
27	3.3	5.3	6.2	5.5	8.5	34	12	5.5	.50	.20	0	
28	3.2	5.3	5.5	5.0	65	30	12	5.5	.30	.20	0	
29	3.2	5.4	4.4	5.0	-----	29	12	6.2	.60	.20	0	
30	3.2	5.4	6.2	5.0	-----	28	12	5.0	1.1	.20	0	
31	3.2	-----	6.2	4.4	-----	26	-----	4.4	-----	.20	0	-----
TOTAL	56.60	208.6	171.1	192.3	610.6	1,415	477	267.1	40.45	14.30	1.30	0
MEAN	1.83	6.95	5.52	6.20	21.8	45.6	15.9	8.62	1.35	.46	.042	0
MAX	3.4	20	7.0	12	133	175	24	12	3.9	1.1	.20	0
MIN	.55	3.1	4.4	3.8	3.8	26	12	4.4	.30	.20	0	0
AC-FT	112	414	339	381	1,210	2,810	946	530	80	28	2.6	0
CAL YR 1969	TOTAL	21,077.70	MEAN	57.7	MAX	1,730	MIN	.55	ACFT	41,810		
WAT YR 1970	TOTAL	3,454.35	MEAN	9.46	MAX	175	MIN	0	ACFT	6,850		

ANTELOPE VALLEY

83

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.--6 years (1964-70), 0.075 cfs (54 acre-ft per year).

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

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.--No flow since Feb. 25, 1969. No regulation or diversion above station. Discharge for calendar year 1969 is as follows: Maximum daily, 12 cfs; minimum, zero; mean, .041 cfs; total, 29 acre-ft.

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.--5 years, 0.018 cfs (13 acre-ft per year).

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

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.--No flow since Mar. 23, 1969. No regulation above station. Some pumping at Tejon Ranch Company headquarters for domestic use. Discharge for calendar year 1969 is as follows: Maximum daily, 11 cfs; minimum, zero; mean, .072 cfs; total, 52 acre-ft.

ANTELOPE VALLEY

10264600 OAK CREEK NEAR MOJAVE, CALIF.

LOCATION.--Lat 35°03'00", long 118°21'25", in NW $\frac{1}{4}$ 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.--13 years, 0.76 cfs (551 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 36 cfs Feb. 25 (gage height, 1.76 ft); minimum daily, 0.03 cfs Aug. 30 to Sept. 30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FBF	MAR	APR	MAY	JUN	JUL	AUG	SEF
1	.75	.86	.70	1.2	2.1	7.5	1.2	1.2	.82	.56	.16	.03
2	.79	.86	.70	1.2	2.1	4.5	1.2	1.2	.81	.56	.15	.03
3	.81	.86	.70	1.3	2.1	3.6	1.2	1.2	.79	.56	.14	.03
4	.88	.86	.70	1.3	2.1	3.5	1.3	1.1	.78	.54	.13	.03
5	.88	.87	.70	1.2	2.0	4.0	1.3	1.1	.78	.50	.13	.03
6	.88	1.1	.70	1.3	2.0	3.3	1.3	1.3	.78	.49	.10	.03
7	.85	1.0	.70	1.3	2.0	2.8	1.2	1.3	.78	.44	.09	.03
8	.82	1.0	.70	1.3	2.0	2.7	1.2	1.2	.78	.44	.08	.03
9	.82	1.0	.70	1.4	2.2	2.4	1.2	1.2	.79	.44	.08	.03
10	.97	1.0	.70	1.6	4.4	2.6	1.1	1.2	.81	.44	.06	.03
11	.88	1.0	.70	1.7	6.7	2.2	1.1	1.2	.81	.44	.05	.03
12	.88	1.0	.80	1.7	4.9	1.9	1.1	1.1	.79	.39	.05	.03
13	.88	1.0	.86	1.7	4.4	1.9	1.1	1.1	.79	.39	.05	.03
14	.88	1.0	.86	1.8	3.3	1.9	1.4	1.1	.78	.37	.04	.03
15	.88	1.0	.87	1.8	3.2	1.8	1.2	1.1	.77	.34	.04	.03
16	.95	1.0	.95	2.5	3.1	1.8	1.2	1.1	.75	.34	.04	.03
17	.95	1.0	.92	2.3	3.0	1.6	1.2	1.1	.75	.34	.04	.03
18	1.0	1.1	.95	2.1	2.9	1.5	1.2	1.0	.74	.34	.04	.03
19	1.0	1.1	.95	2.2	2.8	1.6	1.2	1.0	.65	.33	.04	.03
20	.95	1.0	.92	2.1	2.7	1.6	1.2	1.0	.64	.29	.04	.03
21	.95	.96	.95	2.1	2.7	1.6	1.3	1.0	.63	.29	.04	.03
22	.86	.78	1.1	2.1	2.7	1.5	1.3	1.0	.62	.29	.04	.03
23	.86	.70	1.1	2.0	2.7	1.4	1.2	1.0	.60	.28	.04	.03
24	.86	.70	1.1	2.0	2.6	1.4	1.2	.99	.60	.39	.04	.03
25	.86	.70	1.1	2.1	2.6	1.3	1.2	1.0	.59	.39	.04	.03
26	.86	.70	1.2	2.0	2.6	1.4	1.2	.92	.57	.49	.04	.03
27	.86	.70	1.2	2.1	2.6	1.3	1.4	.90	.57	.48	.04	.03
28	.86	.70	1.1	2.0	7.5	1.3	1.4	.89	.58	.48	.04	.03
29	.86	.70	1.1	2.1	-----	1.3	1.3	.87	.58	.46	.04	.03
30	.86	.71	1.1	2.1	-----	1.2	1.2	.85	.58	.20	.03	.03
31	.86	-----	1.2	2.1	-----	1.3	-----	.83	-----	.17	.03	-----
TOTAL	27.15	26.86	28.03	55.7	86.0	69.7	36.8	33.05	21.31	12.46	1.97	0.90
MEAN	.88	.70	.90	1.80	3.07	2.25	1.23	1.07	.71	.40	.064	.030
MAX	1.0	1.1	1.2	2.5	7.5	7.5	1.4	1.3	.82	.56	.16	.03
MIN	.75	.70	.70	1.2	2.0	1.2	1.1	.83	.57	.17	.03	.03
AC-FT	54	53	56	110	171	138	73	66	42	25	3.9	1.8

CAL YR 1969 TOTAL 1,086.52 MEAN 2.98 MAX 45 MIN .03 AC-FT 2,160
 WTR YR 1970 TOTAL 399.93 MEAN 1.10 MAX 7.5 MIN .03 AC-FT 793

PEAK DISCHARGE (BASE, 10 CFS).--Feb. 10 (2000) 36 cfs (1.76 ft); Feb. 28 (1400) 14 cfs (1.36 ft).

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).

EXTREMES.--Current year: Maximum discharge, 36 cfs Feb. 28 (gage height, 2.14 ft); no flow all year except Feb. 28.

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

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					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					1.5							
29					-----							
30					-----							
31		-----			-----		-----		-----			-----
TOTAL	0	0	0	0	1.5	0	0	0	0	0	0	0
MEAN	0	0	0	0	.054	0	0	0	0	0	0	0
MAX	0	0	0	0	1.5	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	3.0	0	0	0	0	0	0	0
CAL YR 1969	TOTAL 16.5	MEAN .045	MAX 15	MIN 0	ACFT 33							
WAT YR 1970	TOTAL 1.5	MEAN .004	MAX 1.5	MIN 0	ACFT 3.0							

KOEHN LAKE BASIN

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.--5 years, 0.088 cfs (64 acre-ft per year).

EXTREMES.--Current year: No flow during 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.--No flow since Mar. 30, 1969. No regulation above station. Pumping for domestic supply by Tehachapi, Monolith, and Cache Creek Park. Monthly precipitation, in inches, is as follows: November, 0.62; December, 0.01; January, 1.24; February, 1.58; March, 0.78; July, 0.24; the water year, 4.47. Discharge for calendar year 1969 is as follows: Maximum daily, 30 cfs; minimum, zero; mean, .37 cfs; total, 270 acre-ft.

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.--12 years, 0.247 cfs (179 acre-ft per year); median of yearly mean discharges, 0.04 cfs (29 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. Records poor. No regulation or diversion above station. Rainfall data incomplete. Discharge for the calendar year 1969 is as follows: Maximum daily, 21 cfs; minimum, zero; mean, 0.079 cfs; total, 57 acre-ft.

KOEHN LAKE BASIN

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. Discharge for the calendar year 1969 is as follows: Maximum daily, 14 cfs; minimum, zero; mean, 0.067 cfs; total, 48 acre-ft.

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 current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,350 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 0.730 cfs (529 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13 cfs Feb. 14 (gage height, 3.65 ft); no flow July 1 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 good. No regulation or diversion above station.

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	.31	.31	1.8	1.5	1.1	1.8	.54	.76	.31			
2	.36	.31	1.8	1.5	1.1	2.0	.54	.68	.22			
3	.42	.31	1.8	1.5	1.1	7.9	.48	.68	.18			
4	.47	.31	1.8	1.6	1.1	6.2	.48	.68	.08			
5	.42	.36	1.8	1.5	1.1	1.4	.48	.68	.06			
6	.42	.84	1.8	1.5	1.1	.93	.48	.76	.18			
7	.47	1.2	1.9	1.6	1.1	.84	.48	.84	.14			
8	.42	1.1	1.9	1.6	1.1	.84	.48	.84	.06			
9	.42	1.0	1.9	1.6	1.1	.84	.48	.84	.11			
10	.42	.73	1.8	1.8	2.5	.84	.54	.68	.22			
11	.48	.73	1.8	1.6	4.1	.84	.54	.68	.22			
12	.48	.93	1.8	1.5	2.0	.61	.68	.68	.22			
13	.48	.84	1.8	1.5	6.6	.48	.84	.68	.26			
14	.48	.84	1.8	1.9	11	.84	1.1	.61	.26			
15	.54	1.0	1.6	1.8	7.6	.84	1.3	.48	.22			
16	.54	.93	1.8	1.9	1.1	.61	1.1	.42	.22			
17	.61	.84	1.8	1.6	.93	.54	1.1	.36	.14			
18	.76	1.0	1.6	1.5	.84	.48	1.0	.26	.06			
19	.76	1.3	1.5	1.4	.76	.48	.84	.31	.04			
20	.61	1.3	1.5	1.3	.84	.48	.93	.36	.03			
21	.54	1.3	1.5	1.3	1.1	.48	1.1	.42	.02			
22	.68	1.2	1.5	1.2	.93	.48	1.1	.31	.02			
23	.68	1.3	1.4	1.2	.84	.48	1.0	.22	.02			
24	.68	1.3	1.3	1.1	1.0	.48	.84	.31	.02			
25	.61	1.2	1.3	1.1	8.8	.48	.84	.61	.02			
26	.54	1.2	1.3	1.1	2.0	.48	.84	.48	.01			
27	.48	1.2	1.4	1.1	1.4	.48	1.1	.48	.01			
28	.36	1.3	1.3	1.1	1.9	.48	1.2	.48	.01			
29	.36	1.2	1.4	1.1	-----	.48	1.1	.48	.01			
30	.36	1.3	1.5	1.1	-----	.68	.93	.48	.01			
31	.31	-----	1.5	1.1	-----	.61	-----	.36	-----			-----
TOTAL	15.37	29.08	50.7	44.2	66.14	30.40	24.46	16.91	3.38	0	0	0
MEAN	.50	.97	1.64	1.43	2.36	.98	.82	.55	.11	0	0	0
MAX	.76	1.3	1.9	1.9	11	6.2	1.3	.84	.31	0	0	0
MIN	.31	.31	1.3	1.1	.76	.48	.48	.27	.01	0	0	0
AC-FT	30	58	101	88	131	60	49	34	6.7	0	0	0

CAL YR 1969 TOTAL 1,213.13 MEAN 3.32 MAX 142 MIN 0 ACFT 2,410
WAT YR 1970 TOTAL 280.64 MEAN .77 MAX 11 MIN 0 ACFT 557

PEAK DISCHARGE (BASE, 10 CFS).--Feb. 14 (2400) 13 cfs (3.65 ft); Feb. 25 (1100) 10 cfs (3.57 ft).

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.--18.7 sq mi.

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.--45 years, 24.4 cfs (17,680 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 96 cfs June 9 (gage height, 2.22 ft); minimum daily, 11 cfs May 2-4.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	18	17	14	15	12	14	12	70	67	42	22
2	26	18	17	14	15	12	13	11	73	67	40	21
3	23	18	17	14	15	12	13	11	74	66	40	20
4	24	18	17	14	15	12	13	11	78	65	38	19
5	25	19	16	13	15	12	13	12	78	65	36	18
6	25	19	16	13	15	12	13	13	78	65	36	17
7	25	19	16	15	15	12	13	13	78	66	36	19
8	25	19	16	20	15	12	13	14	78	68	34	16
9	22	18	15	20	15	12	13	16	79	69	34	15
10	21	20	14	20	14	12	14	18	77	70	32	19
11	21	20	14	20	14	12	14	15	76	70	32	18
12	22	20	14	19	14	12	14	15	69	68	30	17
13	21	20	14	18	14	12	14	16	67	66	30	17
14	20	19	14	18	14	12	14	17	60	65	30	17
15	22	19	14	17	14	12	14	18	61	64	30	17
16	24	19	14	17	14	12	14	21	61	62	30	16
17	23	18	14	17	15	12	15	26	61	62	30	16
18	23	18	14	16	15	12	15	30	61	61	30	16
19	22	18	14	15	14	12	15	36	62	61	30	16
20	22	18	14	15	14	12	14	40	62	60	30	16
21	22	18	18	15	14	12	14	41	63	59	30	16
22	21	18	16	15	14	12	14	43	63	58	28	16
23	21	18	18	15	14	12	14	46	64	57	28	16
24	20	18	18	15	14	12	14	50	64	55	26	15
25	20	18	15	15	14	12	14	54	65	52	26	15
26	20	18	15	15	14	12	13	56	65	50	26	15
27	20	17	14	15	14	12	14	59	65	48	24	15
28	18	17	14	15	14	12	14	60	66	46	24	15
29	18	17	14	15	-----	12	14	62	67	44	26	15
30	18	17	14	15	-----	12	14	63	68	42	24	15
31	18	-----	14	15	-----	12	-----	67	-----	40	24	-----
TOTAL	678	551	471	494	403	372	414	966	2,053	1,858	956	505
MEAN	21.9	18.4	15.2	15.9	14.4	12.0	13.8	31.2	68.4	59.9	30.8	16.8
MAX	26	20	18	20	15	12	15	67	79	70	42	22
MIN	18	17	14	13	14	12	13	11	60	40	24	15
AC-FT	1,340	1,090	934	980	799	738	821	1,920	4,070	3,690	1,900	1,000

CAL YR 1969 TOTAL 20,021 MEAN 54.9 MAX 202 MIN 8.9 ACFT 39,710

WAT YR 1970 TOTAL 9,721 MEAN 26.6 MAX 79 MIN 11 ACFT 19,280

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.--50 years (1920-70), 30.1 cfs (21,810 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 100 cfs June 28 (gage height, 2.44 ft); minimum daily, 11 cfs Sept. 27-30.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	19	16	21	16	16	19	19	71	49	33	19
2	20	20	16	21	16	16	17	21	75	45	31	19
3	20	20	15	21	17	16	17	23	77	46	30	18
4	21	20	15	21	17	16	18	23	80	47	29	17
5	21	20	15	21	17	17	18	25	80	51	28	16
6	21	20	15	21	16	16	19	27	80	57	28	16
7	21	20	15	19	16	17	20	27	79	64	28	16
8	20	20	15	19	16	17	20	29	78	64	28	16
9	19	20	17	19	16	17	22	30	78	65	27	16
10	19	20	17	19	16	16	24	30	65	68	27	16
11	19	20	15	19	16	16	24	30	52	63	27	16
12	19	20	15	19	16	16	24	28	47	54	26	15
13	18	20	15	16	16	17	23	31	48	48	26	15
14	19	20	15	15	16	17	23	34	47	46	27	14
15	21	20	15	18	15	17	20	38	42	46	28	15
16	25	20	15	24	15	17	21	46	38	48	28	15
17	23	17	14	19	16	17	21	51	37	48	28	15
18	22	18	14	17	18	16	21	56	35	48	28	15
19	22	17	15	17	22	17	20	58	36	48	27	14
20	21	17	17	16	21	16	19	55	43	48	26	14
21	21	17	17	17	19	16	19	51	48	49	26	13
22	20	17	16	17	17	16	17	52	69	48	25	13
23	20	17	16	16	17	17	17	53	84	44	25	12
24	20	17	15	16	16	17	18	56	87	43	23	12
25	20	17	17	15	16	17	20	57	87	43	22	12
26	20	16	17	15	16	18	19	54	86	43	21	12
27	19	17	21	15	16	17	17	54	87	45	21	11
28	19	17	23	19	16	18	20	56	97	45	22	11
29	18	17	24	16	-----	17	20	56	83	43	22	11
30	18	17	24	19	-----	17	19	59	62	38	21	11
31	18	-----	23	16	-----	17	-----	65	-----	35	20	-----
TOTAL	625	557	519	563	467	517	596	1,294	1,978	1,529	808	435
MEAN	20.2	18.6	16.7	18.2	16.7	16.7	19.9	41.7	65.9	49.3	26.1	14.5
MAX	25	20	24	24	22	18	24	65	97	68	33	19
MIN	18	16	14	15	15	16	17	19	35	35	20	11
AC-FT	1,240	1,100	1,030	1,120	926	1,030	1,180	2,570	3,920	3,030	1,600	863

CAL YR 1969 TOTAL 21,202 MEAN 58.1 MAX 290 MIN 7.7 ACFT 42,050
WAT YR 1970 TOTAL 9,888 MEAN 27.1 MAX 97 MIN 11 ACFT 19,610

OWENS LAKE BASIN

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.--37.9 sq mi.

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.--49 years, 45.2 cfs (32,750 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 215 cfs June 27 (gage height, 3.95 ft); minimum daily, 28 cfs for several 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	38	32	30	31	29	29	30	163	91	57	40
2	49	37	32	30	31	29	29	30	167	98	52	39
3	49	37	33	30	31	29	29	30	175	107	53	37
4	49	37	32	30	30	29	29	34	175	109	53	35
5	48	37	32	29	30	29	29	36	151	116	51	35
6	47	37	32	29	30	29	30	39	159	136	50	34
7	47	37	32	29	30	28	30	39	158	130	50	33
8	46	37	32	30	30	28	31	39	156	121	49	33
9	45	37	31	30	30	28	32	39	126	124	48	32
10	44	36	32	30	30	28	34	44	115	114	44	32
11	44	36	32	30	30	29	36	42	102	109	45	31
12	44	36	32	30	30	28	36	40	101	101	45	31
13	43	36	32	30	30	28	35	41	86	99	46	30
14	43	36	31	32	30	29	34	48	72	99	46	30
15	44	37	31	30	30	29	33	63	65	94	46	31
16	44	36	31	40	29	29	33	82	71	98	46	30
17	43	35	32	34	29	29	32	103	84	94	45	29
18	43	35	32	32	30	29	31	114	98	93	45	29
19	43	35	32	32	29	30	31	108	123	94	44	29
20	43	34	32	32	29	29	30	98	147	95	44	29
21	42	34	32	33	30	29	30	96	172	98	44	28
22	42	34	32	33	30	29	30	109	177	87	45	28
23	42	34	32	33	29	29	30	126	171	79	44	28
24	41	33	32	33	29	29	30	130	163	70	43	28
25	41	33	34	32	29	29	30	121	160	65	42	28
26	41	33	32	32	29	29	30	119	157	68	40	28
27	40	33	30	33	29	29	30	135	190	80	41	28
28	40	33	30	32	29	29	30	137	141	83	41	28
29	40	32	30	31	-----	29	30	143	116	73	41	28
30	39	32	30	31	-----	29	30	155	96	67	41	28
31	39	-----	30	32	-----	29	-----	163	-----	67	40	-----
TOTAL	1,355	1,057	981	974	833	894	933	2,533	4,037	2,959	1,421	929
MEAN	43.7	35.2	31.6	31.4	29.8	28.8	31.1	81.7	135	95.5	45.8	31.0
MAX	50	38	34	40	31	30	36	163	190	136	57	40
MIN	39	32	30	29	29	28	29	30	65	65	40	28
AC-FT	2,690	2,100	1,950	1,930	1,650	1,770	1,850	5,020	8,010	5,870	2,820	1,840
CAL YR 1969	TOTAL	33,573	MEAN	92.0	MAX	443	MIN	12	ACFT	66,590		
WAT YR 1970	TOTAL	18,906	MEAN	51.8	MAX	190	MIN	28	ACFT	37,500		

10268700 SILVER CANYON CREEK NEAR LAWS, CALIF.

LOCATION.--Lat 37°24'16", long 118°18'30", in NW¼ 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.--22.4 sq mi.

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.--40 years, 1.63 cfs (1,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6.3 cfs Oct. 6 (gage height, 1.35 ft); minimum daily, 0.29 cfs July 12.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	5.5	5.0	4.2	4.2	3.7	3.6	3.5	3.0	2.9	2.0	2.1
2	5.5	5.4	5.0	4.1	4.2	3.7	3.6	3.5	3.0	2.9	2.0	2.0
3	5.4	5.5	5.0	4.2	4.2	3.8	3.6	3.4	3.0	2.8	2.0	2.0
4	5.5	5.0	4.8	4.3	4.2	3.7	3.6	3.4	3.0	2.8	2.0	2.0
5	5.6	4.8	4.8	4.2	4.1	3.7	3.6	3.4	3.0	2.8	2.0	2.1
6	5.3	4.8	4.5	4.2	3.9	3.6	3.6	3.3	3.0	2.8	2.0	2.1
7	5.3	4.9	4.4	4.2	3.9	3.6	3.6	3.2	3.0	2.7	2.0	2.0
8	5.2	5.2	4.5	4.2	3.8	3.6	3.6	3.2	3.1	2.6	2.0	2.1
9	5.2	4.9	4.4	4.2	3.8	3.6	3.5	3.2	3.1	1.2	2.0	2.0
10	5.3	5.2	4.6	4.2	4.0	3.6	3.5	3.1	3.1	.35	2.0	2.0
11	5.8	5.3	4.6	4.2	3.9	3.7	3.5	3.0	3.1	.32	2.0	2.0
12	5.5	4.8	4.6	4.2	3.9	3.6	3.5	2.9	3.2	.29	2.0	2.0
13	5.6	5.1	4.5	4.2	3.9	3.6	3.6	2.8	3.2	.64	2.0	2.0
14	5.5	5.2	4.6	4.2	3.8	3.6	3.6	2.8	3.2	2.2	2.0	2.1
15	5.7	5.3	4.8	4.2	3.8	3.6	3.6	2.8	3.2	2.4	2.0	2.1
16	5.4	5.3	4.8	4.2	3.8	3.6	3.5	2.9	3.2	2.3	2.0	2.1
17	4.8	5.2	4.8	4.1	3.8	3.6	3.6	3.0	3.2	2.3	2.0	2.0
18	5.0	5.0	4.8	4.1	3.8	3.8	3.5	3.0	3.1	2.2	2.0	2.1
19	5.0	4.9	4.8	4.1	3.7	3.8	3.5	3.0	3.1	2.2	2.0	2.1
20	5.0	4.8	4.8	4.0	3.7	3.7	3.5	3.0	3.1	2.2	2.0	2.2
21	5.1	4.8	4.8	3.9	3.8	3.7	3.5	3.0	3.0	2.1	2.0	2.3
22	5.3	4.6	4.6	3.7	3.8	3.7	3.5	3.1	3.0	2.1	2.0	2.3
23	5.0	4.6	4.6	3.9	3.7	3.6	3.5	3.1	3.1	2.1	2.0	2.2
24	5.2	4.5	4.6	4.2	3.8	3.6	3.5	3.1	3.1	2.1	2.0	2.2
25	5.2	4.6	4.4	4.2	3.7	3.6	3.5	3.1	3.0	2.1	2.0	2.2
26	5.1	4.5	4.3	4.1	3.6	3.6	3.5	3.1	3.0	2.1	2.0	2.2
27	5.3	4.4	4.2	4.2	3.6	3.6	3.5	3.1	3.0	2.1	2.0	2.2
28	5.0	4.5	4.4	4.2	3.7	3.6	3.6	3.1	3.0	2.1	2.1	2.3
29	5.2	4.8	4.4	4.2	-----	3.6	3.6	3.1	3.0	2.1	2.1	2.3
30	5.2	4.8	4.4	4.2	-----	3.7	3.6	3.1	3.0	2.1	2.0	2.3
31	5.2	-----	4.3	4.2	-----	3.7	-----	3.1	-----	2.0	2.1	-----
TOTAL	164.0	148.2	143.1	128.5	108.1	113.2	106.5	96.4	92.1	63.90	62.3	63.6
MEAN	5.29	4.94	4.62	4.15	3.86	3.65	3.55	3.11	3.07	2.06	2.01	2.12
MAX	5.8	5.5	5.0	4.3	4.2	3.8	3.6	3.5	3.2	2.9	2.1	2.3
MIN	4.8	4.4	4.2	3.7	3.6	3.6	3.5	2.8	3.0	.29	2.0	2.0
AC-FT	325	294	284	255	214	225	211	191	183	127	124	126
CAL YR 1969	TOTAL	1,476.90	MEAN	4.05	MAX	8.1	MIN	1.6	ACFT	2,930		
WAT YR 1970	TOTAL	1,289.90	MEAN	3.53	MAX	5.8	MIN	.29	ACFT	2,560		

OWENS LAKE BASIN

10276000 BIG PINE CREEK NEAR BIG PINE, CALIF.

LOCATION.--Lat 37°08'42", long 118°18'52", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ 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.

DRAINAGE AREA.--39.0 sq mi.

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.

GAGE.--Water-stage recorder and Parshall flume since April 1949 on creek; water-stage recorder and Parshall flume on each diversion. Altitude of gage is 4,500 ft (from topographic map). Prior to January 1923, non-recording gage at same site and datum.

AVERAGE COMBINED DISCHARGE.--40 years (1930-70), 41.4 cfs (29,990 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 177 cfs July 9 (gage height, 3.50 ft); minimum daily, 12 cfs Mar. 3, 4, 11, 17-20.
 Period of record: Maximum discharge, 458 cfs July 3, 1932 (gage height, 6.55 ft); no flow Dec. 3-12, 1935.
 (Combined flow).--Current year: Maximum discharge, 192 cfs July 9; minimum daily, 15 cfs for several days.
 Period of record: Maximum discharge, 458 cfs July 3, 1932; minimum daily, 6.4 cfs Dec. 11, 12, 1935.

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.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	25	21	17	15	14	14	15	63	67	68	51
2	36	26	20	16	15	14	14	15	71	75	63	45
3	35	26	20	16	15	12	14	17	71	83	63	41
4	34	26	20	17	15	12	14	19	78	87	65	37
5	33	25	20	16	15	13	14	21	71	106	68	33
6	32	26	20	17	15	14	15	22	68	118	63	29
7	29	26	20	16	16	14	16	21	71	130	66	29
8	26	26	20	16	15	14	17	21	68	126	66	30
9	26	25	19	16	16	13	19	22	53	167	62	31
10	25	24	18	17	15	13	21	23	52	149	61	33
11	25	24	19	17	15	12	22	23	47	121	62	33
12	25	24	19	16	15	13	21	20	44	114	68	34
13	25	24	19	16	15	13	21	21	46	110	74	30
14	25	24	18	17	14	13	18	25	46	110	75	28
15	28	24	18	17	14	13	17	30	46	115	66	25
16	31	23	17	21	14	13	17	36	41	120	71	24
17	31	23	18	18	14	12	16	41	42	121	67	23
18	30	23	17	17	13	12	16	46	50	126	65	22
19	29	22	19	17	13	12	15	40	62	133	63	20
20	28	23	19	16	13	12	15	33	78	143	65	19
21	27	23	19	17	15	13	15	33	92	140	63	19
22	26	23	19	17	15	13	15	39	94	125	58	17
23	26	23	18	16	14	14	15	45	118	104	56	17
24	26	23	18	17	14	14	15	47	125	93	53	17
25	26	23	20	16	13	15	15	47	128	84	53	17
26	26	22	17	16	14	15	15	39	133	86	52	16
27	25	22	16	16	14	15	15	47	141	75	52	16
28	25	21	17	15	14	15	13	47	116	80	53	16
29	26	21	17	15	-----	15	14	52	94	95	59	15
30	26	21	17	15	-----	14	14	56	74	92	59	15
31	26	-----	17	15	-----	14	-----	60	-----	77	58	-----
TOTAL	875	711	576	511	405	415	482	1,023	2,283	3,372	1,937	782
MEAN	28.2	23.7	18.6	16.5	14.5	13.4	16.1	33.0	76.1	109	62.5	26.1
MAX	37	26	21	21	16	15	22	60	141	167	75	51
MIN	25	21	16	15	13	12	13	15	41	67	52	15
AC-FT	1,740	1,410	1,140	1,010	803	823	956	2,030	4,530	6,690	3,840	1,550
CAL YR 1969	TOTAL 28,221	MEAN 77.3	MAX 350	MIN 8.2	ACFT 55,980							
WAT YR 1970	TOTAL 13,372	MEAN 36.6	MAX 167	MIN 12	ACFT 26,520							

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	27	24	20	18	17	17	18	71	80	81	62
2	41	28	23	19	18	17	17	18	80	88	76	56
3	40	28	23	19	18	15	17	20	80	97	76	52
4	39	28	23	20	18	15	17	22	87	101	78	48
5	38	27	23	19	18	16	17	24	80	120	81	44
6	37	28	23	20	18	17	18	25	79	132	76	39
7	35	28	23	19	18	17	19	24	83	144	79	39
8	34	28	23	19	16	17	20	24	80	140	79	40
9	34	27	22	19	18	16	22	25	65	182	75	42
10	33	27	21	20	18	16	24	25	64	162	74	44
11	33	27	22	20	18	15	25	25	57	133	75	44
12	32	26	22	19	18	16	24	23	55	126	82	45
13	32	26	22	19	18	16	24	24	57	123	88	40
14	31	26	21	20	17	16	21	28	57	124	89	38
15	32	26	21	20	17	16	20	33	56	128	80	35
16	33	26	20	24	17	16	20	39	52	134	85	34
17	33	25	21	21	17	15	19	44	54	135	81	33
18	32	25	20	20	16	15	19	49	63	140	79	32
19	31	24	22	20	16	15	18	45	75	148	77	30
20	31	25	22	19	16	15	18	41	89	158	79	28
21	31	25	22	20	17	16	18	41	100	155	77	28
22	30	25	22	20	17	16	18	47	104	140	70	26
23	30	25	21	19	16	17	18	53	132	118	68	26
24	30	25	21	20	17	17	18	55	139	107	64	26
25	30	25	23	19	15	18	18	55	142	98	64	26
26	29	24	20	19	17	18	18	47	147	100	64	25
27	28	24	19	19	17	17	18	55	155	88	65	25
28	28	24	20	18	17	18	16	54	130	94	66	25
29	28	24	20	18	-----	18	17	60	108	109	74	24
30	28	24	20	18	-----	17	17	65	87	106	74	24
31	28	-----	20	18	-----	17	-----	68	-----	90	71	-----
TOTAL	1,013	777	669	604	481	507	572	1,176	2,628	3,800	2,347	1,080
MEAN	32.7	25.9	21.6	19.5	17.2	16.4	19.1	37.9	87.6	123	75.7	36.0
MAX	42	28	24	24	18	18	25	68	155	182	89	62
MIN	28	24	19	18	15	15	16	18	52	80	64	24
AC-FT	2,010	1,540	1,330	1,200	954	1,010	1,130	2,330	5,210	7,540	4,660	2,140
CAL YR 1969	TOTAL	29,776	MEAN	81.6	MAX	357	MIN	9.3	ACFT	59,060		
WAT YR 1970	TOTAL	15,654	MEAN	42.9	MAX	182	MIN	15	ACFT	31,050		

10277500 OWENS RIVER NEAR BIG PINE, CALIF.

LOCATION.--Lat 37°00'55", long 118°13'25", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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.--1,930 sq mi, approximately.

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, 807 cfs Aug. 11; minimum daily, 1.0 cfs Oct. 6.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	607	560	391	625	477	395	422	407	603	776	686
2	51	607	538	391	623	475	428	422	407	602	774	684
3	37	607	535	388	627	474	472	421	413	602	778	684
4	35	605	535	387	616	475	473	421	451	600	780	681
5	34	604	537	387	589	476	475	423	483	599	798	683
6	1.0	605	538	386	520	475	477	421	487	600	796	689
7	205	604	538	384	517	477	477	416	485	599	803	688
8	539	605	539	384	515	477	477	416	503	600	798	688
9	551	604	540	384	514	476	473	416	536	624	800	695
10	568	602	542	386	514	474	474	417	536	699	800	715
11	609	602	504	384	513	472	473	417	536	698	807	717
12	612	600	451	381	512	472	474	417	539	701	803	715
13	616	600	451	380	496	473	475	397	539	719	803	715
14	622	600	454	384	478	476	473	377	539	782	805	715
15	616	600	452	384	477	475	470	375	539	780	803	715
16	612	602	449	388	477	474	470	374	540	788	803	705
17	614	582	447	388	477	472	448	376	543	792	805	691
18	616	582	447	385	478	437	430	375	501	791	805	684
19	612	582	447	411	475	397	430	376	409	791	803	661
20	616	581	447	466	477	395	429	376	407	794	776	659
21	621	580	449	469	478	394	414	377	404	791	711	655
22	619	580	449	470	477	394	414	376	444	791	671	664
23	616	581	449	470	477	393	413	380	538	789	671	662
24	614	581	449	474	475	393	413	387	599	792	667	655
25	612	581	447	476	475	229	413	386	522	792	669	654
26	610	580	450	383	475	237	413	387	327	792	688	657
27	612	577	451	315	476	392	413	398	469	794	691	655
28	609	577	450	620	477	393	423	411	471	786	689	650
29	607	579	416	623	-----	395	422	412	502	773	691	654
30	607	578	393	624	-----	395	423	412	603	780	689	654
31	607	-----	391	626	-----	395	-----	412	-----	776	686	-----
TOTAL	14,991.0	17,775	14,745	13,369	14,330	13,309	13,354	12,393	14,679	22,420	23,439	20,430
MEAN	484	593	476	431	512	429	445	400	489	723	756	681
MAX	622	607	560	626	627	477	477	423	603	794	807	717
MIN	1.0	577	391	315	475	229	395	374	327	599	667	650
AC-FT	29,730	35,260	29,250	26,520	28,420	26,400	26,490	24,580	29,120	44,470	46,490	40,520
CAL YR 1969	TOTAL	285,562.0	MEAN	782	MAX	1,480	MIN	1.0	ACFT	566,400		
WAT YR 1970	TOTAL	195,234.0	MEAN	535	MAX	807	MIN	1.0	ACFT	387,200		

OWENS LAKE BASIN

95

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.--18.2 sq mi.

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.--47 years, 12.9 cfs (9,350 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 42 cfs July 9 (gage height, 1.83 ft); minimum daily, 2.9 cfs Dec. 28, Jan. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	5.9	4.7	4.1	3.8	3.8	4.7	6.6	20	20	18	8.7
2	11	5.7	4.5	4.5	3.6	3.8	4.7	6.6	20	20	17	8.5
3	11	5.7	4.5	3.6	3.5	3.8	4.7	7.2	20	20	16	8.1
4	11	5.5	4.5	3.5	3.5	3.8	4.9	7.3	20	20	16	7.5
5	11	5.4	4.5	3.3	3.3	4.1	5.2	7.9	20	20	16	7.3
6	9.7	5.7	4.5	3.3	3.3	3.8	5.7	9.1	20	21	15	7.5
7	9.5	5.5	4.4	3.9	3.3	3.8	6.2	9.7	22	30	15	7.2
8	9.1	5.5	4.4	3.8	3.3	3.8	6.6	10	22	38	15	6.8
9	8.9	5.4	4.4	3.8	3.5	3.8	7.5	11	21	38	15	6.4
10	8.3	5.4	4.5	4.5	4.1	3.8	8.5	12	20	32	14	6.2
11	8.3	5.4	4.2	4.2	4.4	3.8	9.1	12	19	29	14	5.9
12	8.3	5.4	4.2	3.9	3.9	3.8	9.1	11	18	26	14	5.7
13	7.9	5.2	4.2	3.8	3.8	3.8	9.1	12	18	24	14	5.2
14	8.1	5.4	4.1	4.7	3.8	3.8	8.7	13	17	23	14	5.4
15	8.7	5.9	3.9	4.5	3.8	3.6	8.7	16	16	23	14	5.4
16	9.5	5.7	3.8	9.7	3.8	3.8	8.3	19	17	23	14	5.2
17	8.5	5.4	3.8	3.8	3.6	3.8	8.1	22	17	22	14	5.0
18	8.1	5.5	3.8	2.9	3.6	3.8	7.7	25	20	22	15	4.9
19	8.1	5.7	4.4	3.3	3.6	3.8	7.2	24	23	21	14	4.5
20	7.7	5.7	5.0	3.8	3.6	3.9	7.2	19	26	21	13	4.4
21	7.3	5.5	4.4	3.8	4.1	3.9	7.0	19	28	21	12	4.4
22	7.2	5.4	4.5	3.8	3.9	3.9	6.8	19	29	21	12	4.4
23	7.0	5.4	4.4	3.6	3.8	3.9	6.6	20	29	20	11	4.2
24	6.6	5.4	4.4	3.5	3.8	3.9	6.6	21	28	19	11	4.1
25	6.4	5.4	4.7	3.3	3.6	4.1	6.6	21	28	18	10	4.1
26	6.2	5.4	4.5	3.2	3.6	4.4	6.6	18	27	17	10	4.1
27	6.0	5.2	4.2	3.2	3.5	4.5	6.8	18	29	17	10	4.1
28	5.9	5.0	2.9	3.0	3.8	4.5	6.8	21	27	17	10	4.1
29	5.7	4.9	3.3	3.3	-----	4.7	6.8	22	24	15	10	3.9
30	5.9	4.9	4.2	4.5	-----	4.9	6.8	22	22	18	9.3	3.9
31	6.0	-----	4.1	4.9	-----	4.9	-----	22	-----	19	9.1	-----
TOTAL	253.9	163.5	131.9	123.0	103.2	123.8	209.3	483.4	667	695	411.4	167.1
MEAN	8.19	5.45	4.25	3.97	3.69	3.99	6.98	15.6	22.2	22.4	13.3	5.57
MAX	11	5.9	5.0	9.7	4.4	4.9	9.1	25	29	38	18	8.7
MIN	5.7	4.9	2.9	2.9	3.3	3.6	4.7	6.6	16	15	9.1	3.9
AC-FT	504	324	262	244	205	246	415	959	1,320	1,380	816	331
CAL YR 1969	TOTAL	10,986.5	MEAN	30.1	MAX	145	MIN	2.8	ACFT	21,790		
WAT YR 1970	TOTAL	3,532.5	MEAN	9.68	MAX	38	MIN	2.9	ACFT	7,010		

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.--10 years, 0.084 cfs (61 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. Discharge for the calendar year 1969 is as follows: Maximum'daily, 75 cfs; minimum, zero; mean, .21cfs; total, 149 acre-ft.

OWENS LAKE BASIN

10284800 INYO CREEK NEAR LONE PINE, CALIF.

LOCATION.--Lat 36°35'50", long 118°10'55", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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, 16 cfs July 9 (gage height, 5.74 ft), from rating curve extended as explained below; 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	.69	0		
2								0	.63	0		
3								0	.66	0		
4								0	.63	0		
5								0	.63	0		
6								0	.48	0		
7								0	.48	0		
8								0	.45	0		
9								0	.33	2.0		
10								0	.33	.02		
11								0	.33	0		
12								0	.30	0		
13								0	.28	0		
14								0	.26	0		
15								0	.22	0		
16								0	.20	0		
17								0	.16	0		
18								.37	.15	0		
19								.09	.15	0		
20								0	.22	0		
21								0	.24	0		
22								.03	.24	0		
23								.57	.26	0		
24								.54	.22	0		
25								.63	.13	0		
26								.33	0	0		
27								.37	0	0		
28								.69	0	0		
29					-----			.66	0	0		
30					-----			.69	0	0		
31		-----			-----			.72	-----	0		-----
TOTAL	0	0	0	0	0	0	0	5.69	8.67	2.02	0	0
MEAN	0	0	0	0	0	0	0	.18	.29	.065	0	0
MAX	0	0	0	0	0	0	0	.72	.69	2.0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	11	17	4.0	0	0
(a)	0	0	0	2.2	1.1	0	0	0	0	0	.4	0

CAL YR 1969 TOTAL 419.84 MEAN 1.15 MAX 8.0 MIN 0 ACFT 833
 WAT YR 1970 TOTAL 16.38 MEAN .64 MAX 2.0 MIN 0 ACFT 32

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 $\frac{1}{4}$ 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, 225 cfs Feb. 12 (gage height, 2.33 ft); minimum daily, 3.0 cfs Aug. 26, 27.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	30	30	33	39	55	29	20	11	8.5	5.3	3.5
2	67	30	30	34	41	55	30	20	12	8.5	5.0	3.5
3	55	30	33	32	41	53	30	20	10	8.5	5.0	3.5
4	51	30	33	29	41	52	29	20	10	8.5	4.7	3.5
5	50	29	32	29	42	49	28	19	10	8.8	4.5	3.5
6	49	27	32	28	49	46	28	19	10	9.2	4.5	3.5
7	50	26	32	32	54	46	27	18	10	9.5	4.2	3.7
8	51	26	32	32	58	45	27	18	10	9.5	4.2	4.0
9	52	27	31	32	76	45	25	18	10	9.8	4.0	4.0
10	50	28	30	33	111	45	24	17	10	11	4.0	4.0
11	50	28	29	34	153	45	24	17	10	12	3.7	3.5
12	50	28	27	36	199	45	24	16	9.8	11	3.5	3.5
13	50	28	29	38	157	45	24	16	9.8	11	3.5	3.5
14	50	28	29	38	148	45	22	16	9.8	10	3.5	3.5
15	50	28	29	41	138	45	22	15	10	9.5	3.5	3.7
16	50	28	29	42	127	45	22	14	11	9.2	3.5	4.0
17	50	28	29	45	115	44	22	14	13	8.8	3.5	4.0
18	50	27	29	47	103	44	22	14	14	8.5	3.7	4.2
19	49	26	29	44	87	43	21	14	14	7.9	3.7	4.7
20	47	27	29	39	77	42	21	13	14	7.6	3.7	4.7
21	44	26	30	36	69	41	21	13	13	7.3	3.7	4.7
22	42	30	30	35	67	41	21	13	11	7.0	3.7	4.7
23	40	25	29	39	65	42	21	13	10	6.7	3.5	4.7
24	38	26	29	42	64	41	21	13	9.5	6.4	3.5	5.0
25	37	27	29	38	63	39	21	13	9.2	6.1	3.2	4.7
26	37	28	29	43	61	39	21	13	9.5	5.8	3.0	5.0
27	36	29	29	44	58	38	21	12	9.2	5.3	3.0	5.3
28	34	30	28	46	57	37	21	12	8.8	5.5	3.7	5.3
29	32	30	24	45	-----	36	21	12	8.5	5.8	3.7	5.5
30	31	30	24	44	-----	35	20	12	8.5	5.5	3.7	5.8
31	30	-----	27	50	-----	34	-----	11	-----	5.5	3.7	-----
TOTAL	1,439	840	911	1,180	2,360	1,357	710	475	315.6	254.2	119.6	126.7
MEAN	46.4	28.0	29.4	38.1	84.3	43.8	23.7	15.3	10.5	8.20	3.86	4.22
MAX	67	30	33	50	199	55	30	20	14	12	5.3	5.8
MIN	30	25	24	28	39	34	20	11	8.5	5.3	3.0	3.5
AC-FT	2,850	1,670	1,810	2,340	4,680	2,690	1,410	942	626	504	237	251
CAL YR 1969	TOTAL	113,452.4	MEAN	311	MAX	1,350	MIN	9.8	ACFT	225,000		
WAT YR 1970	TOTAL	10,088.1	MEAN	27.6	MAX	199	MIN	3.0	ACFT	20,010		

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.--39.9 sq mi.

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.--60 years (1906-10, 1914-70), 22.9 cfs (16,590 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 55 cfs May 16 (gage height, 1.89 ft); no flow many days.
 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, 67 cfs May 16; minimum daily, 2.0 cfs Sept. 29.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	2.5	.04	.14	0	0	2.2	13	16	1.2		0
2	14	2.5	.04	.14	0	0	3.4	22	16	.33		0
3	12	2.5	.04	.03	0	0	3.2	26	14	.33		0
4	13	2.8	.04	.03	0	0	1.9	25	14	.33		0
5	14	3.2	.04	.03	0	0	3.2	25	14	.26		0
6	17	3.6	.04	.03	0	0	5.4	23	14	.26		0
7	8.7	5.4	.04	.03	0	0	6.5	20	13	.20		0
8	6.9	.20	.04	0	0	0	11	21	12	3.4		0
9	4.8	.20	.04	0	0	0	14	23	13	22		0
10	2.6	.20	.04	.20	0	0	19	21	12	14		0
11	2.6	.20	.04	.24	0	0	24	17	11	8.6		0
12	2.6	.20	.04	.31	0	0	25	18	9.9	8.6		0
13	2.6	.20	.04	.37	0	0	21	21	10	4.5		0
14	2.6	.20	.04	.44	0	0	15	24	10	3.0		0
15	2.6	.20	.04	.51	0	0	14	24	9.6	2.1		0
16	2.6	.20	.04	0	0	0	12	31	8.8	1.0		0
17	2.6	.02	.04	0	0	0	6.9	27	7.4	.26		0
18	2.6	.01	.04	0	2.2	0	8.3	26	6.5	.20		0
19	2.6	.01	.04	0	4.7	0	10	23	4.8	.20		0
20	2.6	.01	.04	0	10	0	11	21	3.8	.14		0
21	2.6	.01	.08	0	0	0	8.8	21	3.3	.09		0
22	2.6	.01	.08	0	0	0	6.5	23	2.3	.09		0
23	2.6	.01	.12	0	0	0	6.7	21	2.3	.05		0
24	2.6	.01	.12	0	0	0	9.7	21	2.0	0		0
25	2.6	.01	.17	0	0	0	17	24	1.7	0		0
26	2.6	.01	.17	0	0	0	20	22	1.9	0		.53
27	2.6	.01	.17	0	0	0	13	20	1.9	0		1.4
28	2.6	.01	.17	0	0	.04	5.6	19	1.9	0		1.6
29	2.6	.01	.17	0	-----	1.4	6.7	18	1.7	0		1.6
30	2.6	.01	.17	0	-----	2.4	9.5	18	1.9	0		1.8
31	2.6	-----	.17	0	-----	2.6	-----	17	-----	0		-----
TOTAL	155.6	24.45	2.39	2.50	16.9	6.44	320.5	675	240.7	71.14	0	6.93
MEAN	5.02	.82	.077	.081	.60	.21	10.7	21.8	8.02	2.29	0	.23
MAX	14	5.4	.17	.51	10	2.6	25	31	16	22	0	1.8
MIN	2.6	.01	.04	0	0	0	1.9	13	1.7	0	0	0
AC-FT	309	49	4.7	5.0	34	13	636	1,340	477	141	0	14

CAL YR 1969 TOTAL 23,076.09 MEAN 63.2 MAX 486 MIN .01 ACFT 45,770
 WAT YR 1970 TOTAL 1,522.55 MEAN 4.17 MAX 31 MIN 0 ACFT 3,020

NOTE.--Supplementary gage adjusted for losses, used Oct. 1, 1969 to Sept. 30, 1970.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	17	9.4	9.3	9.4	9.2	13	25	28	14	9.8	6.8
2	14	17	9.2	9.3	9.4	9.2	11	33	29	14	9.4	6.6
3	12	16	8.8	8.8	9.4	8.8	14	36	28	14	9.2	6.3
4	13	11	9.4	8.8	9.4	9.4	14	36	28	14	8.8	6.3
5	14	12	9.4	8.5	9.8	9.8	15	35	27	14	8.5	6.3
6	12	6.3	9.8	8.5	11	9.8	17	35	26	14	8.2	6.3
7	13	11	9.4	4.5	10	10	18	31	25	14	8.0	5.5
8	17	13	9.4	6.8	10	9.8	21	33	24	18	7.4	5.5
9	18	13	8.5	6.8	9.8	9.2	25	35	25	36	7.1	5.2
10	15	13	8.2	7.6	10	9.2	30	33	24	26	6.8	5.2
11	15	13	9.2	7.9	11	8.8	35	29	23	23	7.1	5.2
12	15	14	9.4	9.7	10	8.8	37	29	22	22	7.4	5.2
13	15	14	9.8	8.6	9.8	9.2	32	33	21	18	7.4	5.2
14	16	14	9.8	8.6	10	9.2	26	36	22	16	7.7	5.2
15	16	14	9.8	8.5	11	9.4	25	36	22	15	7.4	5.5
16	16	12	9.4	10	11	10	24	43	21	14	6.8	5.5
17	17	9.2	9.4	9.8	10	11	19	39	20	13	8.0	5.7
18	16	11	9.8	9.2	9.0	11	20	38	20	13	7.7	5.7
19	16	12	9.8	9.8	10	11	22	36	18	13	6.8	5.7
20	16	12	10	10	10	11	23	34	17	13	6.8	5.7
21	17	12	9.9	10	9.4	11	21	34	15	13	6.8	5.7
22	17	12	9.9	11	9.8	11	18	33	14	12	6.8	6.0
23	19	11	11	10	10	11	19	34	15	12	6.8	5.7
24	21	11	22	9.8	10	12	22	33	15	12	6.8	5.7
25	23	11	25	8.5	10	13	29	37	15	12	6.6	2.5
26	28	10	13	8.2	9.8	13	32	35	15	12	6.8	2.8
27	23	10	7.6	8.5	9.2	13	24	32	15	12	8.5	3.5
28	17	10	8.6	8.0	9.2	13	17	31	15	12	12	3.9
29	24	9.8	7.9	7.7	-----	14	19	30	15	12	10	2.0
30	23	9.8	8.2	8.0	-----	15	22	30	14	11	8.5	2.1
31	13	-----	7.9	7.7	-----	12	-----	29	-----	10	7.4	-----
TOTAL	524	361.1	318.9	268.4	277.4	331.8	664	1,043	618	468	243.3	154.5
MEAN	16.9	12.0	10.3	8.66	9.91	10.7	22.1	33.6	20.6	15.1	7.85	5.15
MAX	28	17	25	11	11	15	37	43	29	36	12	6.8
MIN	12	6.3	7.6	4.5	9.0	8.8	11	25	14	10	6.6	2.0
AC-FT	1,040	716	633	532	550	658	1,320	2,070	1,230	928	483	306
CAL YR 1969	TOTAL	26,489.7	MEAN	72.6	MAX	488	MIN	6.1	ACFT	52,540		
WAT YR 1970	TOTAL	5,272.4	MEAN	14.4	MAX	43	MIN	2.0	ACFT	10,460		

MONO LAKE BASIN

10287000 MONO LAKE NEAR MONO LAKE, CALIF.

LOCATION.--Lat 37°58'46", long 119°08'11", in NW¼ 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, 6,386.67 ft Jan. 10, 1969.

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 1969 TO SEPTEMBER 1970

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
Oct. 10	6,389.39	Jan. 27	6,389.45	Apr. 20	6,389.68	July 13	6,389.14
21	6,389.30	Feb. 2	6,389.54	29	6,389.61	20	6,389.09
31	6,389.27	13	6,389.61	May 7	6,389.56	27	6,389.07
Nov. 14	6,389.19	19	6,389.65	14	6,389.51	Aug. 5	6,388.88
18	6,389.20	24	6,389.69	19	6,389.49	10	6,388.85
28	6,389.21	Mar. 2	6,389.72	26	6,389.46	17	6,388.76
Dec. 4	6,389.17	11	6,389.75	June 2	6,389.42	24	6,388.63
12	6,389.14	16	6,389.77	11	6,389.33	Sept. 3	6,388.45
18	6,389.17	23	6,389.79	18	6,389.29	8	6,388.34
Jan. 6	6,389.17	Apr. 2	6,389.76	23	6,389.31	14	6,388.23
15	6,389.31	6	6,389.78	30	6,389.18	24	6,388.09
22	6,389.48	15	6,389.69	July 6	6,389.16	28	6,388.03

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.--51.2 sq mi.

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.--33 years (1937-70), 82.6 cfs (59,840 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 182 cfs June 4 (gage height, 2.05 ft); minimum daily, 39 cfs Sept. 13, 14.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	107	44	45	48	60	47	59	149	111	79	75
2	102	108	44	44	48	56	49	60	159	106	79	68
3	102	107	44	45	48	54	52	61	171	99	81	49
4	102	107	44	45	49	54	56	63	179	98	79	45
5	102	101	44	45	48	56	57	66	175	98	77	43
6	102	105	44	43	49	53	59	69	175	100	77	43
7	104	105	44	43	49	48	59	69	172	98	77	43
8	104	102	44	44	49	46	60	70	171	98	76	44
9	105	104	45	51	49	47	61	69	164	98	76	44
10	105	104	44	46	49	50	61	69	153	99	76	44
11	105	102	44	45	49	49	61	70	144	96	75	42
12	105	104	44	43	50	49	61	67	149	92	76	40
13	104	105	44	58	51	49	61	68	149	92	75	39
14	104	105	42	55	50	50	61	72	143	91	75	39
15	111	106	44	79	49	51	61	78	134	89	74	40
16	123	105	42	66	55	50	61	96	118	87	75	47
17	111	102	42	56	60	50	61	126	114	86	76	48
18	109	101	43	52	57	50	61	134	117	85	76	45
19	109	93	47	51	56	49	61	133	125	84	77	45
20	109	63	51	53	55	50	60	126	131	84	78	44
21	108	52	52	63	55	51	59	124	140	84	77	44
22	108	49	46	60	55	51	58	129	144	82	77	44
23	108	47	46	60	55	49	58	136	143	83	76	44
24	107	46	51	63	55	50	58	138	139	87	77	44
25	107	45	51	56	55	49	58	138	135	86	76	44
26	107	45	46	54	55	49	58	138	135	86	75	44
27	107	45	44	54	55	49	58	138	144	86	74	44
28	106	44	44	50	57	49	57	136	136	86	75	43
29	106	45	44	47	-----	49	59	138	123	84	75	44
30	107	44	45	48	-----	50	59	140	114	83	74	51
31	107	-----	45	48	-----	49	-----	143	-----	82	74	-----
TOTAL	3,301	2,498	1,398	1,612	1,460	1,566	1,752	3,123	4,345	2,820	2,364	1,373
MEAN	106	83.3	45.1	52.0	52.1	50.5	58.4	101	145	91.0	76.3	45.8
MAX	123	108	52	79	60	60	61	143	179	111	81	75
MIN	102	44	42	43	48	46	47	59	114	82	74	39
AC-FT	6,550	4,950	2,770	3,200	2,900	3,110	3,480	6,190	8,620	5,590	4,690	2,720

CAL YR 1969 TOTAL 54,798 MEAN 150 MAX 508 MIN 29 ACFT 108,700
 WAT YR 1970 TOTAL 27,612 MEAN 75.6 MAX 179 MIN 39 ACFT 54,770

10287900 LEE VINING CREEK NEAR LEE VINING, CALIF.

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.

DRAINAGE AREA.--35.2 sq mi.

PERIOD OF RECORD.--April 1934 to current year. Prior to October 1959 monthly discharge only, published in WSP 1314 and 1734.

GAGE.--Water-stage recorder and partial concrete control. Altitude of gage is 7,400 ft (from topographic map). See WSP 1734 for history of changes prior to Aug. 6, 1944.

AVERAGE DISCHARGE.--36 years, 67.3 cfs (48,760 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 305 cfs June 3 (gage height, 3.46 ft); minimum daily, 16 cfs Dec. 6-16.

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.

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	53	69	48	48	37	46	31	47	233	136	51	28
2	66	53	19	48	45	46	34	25	233	135	52	28
3	71	37	18	48	36	45	40	35	273	135	67	50
4	58	37	18	47	37	45	47	66	287	135	66	68
5	57	35	17	38	49	63	39	64	219	135	59	68
6	49	66	16	28	58	42	38	70	193	147	58	68
7	59	36	16	27	58	24	57	73	203	151	35	68
8	65	35	16	27	58	24	49	58	227	150	35	68
9	54	34	16	27	58	24	49	60	183	138	43	68
10	60	45	16	27	58	39	49	62	165	130	62	68
11	70	46	16	27	61	35	50	100	162	153	51	65
12	55	45	16	27	63	30	52	71	124	158	34	57
13	45	45	16	34	58	25	58	35	88	145	57	57
14	62	45	16	34	58	28	50	58	102	111	57	69
15	81	45	16	34	58	28	49	101	110	120	52	79
16	92	45	16	78	60	29	46	133	90	152	61	58
17	81	37	20	40	52	29	37	167	120	128	62	66
18	45	30	29	38	40	29	35	180	153	107	59	65
19	37	45	31	38	51	40	50	182	161	131	54	57
20	36	63	40	38	64	28	47	175	134	145	53	39
21	40	45	44	53	48	27	38	173	180	134	50	55
22	45	35	48	50	49	29	28	173	218	131	30	65
23	55	34	48	65	64	28	29	173	209	123	30	65
24	61	33	48	42	55	29	37	182	181	76	35	60
25	79	33	49	40	54	28	47	192	205	75	57	54
26	56	34	47	38	54	32	49	192	207	88	57	55
27	46	33	47	39	54	51	28	194	215	96	54	55
28	46	38	47	42	50	43	31	189	196	51	48	55
29	46	56	47	38	-----	37	40	192	159	81	46	55
30	52	63	47	38	-----	33	41	196	147	92	60	55
31	64	-----	47	38	-----	28	-----	215	-----	62	32	-----
TOTAL	1,786	1,297	935	1,236	1,487	1,064	1,275	3,833	5,377	3,751	1,567	1,768
MEAN	57.6	43.2	30.2	39.9	53.1	34.3	42.5	124	179	121	50.5	58.9
MAX	92	69	49	78	64	63	58	215	287	158	67	79
MIN	36	30	16	27	36	24	28	25	88	51	30	28
AC-FT	3,540	2,570	1,850	2,450	2,950	2,110	2,530	7,600	10,670	7,440	3,110	3,510

CAL YR 1969 TOTAL 40,325 MEAN 110 MAX 418 MIN 16 ACFT 79,980
 WAT YR 1970 TOTAL 25,376 MEAN 69.5 MAX 287 MIN 16 ACFT 50,330

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, 0.80 cfs Mar. 5 (gage height, 7.28 ft); no flow all year except Mar. 5.

Period of record: Maximum discharge, 98 cfs Dec. 8, 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 poor. No regulation or diversion above station.

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						0						
2						0						
3						0						
4						0						
5						.15						
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						0						
30						0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	0	.15	0	0	0	0	0	0
MEAN	0	0	0	0	0	.004	0	0	0	0	0	0
MAX	0	0	0	0	0	.15	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	.3	0	0	0	0	0	0

CAL YR 1969 TOTAL 67.33 MEAN .18 MAX 14 MIN 0 ACFT 134
 WAT YR 1970 TOTAL 0.15 MEAN .0004 MAX .15 MIN 0 ACFT .3

Precipitation data, incomplete.

TIJUANA RIVER BASIN

105

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.--34 years, 6.77 cfs (4,900 acre-ft per year); median of yearly mean discharges, 1.0 cfs (720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 18 cfs Mar. 5 (gage height, 2.13 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.05	2.3	.07	.03				
2				0	.05	3.1	.06	0				
3				0	.05	.53	.05	0				
4				0	.05	.33	.04	0				
5				0	.06	6.0	.02	0				
6				0	.05	1.0	.02	0				
7				0	.05	.58	.02	0				
8				0	.04	.47	.03	0				
9				0	.04	.47	.04	0				
10				0	.22	1.4	.03	0				
11				0	.29	.87	.01	0				
12				0	.10	.58	0	0				
13				0	.07	.47	0	0				
14				0	.06	.42	0	0				
15				0	.06	.37	0	0				
16				0	.05	.33	.01	0				
17				0	.06	.33	.05	0				
18				0	.07	.33	.10	0				
19				0	.07	.25	.10	0				
20				0	.05	.25	.06	0				
21				0	.05	.22	.04	0				
22				0	.07	.22	.03	0				
23				0	.09	.17	.03	0				
24				0	.10	.17	.01	0				
25				.01	.12	.17	0	0				
26				.02	.14	.17	0	0				
27				.03	.14	.17	.06	0				
28				.04	.57	.12	.19	0				
29				.05	-----	.10	.09	0				
30				.05	-----	.10	.04	0				
31		-----		.05	-----	.10	-----	0	-----			-----
TOTAL	0	0	0	.25	2.82	22.09	1.20	.03	0	0	0	0
MEAN	0	0	0	.008	.10	.71	.040	.001	0	0	0	0
MAX	0	0	0	.05	.57	6.0	.19	.03	0	0	0	0
MIN	0	0	0	0	.04	.10	0	0	0	0	0	0
AC-FT	0	0	0	.5	5.6	44	2.4	.06	0	0	0	0
CAL Y: 1969	TOTAL	2,390.00	MEAN	6.55	MAX	472	MIN	0	ACFT	4,740		
WAT Y: 1970	TOTAL	26.39	MEAN	.072	MAX	6.0	MIN	0	ACFT	52		

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.--34 years, 1.86 cfs (1,350 acre-ft per year); median of yearly mean discharges, 0.1 cfs (72 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 0.80 cfs Mar. 5 (gage height, 1.33 ft); minimum daily, 0.04 cfs Sept. 26-30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.05	.09	.09	.14	.24	.09	.14	.09	.06	.06	.07
2	.14	.05	.09	.09	.14	.24	.09	.11	.09	.06	.06	.07
3	.14	.05	.09	.09	.14	.17	.09	.11	.09	.06	.06	.07
4	.11	.05	.09	.09	.14	.17	.09	.14	.09	.06	.09	.07
5	.11	.05	.09	.09	.14	.56	.09	.14	.09	.06	.09	.06
6	.09	.06	.09	.09	.14	.39	.09	.14	.09	.06	.09	.06
7	.09	.09	.09	.09	.14	.24	.11	.14	.09	.05	.09	.06
8	.06	.09	.09	.09	.14	.24	.11	.14	.09	.05	.09	.06
9	.06	.09	.09	.09	.14	.24	.14	.14	.09	.05	.09	.06
10	.06	.11	.09	.14	.20	.27	.14	.14	.11	.05	.09	.06
11	.06	.10	.09	.11	.17	.24	.14	.14	.09	.06	.09	.06
12	.06	.10	.09	.11	.17	.20	.14	.11	.09	.06	.09	.05
13	.05	.09	.09	.11	.17	.20	.14	.09	.09	.06	.06	.05
14	.05	.09	.09	.11	.17	.20	.14	.09	.09	.06	.06	.05
15	.05	.08	.09	.11	.17	.20	.14	.09	.09	.06	.11	.06
16	.06	.10	.09	.11	.17	.17	.14	.09	.09	.06	.09	.05
17	.06	.10	.09	.14	.17	.17	.14	.09	.06	.05	.09	.05
18	.06	.09	.09	.11	.17	.14	.14	.09	.06	.09	.09	.05
19	.06	.09	.09	.11	.17	.14	.14	.09	.06	.06	.09	.05
20	.06	.09	.09	.11	.17	.14	.14	.09	.06	.11	.09	.05
21	.06	.09	.09	.11	.17	.14	.14	.09	.06	.09	.09	.05
22	.06	.09	.09	.11	.17	.14	.14	.09	.06	.09	.09	.05
23	.06	.09	.09	.11	.17	.11	.14	.09	.06	.09	.09	.05
24	.06	.09	.09	.11	.17	.11	.14	.09	.06	.09	.08	.05
25	.06	.09	.09	.11	.17	.11	.14	.09	.06	.09	.08	.05
26	.05	.09	.09	.11	.17	.11	.14	.09	.06	.09	.08	.04
27	.05	.09	.09	.14	.17	.11	.24	.09	.06	.09	.08	.04
28	.05	.09	.09	.14	.20	.09	.20	.09	.06	.09	.08	.04
29	.05	.09	.09	.14	-----	.09	.17	.09	.06	.09	.08	.04
30	.05	.09	.09	.14	-----	.09	.17	.09	.06	.09	.07	.04
31	.05	-----	.09	.14	-----	.09	-----	.09	-----	.09	.07	-----
TOTAL	2.20	2.52	2.79	3.44	4.55	5.75	4.06	3.30	2.30	2.22	2.56	1.61
MEAN	.071	.084	.090	.11	.16	.19	.14	.11	.077	.072	.083	.054
MAX	.17	.11	.09	.14	.20	.56	.24	.14	.11	.11	.11	.07
MIN	.05	.05	.09	.09	.14	.09	.09	.09	.06	.05	.06	.04
AC-FT	4.4	5.0	5.5	6.8	9.0	11	8.1	6.6	4.6	4.4	5.1	3.2

CAL YR 1969 TOTAL 125.31 MEAN .34 MAX 4.9 MIN 0 ACFT 249
 WAT YR 1970 TOTAL 37.30 MEAN .10 MAX .56 MIN .04 ACFT 74

PEAK DISCHARGE (BASE, 20 CFS).--No peak above base.

TIJUANA RIVER BASIN

107

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.--34 years, 10.9 cfs (7,900 acre-ft per year); median of yearly mean discharges, 1.1 cfs (800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21 cfs Mar. 5 (gage height, 2.69 ft); minimum daily, 0.06 cfs Sept. 8.

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.--Seven discharge measurements furnished by International Boundary and Water Commission.

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	.16	.14	.11	.16	.16	2.3	1.0	.28	.16	.11	.08	.07
2	.22	.14	.11	.14	.16	4.6	.94	.25	.14	.11	.08	.07
3	.25	.14	.11	.14	.14	1.5	.86	.22	.14	.11	.08	.07
4	.19	.11	.11	.16	.14	.94	.78	.22	.11	.11	.08	.07
5	.19	.14	.11	.19	.14	9.2	.64	.22	.11	.11	.08	.07
6	.19	.16	.11	.11	.14	2.1	.47	.25	.11	.11	.08	.07
7	.19	.19	.11	.11	.14	1.0	.32	.22	.14	.08	.08	.07
8	.19	.16	.11	.11	.14	.70	.28	.19	.16	.08	.07	.06
9	.19	.14	.14	.11	.16	.58	.28	.22	.14	.08	.07	.07
10	.19	.16	.11	.11	.25	1.3	.25	.22	.16	.08	.07	.08
11	.17	.16	.14	.11	.28	1.5	.22	.22	.14	.08	.07	.08
12	.19	.14	.16	.14	.28	.86	.19	.22	.11	.08	.07	.08
13	.19	.11	.14	.14	.32	.70	.22	.22	.11	.08	.07	.11
14	.16	.11	.14	.14	.37	.64	.19	.22	.11	.08	.07	.08
15	.16	.14	.14	.16	.37	.64	.19	.19	.11	.08	.07	.08
16	.19	.14	.14	.16	.37	.64	.22	.16	.11	.08	.07	.08
17	.16	.14	.14	.19	.37	.70	.25	.16	.11	.08	.07	.08
18	.19	.14	.16	.19	.37	.64	.22	.16	.11	.08	.07	.08
19	.16	.14	.16	.19	.37	.58	.25	.16	.11	.08	.07	.08
20	.16	.14	.14	.19	.37	.58	.25	.19	.11	.08	.07	.08
21	.16	.16	.14	.19	.42	.64	.22	.19	.11	.08	.07	.08
22	.16	.16	.19	.19	.42	.64	.22	.19	.14	.08	.07	.07
23	.19	.16	.19	.19	.42	.86	.22	.22	.14	.08	.07	.07
24	.16	.16	.19	.19	.47	.94	.19	.19	.16	.08	.07	.07
25	.16	.16	.22	.19	.47	.94	.19	.22	.14	.08	.07	.07
26	.16	.16	.22	.19	.47	1.1	.19	.19	.14	.08	.07	.07
27	.16	.14	.22	.19	.47	1.3	.37	.22	.14	.08	.07	.07
28	.16	.14	.19	.19	.58	.94	.37	.22	.14	.08	.07	.07
29	.16	.11	.19	.19	-----	1.0	.42	.19	.14	.08	.07	.07
30	.16	.11	.16	.19	-----	1.2	.32	.16	.14	.08	.07	.07
31	.14	-----	.19	.16	-----	1.1	-----	.16	-----	.08	.07	-----
TOTAL	5.48	4.30	4.69	5.01	8.76	42.36	10.73	6.34	3.89	2.66	2.24	2.24
MEAN	.18	.14	.15	.16	.31	1.37	.36	.20	.13	.086	.072	.075
MAX	.25	.19	.22	.19	.58	9.2	1.0	.28	.16	.11	.08	.11
MIN	.14	.11	.11	.11	.14	.58	.19	.16	.11	.08	.07	.06
AC-FT	11	8.5	9.3	9.9	17	84	21	13	7.7	5.3	4.4	4.4

CAL YR 1969 TOTAL 3,614.87 MEAN 9.90 MAX 814 MIN .10 ACFT 7,170

WAT YR 1970 TOTAL 98.70 MEAN .27 MAX 9.2 MIN .06 ACFT 196

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. Altitude of gage is 250 ft (from topographic map).

EXTREMES.--Current year: Maximum contents, 5,620 acre-ft Oct. 1; minimum contents, 2,190 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 1969 TO SEPTEMBER 1970

Date	Contents (acre- feet)	Change in contents (acre- feet)
Sept. 30.....	5,630	-
Oct. 31.....	5,300	-330
Nov. 30.....	5,050	-250
Dec. 31.....	4,860	-190
CAL YR 1969.....	-	+4,750
Jan. 31.....	4,670	-190
Feb. 28.....	4,360	-310
Mar. 31.....	4,340	-20
Apr. 30.....	4,200	-140
May 31.....	4,050	-150
June 30.....	3,540	-510
July 31.....	3,060	-480
Aug. 31.....	2,600	-460
Sept. 30.....	2,190	-410
WTR YR 1970.....	-	-3,440

TIJUANA RIVER BASIN

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.--35 years, 32.1 cfs (23,260 acre-ft per year); median of yearly mean discharges, 3.1 cfs (2,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20 cfs Mar. 5 (gage height, 2.90 ft); no flow most of year.
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 water year 1970 are published in Part 2 of this report.

COOPERATION.--One discharge measurement furnished by San Diego County Flood Control District.

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						5.0						
2						6.3						
3						0						
4						0						
5						6.3						
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						0						
30						0						
31						0						
TOTAL	0	0	0	0	0	17.6	0	0	0	0	0	0
MEAN	0	0	0	0	0	.57	0	0	0	0	0	0
MAX	0	0	0	0	0	6.3	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	35	0	0	0	0	0	0
CAL Y.R 1969	TOTAL	1,892.7	MEAN	5.19	MAX	334	MIN	0	ACFT	3,750		
WAT YR 1970	TOTAL	17.6	MEAN	.048	MAX	6.3	MIN	0	ACFT	35		

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, 34 cfs Apr. 27 (gage height, 2.23 ft); no flow for 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	6.0	.10	28	27	28	1.7	0
2	0	0	0	0	0	6.2	1.1	27	27	28	1.1	0
3	0	0	0	0	0	1.1	6.5	26	30	27	.71	0
4	0	0	0	0	.21	.71	15	26	30	26	.46	0
5	0	0	0	0	.20	6.4	21	21	30	26	.26	0
6	0	0	0	0	.18	1.2	25	31	29	28	.11	0
7	0	.04	0	0	.31	.71	26	31	28	28	.09	0
8	0	.04	0	0	.13	.54	27	31	30	28	.03	0
9	0	.03	0	0	.10	.46	27	31	29	29	.03	0
10	0	.02	0	0	.37	.53	28	31	30	28	.04	0
11	0	.01	0	0	.29	.40	28	31	29	28	.02	0
12	0	0	0	0	.16	.29	28	31	29	27	0	0
13	0	0	0	.04	.16	.32	28	31	28	26	0	0
14	0	0	0	.02	.12	.32	28	31	28	25	0	0
15	0	0	0	.05	.10	.32	31	30	27	28	0	0
16	0	0	0	.19	.10	.29	31	30	27	27	.01	0
17	0	0	0	.10	.10	.24	31	29	27	25	.04	0
18	0	0	0	.13	.05	.24	30	29	27	24	.04	0
19	0	0	0	.10	.04	.24	30	29	26	24	0	0
20	0	0	0	.10	.04	.17	30	29	26	24	0	0
21	0	0	0	.10	0	.16	29	29	25	24	0	0
22	0	0	0	.10	0	.16	29	29	25	25	0	0
23	0	0	0	.10	0	.16	29	29	26	23	0	0
24	0	0	0	.10	0	.11	28	29	25	20	0	0
25	0	0	0	.10	0	.10	28	28	25	18	0	0
26	0	0	0	.10	0	.10	30	28	24	17	0	0
27	0	0	0	.04	0	.16	32	29	24	13	0	0
28	0	0	0	.04	0	.16	30	28	24	9.6	0	0
29	0	0	0	.04	-----	.16	30	28	25	7.0	0	0
30	0	0	0	.01	-----	.13	29	27	29	3.9	0	0
31	0	-----	0	0	-----	.10	-----	27	-----	2.5	0	-----
TOTAL	0	0.14	0	1.46	2.66	28.18	765.70	894	816	697.0	4.64	0
MEAN	0	.005	0	.047	.095	.91	25.5	28.8	27.2	22.5	.15	0
MAX	0	.04	0	.19	.37	6.4	32	31	30	29	1.7	0
MIN	0	0	0	0	0	.10	.10	21	24	2.5	0	0
AC-FT	0	.3	0	2.9	5.3	56	1,520	1,770	1,620	1,380	9.2	0
CAL YR 1969	TOTAL	7,645.11	MEAN	20.9	MAX	673	MIN	0	AC-FT	15,160		
WTR YR 1970	TOTAL	3,209.78	MEAN	8.79	MAX	32	MIN	0	AC-FT	6,370		

SWEETWATER RIVER BASIN

11015000 SWEETWATER RIVER NEAR DESCANSO, CALIF.

LOCATION.--Lat 32°50'05", long 116°37'20", in NW¼SE¼ 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).--36 years, 11.1 cfs (8,040 acre-ft per year); median of yearly mean discharges, 6.9 cfs (5,000 acre-ft per year).
(Combined).--14 years, 4.09 cfs (2,960 acre-ft per year); median of yearly mean discharges, 1.0 cfs (720 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 48 cfs Mar. 5 (gage height, 4.02 ft); no flow most of year.

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, 48 cfs Mar. 5; 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.12	.97	.61	.44	20	.81	1.4	.23			
2	0	.12	.74	.61	.49	26	.89	1.8	.03			
3	0	.27	.61	.61	.49	12	1.2	1.6	.03			
4	0	.44	.74	.61	.61	5.5	1.2	1.2	.03			
5	0	.23	.61	.49	.49	23	1.0	1.0	.01			
6	0	.30	.61	.44	.49	8.5	.74	1.0	.02			
7	0	.97	.49	.44	.61	5.3	.89	1.0	.01			
8	0	.74	.49	.44	.67	4.2	.89	1.0	.01			
9	0	.74	.97	.49	.34	3.8	.89	1.2	.03			
10	0	1.0	.67	.97	1.0	5.2	.89	1.2	.05			
11	0	.74	.61	.89	1.0	3.8	1.0	.74	.05			
12	.43	.67	.55	1.0	.74	2.6	1.0	.44	.04			
13	.27	.61	.55	.89	.55	2.1	.67	.55	.04			
14	0	.61	.55	.89	.67	2.0	.44	.55	.04			
15	0	.89	.55	.74	.61	1.8	.49	.44	.07			
16	0	1.2	.49	.97	.39	1.4	.81	.34	.05			
17	0	.74	.44	1.4	.44	1.2	1.4	.34	.02			
18	.49	.74	.44	1.0	.55	1.2	1.4	.34	.01			
19	.67	.81	.49	.89	.55	1.0	1.4	.39	0			
20	.61	.55	.61	.81	.55	1.0	1.6	.30	0			
21	.39	.39	.61	.61	.55	1.2	1.2	.30	0			
22	.23	.74	.61	.39	.55	1.2	.89	.27	0			
23	.20	.81	.55	.67	.39	.97	1.6	.30	0			
24	.55	.81	.44	.67	.34	.74	1.0	.34	0			
25	.55	.67	.49	.67	.44	.81	1.4	.34	0			
26	.55	.34	.61	.55	.61	.74	1.4	.39	0			
27	.30	.81	.67	.34	.67	.89	2.9	.44	0			
28	.15	.81	.67	.49	7.6	.97	2.9	.49	0			
29	.44	.89	.61	.49	-----	1.0	2.1	.39	0			
30	.27	.97	.61	.34	-----	.97	1.6	.34	0			
31	.12	-----	.61	.44	-----	.97	-----	.34	-----			
TOTAL	6.22	19.73	18.66	20.85	22.83	142.06	36.60	20.77	.77	0	0	0
MEAN	.20	.66	.60	.67	.82	4.58	1.22	.67	.026	0	0	0
MAX	.67	1.2	.97	1.4	7.6	26	2.9	1.8	.23	0	0	0
MIN	0	.12	.44	.34	.34	.74	.44	.27	0	0	0	0
AC-FT	12	39	37	41	45	282	73	41	1.5	0	0	0

CAL YR 1969 TOTAL 6,987.22 MEAN 19.1 MAX 698 MIN 0 ACFT 13,860
WAT YR 1970 TOTAL 288.49 MEAN .79 MAX 26 MIN 0 ACFT 572

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 1969 TO SEPTEMBER 1970

CAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.36	.98	.62	.64	20	1.3	2.0	.43	.05	0	.01
2	.15	.36	.91	.61	.69	26	1.3	1.8	.35	.05	0	.01
3	.17	.37	.89	.61	.69	12	1.3	1.6	.35	.04	0	.01
4	.17	.46	.84	.62	.70	5.5	1.2	1.6	.37	.04	0	.01
5	.12	.46	.62	.59	.65	23	1.2	1.3	.33	.04	0	.01
6	.11	.51	.62	.59	.64	8.5	1.2	1.3	.34	.04	0	.01
7	.16	.99	.59	.59	.65	5.6	1.2	1.3	.31	.04	0	0
8	.17	.76	.62	.59	.70	4.6	1.2	1.3	.33	.05	0	0
9	.21	.76	1.0	.64	.70	3.8	1.2	1.2	.35	.04	0	0
10	.30	1.0	.70	1.1	1.2	5.2	1.1	1.2	.43	.04	0	0
11	.12	.76	.64	.90	1.2	3.8	1.0	1.2	.41	.03	0	0
12	.43	.69	.58	1.0	.94	2.7	1.0	1.0	.32	.03	.08	0
13	.41	.63	.58	.90	.75	2.2	1.0	.93	.30	.03	.14	0
14	.28	.63	.58	.90	.75	2.0	1.1	.88	.28	.03	.03	0
15	.30	.91	.58	.94	.75	1.8	1.1	.82	.31	.02	.04	.01
16	.30	1.2	.59	1.1	.75	1.7	1.1	.70	.29	.02	.03	.01
17	.30	.76	.62	1.4	.75	1.4	1.6	.68	.24	.02	.03	0
18	.49	.77	.62	1.0	.75	1.5	1.6	.64	.19	.02	.02	0
19	.67	.85	.61	.90	.75	1.3	1.6	.73	.16	.02	.03	0
20	.61	.76	.62	.82	.75	1.2	1.7	.62	.18	.02	.02	0
21	.59	.61	.62	.77	.75	1.3	1.8	.62	.15	.02	.02	0
22	.58	.77	.62	.72	.75	1.2	1.6	.59	.12	.02	.01	0
23	.55	.84	.66	.69	.74	1.3	1.6	.58	.09	.02	.01	0
24	.55	.83	.59	.69	.68	1.2	1.4	.58	.08	.02	.02	0
25	.55	.92	.54	.68	.69	1.2	1.4	.56	.07	.02	.03	0
26	.55	.68	.62	.67	.67	1.1	1.4	.57	.06	.02	.03	0
27	.55	.84	.68	.66	.67	1.1	2.9	.60	.06	.01	.02	0
28	.50	.83	.68	.60	7.6	1.0	3.8	.64	.06	.01	.02	0
29	.47	.91	.62	.65	-----	1.0	2.6	.53	.06	.01	.02	0
30	.43	.98	.62	.56	-----	1.2	2.1	.46	.06	.01	.02	0
31	.38	-----	.62	.62	-----	1.3	-----	.46	-----	.01	.02	-----
TOTAL	11.29	22.20	20.66	23.73	27.95	146.7	45.6	28.99	7.08	.84	.64	.08
MEAN	.36	.74	.67	.77	1.00	4.73	1.52	.94	.24	.027	.021	.002
MAX	.67	1.2	1.0	1.4	7.6	26	3.8	2.0	.43	.05	.14	.01
MIN	.11	.36	.54	.56	.64	1.0	1.0	.46	.06	.01	0	0
AC-FT	22	44	41	47	55	291	90	58	14	1.7	1.3	.2
CAL YR 1969	TOTAL	7,055.13	MEAN	19.3	MAX	698	MIN	.08	ACFT	13,990		
WAT YR 1970	TOTAL	335.76	MEAN	.92	MAX	26	MIN	0	ACFT	666		

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

SAN DIEGO RIVER BASIN

11022500 SAN DIEGO RIVER NEAR SANTEE, CALIF.

LOCATION.--Lat 32°49'29", long 117°03'17", in Ex Mission San Diego Grant, San Diego County, on right bank in Mission Gorge, 0.2 mile upstream from left tributary, and 6 miles west of Santee.

DRAINAGE AREA.--377 sq mi.

PERIOD OF RECORD.--May 1912 to December 1915, March 1916 to current year. Monthly discharge only for some periods and yearly estimates only for 1924-25, published in WSP 1315-B.

GAGE.--Water-stage recorder and unfinished rubble dam control. Altitude of gage is 180 ft (from topographic map). Prior to Nov. 10, 1920, nonrecording gage at site 1.5 miles upstream at different datum. Nov. 10, 1920 to Dec. 1, 1954, water-stage recorder at present site at datum 1.0 ft higher.

AVERAGE DISCHARGE.--57 years, 23.1 cfs (16,740 acre-ft per year); median of yearly mean discharges, 4.8 cfs (3,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 626 cfs Mar. 5 (gage height, 5.24 ft); minimum daily, 0.01 cfs for several days.

Period of record: Maximum discharge, 70,200 cfs Jan. 27, 1916 (gage height, 25.1 ft, site and datum then in use), based on slope-conveyance computation; no flow at times in most years.

REMARKS.--Records fair. Flow regulated by Cuyamaca Reservoir (capacity, 11,540 acre-ft), El Capitan Reservoir (capacity, 112,810 acre-ft), and San Vincente Reservoir (capacity, 90,230 acre-ft). Diversions by city of San Diego for municipal supply and by Helix Irrigation District. AVERAGE DISCHARGE represents flow to ocean during period of record, regardless of upstream development.

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	.84	.12	4.1	2.7	.91	212	2.6	2.3	1.1	.72	.04	.01
2	.82	.12	4.7	2.5	.83	157	2.4	2.0	1.1	.63	.03	.01
3	.68	.21	3.5	2.6	.72	20	2.4	2.1	1.5	.63	.03	.10
4	.47	.40	3.0	2.4	.93	11	2.4	2.3	1.8	.57	.02	.09
5	.12	.71	2.5	2.2	1.5	183	2.3	2.3	1.6	.52	.11	.09
6	.08	.78	2.2	2.0	1.1	26	2.8	2.4	1.5	.49	.14	.03
7	.06	9.9	2.2	1.9	1.1	23	2.5	2.0	1.5	.46	.27	.07
8	.17	4.2	2.1	2.0	1.0	19	2.5	1.8	1.8	.42	.35	.07
9	.36	2.5	5.0	2.1	1.1	15	2.8	1.3	1.6	.40	.06	.11
10	.47	7.0	3.0	2.7	6.6	26	2.9	1.9	1.1	.36	.03	.09
11	.39	4.0	2.3	3.8	21	16	3.1	1.8	.92	.33	.03	.07
12	.19	2.8	2.1	4.0	4.5	12	3.2	1.5	.70	.27	.03	.11
13	.35	2.7	2.0	4.0	2.9	9.7	3.0	1.4	.51	.23	.03	.05
14	.62	2.6	2.0	3.8	2.3	7.8	2.9	1.2	.92	.20	.03	.03
15	.40	2.4	2.3	3.6	1.9	7.3	2.7	.96	.77	.19	.03	.08
16	.35	5.9	2.1	4.1	1.8	6.8	2.4	.81	.68	.69	.02	.16
17	.47	3.4	1.7	15	1.7	6.5	2.5	.73	.74	.50	.02	.29
18	.45	2.5	1.7	5.2	1.5	6.1	2.4	.69	.81	.46	.02	.35
19	.27	2.2	1.8	4.8	1.3	5.7	2.4	.64	.92	.16	.02	.51
20	.31	2.0	1.7	4.6	1.1	5.5	2.5	.86	1.1	.06	.02	.51
21	.52	1.9	1.7	4.0	1.1	4.7	2.2	1.1	.98	.03	.02	.67
22	.48	1.7	2.1	3.5	1.2	3.7	2.5	1.2	.93	.03	.02	.69
23	.39	1.6	2.2	3.3	1.4	5.3	2.8	.92	1.2	.03	.02	.65
24	.35	1.4	1.9	2.7	1.3	5.4	2.6	.77	1.5	.02	.01	1.1
25	.32	1.3	1.9	2.3	1.5	5.1	2.2	.84	1.4	.02	.01	1.0
26	.11	1.2	2.4	1.9	1.7	4.4	2.0	.70	1.4	.02	.02	.40
27	.31	1.1	3.7	1.6	1.7	4.3	2.0	.77	1.3	.02	.01	.15
28	.77	1.1	3.4	1.6	18	3.6	3.1	.77	1.0	.02	.01	.08
29	.57	.96	3.1	1.4	-----	3.4	2.8	.63	.91	.02	.01	.19
30	.30	1.0	3.0	1.2	-----	3.0	2.5	.84	.79	.02	.01	.06
31	.14	-----	2.8	.93	-----	2.9	-----	.84	-----	.04	.01	-----
TOTAL	12.13	69.70	80.2	100.43	83.69	821.2	77.4	40.37	34.08	8.56	1.48	7.82
MEAN	.39	2.32	2.59	3.24	2.99	26.5	2.58	1.30	1.14	.28	.048	.26
MAX	.84	9.9	5.0	15	21	212	3.2	2.4	1.8	.72	.35	1.1
MIN	.06	.12	1.7	.93	.72	2.9	2.0	.63	.51	.02	.01	.01
AC-FT	24	138	159	199	166	1,630	154	80	68	17	2.9	16

CAL YR 1969 TOTAL 7,329.50 MEAN 20.1 MAX 622 MIN .01 AC-FT 14,540
WTR YR 1970 TOTAL 1,337.06 MEAN 3.66 MAX 212 MIN .01 AC-FT 2,650

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.--6 years, 4.35 cfs (3,150 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 260 cfs Feb. 28 (gage height, 3.64 ft); minimum daily, 0.28 cfs Apr. 15.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.1	1.4	1.1	1.4	51	2.0	1.5	1.7	1.2	1.2	1.3
2	1.0	1.2	1.3	1.1	1.3	53	2.0	1.5	1.6	1.2	1.2	1.3
3	1.0	1.2	1.4	1.1	1.3	9.5	2.0	1.4	1.4	1.2	1.2	1.2
4	1.0	1.2	1.4	1.2	1.3	5.2	2.0	1.4	1.5	1.2	1.2	1.3
5	.98	1.2	1.4	1.2	1.3	50	1.9	1.4	1.6	1.2	1.1	1.3
6	.98	1.3	1.4	1.2	1.3	16	1.8	1.4	1.6	1.3	1.1	1.3
7	.97	3.9	1.5	1.2	1.3	13	1.8	1.4	1.6	1.2	1.1	1.3
8	1.0	1.5	1.6	1.2	1.3	10	1.8	1.4	1.7	1.2	1.1	1.5
9	1.0	1.3	2.5	1.2	1.3	7.1	1.8	1.4	1.6	1.2	1.1	1.4
10	1.0	1.9	1.6	1.7	3.7	5.7	1.8	1.4	1.5	1.3	1.1	1.3
11	1.0	1.4	1.2	1.5	11	4.9	1.8	1.3	1.3	1.3	1.2	1.3
12	1.0	1.3	1.2	1.5	2.3	2.8	1.7	1.2	1.3	1.3	1.1	1.3
13	1.0	1.2	1.1	1.4	1.7	1.9	.53	1.2	1.3	1.3	1.1	1.3
14	1.0	1.2	1.2	1.4	1.5	.85	.30	1.2	1.3	1.3	1.1	1.4
15	1.0	1.4	1.1	1.7	1.5	.66	.28	1.2	1.3	1.2	1.1	1.3
16	1.0	1.7	1.1	2.1	1.5	.57	1.3	1.2	1.3	1.2	1.1	1.3
17	1.0	1.4	1.1	3.4	1.5	.48	1.5	1.2	1.3	1.2	1.2	1.3
18	1.0	1.2	1.1	1.7	1.4	.55	1.5	1.2	1.3	1.2	1.2	1.3
19	1.0	1.2	1.1	1.6	1.4	.56	1.5	1.2	1.3	1.2	1.2	1.3
20	1.0	1.2	1.1	1.6	1.3	.77	1.5	1.2	1.3	1.3	1.2	1.3
21	1.0	1.2	1.1	1.6	1.4	.86	1.5	1.2	1.3	1.3	1.2	1.4
22	1.0	1.2	1.1	1.7	1.4	.93	1.4	1.1	1.2	1.2	1.2	1.3
23	1.1	1.3	1.1	1.7	1.4	.98	2.6	1.3	1.2	1.2	1.2	1.2
24	1.2	1.4	1.1	1.6	1.5	1.3	6.9	1.2	1.2	1.2	1.3	1.3
25	1.2	1.3	1.1	1.6	1.5	1.7	5.3	1.3	1.2	1.2	1.3	1.3
26	1.2	1.3	1.1	1.6	1.5	1.7	2.3	1.3	1.2	1.2	1.3	1.3
27	1.2	1.3	1.1	1.5	1.5	1.8	3.3	1.4	1.2	1.2	1.3	1.3
28	1.2	1.3	1.1	1.4	37	1.6	3.5	1.4	1.2	1.2	1.3	1.3
29	1.2	1.3	1.1	1.4	-----	1.7	2.3	1.3	1.2	1.2	1.4	1.3
30	1.2	1.3	1.1	1.4	-----	1.7	1.6	1.3	1.2	1.2	1.3	1.3
31	1.1	-----	1.1	1.3	-----	1.8	-----	1.4	-----	1.2	1.4	-----
TOTAL	32.63	41.9	38.9	46.9	87.8	250.61	61.51	40.5	40.9	38.0	37.1	39.3
MEAN	1.05	1.40	1.25	1.51	3.14	8.08	2.05	1.31	1.36	1.23	1.20	1.31
MAX	1.2	3.9	2.5	3.4	37	53	6.9	1.5	1.7	1.3	1.4	1.5
MIN	.97	1.1	1.1	1.1	1.3	.48	.28	1.1	1.2	1.2	1.1	1.2
AC-FT	65	83	77	93	174	497	122	80	81	75	74	78

CAL YR 1969 TOTAL 2,508.62 MEAN 6.87 MAX 312 MIN .48 AC-FT 4,980
 WTR YR 1970 TOTAL 756.05 MEAN 2.07 MAX 53 MIN .28 AC-FT 1,500

PEAK DISCHARGE (BASE, 60 CFS).--Feb. 28 (2045) 260 cfs (3.64 ft); Mar. 5 (0600) 112 cfs (2.80 ft).

11024000 SANTA YSABEL CREEK AT SUTHERLAND DAM, CALIF.

LOCATION.--Lat 33°07'06", long 116°47'11", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.21, T.12 S., R.2 E., San Diego County, on face of Sutherland Dam, 1.6 miles upstream from Black Canyon Creek, and 7 miles northeast of Ramona.

DRAINAGE AREA.--53.9 sq mi.

PERIOD OF RECORD.--December 1912 to September 1928, October 1936 to September 1970 (discontinued). Prior to October 1953, published as "near Mesa Grande".

GAGE.--Water-stage recorder. Datum of gage is 1,912.00 ft above mean sea level (levels by city of San Diego). See WSP 1735 for history of changes prior to Nov. 29, 1954.

AVERAGE DISCHARGE.--49 years (1913-28, 1936-70), 16.9 cfs (12,230 acre-ft per year); median of yearly mean discharges, 6.6 cfs (4,800 acre-ft per year).

REMARKS.--Records of discharge represent all water reaching Sutherland Reservoir including precipitation on reservoir. Discharge computed on basis of records of storage, release (draft), spill, leakage, and evaporation. Monthly evaporation from lake surface computed on basis of evaporation from Colorado land pan using coefficient of 0.80. Sutherland Dam was completed and storage began in October 1953. Area and capacity tables for the reservoir are based on an aerial survey made in 1949. Capacity of reservoir at spillway level (gage height, 145.00 ft), 29,680 acre-ft. Dead storage, 176 acre-ft below lowest outlet at gage height 28.00 ft, included in these records. Small diversion above reservoir. Water is released as required for municipal use.

COOPERATION.--Records furnished by city of San Diego.

MONTHLY DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

Date	Gage height (feet) ^a	Contents (acre-feet)	Change in contents (acre-feet)	Draft (acre-feet)	Evaporation (acre-feet)	Spill plus leakage (acre-feet)	Discharge (acre-feet)
Sutherland Reservoir							
Sept. 30.....	64.39	2,570	-	-	-	-	-
Oct. 31.....	64.06	2,530	-40	0	53	0	13
Nov. 30.....	64.53	2,590	+60	0	49	0	109
Dec. 31.....	65.13	2,670	+80	0	31	0	111
CAL YR 1969.....	-	-	+640	16,732	955	0	18,327
Jan. 31.....	65.84	2,770	+100	0	28	0	128
Feb. 28.....	66.48	2,860	+90	0	39	0	129
Mar. 31.....	64.70	2,610	-250	446	46	0	242
Apr. 30.....	65.18	2,680	+70	0	45	0	115
May 31.....	65.15	2,670	-10	0	65	0	55
June 30.....	64.70	2,610	-60	0	70	0	10
July 31.....	64.09	2,530	-80	0	88	0	8
Aug. 31.....	63.51	2,450	-80	0	82	0	2
Sept. 30.....	62.84	2,370	-80	0	82	0	2
WTR YR 1970.....	-	-	-200	446	678	0	924

^a Gage height at 0800.

NOTE.--For months when discharge to the reservoir was small and other elements 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.

SAN DIEGUITO RIVER BASIN

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, 88 cfs Mar. 5 (gage height, 3.09 ft); no flow for 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.04	.06	1.2	48	1.4	.98	.04	.04	0	0
2	.01	.02	.04	.02	1.1	47	1.3	.72	.03	.04	0	0
3	.01	.01	.04	.02	1.1	21	1.3	.57	.02	.03	.01	0
4	.01	.01	.04	.09	.88	13	1.3	.49	.02	.03	.01	0
5	.01	.01	.04	.09	.76	45	1.3	.48	.01	.03	.01	0
6	.01	.01	.01	.13	.88	16	1.3	.54	.01	.03	0	0
7	.01	.01	.01	.17	.80	11	1.3	.57	.01	.03	.01	0
8	.01	.01	.01	.17	.69	6.7	1.3	.57	.01	.03	0	0
9	.01	.01	.02	.17	.69	5.3	1.3	.55	.03	.04	0	0
10	.01	.01	.02	.34	3.4	5.4	1.3	.43	.04	.04	0	0
11	.01	.01	.02	.34	10	4.6	.98	.38	.03	.04	.01	0
12	.01	.01	.02	.66	4.4	3.9	.87	.32	.02	.04	.01	0
13	.01	.01	.02	.66	3.4	3.3	.87	.29	.02	.04	0	0
14	.01	.01	.02	3.8	3.0	2.9	.87	.24	.02	.04	0	0
15	.01	.01	.02	2.2	2.4	2.7	.87	.16	.02	.04	0	0
16	.01	.01	.06	2.2	2.0	2.2	.98	.15	.02	.04	0	0
17	.01	.01	.06	3.8	1.9	2.3	1.6	.06	.02	.02	0	0
18	.01	.01	.06	2.6	1.8	2.1	1.4	.03	.01	.02	0	0
19	.01	.01	.06	1.7	1.3	1.6	1.2	.03	.01	.01	0	0
20	.01	.01	.06	2.0	1.2	1.6	1.2	.03	.02	.01	0	0
21	.01	.02	.06	1.9	1.2	1.6	1.4	.03	.02	.02	0	0
22	.01	.04	.06	1.9	1.1	1.6	1.2	.03	.02	.02	0	0
23	.01	.04	.06	1.7	1.3	1.5	1.1	.05	.02	.01	0	0
24	.01	.06	.06	1.6	1.2	1.5	1.0	.09	.02	.01	0	0
25	.01	.06	.06	1.4	1.1	1.4	.93	.07	.03	.01	0	0
26	.01	.04	.06	1.4	1.1	1.5	.89	.10	.03	.01	0	0
27	.01	.06	.06	1.2	1.2	1.8	2.2	.17	.03	.01	0	0
28	.01	.04	.06	1.1	6.9	1.2	2.1	.20	.03	.01	0	0
29	.01	.04	.09	.98	-----	1.3	1.6	.15	.03	.01	0	0
30	.01	.02	.09	1.1	-----	1.4	1.2	.10	.03	.01	0	0
31	.01	-----	.09	1.2	-----	1.5	-----	.07	-----	.01	0	-----
TOTAL	0.31	0.63	1.42	36.70	58.00	261.9	37.56	8.65	0.67	0.77	0.06	0
MEAN	.010	.021	.046	1.18	2.07	8.45	1.25	.28	.022	.025	.002	0
MAX	.01	.06	.09	3.8	10	48	2.2	.98	.04	.04	.01	0
MIN	.01	.01	.01	.02	.69	1.2	.87	.03	.01	.01	0	0
AC-FT	.6	1.2	2.8	73	115	519	75	17	1.3	1.5	.1	0
CAL YR 1969	TOTAL	11,627.78	MEAN	31.9	MAX	1,970	MIN	0	AC-FT	23,060		
WTR YR 1970	TOTAL	406.67	MEAN	1.11	MAX	48	MIN	0	AC-FT	807		

SAN DIEGUITO RIVER BASIN

11026000 SANTA YSABEL CREEK NEAR SAN PASQUAL, CALIF.

LOCATION.--Lat 33°05'10", long 116°54'56", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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, 90 cfs Mar. 5 (gage height, 2.34 ft); no flow Oct. 1 to Dec. 7, June 22 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.04	.87	59	1.9	1.4	.02	0	0	0
2	0	0	0	.03	.85	60	1.8	1.2	.02	0	0	0
3	0	0	0	.03	.77	28	1.8	1.0	.02	0	0	0
4	0	0	0	.04	.89	14	1.5	.80	.02	0	0	0
5	0	0	0	.04	.93	53	1.4	.60	.02	0	0	0
6	0	0	0	.04	.92	20	1.3	.60	.02	0	0	0
7	0	0	0	.03	.91	13	1.2	.64	.02	0	0	0
8	0	0	.01	.03	.84	9.2	1.2	.60	.02	0	0	0
9	0	0	.03	.04	.82	7.7	1.2	.60	.02	0	0	0
10	0	0	.04	.06	2.5	8.1	1.2	.51	.03	0	0	0
11	0	0	.04	.05	12	7.1	1.0	.37	.02	0	0	0
12	0	0	.04	.06	5.8	6.4	.98	.04	.02	0	0	0
13	0	0	.04	.05	3.8	5.4	.95	.04	.02	0	0	0
14	0	0	.04	1.2	3.4	4.5	.98	.04	.01	0	0	0
15	0	0	.04	1.5	2.8	4.1	1.0	.04	.01	0	0	0
16	0	0	.04	1.5	2.2	3.6	1.2	.03	.01	0	0	0
17	0	0	.04	3.0	2.0	3.4	1.7	.04	.01	0	0	0
18	0	0	.05	2.5	1.9	3.3	1.8	.03	.01	0	0	0
19	0	0	.06	1.7	1.6	2.6	1.4	.03	.01	0	0	0
20	0	0	.07	1.6	1.3	2.5	1.5	.02	.01	0	0	0
21	0	0	.07	1.7	1.2	2.4	1.5	.02	.01	0	0	0
22	0	0	.07	1.6	1.2	2.4	1.5	.02	0	0	0	0
23	0	0	.03	1.5	1.3	2.3	1.2	.02	0	0	0	0
24	0	0	.03	1.2	1.3	2.3	1.1	.02	0	0	0	0
25	0	0	.03	1.2	1.2	2.3	1.0	.02	0	0	0	0
26	0	0	.04	1.1	1.1	2.4	1.0	.02	0	0	0	0
27	0	0	.03	1.0	1.2	2.7	2.5	.02	0	0	0	0
28	0	0	.03	.99	5.5	2.1	2.8	.02	0	0	0	0
29	0	0	.03	.71	-----	2.2	2.3	.02	0	0	0	0
30	0	0	.03	.69	-----	2.3	1.8	.02	0	0	0	0
31	0	-----	.03	.78	-----	2.4	-----	.02	-----	0	0	-----
TOTAL	0	0	0.96	26.01	61.10	340.7	43.71	8.85	0.35	0	0	0
MEAN	0	0	.031	.84	2.18	11.0	1.46	.29	.012	0	0	0
MAX	0	0	.07	3.0	12	60	2.8	1.4	.03	0	0	0
MIN	0	0	0	.03	.77	2.1	.95	.02	0	0	0	0
AC-FT	0	0	1.9	52	121	676	87	18	.7	0	0	0
CAL YR 1969	TOTAL	12,178.71	MEAN	33.4	MAX	2,120	MIN	0	AC-FT	24,160		
WTR YR 1970	TOTAL	481.68	MEAN	1.32	MAX	60	MIN	0	AC-FT	955		

SAN DIEGUITO RIVER BASIN

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.--23 years (1947-70), 1.60 cfs (1,160 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 100 cfs Feb. 28 (gage height, 2.90 ft); no flow Aug. 8-25.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.11	.41	.57	.72	25	.74	.34	.14	.05	.02	.02
2	.02	.13	.40	.56	.56	26	.68	.32	.09	.04	.02	.02
3	.02	.13	.44	.56	.51	5.0	.71	.31	.08	.03	.01	.01
4	.02	.14	.51	.57	.60	4.0	.67	.31	.11	.03	.01	.01
5	.02	.20	.50	.57	.60	25	.61	.30	.12	.03	.01	.01
6	.02	.39	.47	.57	.58	6.0	.62	.33	.11	.03	.01	.01
7	.02	1.9	.48	.57	.53	3.0	.68	.41	.12	.03	.01	.01
8	.02	.69	.57	.58	.54	2.5	.67	.38	.16	.04	0	.01
9	.02	.59	1.1	.58	.52	2.0	.69	.38	.28	.03	0	.01
10	.03	1.2	.71	.93	1.8	1.9	.65	.37	.42	.03	0	.01
11	.04	.60	.61	.92	5.4	1.7	.61	.32	.44	.03	0	.01
12	.04	.45	.58	1.1	1.6	1.4	.62	.27	.23	.03	0	.01
13	.04	.46	.56	.85	1.2	1.2	.60	.25	.31	.03	0	.01
14	.05	.48	.53	.79	.90	1.1	.58	.23	.24	.03	0	.01
15	.06	.68	.53	.94	.84	1.1	.55	.17	.19	.04	0	.01
16	.07	.96	.53	1.0	.82	1.0	.58	.11	.15	.04	0	.01
17	.09	.62	.55	1.4	.80	.95	.54	.09	.13	.04	0	.01
18	.09	.36	.58	.94	.80	.94	.52	.08	.11	.04	0	.01
19	.09	.20	.60	.84	.80	.72	.50	.09	.10	.04	0	.01
20	.09	.20	.64	.80	.80	.76	.48	.10	.08	.03	0	.01
21	.10	.26	.64	.77	.80	.78	.47	.11	.08	.04	0	.01
22	.16	.37	.66	.76	.79	.82	.50	.11	.08	.04	0	.01
23	.20	.38	.65	.76	.78	.81	.45	.12	.07	.04	0	.01
24	.23	.38	.63	.75	.77	.80	.43	.14	.06	.04	0	.01
25	.26	.33	.61	.76	.76	.83	.41	.14	.06	.04	0	.01
26	.26	.34	.63	.74	.75	.91	.50	.27	.05	.04	.01	.01
27	.29	.35	.62	.72	.75	.99	.45	.43	.05	.04	.02	.01
28	.28	.31	.59	.69	18	.76	.40	.48	.05	.04	.02	.01
29	.24	.30	.54	.55	-----	.81	.36	.39	.05	.04	.02	.01
30	.14	.35	.52	.54	-----	.89	.35	.27	.05	.04	.02	.01
31	.10	-----	.57	.59	-----	.96	-----	.20	-----	.03	.02	-----
TOTAL	3.13	13.88	17.96	23.27	44.37	120.63	16.62	7.82	4.26	1.12	0.20	0.32
MEAN	.10	.46	.58	.75	1.58	3.89	.55	.25	.14	.036	.007	.011
MAX	.29	1.9	1.1	1.4	18	26	.74	.48	.44	.05	.02	.02
MIN	.02	.11	.40	.54	.51	.72	.35	.08	.05	.03	0	.01
AC-FT	6.2	28	36	46	88	239	33	16	8.4	2.2	.4	.6

CAL YR 1969 TOTAL 3,852.77 MEAN 10.6 MAX 727 MIN .01 AC-FT 7,640
 WTR YR 1970 TOTAL 253.58 MEAN .69 MAX 26 MIN 0 AC-FT 503

PEAK DISCHARGE (BASE, 30 CFS).--Feb. 28 (time unknown) 100 cfs (2.90 ft); Mar. 5 (time unknown) 95 cfs (estimated)

NOTE.--No gage-height record Feb. 14 to Mar. 9.

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.--31 years (1913-20, 1946-70), 3.76 cfs (2,720 acre-ft per year); median of yearly mean discharges, 0.1 cfs (72 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 190 cfs Mar. 5 (gage height, 2.60 ft); no flow much of year. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.04	.01	.01	101	.03	.01	.01	0	0	0
2	0	.01	.04	.01	.01	59	.02	.01	0	0	0	0
3	0	.01	.08	.01	.01	9.7	.02	.01	.01	0	0	0
4	0	.02	.08	.01	.01	2.4	.02	.01	.01	0	0	0
5	0	.01	.12	.01	.01	69	.02	.01	.01	0	0	0
6	0	.05	.01	.03	.01	7.6	.02	.01	.01	0	0	0
7	0	.06	.01	.03	.01	2.4	.03	.01	.01	0	0	0
8	0	.05	.01	.01	.01	1.5	.04	.01	.02	0	0	0
9	0	.04	.01	.03	.01	1.2	.03	.01	.02	0	0	0
10	0	.02	.01	.08	.03	1.3	.03	.01	.02	0	0	0
11	0	.02	.01	.01	.02	.98	.01	.01	.02	0	0	0
12	0	.06	.01	.01	.02	.63	.01	.01	.03	0	0	0
13	0	.01	.01	.01	.01	.43	.01	.01	.04	0	0	0
14	0	.02	.01	.01	.01	.33	.01	.01	.03	0	0	0
15	0	.03	.01	.01	.01	.37	.01	.01	.03	0	0	0
16	0	.02	.07	.01	.01	.34	.01	.01	.02	0	0	0
17	0	.02	.06	.01	.01	.29	.01	.01	.01	0	0	0
18	0	0	.07	.01	.01	.26	.01	.02	.02	0	0	0
19	0	0	.02	.01	.01	.17	.01	.03	.01	0	0	0
20	0	0	.02	.01	.01	.13	.01	.03	.02	0	0	0
21	0	.01	.02	.01	.01	.11	.01	.01	.02	0	0	0
22	0	.01	.05	.01	.01	.09	.01	.01	.02	0	0	0
23	0	.01	.07	.01	.02	.07	.01	.01	.01	0	0	0
24	0	.01	.01	.01	.04	.06	.01	.01	.01	0	0	0
25	0	.01	.01	.01	.05	.05	.01	.01	.01	0	0	0
26	0	.01	.04	.01	.02	.06	.01	.01	.01	0	0	0
27	0	.01	.01	.01	.03	.06	.01	.02	0	0	0	0
28	0	.01	.01	.01	3.5	.04	.01	.02	0	0	0	0
29	0	.02	.03	.01	-----	.05	.01	.01	0	0	0	0
30	0	.04	.05	.01	-----	.05	.01	.01	0	0	0	0
31	0	-----	.01	.01	-----	.04	-----	.01	-----	0	0	-----
TOTAL	0	0.59	0.96	0.44	3.92	259.71	0.46	0.38	0.43	0	0	0
MEAN	0	.020	.031	.014	.14	8.38	.015	.012	.014	0	0	0
MAX	0	.06	.12	.08	3.5	101	.04	.03	.04	0	0	0
MIN	0	0	.01	.01	.01	.04	.01	.01	0	0	0	0
AC-FT	0	1.2	1.9	.9	7.8	515	.9	.8	.9	0	0	0

CAL YR 1969 TOTAL 2,959.67 MEAN 8.11 MAX 582 MIN 0 AC-FT 5,870
 WTR YR 1970 TOTAL 266.89 MEAN .73 MAX 101 MIN 0 AC-FT 529

PEAK DISCHARGE (BASE, 20 CFS).--Mar. 1 (0830) 162 cfs (2.49 ft); Mar. 5 (0430) 190 cfs (2.60 ft).

SAN LUIS REY RIVER BASIN

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.--9 years, 1.44 cfs (1,040 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 82 cfs Mar. 2 (gage height, 3.51 ft); no flow much of year.
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 fair. No regulation or diversion above station.

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	.04	.01	.02	0	.04	14	.34	.20	.13			
2	.04	.01	.02	0	.05	34	.34	.20	.13			
3	.05	.01	.02	0	.06	12	.33	.20	.13			
4	.05	.01	.02	0	.06	6.9	.33	.20	.13			
5	.04	.02	.02	0	.06	6.6	.33	.20	.13			
6	.04	.04	.02	0	.06	7.5	.32	.20	.13			
7	.02	.05	.02	0	.06	4.2	.32	.20	.13			
8	.02	.04	.02	0	.06	2.5	.27	.20	.13			
9	.02	.04	.02	0	.06	1.0	.27	.20	.11			
10	.03	.05	.02	.01	.13	.60	.23	.20	.11			
11	.03	.03	.02	.01	.06	.60	.27	.20	.11			
12	.03	.02	.02	.01	.05	.50	.32	.20	.11			
13	.04	.02	.02	.01	.05	.48	.32	.20	.11			
14	.04	.02	.02	.01	.05	.45	.32	.16	.11			
15	.05	.03	.02	.01	.05	.43	.32	.16	.11			
16	.04	.03	.02	.02	.04	.41	.27	.13	.11			
17	.04	.02	.02	.02	.04	.39	.23	.13	.08			
18	.05	.02	.02	.01	.04	.39	.23	.13	.08			
19	.05	.02	.02	.01	.04	.38	.23	.13	.08			
20	.05	.02	.02	.01	.04	.37	.23	.16	.06			
21	.04	.02	.02	.02	.04	.36	.20	.16	.06			
22	.04	.02	.02	.02	.04	.36	.20	.16	.06			
23	.04	.02	.02	.02	.04	.36	.16	.16	.06			
24	.04	.02	.01	.02	.05	.35	.16	.16	.04			
25	.04	.02	0	.02	.05	.35	.16	.16	.04			
26	.03	.02	0	.03	.05	.35	.16	.16	.04			
27	.03	.02	0	.03	.05	.35	.20	.16	.02			
28	.02	.02	.01	.03	.08	.34	.20	.13	.02			
29	.01	.02	0	.03	-----	.34	.20	.13	.02			
30	.01	.02	0	.03	-----	.34	.20	.13	0			
31	.01	-----	0	.03	-----	.34	-----	.13	-----			-----
TOTAL	1.08	.71	.48	.41	1.50	97.54	7.66	5.24	2.58	0	0	0
MEAN	.035	.024	.016	.013	.054	3.15	.26	.17	.086	0	0	0
MAX	.05	.05	.02	.03	.13	34	.34	.20	.13	0	0	0
MIN	.01	.01	0	0	.04	.34	.16	.13	0	0	0	0
AC-FT	2.1	1.4	1.0	.8	3.0	193	15	10	5.1	0	0	0

CAL YR 1969 TOTAL 2,888.39 MEAN 7.91 MAX 318 MIN 0 ACFT 5,730
WAT YR 1970 TOTAL 117.20 MEAN .32 MAX 34 MIN 0 ACFT 232

PEAK DISCHARGE (BASE, 50 CFS).--Mar. 2 (1130) 82 cfs (3.51 ft).

SAN LUIS REY RIVER BASIN

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.--15 years (1913-15, 1957-70), 8.29 cfs (6,010 acre-ft per year); median of yearly mean discharges, 2.4 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 260 cfs Jan. 25 (gage height, 4.98 ft); minimum daily, 0.03 cfs Sept. 11.

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 good except those for periods of no gage-height record, which are poor. No regulation or diversion above station.

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	.22	.27	.07	.25	.90	81	2.5	2.3	.46	.29	.07	.08
2	.22	.27	.07	.22	.90	110	2.2	2.0	.46	.29	.07	.07
3	.22	.27	.07	.22	.90	25	2.0	1.8	.46	.25	.07	.07
4	.22	.27	.07	.22	.90	13	1.9	1.6	.46	.24	.08	.08
5	.22	.27	.08	.20	.90	31	1.9	1.4	.45	.20	.08	.07
6	.22	.23	.08	.22	.94	19	1.9	1.5	.42	.19	.05	.06
7	.22	.19	.08	.22	.83	14	1.8	1.4	.44	.19	.04	.06
8	.22	.12	.11	.22	.80	10	1.9	1.4	.44	.20	.05	.07
9	.22	.10	.12	.22	.82	8.4	1.9	1.3	.42	.17	.04	.05
10	.22	.15	.14	.67	1.7	10	1.9	1.2	.39	.14	.06	.05
11	.22	.12	.14	.94	8.4	11	1.8	1.1	.40	.11	.07	.03
12	.22	.11	.14	1.2	3.8	7.1	1.8	1.1	.39	.10	.07	.06
13	.22	.11	.14	1.1	2.6	6.1	1.7	.99	.46	.12	.08	.06
14	.22	.08	.14	.91	2.0	4.7	1.6	.90	.43	.12	.07	.07
15	.22	.08	.14	.72	1.3	4.2	1.7	.83	.44	.14	.09	.07
16	.22	.08	.14	.66	1.0	3.9	1.7	.71	.43	.13	.12	.07
17	.22	.08	.20	1.4	.81	3.4	1.9	.68	.39	.14	.10	.07
18	.22	.08	.29	1.2	.57	3.1	2.0	.62	.37	.15	.08	.08
19	.22	.11	.37	.94	.75	2.9	2.0	.59	.35	.15	.09	.07
20	.27	.10	.26	.89	.70	2.9	1.7	.56	.34	.15	.07	.05
21	.27	.08	.35	.90	.42	2.7	2.0	.57	.35	.17	.06	.06
22	.27	.07	.45	1.0	.51	2.5	2.7	.58	.35	.18	.08	.06
23	.27	.07	.23	.96	.43	2.3	2.2	.54	.32	.17	.07	.06
24	.27	.07	.23	.90	.51	2.2	2.1	.54	.33	.19	.09	.06
25	.27	.07	.33	1.0	.54	2.1	1.8	.50	.28	.16	.14	.07
26	.27	.05	.33	1.0	.52	2.1	1.6	.49	.27	.15	.12	.07
27	.27	.05	.33	.97	.49	2.0	3.1	.42	.24	.12	.16	.10
28	.27	.09	.18	1.0	8.3	1.9	4.8	.42	.25	.10	.13	.17
29	.27	.05	.34	1.0	-----	1.9	3.7	.47	.26	.09	.10	.22
30	.27	.05	.33	.97	-----	1.9	2.8	.46	.29	.08	.08	.18
31	.27	-----	.23	.94	-----	2.3	-----	.46	-----	.07	.08	-----
TOTAL	7.42	3.74	6.18	23.26	43.24	394.6	64.6	29.43	11.34	4.95	2.56	2.34
MEAN	.24	.12	.20	.75	1.54	12.7	2.15	.95	.38	.16	.083	.078
MAX	.27	.27	.45	1.4	8.4	110	4.8	2.3	.46	.29	.16	.22
MIN	.22	.05	.07	.20	.42	1.9	1.6	.42	.24	.07	.04	.03
AC-FT	15	7.4	12	46	86	783	128	58	22	9.8	5.1	4.6

CAL YR 1969 TOTAL 10,412.74 MEAN 28.5 MAX 1,480 MIN .05 AC-FT 20,650
 WTR YR 1970 TOTAL 593.66 MEAN 1.63 MAX 110 MIN .03 AC-FT 1,180

PEAK DISCHARGE (BASE, 100 CFS).--Mar. 2 (0930) 260 cfs (4.98 ft).

NOTE.--No gage-height record Oct. 1 to Nov. 6.

SAN LUIS REY RIVER BASIN

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).--6 years, 4.76 cfs (3,450 acre-ft per year).

(Combined creek and diversion).--6 years, 5.57 cfs (4,040 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 78 cfs Mar. 1 (gage height, 3.34 ft); no flow for 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, 78 cfs Mar. 1; minimum daily, 0.10 cfs Aug. 9.

Period of record: Maximum discharge, 2,100 cfs Dec. 6, 1966; minimum daily, 0.10 cfs for some days in most years.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.02	.07	.60	15	1.1	.46	.04	.02	.03	.04
2	.01	.01	.02	.07	.34	6.6	1.1	.23	.30	.01	.02	.04
3	.02	.01	.02	.07	.19	9.1	.80	.17	.34	.01	.02	.04
4	.02	.01	.02	.07	.15	11	.64	.13	.22	.01	.02	.04
5	.01	.01	.02	.07	.13	14	.56	.13	.13	.01	.02	.04
6	0	.02	.02	.08	.10	10	.49	.11	.17	.01	.01	.04
7	.01	2.4	.02	.10	.08	8.0	.42	.13	.15	0	0	.03
8	0	1.7	.02	.10	.06	6.4	.42	.15	.06	0	0	.03
9	0	1.3	.47	.10	.06	5.3	.36	.15	.04	0	0	.02
10	0	1.5	.31	1.2	2.0	5.8	.28	.15	.04	0	0	.02
11	.01	1.4	.15	1.7	4.5	5.8	.21	.13	.04	0	0	.01
12	.01	.68	.11	2.5	2.5	4.5	.23	.11	.04	0	.01	.01
13	0	.31	.07	2.2	1.4	3.9	.19	.10	.04	0	.03	.01
14	.01	.28	.05	1.6	1.2	3.6	.21	.10	.04	0	.01	.01
15	.01	.36	.05	1.3	1.0	3.3	.23	.08	.04	0	.01	.01
16	.02	.56	.04	1.4	.85	2.7	.21	.07	.04	0	.01	.01
17	.02	.49	.04	1.9	.76	2.2	.34	.06	.04	0	.02	.01
18	.03	.26	.04	1.4	.72	2.2	.36	.05	.04	0	.03	.01
19	.04	.19	.04	1.2	.64	2.0	.31	.04	.04	0	.05	.01
20	.04	.17	.04	1.1	.56	1.9	.34	.04	.04	.01	.06	.02
21	.04	.15	.04	1.0	.56	1.8	.63	.04	.04	.02	.07	.02
22	.04	.17	.04	1.0	.56	1.8	.46	.04	.04	.03	.07	.02
23	.04	.21	.05	.94	.56	1.8	.34	.04	.04	.03	.07	0
24	.04	.11	.05	.89	.52	1.6	.23	.04	.04	.03	.07	0
25	.04	.07	.05	.85	.60	1.4	.19	.04	.04	.03	.07	0
26	.04	.05	.06	.80	.68	1.3	.17	.04	.04	.03	.06	0
27	.05	.02	.06	.68	.68	1.4	.58	.04	.03	.03	.06	0
28	.05	.02	.06	.68	7.0	1.4	.89	.04	.02	.03	.06	0
29	.05	.02	.07	.64	-----	1.4	.94	.04	.02	.03	.05	0
30	.03	.02	.07	.60	-----	1.0	.80	.04	.02	.03	.05	0
31	.03	-----	.07	.56	-----	1.6	-----	.04	-----	.03	.04	-----
TOTAL	.72	12.51	2.19	26.87	29.00	139.8	14.03	3.03	2.22	.40	1.02	.49
MEAN	.023	.42	.071	.87	1.04	4.51	.47	.098	.074	.013	.033	.016
MAX	.05	2.4	.47	2.5	7.0	15	1.1	.46	.34	.03	.07	.04
MIN	0	.01	.02	.07	.06	1.0	.17	.04	.02	0	0	0
AC-FT	1.4	25	4.3	53	58	277	28	6.0	4.4	.8	2.0	1.0

CAL YR 1969 TOTAL 4,930.09 MEAN 13.5 MAX 694 MIN 0 ACFT 9,780
 WAT YR 1970 TOTAL 232.28 MEAN .64 MAX 15 MIN 0 ACFT 461

PEAK DISCHARGE (BASE, 50 CFS).--Mar. 1 (1600) 78 cfs (3.34 ft).

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	.76	1.2	1.1	1.4	15	2.4	1.9	1.1	.50	.20	.22
2	.66	.78	1.2	1.1	1.5	6.7	2.4	1.6	1.1	.42	.19	.21
3	.80	.81	1.2	1.1	1.5	9.2	2.1	1.6	1.1	.41	.19	.22
4	.80	.84	1.2	1.1	1.6	11	1.9	1.5	1.1	.38	.19	.21
5	.68	1.0	1.3	1.0	1.5	14	1.9	1.5	1.1	.35	.19	.20
6	.62	1.1	1.2	1.0	1.5	10	1.9	1.5	1.1	.34	.18	.20
7	.60	2.9	1.3	1.0	1.4	8.2	1.8	1.5	1.1	.33	.14	.19
8	.59	2.1	1.3	1.0	1.5	6.7	1.8	1.4	1.1	.35	.11	.18
9	.60	1.7	1.9	1.0	1.5	5.7	1.8	1.4	1.1	.40	.10	.18
10	.70	1.8	1.7	2.1	3.0	6.2	1.7	1.4	1.1	.42	.11	.17
11	.77	1.7	1.4	2.4	4.8	6.2	1.6	1.4	1.1	.40	.13	.16
12	.70	1.5	1.5	2.6	3.5	4.8	1.6	1.4	1.0	.36	.37	.16
13	.69	1.5	1.5	2.2	2.7	4.3	1.6	1.4	1.0	.34	.52	.18
14	.75	1.4	1.4	2.3	2.4	4.0	1.6	1.4	1.0	.30	.42	.20
15	.84	1.6	1.3	2.2	2.2	3.7	1.6	1.3	1.0	.27	.33	.20
16	.91	1.9	1.2	2.2	2.0	3.5	1.6	1.2	1.0	.23	.29	.20
17	.98	1.8	1.2	2.8	2.0	3.2	1.6	1.2	1.0	.21	.30	.19
18	1.1	1.4	1.2	2.3	1.9	3.2	1.7	1.2	.94	.20	.31	.17
19	1.1	1.3	1.2	2.1	1.9	3.0	1.7	1.2	.90	.17	.32	.16
20	1.2	1.3	1.2	2.0	1.9	2.8	1.5	1.2	.80	.16	.32	.18
21	1.0	1.2	1.2	1.9	1.8	2.7	1.8	1.2	.73	.18	.31	.20
22	1.1	1.3	1.2	1.9	1.7	2.7	1.8	1.2	.69	.21	.29	.20
23	1.1	1.3	1.2	1.9	1.8	2.7	1.6	1.2	.64	.20	.28	.15
24	1.1	1.2	1.2	1.8	1.6	2.5	1.5	1.2	.58	.20	.27	.15
25	1.1	1.2	1.2	1.8	1.7	2.5	1.5	1.2	.53	.21	.26	.16
26	1.1	1.2	1.1	1.7	1.7	2.5	1.5	1.2	.49	.21	.25	.15
27	1.0	1.2	1.1	1.6	1.7	2.3	2.0	1.2	.47	.21	.30	.14
28	.98	1.2	1.1	1.6	7.5	2.3	2.4	1.2	.47	.21	.29	.14
29	.92	1.2	1.1	1.5	-----	2.5	2.4	1.2	.51	.20	.30	.15
30	.78	1.2	1.1	1.4	-----	2.2	2.3	1.2	.55	.20	.29	.16
31	.78	-----	1.1	1.4	-----	2.9	-----	1.2	-----	.20	.26	-----
TOTAL	26.60	41.39	39.2	53.1	61.2	159.2	54.6	41.4	26.40	8.77	8.01	5.38
MEAN	.86	1.38	1.26	1.71	2.19	5.14	1.82	1.34	.88	.28	.26	.18
MAX	1.2	2.9	1.9	2.8	7.5	15	2.4	1.9	1.1	.50	.52	.22
MIN	.55	.76	1.1	1.0	1.4	2.2	1.5	1.2	.47	.16	.10	.14
AC-FT	53	82	78	105	121	316	108	82	52	17	16	11

CAL YR 1969 TOTAL 5,322.72 MEAN 14.6 MAX 694 MIN .51 ACFT 10,560
WAT YR 1970 TOTAL 525.25 MEAN 1.44 MAX 15 MIN .10 ACFT 1,040

PEAK DISCHARGE (BASE, 50 CFS).--(Same as that listed on previous page).

SAN LUIS REY RIVER BASIN

11039100 SAN LUIS REY RIVER TRIBUTARY NEAR PALA, CALIF.

LOCATION.--Lat 33°21'37", long 117°02'33", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ 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, 1.9 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.--5 years (1965-70), 0.008 cfs (5.8 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2.7 cfs Mar. 2 (gage height, 15.24 ft), from rating curve as explained below; no flow most of year.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						.03						
2						.08						
3						0						
4						0						
5						.05						
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					-----	0						
30					-----	0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	0	.16	0	0	0	0	0	0
MEAN	0	0	0	0	0	.005	0	0	0	0	0	0
MAX	0	0	0	0	0	.08	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	.3	0	0	0	0	0	0
(a)	.1	.7	.1	.9	3.3	3.0	.3	0	0	0	0	0

CAL YR 1969 TOTAL 5.45 MEAN .015 MAX 3.5 MIN 0 ACFT 11 a 17.5
 WAT YR 1970 TOTAL 0.16 MEAN .0004 MAX .08 MIN 0 ACFT .3 a 8.4

a Precipitation, in inches.

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.--27 years (1938-41, 1946-70), 7.49 cfs (5,430 acre-ft per year); median of yearly mean discharges, 1.8 cfs (1,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 111 cfs Mar. 2 (gage height, 4.82 ft); no flow Oct. 1 to Jan. 10, May 22 to Sept. 30.
 Period of record: Maximum gage height, 8.7 ft Feb. 7, 1937, datum then in use (discharge not determined), maximum discharge determined, 7,000 cfs Dec. 6, 1967, gage height 6.70 ft, present datum; no flow at times in most years.

REMARKS.--Records good. Flow regulated by Lake Henshaw (see sta 11035000). Several diversions above station.

COOPERATION.--One discharge measurement furnished by San Diego County Flood Control District.

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				0	.85	18	.98	.35				
2				0	.85	53	.98	.27				
3				0	.85	11	.98	.27				
4				0	.98	6.6	.73	.15				
5				0	.85	11	.63	.15				
6				0	.85	4.9	.73	.15				
7				0	.98	4.1	.63	.15				
8				0	1.1	4.1	.53	.15				
9				0	1.1	4.1	.43	.15				
10				0	2.3	3.9	.35	.15				
11				.23	4.4	3.6	.27	.15				
12				.85	3.3	3.3	.27	.15				
13				.85	3.1	3.3	.27	.15				
14				.85	2.6	3.3	.21	.15				
15				.85	2.3	2.8	.21	.15				
16				.85	1.9	2.3	.21	.10				
17				1.1	1.8	2.1	.21	.10				
18				1.1	1.8	2.1	.21	.05				
19				1.1	1.4	1.8	.10	.10				
20				1.1	1.2	1.4	.15	.05				
21				1.1	1.1	1.4	.21	.03				
22				.98	1.1	1.4	.15	0				
23				1.1	1.1	1.2	.15	0				
24				1.1	1.1	1.1	.15	0				
25				1.1	1.1	1.1	.21	0				
26				1.1	1.1	1.2	.21	0				
27				1.1	1.1	1.1	.53	0				
28				1.1	3.9	.98	.43	0				
29				.85	-----	.98	.43	0				
30				.85	-----	1.1	.43	0				
31		-----		.85	-----	1.1	-----	0	-----			-----
TOTAL	0	0	0	20.11	46.11	159.36	11.98	3.12	0	0	0	0
MEAN	0	0	0	.65	1.65	5.14	.40	.10	0	0	0	0
MAX	0	0	0	1.1	4.4	53	.98	.35	0	0	0	0
MIN	0	0	0	0	.85	.98	.10	0	0	0	0	0
AC-FT	0	0	0	40	91	316	24	6.2	0	0	0	0
CAL YR 1969	TOTAL	6,935.53	MEAN	19.0	MAX	1,780	MIN	0	ACFT	13,760		
WAT YR 1970	TOTAL	240.68	MEAN	.66	MAX	53	MIN	0	ACFT	477		

SAN LUIS REY RIVER BASIN

11041000 SAN LUIS REY RIVER NEAR BONSAILL, 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.--512 sq mi.

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.--41 years (1929-70), 18.6 cfs (13,480 acre-ft per year); median of yearly mean discharges, 4.1 cfs (3,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 374 cfs Mar. 2 (gage height, 7.92 ft, from floodmarks); no flow 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 poor prior to Mar. 6 and good thereafter. Flow regulated by Lake Henshaw (capacity, 194,300 acre-ft). Several diversions above station.

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	2.0	2.3	3.9	4.0	7.4	200	4.4	1.8	1.6	1.3	.32	.16
2	2.0	2.3	3.9	4.0	7.3	80	4.3	1.6	.68	1.3	.30	.18
3	2.0	2.3	3.9	4.0	7.2	45	4.3	1.7	.67	1.4	.29	.16
4	2.0	2.3	3.9	4.1	7.1	10	4.1	1.6	.77	1.1	.21	.17
5	2.0	2.3	3.9	4.1	7.0	45	4.1	1.6	.95	1.3	.20	.17
6	2.0	10	3.8	4.1	6.8	25	4.1	1.3	2.9	1.1	.23	.14
7	2.0	7.0	3.8	4.1	6.7	18	3.7	1.5	4.9	.66	.27	.10
8	2.0	6.0	3.8	4.1	6.6	16	3.2	1.2	5.2	.53	.19	.08
9	2.0	3.7	4.8	4.1	7.5	14	3.1	1.4	4.5	1.0	.15	.09
10	2.0	5.0	4.5	5.4	8.5	15	3.1	1.7	4.1	1.2	.10	.09
11	2.1	4.7	4.4	6.0	10	13	2.8	1.6	4.5	1.4	.08	.07
12	2.1	4.5	4.4	5.5	8.0	11	3.2	.96	4.1	1.9	.09	.09
13	2.1	4.4	4.4	4.8	7.0	10	3.1	.81	3.5	2.5	.10	.08
14	2.1	4.4	4.3	4.2	6.1	9.8	2.7	.88	3.0	1.8	.09	.07
15	2.1	4.3	4.3	6.0	5.5	10	2.4	.64	3.8	1.1	.08	.07
16	2.1	4.3	4.3	15	5.0	9.1	2.4	.55	2.7	1.3	.06	.09
17	2.1	4.2	4.3	14	4.5	8.7	2.8	.49	2.0	1.4	.06	.12
18	2.2	4.2	4.2	12	4.2	7.9	3.1	.46	1.6	1.1	.06	.13
19	2.2	4.2	4.2	11	3.9	5.9	3.1	.43	2.0	1.3	.07	.16
20	2.2	4.1	4.2	10	3.4	5.2	3.4	.45	3.4	2.0	.08	.18
21	2.2	4.0	4.2	9.8	3.4	4.9	2.9	.44	2.9	1.9	.13	.16
22	2.2	4.0	4.2	9.5	3.3	5.3	2.6	.47	2.5	1.3	.13	.16
23	2.2	4.0	4.2	9.1	3.3	6.0	2.1	.56	2.2	.89	.15	.16
24	2.2	4.0	4.1	8.8	3.2	5.9	1.6	.56	2.0	.85	.16	.20
25	2.2	4.0	4.1	8.5	3.2	5.5	1.7	.64	1.9	.81	.16	.15
26	2.3	3.9	4.1	8.3	3.2	5.5	1.9	.68	1.8	.99	.12	.18
27	2.3	3.9	4.1	8.1	3.1	5.1	3.1	1.1	1.7	1.4	.10	.11
28	2.3	3.9	4.1	7.9	10	4.5	2.8	1.4	1.6	1.0	.12	.05
29	2.3	3.9	4.1	7.7	-----	5.9	2.1	1.6	1.5	.56	.16	.01
30	2.3	3.9	4.0	7.6	-----	5.8	2.0	1.4	1.4	.43	.17	0
31	2.3	-----	4.0	7.5	-----	5.5	-----	1.9	-----	.41	.15	-----
TOTAL	66.1	126.0	128.4	223.3	162.4	618.5	90.2	33.42	76.37	37.23	4.58	3.58
MEAN	2.13	4.20	4.14	7.20	5.80	20.0	3.01	1.08	2.55	1.20	.15	.12
MAX	2.3	10	4.8	15	10	200	4.4	1.9	5.2	2.5	.32	.20
MIN	2.0	2.3	3.8	4.0	3.1	4.5	1.6	.43	.67	.41	.06	0
AC-FT	131	250	255	443	322	1,230	179	66	151	74	9.1	7.1

CAL YR 1969 TOTAL 13,530.01 MEAN 37.1 MAX 3,160 MIN .50 ACFT 26,840
 WAT YR 1970 TOTAL 1,570.08 MEAN 4.30 MAX 200 MIN 0 ACFT 3,110

NOTE.--No gage-height record Oct. 1 to Mar. 6.

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CALIF.

LOCATION.--Lat 33°12'48", long 117°22'33", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ 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 (revised).

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.--38 years (1912-14, 1929-41, 1946-70), 15.4 cfs (11,160 acre-ft per year); median of yearly mean discharges, zero.

EXTREMES.--Current year: Maximum discharge, 530 cfs Mar. 2 (gage height, 7.53 ft), on basis of slope-conveyance measurement of peak flow; minimum daily, 0.11 cfs Nov. 4.

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 except for periods of no gage-height record, which are poor. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.32	1.5	3.8	2.1	.45	2.8	2.8	3.6	4.3	2.5	3.0
2	.32	.23	1.8	3.3	2.1	264	2.8	2.5	3.7	3.3	2.5	3.0
3	.32	.23	2.1	3.3	2.5	67	3.3	2.1	3.8	2.5	2.5	3.0
4	.23	.11	2.5	3.3	2.8	16	2.8	1.8	4.3	2.5	2.5	3.0
5	.16	.42	2.1	3.3	3.3	53	2.5	1.8	3.3	2.8	2.5	3.0
6	.16	.54	2.1	3.3	3.3	66	3.3	1.9	3.3	3.3	2.6	3.1
7	.85	1.8	2.1	3.3	3.8	39	3.3	1.9	3.3	3.8	2.6	3.1
8	1.8	6.9	2.1	3.3	3.8	13	2.8	2.0	3.8	4.3	2.6	3.1
9	2.8	8.4	2.8	3.3	3.8	12	2.8	2.1	3.8	4.9	2.6	3.1
10	3.3	7.6	2.8	3.8	8.4	11	3.3	2.2	4.3	4.3	2.6	3.1
11	3.3	3.3	2.5	5.5	12	10	3.3	2.2	4.3	4.3	2.7	3.1
12	2.1	3.3	2.5	6.2	11	9.4	2.5	2.3	4.3	3.8	2.7	3.1
13	1.8	4.3	2.1	4.9	10	13	2.8	2.4	3.8	3.3	2.7	3.1
14	2.5	4.3	1.8	4.3	8.4	9.4	3.3	2.5	3.8	3.8	2.7	3.1
15	3.8	4.9	1.8	4.3	6.9	7.6	3.3	2.5	3.8	3.8	2.7	3.1
16	4.3	4.9	2.5	4.9	6.9	6.9	3.8	2.6	4.3	3.8	2.8	3.2
17	3.8	3.8	2.5	12	6.9	6.2	4.3	2.7	4.3	3.3	2.8	3.2
18	4.9	3.8	2.1	22	6.9	4.9	2.8	2.7	4.3	1.8	2.8	3.2
19	4.3	4.3	2.1	13	4.9	4.3	2.5	2.8	4.3	1.8	2.8	3.2
20	3.8	4.3	2.1	7.6	4.9	3.8	4.3	2.8	4.3	1.8	2.8	3.2
21	3.8	4.3	2.5	4.3	4.9	2.8	4.3	2.9	3.8	2.1	2.9	3.2
22	2.5	4.3	2.8	3.8	4.9	3.3	3.8	2.9	2.8	2.5	2.9	3.2
23	1.8	4.3	2.5	3.8	4.9	2.8	3.3	3.0	3.3	2.5	2.9	3.2
24	2.1	2.8	2.1	3.3	3.8	2.8	3.3	3.1	3.3	2.5	2.9	3.2
25	3.3	2.8	2.1	2.5	3.8	2.8	3.8	3.1	3.8	2.1	2.9	3.2
26	3.8	2.5	2.1	2.5	4.3	2.8	4.3	3.2	3.8	2.1	3.0	3.3
27	3.3	2.5	2.5	2.5	4.3	2.5	4.3	3.3	3.3	2.5	3.0	3.3
28	2.1	2.1	2.1	2.5	5.6	1.8	3.8	3.4	3.3	2.5	3.0	3.3
29	1.8	1.8	1.5	2.5	-----	3.8	3.3	3.4	2.8	2.5	3.0	3.3
30	.85	1.5	2.5	2.1	-----	3.8	2.8	3.5	3.3	2.5	3.0	3.3
31	.42	-----	3.3	2.1	-----	2.8	-----	3.5	-----	2.5	3.0	-----
TOTAL	70.63	96.65	69.9	150.6	151.2	693.5	99.6	81.9	112.2	93.8	85.5	94.5
MEAN	2.28	3.22	2.25	4.86	5.40	22.4	3.32	2.64	3.74	3.03	2.76	3.15
MAX	4.9	8.4	3.3	22	12	264	4.3	3.5	4.3	4.9	3.0	3.3
MIN	.16	.11	1.5	2.1	2.1	1.8	2.5	1.8	2.8	1.8	2.5	3.0
AC-FT	140	192	139	299	300	1,380	198	162	223	186	170	187

CAL YR 1969 TOTAL 12,842.84 MEAN 35.2 MAX 3,340 MIN .11 ACFT 25,470
WAT YR 1970 TOTAL 1,799.98 MEAN 4.93 MAX 264 MIN .11 ACFT 3,570

NOTE.--No gage-height record May 5 to June 2, Aug. 1 to Sept. 30.

SANTA MARGARITA RIVER BASIN

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.--13 years, 5.02 cfs (3,640 acre-ft per year); median of yearly mean discharges, 1.6 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 109 cfs Mar. 2 (gage height, 2.46 ft); minimum daily, 0.14 cfs Aug. 9.

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 poor. No regulation above station. Pumping for irrigation above station.

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	.16	.55	1.4	2.1	1.8	4.9	2.9	2.4	1.0	.41	.19	.32
2	.17	.57	1.5	2.0	1.8	5.8	2.8	2.0	.73	.37	.17	.31
3	.22	.58	1.5	2.0	1.8	2.2	2.8	1.8	.60	.36	.22	.34
4	.28	.61	1.5	2.0	1.8	1.2	2.5	1.7	.70	.30	.29	.39
5	.23	.67	1.5	2.0	1.8	2.7	2.3	1.7	.80	.29	.36	.45
6	.28	.91	1.6	2.0	1.8	1.4	2.3	1.8	.80	.34	.34	.48
7	.28	1.8	1.6	2.0	1.8	9.7	2.3	2.0	.86	.32	.27	.41
8	.28	1.7	1.2	2.0	1.7	8.0	2.4	2.1	1.1	.35	.18	.40
9	.28	1.4	1.1	1.9	1.3	6.9	2.3	2.1	1.2	.43	.14	.39
10	.33	1.4	1.5	2.2	1.8	6.8	2.2	2.1	1.3	.39	.17	.36
11	.37	1.3	1.9	2.5	4.2	6.3	2.2	2.0	1.2	.39	.24	.30
12	.38	1.2	1.8	2.3	2.9	5.5	2.2	1.9	1.1	.34	.35	.36
13	.38	1.1	1.8	1.8	2.5	5.0	2.3	1.8	1.1	.37	.42	.44
14	.39	1.1	1.8	2.2	2.3	4.6	2.3	1.7	1.0	.34	.38	.59
15	.43	1.3	1.3	2.2	2.2	4.4	2.5	1.4	1.0	.29	.34	.58
16	.38	1.4	1.1	2.3	2.2	4.1	2.6	1.2	1.0	.33	.34	.52
17	.33	1.3	1.7	2.4	2.1	3.9	2.8	1.1	.96	.34	.43	.46
18	.45	1.2	1.8	2.3	2.1	3.8	2.7	1.1	.87	.38	.39	.40
19	.51	1.1	1.8	2.2	1.9	3.6	2.6	1.1	.73	.26	.39	.39
20	.50	1.1	1.8	2.2	1.9	3.5	2.6	1.2	.63	.30	.40	.40
21	.45	1.1	1.9	2.2	1.9	3.4	2.8	1.3	.56	.37	.40	.51
22	.52	1.2	2.0	1.7	1.8	3.4	2.9	1.3	.59	.41	.35	.54
23	.54	1.2	2.0	1.8	1.9	3.3	2.7	1.3	.56	.34	.29	.48
24	.55	1.2	1.7	2.1	1.9	3.1	2.4	1.3	.49	.38	.36	.50
25	.56	1.2	1.6	2.0	1.4	3.1	2.3	1.4	.43	.36	.40	.50
26	.62	1.0	2.0	2.0	1.4	3.2	2.3	1.7	.39	.35	.46	.50
27	.59	.76	2.1	1.9	1.8	3.1	3.3	1.8	.35	.35	.57	.50
28	.58	1.1	2.1	1.8	8.8	2.9	4.1	1.9	.37	.36	.47	.50
29	.53	1.2	2.1	1.7	-----	2.9	3.5	1.8	.49	.31	.40	.50
30	.48	1.3	2.1	1.7	-----	3.1	2.9	1.5	.48	.35	.29	.50
31	.51	-----	2.1	1.7	-----	3.1	-----	1.3	-----	.29	.33	-----
TOTAL	12.56	33.55	52.9	63.2	62.6	292.7	78.8	50.8	23.39	10.77	10.33	13.32
MEAN	.41	1.12	1.71	2.04	2.24	9.44	2.63	1.64	.78	.35	.33	.44
MAX	.62	1.8	2.1	2.5	8.8	5.8	4.1	2.4	1.3	.43	.57	.59
MIN	.16	.55	1.1	1.7	1.3	2.9	2.2	1.1	.35	.26	.14	.30
AC-FT	25	67	105	125	124	581	156	101	46	21	20	26

CAL YR 1969 TOTAL 9,058.22 MEAN 24.8 MAX 2,200 MIN .11 AC-FT 17,970
 WTR YR 1970 TOTAL 704.92 MEAN 1.93 MAX 58 MIN .14 AC-FT 1,400

PEAK DISCHARGE (BASE, 50 CFS).--Mar. 2 (1015) 109 cfs (2.46 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; 22 years (1948-70), 5.77 cfs (4,180 acre-ft per year); median of yearly mean discharges, 2.2 cfs (1,600 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: December, 0.51; February, 2.56; March, 3.35; April, 0.55; September, 0.64; the water year, 7.61.

MONTHLY DISCHARGE, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

Date	Elevation (feet) ^a	Contents (acre-foot)	Change in contents (acre-foot)	Draft (acre-foot)	Evaporation (acre-foot)	Discharge (acre-foot)
Vail Lake						
Sept. 30.....	1,450.52	30,850	-	-	-	-
Oct. 31.....	1,449.94	30,400	-450	0	308	-142
Nov. 30.....	1,449.57	30,100	-300	0	191	-109
Dec. 31.....	1,449.43	29,950	-150	0	141	-9
CAL YR 1969.....	-	-	+18,474	697	4,019	23,190
Jan. 31.....	1,449.44	29,960	+10	0	188	198
Feb. 28.....	1,449.71	30,180	+220	0	211	431
Mar. 31.....	1,450.30	30,670	+490	0	270	760
Apr. 30.....	1,449.56	30,060	-610	335	339	64
May 31.....	1,449.02	29,620	-440	240	481	281
June 30.....	1,448.30	29,030	-590	265	456	131
July 31.....	1,447.65	28,510	-520	0	611	91
Aug. 31.....	1,447.12	28,100	-410	0	580	170
Sept. 30.....	1,446.50	27,610	-490	0	521	31
WTR YR 1970.....	-	-	-3,240	840	4,297	1,897

^a Elevation at 2400.

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.

SANTA MARGARITA RIVER BASIN

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.--46 years, 9.24 cfs (6,690 acre-ft per year); median of yearly mean discharges, 2.3 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,200 cfs Mar. 1 (gage height, 5.98 ft); minimum daily, 0.02 cfs Nov. 11-13, 17-19.

Period of record: Maximum discharge, 17,500 cfs Jan. 23, 1943 (gage height, 13.82 ft); minimum daily, 0.02 cfs June 10, Nov. 11-13, 17-19, 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.12	.10	.08	.10	414	.14	.12	.16	.12	.06	.12
2	.16	.12	.10	.06	.10	689	.14	.12	.14	.12	.06	.12
3	.16	.08	.10	.06	.10	36	.14	.14	.14	.12	.06	.12
4	.16	.06	.10	.06	.10	7.6	.14	.14	.12	.12	.08	.12
5	.16	.04	.10	.06	.08	139	.14	.16	.12	.12	.08	.12
6	.16	.10	.12	.04	.10	9.0	.14	.16	.10	.12	.08	.12
7	.16	.08	.12	.04	.10	1.8	.14	.18	.12	.12	.08	.12
8	.16	.04	.12	.04	.10	.89	.14	.20	.12	.12	.08	.12
9	.16	.04	.12	.06	.10	.65	.14	.23	.12	.12	.08	.12
10	.16	.06	.12	.08	1.1	.70	.14	.26	.12	.12	.08	.12
11	.16	.02	.12	.08	9.0	.55	.14	.29	.12	.12	.08	.12
12	.14	.02	.12	.10	.38	.38	.14	.32	.12	.12	.08	.12
13	.14	.02	.12	.08	.16	.32	.14	.32	.12	.12	.08	.12
14	.14	.04	.12	.08	.12	.26	.14	.32	.12	.10	.08	.12
15	.14	.08	.12	.10	.10	.23	.14	.29	.12	.10	.08	.12
16	.14	.04	.12	.12	.10	.20	.14	.29	.12	.10	.08	.12
17	.14	.02	.12	.10	.10	.18	.14	.26	.10	.10	.10	.12
18	.14	.02	.12	.10	.10	.16	.14	.23	.12	.10	.10	.12
19	.14	.02	.10	.10	.10	.14	.16	.23	.12	.10	.12	.12
20	.14	.04	.10	.10	.10	.16	.16	.20	.12	.10	.12	.12
21	.14	.04	.10	.08	.10	.35	.16	.20	.12	.10	.12	.12
22	.14	.04	.10	.08	.12	.16	.16	.18	.12	.10	.12	.12
23	.14	.04	.10	.08	.12	.16	.23	.18	.12	.10	.12	.12
24	.14	.04	.10	.08	.14	.16	.41	.18	.12	.10	.12	.12
25	.14	.06	.10	.08	.14	.18	.70	.16	.12	.10	.12	.12
26	.14	.06	.10	.08	.16	.23	.41	.16	.18	.08	.12	.12
27	.14	.06	.10	.08	.16	.23	.18	.16	.18	.08	.12	.12
28	.14	.08	.10	.08	23	.20	.16	.16	.16	.08	.12	.12
29	.14	.08	.10	.08	-----	.20	.14	.16	.16	.08	.12	.12
30	.12	.08	.10	.08	-----	.18	.13	.16	.14	.08	.12	.12
31	.12	-----	.10	.08	-----	.18	-----	.16	-----	.06	.12	-----
TOTAL	4.50	1.64	3.36	2.42	36.18	1,303.45	5.52	6.32	3.86	3.22	2.98	3.60
MEAN	.15	.055	.11	.078	1.29	42.0	.18	.20	.13	.10	.096	.12
MAX	.16	.12	.12	.12	.23	689	.70	.32	.18	.12	.12	.12
MIN	.12	.02	.10	.04	.08	.14	.13	.12	.10	.06	.06	.12
AC-FT	8.9	3.3	6.7	4.8	72	2,590	11	13	7.7	6.4	5.9	7.1
CAL YR 1969	TOTAL	20,610.36	MEAN	56.5	MAX	7,050	MIN	.02	ACFT	40,880		
WAT YR 1970	TOTAL	1,377.05	MEAN	3.77	MAX	689	MIN	.02	ACFT	2,730		

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); 22 years (1948-70), 10.9 cfs (7,900 acre-ft per year); median of yearly mean discharges, 5.6 cfs (4,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,100 cfs Mar. 2 (gage height, 6.77 ft, from floodmark); minimum daily, 1.2 cfs May 23-25.

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. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.1	3.2	4.2	4.0	425	3.8	3.2	1.6	2.1	1.5	1.4
2	2.4	2.1	3.2	4.2	4.0	717	3.8	3.2	2.0	1.8	1.5	1.3
3	2.4	2.1	3.2	4.2	4.0	46	3.8	3.2	2.2	1.8	1.5	1.3
4	2.4	2.1	3.2	4.2	4.0	14	3.8	3.2	2.2	1.8	1.5	1.3
5	2.4	2.1	3.4	4.2	4.0	108	3.8	3.2	2.2	1.8	1.5	1.3
6	2.2	2.4	3.4	4.2	4.0	16	3.8	3.2	2.2	1.8	1.5	1.3
7	2.2	2.7	3.6	4.2	4.0	7.2	3.6	3.2	2.2	1.8	1.5	1.3
8	2.2	2.2	3.6	4.4	4.0	6.3	3.6	3.4	2.4	1.8	1.4	1.4
9	2.2	2.2	3.6	4.4	4.0	5.6	3.4	3.4	2.4	1.8	1.4	1.4
10	2.1	2.6	3.6	4.6	5.8	6.0	3.2	3.4	2.4	1.8	1.4	1.4
11	2.1	2.2	3.6	4.6	9.3	5.3	3.0	3.4	2.4	1.8	1.4	1.4
12	2.1	2.1	3.6	4.6	5.3	4.8	2.8	3.4	2.4	1.8	1.4	1.4
13	2.1	2.1	3.6	4.6	5.0	5.6	2.8	2.7	2.6	1.8	1.4	1.4
14	2.1	2.2	3.6	4.2	4.8	7.2	2.7	2.7	2.6	1.8	1.4	1.5
15	2.1	2.6	3.6	4.2	4.8	7.2	2.6	2.4	2.6	1.8	1.4	1.5
16	2.1	2.8	3.6	4.2	4.8	7.2	2.6	2.4	2.6	1.8	1.4	1.5
17	2.1	2.7	3.4	4.4	4.6	7.2	2.7	1.8	2.4	1.8	1.4	1.5
18	2.1	2.6	3.4	4.2	4.6	5.3	2.6	3.4	2.2	1.8	1.4	1.5
19	2.0	2.4	3.4	4.0	4.6	6.9	2.7	1.9	2.2	1.8	1.4	1.5
20	2.0	2.4	3.4	4.0	4.6	5.6	2.6	2.0	2.2	1.8	1.4	1.5
21	2.0	2.4	3.4	4.0	4.4	3.8	2.6	1.4	2.2	2.0	1.4	1.6
22	2.0	2.4	3.4	4.0	4.4	3.8	2.6	1.8	2.2	1.8	1.4	1.5
23	2.0	2.6	3.4	4.0	4.4	3.8	2.7	1.2	2.4	1.8	1.4	1.5
24	2.0	2.6	3.8	4.2	4.4	4.0	2.8	1.2	2.4	1.8	1.4	1.5
25	2.0	2.6	4.8	4.2	4.4	4.0	3.2	1.2	2.4	1.8	1.4	1.5
26	2.1	2.7	4.0	4.2	4.2	3.4	3.6	1.3	2.6	1.8	1.5	1.5
27	2.1	2.8	3.8	4.2	4.2	3.6	3.6	1.4	2.6	1.8	1.5	1.5
28	2.1	3.0	4.0	4.2	20	3.6	3.6	1.4	2.6	1.5	1.5	1.6
29	2.1	3.0	4.0	4.2	-----	3.6	3.6	1.4	2.6	1.5	1.5	1.5
30	2.1	3.2	4.0	4.2	-----	3.6	3.4	1.6	2.6	1.5	1.5	1.6
31	2.1	-----	4.0	4.0	-----	3.6	-----	1.5	-----	1.5	1.5	-----
TOTAL	66.3	74.0	111.8	131.2	144.6	1,454.2	95.4	74.1	70.6	55.1	44.7	43.4
MEAN	2.14	2.47	3.61	4.23	5.16	46.9	3.18	2.39	2.35	1.78	1.44	1.45
MAX	2.4	3.2	4.8	4.6	20	717	3.8	3.4	2.6	2.1	1.5	1.6
MIN	2.0	2.1	3.2	4.0	4.0	3.4	2.6	1.2	1.6	1.5	1.4	1.3
AC-FT	132	147	222	260	287	2,880	189	147	140	109	89	86

CAL YR 1969 TOTAL 22,789.3 MEAN 62.4 MAX 7,730 MIN 1.8 ACFT 45,200
WAT YR 1970 TOTAL 2,365.4 MEAN 6.48 MAX 717 MIN 1.2 ACFT 4,690

NOTE.--No gage-height record Feb. 18 to Mar. 1.

SANTA MARGARITA RIVER BASIN

11044500 SANTA MARGARITA RIVER NEAR FALLBROOK, CALIF.

LOCATION.--Lat 33°23'54", long 117°15'44", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ 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.

DRAINAGE AREA.--644 sq mi.

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); 22 years (1948-70), 13.4 cfs (9,710 acre-ft per year); median of yearly mean discharges, 5.2 cfs (3,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,570 cfs Mar. 2 (gage height, 8.53 ft); no flow many days. 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 pumped 281 acre-ft of water during the year from a well in the streambed 2.1 miles upstream from the station.

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	.79	1.2	3.8	5.6	5.8	390	6.2	4.5	2.2	.03	0	0
2	.93	1.4	3.9	5.6	5.7	947	5.9	4.0	1.7	0	0	0
3	1.2	1.4	4.2	5.5	5.6	175	5.8	3.5	2.0	0	0	0
4	1.1	1.5	4.1	5.7	5.7	28	5.6	2.3	2.1	0	0	0
5	.85	1.5	4.1	5.6	5.8	200	5.3	2.5	2.2	0	0	0
6	.79	2.4	4.3	4.9	5.6	38	5.1	2.9	1.7	0	0	0
7	.79	4.9	4.2	4.8	5.3	18	4.9	3.2	1.3	0	0	0
8	.93	5.6	4.4	4.9	5.1	13	4.6	3.1	1.6	0	0	0
9	1.4	4.9	4.8	6.4	5.5	11	4.3	2.8	1.9	0	0	0
10	1.8	5.8	4.7	8.7	14	11	4.0	2.3	1.6	.08	0	0
11	1.5	5.2	4.4	8.3	20	9.9	3.9	2.5	1.6	.10	0	0
12	1.5	4.2	4.2	8.9	11	8.6	3.5	3.0	1.6	.08	0	0
13	1.5	3.4	4.0	8.1	7.8	8.0	3.2	2.9	1.8	.06	0	0
14	1.8	3.4	4.0	7.2	6.9	7.4	3.0	2.6	1.6	.04	0	0
15	1.1	4.2	4.1	7.8	6.2	7.2	3.1	2.5	1.5	.02	0	0
16	1.1	5.1	4.2	10	6.0	6.6	3.1	2.2	1.6	.02	0	0
17	1.4	4.7	4.3	10	5.9	6.2	3.2	2.1	.97	.04	0	0
18	1.2	3.4	4.3	8.1	5.8	6.0	3.5	2.1	.79	.04	0	0
19	1.2	2.6	4.3	7.5	5.4	5.6	3.9	2.3	.82	.08	0	0
20	1.1	2.6	4.3	7.4	5.4	5.7	3.8	2.1	.72	0	0	0
21	1.4	3.4	4.4	7.4	5.2	5.8	4.2	2.0	.63	0	0	0
22	1.5	3.9	4.5	7.3	5.1	6.1	4.0	1.9	.64	0	0	0
23	1.5	4.0	4.7	7.5	4.9	6.3	3.9	2.1	.49	0	0	0
24	1.7	3.8	4.7	7.6	4.5	6.5	2.8	2.0	.39	0	0	0
25	1.8	3.7	4.7	7.6	4.0	6.3	3.8	2.2	.21	0	0	0
26	1.9	3.8	4.8	7.5	3.9	6.2	4.3	2.6	.12	.05	0	0
27	1.9	3.6	4.8	7.4	4.2	6.8	4.9	3.0	.38	.05	0	0
28	2.1	3.3	4.8	6.5	88	6.4	5.2	3.1	.05	.08	0	0
29	1.8	3.3	4.8	5.6	-----	5.7	5.5	2.8	.04	.04	0	0
30	1.5	3.7	5.1	5.5	-----	6.1	5.1	2.5	.03	0	0	0
31	1.1	-----	5.5	5.6	-----	6.5	-----	2.2	-----	0	-----	-----
TOTAL	42.18	105.9	137.4	216.5	264.3	1,970.9	129.6	81.8	34.28	0.81	0	0
MEAN	1.36	3.53	4.43	6.98	9.44	63.6	4.32	2.64	1.14	.026	0	0
MAX	2.1	5.8	5.5	10	88	947	6.2	4.5	2.2	.10	0	0
MIN	.79	1.2	3.8	4.8	3.9	5.6	2.8	1.9	.03	0	0	0
AC-FT	84	210	273	429	524	3,910	257	162	68	1.6	0	0

CAL YR 1969 TOTAL 36,491.32 MEAN 100 MAX 10,100 MIN 0 AC-FT 72,380
 WTR YR 1970 TOTAL 2,983.67 MEAN 8.17 MAX 947 MIN 0 AC-FT 5,920

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. Prior to Feb. 25, 1970, at site 0.8 mile upstream.

DRAINAGE AREA.--739 sq mi.

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.--47 years, 29.0 cfs (21,010 acre-ft per year); median of yearly mean discharges, 8.0 cfs (5,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,940 cfs (1400) Mar. 2 (gage height, 11.15 ft); maximum gage height, 13.40 ft (0715) Mar. 2 (backwater from road fill); no flow Aug. 2 to Sept. 30.

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.--Records fair. 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 loads for the water year 1970 are published in Part 2 of this report. AVERAGE DISCHARGE represents flow to ocean during period of record, regardless of upstream development.

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	.22	.24	.21	.28	.28	3.1	2.4	.22	.14	.11	.01	
2	.22	.24	.21	.28	.28	886	1.7	.22	.14	.11	0	
3	.22	.24	.21	.28	.28	350	1.4	.22	.14	.11	0	
4	.22	.24	.21	.29	.28	98	1.4	.22	.14	.11	0	
5	.22	.24	.21	.29	.28	245	1.5	.22	.14	.11	0	
6	.22	.24	.21	.29	.28	226	1.2	.22	.14	.08	0	
7	.22	.24	.21	.29	.28	123	1.1	.22	.14	.08	0	
8	.22	.24	.22	.29	.28	65	.99	.22	.14	.08	0	
9	.22	.24	.22	.29	.28	45	.88	.22	.14	.08	0	
10	.22	.24	.22	.29	.28	35	.77	.22	.14	.08	0	
11	.22	.23	.22	.29	.32	33	.77	.18	.14	.08	0	
12	.22	.23	.23	.29	.32	24	.68	.18	.14	.08	0	
13	.22	.23	.23	.29	.32	18	.68	.18	.14	.08	0	
14	.23	.23	.23	.29	.32	18	.68	.18	.14	.08	0	
15	.23	.23	.23	.29	.32	17	.68	.18	.14	.08	0	
16	.23	.23	.24	.29	.32	15	.68	.18	.14	.08	0	
17	.23	.23	.24	.29	.32	12	.68	.18	.11	.08	0	
18	.23	.23	.24	.29	.32	9.5	.60	.18	.11	.08	0	
19	.23	.22	.24	.29	.32	5.9	.60	.18	.11	.08	0	
20	.23	.22	.25	.29	.32	4.9	.52	.18	.11	.08	0	
21	.23	.22	.25	.28	.32	4.0	.45	.18	.11	.08	0	
22	.23	.22	.25	.28	.32	3.8	.45	.18	.11	.08	0	
23	.23	.22	.25	.28	.32	3.5	.45	.18	.11	.08	0	
24	.24	.22	.26	.28	.32	3.3	.38	.18	.11	.06	0	
25	.24	.22	.26	.28	.32	3.0	.38	.18	.11	.06	0	
26	.24	.22	.26	.28	.32	3.0	.38	.18	.11	.06	0	
27	.24	.21	.26	.28	.32	3.0	.32	.18	.11	.06	0	
28	.24	.21	.27	.28	.68	2.8	.32	.18	.11	.06	0	
29	.24	.21	.27	.28	-----	2.8	.27	.14	.11	.06	0	
30	.24	.21	.27	.28	-----	2.8	.27	.14	.11	.04	0	
31	.24	-----	.27	.28	-----	2.6	-----	.14	-----	.02	0	-----
TOTAL	7.08	6.84	7.35	8.85	8.92	2,268.0	23.58	5.86	3.78	2.41	.01	0
MEAN	.23	.23	.24	.29	.32	73.2	.79	.19	.13	.078	.0003	0
MAX	.24	.24	.27	.29	.68	886	2.4	.22	.14	.11	.01	0
MIN	.22	.21	.21	.28	.28	2.6	.27	.14	.11	.02	0	0
AC-FT	14	14	15	18	18	4,500	47	12	7.5	4.8	.02	0

CAL YR 1969 TOTAL 58,890.01 MEAN 161 MAX 16,400 MIN 0 ACFT 116,800
 WAT YR 1970 TOTAL 2,342.68 MEAN 6.42 MAX 886 MIN 0 ACFT 4,650

NOTE.--No gage-height record Oct. 1 to Feb. 25.

LAS FLORES CREEK BASIN

11046100 LAS FLORES CREEK NEAR OCEANSIDE, CALIF.

LOCATION.--Lat 33°17'32", long 117°27'21", in NW¹SE¹ 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.--17 years, 0.70 cfs (507 acre-ft per year); median of yearly mean discharges, 0.3 cfs (220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 24 cfs Feb. 28 (gage height, 1.04 ft); minimum daily, 0.01 cfs most of year.

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 691 acre-ft this year. No regulation above station. Some pumping above station for irrigation.

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	.03	.04	.01	.02	.01	.56	.02	.01	.01	.01	.02	.01
2	.03	.04	.01	.01	.01	4.8	.02	.01	.01	.01	.02	.01
3	.03	.04	.01	.02	.01	1.6	.02	.01	.02	.02	.02	.01
4	.03	.03	.01	.02	.01	.28	.02	.01	.02	.01	.02	.01
5	.03	.03	.01	.02	.01	1.7	.02	.01	.01	.01	.02	.01
6	.03	.06	.01	.02	.01	.16	.02	.01	.01	.01	.02	.01
7	.03	.03	.01	.02	.01	.12	.02	.01	.01	.01	.02	.01
8	.04	.02	.01	.02	.01	.10	.02	.01	.01	.01	.02	.01
9	.04	.02	.02	.02	.01	.08	.02	.01	.01	.02	.02	.01
10	.04	.03	.01	.02	.06	.06	.02	.01	.01	.02	.02	.02
11	.04	.07	.01	.03	.02	.05	.02	.01	.01	.02	.02	.02
12	.04	.01	.01	.02	.02	.04	.01	.03	.01	.02	.02	.02
13	.04	.01	.01	.02	.01	.03	.01	.01	.01	.02	.02	.02
14	.03	.01	.01	.02	.01	.02	.01	.01	.01	.02	.02	.01
15	.03	.02	.01	.03	.01	.02	.01	.01	.01	.02	.02	.02
16	.03	.02	.01	.04	.01	.02	.01	.01	.01	.02	.02	.02
17	.03	.01	.01	.02	.01	.02	.01	.01	.01	.01	.02	.02
18	.03	.01	.01	.02	.01	.02	.01	.01	.01	.01	.02	.02
19	.04	.01	.02	.01	.01	.02	.01	.01	.01	.01	.02	.02
20	.04	.01	.02	.01	.01	.02	.01	.01	.02	.01	.01	.02
21	.04	.01	.02	.03	.01	.02	.01	.01	.02	.01	.01	.02
22	.04	.01	.02	.01	.01	.02	.01	.01	.02	.01	.01	.02
23	.04	.01	.01	.01	.01	.02	.01	.01	.02	.01	.01	.02
24	.04	.01	.01	.01	.01	.02	.01	.01	.02	.01	.01	.02
25	.04	.01	.01	.01	.01	.02	.01	.01	.02	.01	.01	.02
26	.04	.01	.01	.01	.01	.02	.01	.01	.02	.01	.01	.02
27	.04	.01	.01	.01	.01	.02	.01	.01	.02	.01	.01	.01
28	.04	.01	.01	.01	1.6	.02	.01	.01	.02	.02	.01	.01
29	.04	.01	.01	.01	-----	.02	.01	.01	.02	.02	.01	.01
30	.04	.01	.01	.01	-----	.02	.01	.01	.01	.02	.01	.02
31	.04	-----	.01	.01	-----	.02	-----	.01	-----	.02	.01	-----
TOTAL	1.12	0.57	0.36	0.54	1.94	8.50	0.41	0.33	0.42	0.44	0.50	0.47
MEAN	.036	.019	.012	.017	.069	.27	.014	.011	.014	.014	.016	.016
MAX	.04	.06	.02	.04	1.6	4.8	.02	.03	.02	.02	.02	.02
MIN	.03	.01	.01	.01	.01	.02	.01	.01	.01	.01	.01	.01
AC-FT	2.2	1.1	.7	1.1	3.8	17	.8	.7	.8	.9	1.0	.9

CAL YR 1969 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1970 TOTAL 15.60 MEAN .043 MAX 4.8 MIN .01 AC-FT 31

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

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. Prior to Dec. 10, 1969, at site 2.8 miles upstream.

DRAINAGE AREA.--106 sq mi.

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).--42 years, 13.8 cfs (10,000 acre-ft per year); median of yearly mean discharges, 2.8 cfs (2,000 acre-ft per year).
(Combined).--16 years, 14.6 cfs (10,580 acre-ft per year); median of yearly mean discharges, 3.7 cfs (2,700 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 125 cfs Mar. 4 (gage height, 3.01 ft); minimum daily, 0.06 cfs Sept. 23-25.
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, 125 cfs Mar. 4; minimum daily, 0.08 cfs Sept. 14-16.
Period of record: Maximum discharge, 22,400 cfs Feb. 25, 1969; no flow for many days in 1961-69.

REMARKS.--Records fair. No regulation above station. See following page for records of combined discharge of creek and Capistrano Water Co.'s canal, which diverts 500 ft upstream from station.

COOPERATION.--Twelve discharge measurements furnished by Orange County Flood Control District.

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	2.3	2.0	5.6	4.5	5.3	23	3.8	2.2	.36	.21	.14	.50
2	2.3	1.9	5.4	4.3	5.1	62	3.8	1.3	.57	.51	.25	.39
3	2.3	1.9	5.2	4.4	4.6	40	3.8	1.2	.51	.25	.31	.30
4	2.3	1.9	5.2	4.6	5.0	28	3.5	1.2	.38	.52	.13	.20
5	2.2	1.9	5.0	4.6	4.9	57	3.4	.91	.38	.60	.13	.16
6	2.2	9.6	4.9	4.5	4.6	22	3.4	.84	.38	.50	.43	.13
7	2.2	9.0	4.8	4.5	4.7	11	3.0	1.2	.68	.35	.58	.12
8	2.2	7.0	4.7	4.8	4.3	8.7	3.1	1.2	.45	.26	.46	.11
9	2.2	6.6	4.6	6.0	5.1	7.9	3.4	.93	.42	.22	.35	.10
10	2.2	6.4	4.5	5.6	11	8.9	3.6	.97	.35	.20	.21	.10
11	2.1	6.2	4.2	6.4	12	7.5	3.4	1.1	.26	.19	.10	.09
12	2.1	6.2	4.1	6.4	7.4	6.7	3.9	.65	.25	.18	.16	.09
13	2.1	6.2	4.2	6.0	6.3	6.5	3.9	.66	.55	.15	.10	.09
14	2.1	6.2	4.5	6.3	5.6	6.4	3.9	.72	.25	.14	.10	.08
15	2.1	6.2	4.5	5.9	5.3	6.4	4.5	.73	.25	.13	.11	.08
16	2.1	6.2	4.8	8.2	5.0	6.0	4.5	.74	.23	.12	.13	.08
17	2.1	6.2	4.9	7.9	5.6	5.9	4.6	.74	.20	.11	.28	.08
18	2.1	6.2	4.9	7.1	5.5	5.4	4.3	1.1	.22	.10	.40	.07
19	2.1	6.2	4.5	5.7	5.1	4.8	4.0	1.3	.19	.10	.52	.07
20	2.1	6.2	4.0	5.3	5.1	4.4	3.8	1.7	.19	.09	.31	.07
21	2.1	6.0	4.5	5.3	4.8	4.4	3.5	1.9	.23	.09	.53	.07
22	2.1	6.0	4.9	5.1	4.9	4.5	3.0	1.1	.31	.09	.60	.07
23	2.0	6.0	4.5	5.3	5.0	4.3	3.0	.65	.23	.09	.28	.06
24	2.0	6.0	4.5	5.4	5.2	3.9	2.6	.37	.21	.09	.38	.06
25	2.0	6.0	4.8	5.3	5.3	3.9	2.4	.49	.56	.09	.19	.06
26	2.0	6.0	4.7	5.3	4.4	4.2	2.8	.59	.66	.10	.21	.08
27	2.0	5.8	4.8	5.4	4.5	3.7	2.7	.93	.73	.10	.43	.10
28	2.0	5.8	5.0	5.5	12	3.7	2.6	.89	.91	.11	.51	.19
29	2.0	5.6	4.8	5.6	-----	4.1	2.9	.59	.93	.12	.60	.19
30	2.0	5.6	4.4	5.8	-----	4.3	2.8	.61	.38	.12	.67	.31
31	2.0	-----	4.2	5.1	-----	4.2	-----	.64	-----	.13	.61	-----
TOTAL	65.6	169.0	145.6	172.1	163.6	373.7	103.9	30.15	12.22	6.06	10.21	4.10
MEAN	2.12	5.63	4.70	5.55	5.84	12.1	3.46	.97	.41	.20	.33	.14
MAX	2.3	9.6	5.6	8.2	12	62	4.6	2.2	.93	.60	.67	.50
MIN	2.0	1.9	4.0	4.3	4.3	3.7	2.4	.37	.19	.09	.10	.06
AC-FT	130	335	289	341	325	741	206	60	24	12	20	8.1

CAL YR 1969 TOTAL 39,146.9 MEAN 107 MAX 6,600 MIN 1.4 AC-FT 77,650
WTR YR 1970 TOTAL 1,256.24 MEAN 3.44 MAX 62 MIN .06 AC-FT 2,490

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

SAN JUAN CREEK BASIN

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	3.5	6.1	5.5	5.3	23	3.8	2.2	.76	.30	.87	.60
2	4.6	3.5	5.9	5.3	5.1	62	3.8	1.3	.97	.69	.47	.49
3	4.7	3.4	5.8	5.4	4.6	40	3.8	1.2	.91	.71	.39	.40
4	4.8	3.4	5.9	5.6	5.0	28	3.5	1.5	.78	1.2	.38	.30
5	4.8	3.7	5.6	5.6	4.9	57	3.4	1.8	.78	.72	.35	.26
6	4.9	12	5.4	5.5	4.6	22	3.4	1.8	.78	.66	.67	.23
7	4.6	10	5.4	5.5	4.7	11	3.0	2.4	1.1	.45	.75	.22
8	4.4	7.9	5.2	5.8	4.3	8.7	3.1	2.7	.85	.37	.62	.21
9	4.6	7.5	5.0	7.2	5.1	7.9	3.4	2.3	.82	.52	.36	.16
10	4.7	7.2	4.9	6.6	11	8.9	3.6	2.2	.72	.90	.21	.10
11	4.6	7.0	4.6	7.4	12	7.5	3.4	2.0	.69	.90	.18	.09
12	4.7	7.0	4.4	7.5	7.4	6.7	3.9	1.2	.85	1.0	.28	.09
13	4.5	7.1	4.5	6.9	6.3	6.5	3.9	1.2	1.5	1.0	.30	.09
14	4.3	7.1	4.8	7.1	5.6	6.4	3.9	1.3	1.1	.68	.25	.08
15	4.4	7.1	4.8	6.7	5.3	6.4	4.5	1.3	.99	.58	.25	.08
16	4.3	7.0	5.3	9.2	5.0	6.0	4.5	1.3	1.0	.58	.34	.08
17	4.1	6.9	5.8	9.2	5.6	5.9	4.6	1.3	1.1	.48	.51	.20
18	4.2	7.0	5.9	8.2	5.5	5.4	4.3	1.6	1.1	.37	.60	.54
19	4.2	7.1	5.4	6.5	5.1	4.8	4.0	1.8	.81	.42	.72	.51
20	4.0	7.3	5.0	5.9	5.1	4.4	3.8	2.2	.84	.42	.51	.72
21	3.9	7.1	5.6	5.9	4.8	4.4	3.5	2.4	.96	.53	.73	.80
22	3.8	7.0	6.0	5.8	4.9	4.5	3.0	1.6	.81	.50	.80	.79
23	3.4	6.9	5.5	6.0	5.0	4.3	3.0	1.2	.45	.34	.48	.79
24	2.8	6.8	5.5	6.1	5.2	3.9	2.6	.87	.41	.31	.58	.80
25	2.8	6.8	5.8	6.0	5.3	3.9	2.4	.99	.87	.34	.39	.82
26	2.8	6.8	5.7	6.0	4.4	4.2	2.8	.99	.94	.29	.31	.71
27	2.4	6.6	5.8	5.7	4.5	3.7	2.7	1.3	1.1	.23	.53	.63
28	2.1	6.4	6.0	5.5	12	3.7	2.6	1.3	1.4	.20	.61	.62
29	3.0	6.2	5.8	5.6	-----	4.1	2.9	.99	1.1	.20	.70	.58
30	3.4	6.2	5.4	5.8	-----	4.3	2.8	1.0	.49	.25	.77	.71
31	3.4	-----	5.2	5.1	-----	4.2	-----	1.0	-----	.31	.71	-----
TOTAL	123.5	199.5	168.0	196.1	163.6	373.7	103.9	48.24	26.98	16.45	15.62	12.70
MEAN	3.98	6.65	5.42	6.33	5.84	12.1	3.46	1.56	.90	.53	.50	.42
MAX	4.9	12	6.1	9.2	12	62	4.6	2.7	1.5	1.2	.87	.82
MIN	2.1	3.4	4.4	5.1	4.3	3.7	2.4	.87	.41	.20	.18	.08
AC-FT	245	396	333	389	325	741	206	96	54	33	31	25

CAL YR 1969 TOTAL 39,435.40 MEAN 108 MAX 6,600 MIN 2.0 ACFT 78,220
WAT YR 1970 TOTAL 1,448.29 MEAN 3.97 MAX 62 MIN .08 ACFT 2,870

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

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.--40 years, 5.84 cfs (4,230 acre-ft per year); median of yearly mean discharges, 0.5 cfs (360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27 cfs Mar. 5 (gage height 2.47 ft); no flow many days. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	.60	.20	2.2	.10	2.1	5.6	2.5	.10	0	0	0
2	5.0	.40	.30	2.2	.30	10	5.6	.50	0	0	0	0
3	2.9	.30	.80	2.9	3.3	10	5.6	.20	0	0	0	0
4	2.7	.10	.50	1.3	2.4	8.0	5.6	.30	0	0	.10	0
5	2.2	.10	.30	1.8	.50	18	3.1	1.3	0	0	.20	0
6	2.4	1.6	.70	3.5	.30	12	3.4	.70	0	0	.10	0
7	3.1	2.7	.50	4.5	.10	7.8	4.2	.60	0	0	0	0
8	3.1	1.1	.50	4.8	0	6.0	3.7	1.2	0	0	0	0
9	3.8	.90	1.7	4.8	0	4.8	4.0	.50	0	0	0	0
10	3.1	1.1	2.2	2.3	1.8	5.7	3.1	0	.10	0	0	0
11	4.0	.70	3.6	.40	2.0	6.2	2.8	0	0	0	0	0
12	3.5	.60	3.3	.50	.50	6.4	1.8	.50	0	0	0	.10
13	3.6	.40	1.8	1.0	1.4	5.9	2.2	.60	0	0	0	.10
14	3.5	.30	1.1	1.4	.90	4.2	4.0	.70	0	.10	0	.10
15	2.7	.20	1.3	2.4	.40	3.6	3.1	.40	0	0	0	.20
16	1.2	.10	2.9	1.3	.50	3.5	3.6	0	0	0	0	0
17	.70	.20	3.5	.50	1.9	5.2	3.9	0	.10	0	0	0
18	.50	.20	5.6	.40	2.2	4.8	2.0	0	0	0	.10	0
19	.60	.30	7.3	.40	1.7	4.9	1.1	0	0	0	.30	0
20	.50	.40	5.8	1.5	1.7	5.0	.40	.30	0	0	.40	0
21	.30	.50	2.0	2.7	1.2	4.2	1.7	.20	0	.20	.20	0
22	.20	.70	1.9	3.8	1.5	3.9	3.1	.20	0	0	.10	0
23	.30	.50	3.3	3.5	.90	4.0	3.0	0	0	0	.10	.30
24	.20	.30	3.0	2.2	2.4	4.9	3.1	0	0	0	.30	1.4
25	.20	.30	.90	1.2	2.1	4.3	2.1	0	0	0	.10	.40
26	.30	.40	.70	1.3	2.1	3.6	.80	0	0	0	0	0
27	.30	.30	2.0	2.4	1.6	3.7	1.5	.10	0	0	0	0
28	.30	.20	2.0	2.9	2.1	3.7	2.7	.10	0	0	0	.10
29	.40	.20	.90	2.6	-----	2.6	2.5	.20	0	0	0	.10
30	.50	.20	3.1	3.6	-----	2.7	2.6	0	0	0	0	.10
31	.60	-----	4.3	1.0	-----	5.2	-----	0	-----	0	0	-----
TOTAL	58.50	15.90	68.00	67.30	35.90	176.9	91.90	11.10	.30	.30	2.00	2.90
MEAN	1.89	.53	2.19	2.17	1.28	5.71	3.06	.36	.010	.009	.065	.097
MAX	5.8	2.7	7.3	4.8	3.3	18	5.6	2.5	.10	.20	.40	1.4
MIN	.20	.10	.20	.40	0	2.1	.40	0	0	0	0	0
AC-FT	116	32	135	133	71	351	182	22	.6	.6	4.0	5.8
CAL YR 1969	TOTAL	20,193.80	MEAN	55.3	MAX	3,360	MIN	0	ACFT	40,050		
WAT YR 1970	TOTAL	531.00	MEAN	1.45	MAX	18	MIN	0	ACFT	1,050		

SAN JUAN CREEK BASIN

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 September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (from topographic map).

EXTREMES.--Maximum discharge during period December 1969 to September 1970, 251 cfs Mar. 1 (gage height, 3.72 ft); no flow for many days.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			.10	0	.20	33	.40	.30	0	0		
2			.10	0	.20	24	.40	.20	0	0		
3			.10	0	.50	7.1	.40	.30	0	0		
4			.10	0	.60	28	.40	.20	0	0		
5			.10	1.3	.30	15	.20	.20	0	0		
6			.10	0	.30	.60	.20	.30	0	0		
7			.10	0	.30	.60	.10	.40	0	.10		
8			1.8	0	.50	.60	.10	.60	0	0		
9			.20	3.5	.60	1.0	.10	.60	.20	0		
10			.10	7.7	27	3.1	.20	.60	.20	.10		
11			0	14	3.2	1.5	.20	.60	.20	0		
12			0	3.7	1.9	1.1	.20	.50	.10	0		
13			0	.40	2.2	.80	.30	.50	.20	0		
14			0	1.1	1.9	.80	.30	.30	.10	0		
15			0	1.9	1.9	.80	.30	.20	.10	6.8		
16			0	16	1.9	.70	.30	.10	.20	0		
17			.10	.10	1.5	.80	.40	.20	.20	0		
18			.10	0	1.3	.80	.40	.10	0	0		
19			.10	.20	1.3	.60	.30	.40	0	0		
20			.10	.20	1.3	.50	.30	.20	0	0		
21			.30	.30	1.3	.60	.30	.20	0	0		
22			.40	.50	1.3	.70	.20	.30	0	0		
23			.30	.40	1.3	.50	.20	.20	0	0		
24			.30	.40	1.5	.60	.20	0	0	0		
25			.40	.30	1.3	.60	.20	.10	0	0		
26			.60	.30	1.5	.60	.40	.20	0	0		
27			.50	.20	1.5	.40	.70	.30	0	0		
28			.40	.30	17	.40	.60	.30	0	0		
29			.10	.20	-----	.40	.40	.20	0	0		
30			0	.20	-----	.40	.40	.10	0	0		
31		-----	.10	.20	-----	.80	-----	0	-----	0		-----
TOTAL	---	---	6.60	53.40	75.60	127.40	9.10	8.70	1.50	7.00	0	0
MEAN			.21	1.72	2.70	4.11	.30	.28	.050	.23	0	0
MAX			1.8	16	27	33	.70	.60	.20	6.8	0	0
MIN			0	0	.20	.40	.10	0	0	0	0	0
AC-FT			13	106	150	253	18	17	3.0	14	0	0

11047500 ALISO CREEK AT EL TORO, CALIF.

LOCATION.--Lat 33°37'34", long 117°41'03", in Canada de los Alisos Grant, Orange County, near center of channel on upstream side of Second Street bridge at El Toro.

DRAINAGE AREA.--7.97 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 440 ft (from topographic map). Prior to July 1962, at different datum.

EXTREMES --Current year: Maximum discharge, 95 cfs Mar. 4 (gage height, 2.09 ft); no flow most of year.
Period of record: Maximum discharge, 2,500 cfs Feb. 24, 1969 (gage height, 11.00 ft, from floodmark), from rating curve extended above 220 cfs on basis of slope-area measurement of maximum flow; no flow most of each year.

REMARKS.--No regulation or diversion above station; some pumping from wells along stream. At times since 1964, Metropolitan Water District has wasted water to creek.

COOPERATION.--Records furnished by Orange County Flood Control District.

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		0		0	0	4.4						
2		0		0	0	1.5						
3		0		0	0	.10						
4		0		0	0	10						
5		0		0	0	1.5						
6		0		0	0	.60						
7		.60		0	0	.50						
8		.10		0	0	.20						
9		0		0	0	.20						
10		0		0	.40	0						
11		0		0	.20	.50						
12		0		0	0	.50						
13		0		0	0	.20						
14		0		0	0	0						
15		0		.40	0	.50						
16		0		0	0	.20						
17		0		0	0	0						
18		0		0	0	.10						
19		0		0	0	0						
20		0		0	0	0						
21		0		0	0	0						
22		0		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	.10	0						
28		0		0	1.3	0						
29		0		0	-----	0						
30		0		0	-----	0						
31		-----		0	-----	0	-----		-----			-----
TOTAL	0	.70	0	.40	2.00	21.00	0	0	0	0	0	0
MEAN	0	.023	0	.013	.071	.68	0	0	0	0	0	0
MAX	0	.60	0	.40	1.3	10	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	1.4	0	.8	4.0	42	0	0	0	0	0	0
CAL YR 1969	TOTAL	2,133.20	MEAN	5.84	MAX	500	MIN	0	ACFT	4,230		
WAT YR 1970	TOTAL	24.10	MEAN	.066	MAX	10	MIN	0	ACFT	48		

PETERS CANYON WASH BASIN

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.--21 years, 3.06 cfs (2,220 acre-ft per year); median of yearly mean discharges, 1.4 cfs (1,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,060 cfs Mar. 4 (gage height, 4.34 ft); no flow for some days. 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 most of each year.

REMARKS.--Records good. Pumping from wells along stream causes low-flow fluctuation in discharge.

COOPERATION.--Seven discharge measurements furnished by Orange County Flood Control District.

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	.37	1.6	.94	.82	.11	29	.01	.40	1.7	1.1	.56	.43
2	.72	1.8	.81	1.1	.45	64	.02	.35	2.3	.81	.70	.48
3	1.3	.90	.56	1.1	.56	1.3	0	.35	2.2	1.2	.69	.35
4	1.0	1.3	.53	1.2	.32	78	0	.35	1.2	1.0	.59	.46
5	1.1	1.4	.87	1.4	.33	75	0	.11	.46	1.1	.99	.43
6	1.1	26	.54	1.3	.13	1.0	.01	.30	.62	1.3	.98	.32
7	1.5	34	.52	1.7	.08	0	.01	.41	.51	1.9	.81	.49
8	1.5	.57	1.0	2.1	.08	0	0	.43	.54	1.1	.69	.28
9	1.2	.52	.84	4.3	.21	0	0	.62	.93	1.7	.75	.33
10	.83	.54	.92	3.0	15	0	.01	.46	.67	1.9	.68	.22
11	1.4	.46	1.1	4.5	9.2	0	0	.49	.50	1.8	.75	.32
12	1.2	.44	.99	1.4	1.3	0	0	.63	1.0	1.8	.66	.10
13	2.1	.44	1.1	.70	1.0	0	0	.68	1.1	1.4	.75	.09
14	2.0	.44	.63	.86	.91	0	0	.74	.73	1.1	.70	.08
15	1.6	.44	.83	.66	.72	0	0	.89	.68	1.3	.28	.03
16	1.4	.44	.76	8.4	.51	0	0	.67	.81	1.4	.31	.22
17	1.7	.40	.87	2.1	.33	0	0	.96	1.1	1.2	.34	.21
18	.91	.36	1.0	.04	.24	0	0	1.3	.75	1.0	.40	.14
19	.94	.47	1.2	.01	.13	0	0	1.4	.51	.79	.49	.13
20	1.2	.79	1.3	0	.05	0	0	1.8	.60	.54	.63	.14
21	1.2	.59	.96	.59	.03	0	.01	1.2	.74	.58	.51	.17
22	1.7	.66	1.2	.45	.02	.05	.02	.86	.69	.83	.47	.12
23	1.4	.52	1.3	.44	.01	.13	.03	1.3	.68	.88	.53	.12
24	1.5	.51	1.1	.37	.01	.03	.04	1.2	.93	.50	.42	.21
25	1.2	.67	.72	.19	.30	.07	.05	1.3	.94	.36	.40	.29
26	1.0	1.5	.72	.34	.75	.20	.06	1.7	.66	.66	.36	.39
27	.97	.94	.72	.26	.71	.03	.07	2.2	.88	.73	.55	.36
28	.84	.77	.72	.23	19	.04	.08	2.3	1.2	.95	.51	.39
29	1.0	1.2	1.3	.37	-----	.01	.09	2.2	1.3	1.3	.47	.45
30	1.4	1.2	2.3	.34	-----	.69	.45	2.3	1.2	1.3	.37	.41
31	1.2	-----	1.6	.41	-----	.86	-----	2.1	-----	.56	.24	-----
TOTAL	38.48	86.87	29.95	40.68	52.49	250.41	0.96	32.00	28.13	34.09	17.58	8.16
MEAN	1.24	2.90	.97	1.31	1.87	8.08	.032	1.03	.94	1.10	.57	.27
MAX	2.1	39	2.3	8.4	19	78	.45	2.3	2.3	1.9	.99	.49
MIN	.37	.36	.52	0	.01	0	0	.11	.46	.36	.24	.03
AC-FT	76	172	59	81	104	497	1.9	63	56	68	35	16
CAL YR 1969	TOTAL	3,046.02	MEAN	22.0	MAX	2,170	MIN	0	AC-FT	15,960		
WTR YR 1970	TOTAL	619.80	MEAN	1.70	MAX	78	MIN	0	AC-FT	1,230		

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-6	1530	2.74	254	3-4	2315	4.34	1,060
2-10	2130	2.19	103				

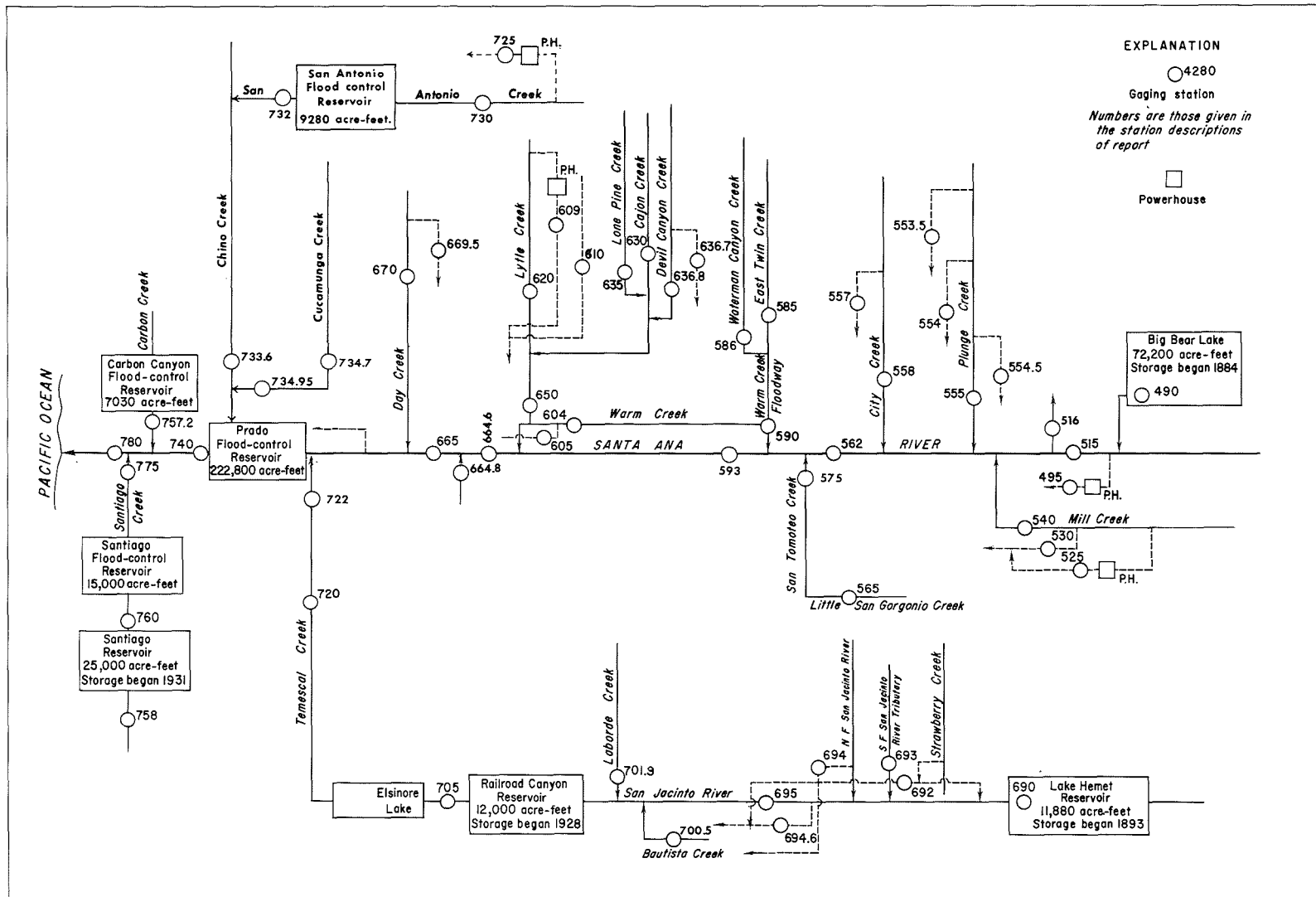


Figure 3-- Schematic diagram showing diversions and storage in Santa Ana River basin.

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, 65,100 acre-ft Mar. 31 to Apr. 30; minimum contents, 60,900 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 1969 TO SEPTEMBER 1970

Date	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	65,100	-
Oct. 31.....	63,400	-1,700
Nov. 30.....	63,300	-100
Dec. 31.....	63,300	0
CAL YR 1969.....	-	+23,500
Jan. 31.....	63,400	+100
Feb. 28.....	63,400	0
Mar. 31.....	65,100	+1,700
Apr. 30.....	65,100	0
May 31.....	64,200	-900
June 30.....	63,200	-1,000
July 31.....	62,100	-1,100
Aug. 31.....	62,100	0
Sept. 30.....	60,900	-1,200
WTR YR 1970.....	-	-4,200

11051500 SANTA ANA RIVER NEAR MENTONE, CALIF.

LOCATION.--Lat 34°06'30", long 117°05'59", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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-stage 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).--56 years (1914-70), 33.7 cfs (24,420 acre-ft per year); median of yearly mean discharges, 9.7 cfs (7,000 acre-ft per year).
(Combined river and canal).--74 years, 82.6 cfs (59,840 acre-ft per year); median of yearly mean discharges, 67 cfs (48,500 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 1,380 cfs Feb. 28 (gage height, 4.13 ft), from rating curve extended above 350 cfs; minimum daily, 0.10 cfs July 28 to Aug. 26.

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, 1,380 cfs Feb. 28; minimum daily, 22 cfs Aug. 8-11. Period of Record: Maximum discharge, 52,300 cfs Mar. 2, 1938; minimum daily, 3 cfs Nov. 21, 22, 1909.

Flood of Feb. 23, 1891, 53,700 cfs, from notes furnished by F. C. Finkle, consulting engineer, Los Angeles.

REMARKS.--Records good. 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 1,486 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.--Twelve 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	63	59	48	50	369	58	56	2.7	.44	.10	.80
2	91	62	57	47	49	245	58	55	2.3	.44	.10	.80
3	88	61	56	47	48	89	58	54	1.8	.44	.10	.80
4	87	60	56	48	47	76	58	53	1.5	.44	.10	.80
5	87	59	55	47	48	90	57	53	1.4	.44	.10	.80
6	87	70	55	47	47	73	57	52	1.4	.44	.10	.80
7	85	114	55	47	46	67	57	52	1.4	.44	.10	.70
8	85	70	54	47	46	65	58	52	1.4	.44	.10	.70
9	82	70	54	47	45	62	56	51	1.3	.44	.10	.70
10	82	74	54	63	53	81	56	51	1.3	.44	.10	.70
11	81	70	54	59	62	69	57	50	1.2	.44	.10	.70
12	81	66	54	59	54	63	57	50	1.2	.44	.10	.70
13	80	64	53	55	52	59	57	50	1.1	.39	.10	.60
14	80	62	53	54	52	61	57	48	1.1	.35	.10	.60
15	79	64	52	54	50	62	58	44	.98	.35	.10	.60
16	79	67	52	62	49	62	58	42	.98	.35	.10	.60
17	78	64	52	70	49	62	59	42	.90	.31	.10	.60
18	77	64	52	59	49	62	58	28	.90	.31	.10	.60
19	76	65	51	55	50	71	54	5.3	.82	.31	.10	.50
20	75	64	51	54	51	113	54	4.3	.82	.31	.10	.50
21	74	62	50	52	49	148	55	4.1	.75	.27	.10	.50
22	73	61	50	52	49	104	59	3.9	.75	.27	.10	.50
23	72	61	50	52	48	69	59	3.4	.68	.23	.10	.50
24	71	60	49	52	46	67	57	4.1	.68	.20	.10	.50
25	70	60	49	52	45	66	55	4.3	.61	.17	.10	.40
26	69	59	49	52	44	63	54	4.5	.55	.13	.10	.40
27	68	57	48	51	44	62	62	4.3	.55	.11	1.5	.40
28	67	58	48	51	269	61	61	4.3	.49	.10	1.1	.40
29	66	61	48	51	-----	61	58	4.1	.49	.10	.90	.40
30	65	61	48	50	-----	63	58	3.2	.49	.10	.90	.40
31	64	-----	48	50	-----	64	-----	2.9	-----	.10	.90	-----
TOTAL	2,412	1,953	1,616	1,634	1,591	2,729	1,720	935.7	32.54	9.74	7.90	18.00
MEAN	77.8	65.1	52.1	52.7	56.8	88.0	57.3	30.2	1.08	.31	.25	.60
MAX	93	114	59	70	269	369	62	56	2.7	.44	1.5	.80
MIN	64	57	48	47	44	59	54	2.9	.49	.10	.10	.40
AC-FT	4,780	3,870	3,210	3,240	3,160	5,410	3,410	1,860	65	19	16	36

CAL YR 1969 TOTAL 109,236.02 MEAN 299 MAX 5,720 MIN 0 ACFT 216,700
WAT YR 1970 TOTAL 14,658.88 MEAN 40.2 MAX 369 MIN .10 ACFT 29,080

PEAK DISCHARGE (BASE, 150 CFS) NOTE.--No gage-height record July 28 to Sept. 30.
DATE TIME G.H. DISCHARGE DATE TIME G.H. DISCHARGE
11- 7 0200 2.75 355 3-21 1200 2.52 181
2-28 1900 4.13 1,380

SANTA ANA RIVER BASIN

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	67	64	53	55	369	63	62	44	28	24	32
2	94	66	62	52	54	245	63	61	42	27	24	32
3	91	65	61	52	53	90	63	60	42	26	23	31
4	90	64	61	53	52	79	63	59	42	26	23	31
5	90	63	60	52	53	93	62	59	41	26	24	31
6	90	75	60	52	52	76	62	58	40	25	24	31
7	89	116	60	52	50	70	62	58	40	25	23	31
8	90	72	59	52	50	68	63	58	41	27	22	30
9	87	72	59	52	49	65	61	57	40	31	22	29
10	87	76	59	67	57	84	60	57	41	29	22	29
11	86	72	59	62	65	72	61	55	39	28	22	32
12	86	68	59	63	57	66	61	56	39	28	23	36
13	86	66	58	60	55	62	62	56	40	26	28	37
14	86	64	58	59	55	64	62	54	39	26	30	37
15	85	66	57	59	53	65	63	52	39	26	28	36
16	84	70	57	67	52	65	63	56	38	24	35	35
17	83	66	57	75	52	65	64	55	37	29	34	34
18	82	66	57	64	52	66	63	55	36	34	32	33
19	81	67	56	60	53	75	60	48	35	29	29	32
20	80	66	56	59	54	117	60	48	34	27	28	32
21	79	64	55	57	52	152	61	48	33	28	27	30
22	79	64	55	57	52	108	66	47	32	27	26	30
23	78	64	55	57	52	73	65	46	32	26	26	28
24	77	63	54	57	50	71	63	47	31	26	26	28
25	76	65	54	57	49	70	61	48	30	26	26	28
26	75	64	54	57	48	67	60	48	29	26	32	27
27	73	62	53	56	48	67	67	49	29	26	44	27
28	71	63	53	56	271	66	66	50	28	26	37	27
29	70	66	53	56	-----	66	63	49	28	26	34	28
30	69	66	53	55	-----	68	63	45	28	26	33	28
31	68	-----	53	55	-----	69	-----	45	-----	25	31	-----
TOTAL	2,558	2,048	1,771	1,785	1,695	2,833	1,876	1,646	1,089	835	862	932
MEAN	82.5	68.3	57.1	57.6	60.5	91.4	62.5	53.1	36.3	26.9	27.8	31.1
MAX	96	116	64	75	271	369	67	62	44	34	44	37
MIN	68	62	53	52	48	62	60	45	28	24	22	27
AC-FT	5,070	4,060	3,510	3,540	3,360	5,620	3,720	3,260	2,160	1,660	1,710	1,850

CAL YR 1969 TOTAL 110,275 MEAN 302 MAX 5,750 MIN 21 ACFT 218,700
WAT YR 1970 TOTAL 19,930 MEAN 54.6 MAX 369 MIN 22 ACFT 39,530

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-7	0200	-	357	3-21	1200	-	185
2-28	1900	-	1,380				

11051600 SANTA ANA RIVER SPREADING DIVERSION NEAR MENTONE, CALIF.

LOCATION.--Lat 34°06'12", long 117°06'37", in SW¼NW¼NE¼ 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 north-east 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.

MONTHLY AND YEARLY DISCHARGE IN ACRE-FEET

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	YEARLY
1952	0	0	484	2,670	1,350	2,940	822	513	6.7	0	0	0	8,790
1953	0	367	767	1,220	93	137	58	11	0	0	0	0	2,650
1954	0	0	0	592	1,290	1,580	3,210	0	0	0	0	0	6,670
1955	0	147	384	847	1,240	1,100	0	42	0	0	0	0	3,760
1956	0	0	0	466	696	51	21	0	0	0	0	0	1,230
1957	0	0	0	852	949	980	46	91	4.4	0	0	0	2,920
1958	0	175	567	316	2,030	2,860	4,190	1,350	0	0	.4	0	11,490
1959	0	0	0	100	722	326	0	0	0	0	1.2	0	1,150
1960	0	10	130	191	715	787	95	9.1	0	0	0	0	1,940
1961	0	55	0	8.9	0	0	0	0	0	0	.2	0	64
1962	0	0	251	179	1,680	1,610	996	40	0	0	0	0	4,760
1963	0	0	0	0	199	63	178	13	0	0	0	137	590
1964	0	116	0	153	52	187	547	44	0	0	0	0	1,100
1965	0	0	120	145	37	80	2,930	152	0	0	0	0	3,460
1966	0	849	1,530	1,990	1,030	71	34	0	.8	0	0	0	5,510
1967	0	0	2,270	1,800	1,220	1,350	2,190	2.0	.6	210	0	0	9,040
1968	0	881	1,280	1,310	820	1,420	712	0	12	3.8	3.0	0	6,430
1969	0	0	129	1,030	2,620	4,350	6,280	6,830	5,620	3,590	1,680	1,690	33,820

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	24	2.0	21	18	24	129	25	6.6				
2	24	2.0	18	21	16	126	17	1.5				
3	24	2.0	14	29	10	90	7.2	0				
4	24	1.5	9.1	29	9.6	79	3.4	0				
5	24	1.5	6.2	28	6.2	96	3.0	0				
6	24	3.0	6.2	23	4.7	80	3.0	0				
7	18	50	6.2	10	2.6	75	1.8	0				
8	11	60	11	9.6	1.8	71	0	0				
9	10	55	18	9.6	1.8	55	0	0				
10	10	57	14	14	24	65	0	0				
11	10	54	11	14	48	63	0	0				
12	10	50	11	19	41	61	0	0				
13	10	47	11	18	39	52	0	0				
14	10	45	11	18	35	48	0	0				
15	10	46	13	18	33	48	0	0				
16	10	50	18	29	33	47	0	0				
17	10	46	18	36	33	46	0	0				
18	10	46	18	31	32	43	0	0				
19	10	46	13	33	33	40	0	0				
20	10	42	11	35	32	39	0	0				
21	10	38	11	33	29	37	0	0				
22	10	37	15	33	28	36	0	0				
23	10	36	24	33	28	36	0	0				
24	10	34	27	33	24	36	0	0				
25	10	33	27	33	9.1	29	0	0				
26	10	33	24	34	6.6	21	0	0				
27	18	33	22	35	6.6	24	0	0				
28	18	33	28	20	51	30	0	0				
29	18	27	28	11	-----	30	0	0				
30	18	23	25	11	-----	30	3.6	0				
31	18	-----	23	18	-----	29	-----	0	-----			-----
TOTAL	443	1,033.0	512.7	736.2	642.0	1,691	64.0	8.1	0	0	0	0
MEAN	14.3	34.4	16.5	23.7	22.9	54.5	2.13	.26	0	0	0	0
MAX	24	60	28	36	51	129	25	6.6	0	0	0	0
MIN	10	1.5	6.2	9.6	1.8	21	0	0	0	0	0	0
AC-FT	879	2,050	1,020	1,460	1,270	3,350	127	16	0	0	0	0

CAL YR 1969 TOTAL 18,974.0 MEAN 52.0 MAX 125 MIN 0 ACFT 37,630
 WAT YR 1970 TOTAL 5,130.0 MEAN 14.1 MAX 129 MIN 0 ACFT 10,180

SANTA ANA RIVER BASIN

11054000 MILL CREEK NEAR YUCAIPA, CALIF.

LOCATION.--Lat 34°05'27", long 117°02'12", in NW¼NE¼NE¼ 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 (revised).

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 WS 1735 for history of changes prior to Mar. 2, 1938.

AVERAGE DISCHARGE (Creek only).--42 years, 14.2 cfs (10,290 acre-ft per year); median of yearly mean discharges, 1.4 cfs (1,000 acre-ft per year).

(Combined creek and canals).--42 years, 35.1 cfs (25,430 acre-ft per year); median of yearly mean discharges, 23 cfs (16,700 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 136 cfs Mar. 1 (gage height, 7.03 ft); minimum daily, 0.02 cfs July 14-18, Sept. 19-30.

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, 158 cfs Mar. 1; minimum daily, 11 cfs July 10.

Period of record: Maximum discharge, 35,400 cfs Jan. 25, 1969; minimum daily, 2.7 cfs Feb. 23, 1949.

REMARKS.--Records good. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	2.0	1.2	.57	.37	93	1.1	.50	.31	.12	.04	.04
2	12	1.8	.73	.57	.37	58	.96	.50	.25	.09	.04	.04
3	5.4	1.6	.73	.50	.31	22	.43	.50	.74	.09	.04	.04
4	3.9	1.2	.73	.50	.31	5.2	.38	.50	.37	.06	.04	.04
5	3.5	1.1	.82	.57	.31	6.4	.34	.50	.37	.06	.04	.04
6	2.6	6.4	.82	.73	.31	.73	.31	.50	.37	.09	.04	.04
7	2.4	17	.73	.73	.31	.37	.31	.43	.37	.06	.04	.04
8	2.3	9.6	.82	.73	.31	.30	.31	.43	.37	2.7	.04	.04
9	2.3	8.4	.82	.73	.92	.30	.31	.37	.37	3.9	.04	.04
10	1.8	7.6	.73	2.6	1.6	11	.31	.37	.37	.12	.04	.04
11	3.3	5.2	.82	1.6	1.0	5.2	.31	.37	.37	.09	.04	.04
12	5.7	3.9	.73	1.2	2.0	5.9	.31	.37	.37	.06	.04	.06
13	14	5.0	.92	2.4	3.0	6.2	.37	.31	.37	.04	.04	.06
14	14	4.7	1.0	2.3	6.0	6.3	.37	.25	.37	.02	.04	.06
15	14	5.0	1.7	.82	6.0	7.0	.37	.25	.37	.02	.04	.04
16	8.6	5.2	1.0	3.3	7.0	7.4	.37	.25	.37	.02	.04	.04
17	1.6	4.7	.65	7.0	8.0	8.1	.37	.31	.31	.02	.04	.04
18	1.4	5.0	.65	1.6	11	9.4	.37	1.0	.31	.02	.04	.04
19	1.4	13	.73	.82	12	9.8	.37	.50	.31	.04	.04	.02
20	1.6	19	.50	6.4	12	9.9	.37	.37	.37	.04	.04	.02
21	1.6	19	.50	12	11	8.7	.50	.16	.43	.06	.04	.02
22	1.4	19	.50	4.7	10	6.6	.57	.16	.37	.09	.04	.02
23	1.3	19	.50	.25	9.0	6.2	.50	.16	.31	.09	.04	.02
24	1.3	19	.57	.37	9.0	5.3	.43	.16	.25	.09	.04	.02
25	1.3	12	.73	.37	9.0	5.1	.43	.16	.25	.09	.04	.02
26	1.4	4.1	3.9	.37	10	4.8	.43	.16	.25	1.4	.04	.02
27	1.4	3.7	6.4	.37	10	4.5	.73	.16	.20	1.8	.04	.02
28	1.3	3.7	5.2	.37	12	4.3	.50	.16	.20	.06	.04	.02
29	1.6	2.9	3.7	.31	-----	3.8	.50	.31	.20	.04	.04	.02
30	1.8	1.4	2.3	.31	-----	2.7	.50	.37	.20	.04	.04	.02
31	2.2	-----	1.0	.37	-----	2.0	-----	.31	-----	.04	.04	-----
TOTAL	127.4	231.2	42.13	55.46	153.12	326.50	13.43	10.85	10.07	11.46	1.24	1.02
MEAN	4.11	7.71	1.36	1.79	5.47	10.5	.45	.35	.34	.37	.040	.034
MAX	14	19	6.4	12	12	93	1.1	1.0	.74	3.9	.04	.06
MIN	1.3	1.1	.50	.25	.31	.30	.31	.16	.20	.02	.04	.02
AC-FT	253	459	84	110	304	648	27	22	20	23	2.5	2.0

CAL YR 1969 TOTAL 65,151.57 MEAN 178 MAX 5,310 MIN .02 ACFT 129,200
WAT YR 1970 TOTAL 983.88 MEAN 2.70 MAX 93 MIN .02 ACFT 1,950

PEAK DISCHARGE (BASE, 50 CFS).--Mar. 1 (0600) 136 cfs (7.03 ft).

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	40	33	38	30	115	33	32	28	24	24	24
2	43	40	39	38	30	77	33	32	28	24	23	24
3	46	40	39	36	30	51	32	32	27	24	23	23
4	47	39	39	32	30	42	31	32	28	24	23	24
5	46	39	39	32	29	47	31	34	29	24	23	23
6	46	39	37	32	29	37	32	34	30	24	23	23
7	45	41	37	33	29	36	33	34	29	24	23	22
8	45	42	37	32	29	36	34	33	30	20	23	22
9	45	41	37	33	31	36	34	33	30	18	22	22
10	45	41	37	39	34	46	34	34	30	11	22	21
11	46	41	37	37	34	41	34	34	30	14	23	21
12	38	40	37	35	33	43	34	34	30	24	23	21
13	39	39	36	35	33	42	34	34	30	23	23	22
14	32	39	36	33	34	43	34	33	30	24	22	22
15	39	39	36	33	34	45	33	33	30	23	23	22
16	48	40	37	38	35	44	33	33	29	23	23	21
17	45	32	37	34	36	45	33	32	28	22	25	21
18	44	28	37	37	39	45	32	32	28	20	32	21
19	44	35	36	34	40	33	32	33	28	21	30	21
20	45	39	34	36	40	37	32	33	25	23	29	21
21	44	39	34	37	39	42	32	34	25	24	28	21
22	42	39	34	31	38	40	32	31	25	24	27	21
23	42	39	34	32	37	39	32	29	27	25	27	21
24	42	39	34	31	37	38	31	30	26	25	27	21
25	42	33	33	32	37	39	30	30	26	25	26	21
26	41	29	34	31	37	40	32	30	26	24	26	21
27	41	28	34	31	37	40	35	31	26	24	27	20
28	41	28	35	30	37	38	34	31	25	24	26	20
29	42	29	35	30	-----	37	32	30	24	24	25	20
30	42	30	34	30	-----	38	32	30	25	24	24	20
31	41	-----	37	30	-----	36	-----	29	-----	24	24	-----
TOTAL	1,331	1,107	1,115	1,042	958	1,368	980	996	832	701	769	647
MEAN	42.9	36.9	36.0	33.6	34.2	44.1	32.7	32.1	27.7	22.6	24.8	21.6
MAX	48	42	39	39	40	115	35	34	30	25	32	24
MIN	32	28	33	30	29	33	30	29	24	11	22	20
AC-FT	2,640	2,200	2,210	2,070	1,900	2,710	1,940	1,980	1,650	1,390	1,530	1,280

CAL YR 1969 TOTAL 74,173 MEAN 203 MAX 5,310 MIN 14 ACFT 147,100
WAT YR 1970 TOTAL 11,846 MEAN 32.5 MAX 115 MIN 11 ACFT 23,500

PEAK DISCHARGE (BASE, 50 CFS).--Mar. 1 (0600) 158 cfs.

SANTA ANA RIVER BASIN

11055500 PLUNGE CREEK NEAR EAST HIGHLANDS, CALIF.

LOCATION.--Lat 34°07'06", long 117°08'27", in SW¼NE¼NE¼ 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).

AVERAGE DISCHARGE (Creek only).--51 years, 6.27 cfs (4,540 acre-ft per year); median of yearly mean discharges, 3.6 cfs (2,600 acre-ft per year).
(Combined creek and diversions).--19 years, 8.09 cfs (5,860 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, 100 cfs (estimated) Mar. 1; no flow many days.
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, 100 cfs (estimated) Mar. 1; minimum daily, 0.87 cfs Sept. 17, 25.
Period of record: Maximum discharge, 4,770 cfs Dec. 6, 1966; no flow Nov. 12, 1964, Sept. 29, 1965.

REMARKS.--Records fair. No regulation above station. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.12	1.1	.26	2.2	50	4.8	.01	.04	0	0	.01
2	.15	.12	1.1	.24	1.1	38	4.8	.01	.04	0	0	.01
3	.14	.12	1.1	.24	.08	30	4.6	.01	.02	.02	0	.01
4	.14	.10	1.1	.24	.07	25	3.4	.01	.01	.08	0	.01
5	.14	.08	1.1	.22	.07	21	2.0	.01	0	.01	0	.01
6	.14	3.9	1.0	.18	.07	18	1.0	.01	0	0	0	.02
7	.14	21	1.0	.18	.05	16	.22	.01	0	.02	0	.02
8	.14	7.3	1.0	.14	.04	15	.12	.01	0	.03	0	.02
9	.14	6.8	1.0	.12	.03	13	.11	.01	0	.02	0	.02
10	.14	6.6	1.0	3.8	7.8	21	.10	.02	0	.02	0	.02
11	.14	6.6	.99	2.4	17	16	.05	.04	0	.02	0	.02
12	.14	6.1	.93	1.6	9.2	13	.04	.05	0	.01	0	.02
13	.14	5.5	.93	.72	9.0	12	.02	.02	0	0	0	.02
14	.13	5.5	.87	.60	9.2	12	.02	.01	.02	0	0	.02
15	.13	5.5	.87	.49	9.0	11	.02	0	.43	0	0	.02
16	.13	5.7	.77	2.0	8.4	8.7	.02	0	.46	0	0	.02
17	.13	5.5	.77	3.7	6.6	8.4	.02	.01	.46	0	0	.02
18	.13	5.5	.77	3.4	6.3	8.1	.02	.03	.46	0	0	.02
19	.13	5.5	.77	3.1	5.9	7.3	.02	0	.46	0	0	.02
20	.13	5.2	.77	3.1	5.9	7.0	.02	0	.20	0	0	.02
21	.13	4.8	.72	2.8	5.9	6.8	.02	0	0	0	0	.02
22	.13	5.2	.72	2.6	5.9	6.6	.02	0	0	0	0	.02
23	.13	5.7	.72	2.6	5.9	5.9	.02	0	0	0	0	.02
24	.13	4.8	.72	2.5	6.1	5.7	.02	0	.02	0	0	.02
25	.12	4.8	.72	2.5	6.1	5.2	.01	0	.03	0	0	.01
26	.12	3.3	.64	2.5	6.1	5.2	.01	0	0	0	0	.01
27	.12	1.1	.49	2.5	6.1	4.8	.01	0	.01	0	0	.01
28	.12	1.1	.43	2.4	18	4.8	.01	0	0	0	0	.01
29	.12	1.1	.77	2.3	-----	4.8	.01	.01	0	0	0	.01
30	.12	1.1	.82	2.3	-----	5.0	.01	.01	0	0	.01	.01
31	.12	-----	.29	2.2	-----	5.9	-----	.02	-----	0	.01	-----
TOTAL	4.11	135.74	25.98	53.93	158.11	411.2	21.54	.31	2.66	.23	.02	.49
MEAN	.13	4.52	.84	1.74	5.65	13.3	.72	.010	.089	.007	.0006	.016
MAX	.15	21	1.1	3.8	18	50	4.8	.05	.46	.08	.01	.02
MIN	.12	.08	.29	.12	.03	4.8	.01	0	0	0	0	.01
AC-FT	8.2	269	52	107	314	816	43	.6	5.3	.5	.04	1.0
CAL YR 1969	TOTAL	15,669.38	MEAN	42.9	MAX	1,840	MIN	0	ACFT	31,080		
WAT YR 1970	TOTAL	814.32	MEAN	2.23	MAX	50	MIN	0	ACFT	1,620		

PEAK DISCHARGE (BASE, 130 CFS).--No peak above base.

NOTE.--No gage-height record Feb. 28 to Mar. 6.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.4	4.0	3.6	2.6	50	4.8	4.0	2.3	1.4	1.0	1.0
2	3.4	3.4	3.7	3.5	2.9	38	4.8	4.1	2.3	1.4	1.0	1.0
3	3.5	3.4	3.7	3.4	2.8	30	4.6	4.1	2.1	1.4	1.0	1.1
4	3.4	3.4	3.7	3.5	2.8	25	4.3	3.5	2.2	1.4	1.0	1.1
5	3.2	3.4	3.9	3.6	2.7	21	4.0	3.4	2.1	1.4	1.0	1.0
6	3.2	8.0	3.7	3.5	2.7	18	3.9	3.6	2.1	1.2	1.0	.94
7	3.2	23	3.6	3.5	2.6	16	4.2	3.6	2.1	1.3	1.0	.94
8	3.2	7.3	3.7	3.3	2.6	15	4.1	3.6	2.2	1.3	1.0	.94
9	3.2	6.8	3.8	3.3	2.6	13	3.9	3.6	2.4	1.3	1.0	.94
10	3.4	6.6	3.9	7.2	8.8	21	3.7	3.7	2.7	1.4	1.0	.94
11	3.5	6.6	3.8	5.8	17	16	3.4	3.4	2.6	1.3	1.0	.90
12	3.4	6.1	3.6	5.3	9.2	13	3.4	3.4	2.5	1.4	.99	.88
13	3.6	5.5	3.6	4.5	9.0	12	3.5	3.3	2.7	1.2	.99	.93
14	3.5	5.5	3.6	4.4	9.2	12	4.0	3.0	2.3	1.2	.99	.96
15	3.6	5.5	3.6	4.3	9.0	11	4.0	2.9	2.1	1.2	.99	.93
16	3.7	5.7	3.4	4.0	8.4	8.7	4.0	2.8	2.8	1.2	.97	.90
17	3.8	5.5	3.4	3.9	6.6	8.4	4.1	2.6	2.8	1.2	.97	.87
18	3.8	5.5	3.5	3.6	6.3	8.1	4.1	2.5	2.6	1.3	.97	.89
19	3.8	5.5	3.5	3.3	5.9	7.3	4.1	2.5	2.3	1.2	.97	.93
20	3.8	5.2	3.4	3.3	5.9	7.0	4.1	2.6	2.0	1.2	.97	.94
21	3.8	4.8	3.4	3.0	5.9	6.8	4.1	2.7	1.7	1.2	.95	.96
22	4.0	5.2	3.4	3.0	5.9	6.6	4.3	2.8	1.8	1.2	.95	.94
23	3.9	5.7	3.4	3.0	5.9	5.9	4.3	2.7	1.7	1.2	.95	.93
24	3.8	4.8	3.4	2.9	6.1	5.7	4.1	2.7	1.6	1.2	.95	.93
25	3.8	4.8	3.4	2.9	6.1	5.2	4.0	2.7	1.4	1.2	.95	.87
26	3.8	5.1	3.3	2.9	6.1	5.2	4.0	2.8	1.5	1.2	.99	.88
27	3.5	3.8	3.5	2.9	6.7	4.8	4.3	3.0	1.5	1.0	1.2	.89
28	3.5	4.0	3.7	2.8	18	4.8	4.3	3.2	1.5	1.0	1.1	.89
29	3.4	3.9	3.9	2.7	-----	4.8	4.3	3.1	1.5	1.2	1.0	.92
30	3.4	4.1	4.1	2.7	-----	5.0	4.2	2.7	1.5	1.0	1.0	.92
31	3.4	-----	3.7	2.6	-----	5.9	-----	2.6	-----	1.0	1.0	-----
TOTAL	109.7	171.5	112.3	112.2	180.3	411.2	122.9	97.2	62.9	38.3	30.85	28.16
MEAN	3.54	5.72	3.62	3.62	6.44	13.3	4.10	3.14	2.10	1.24	1.00	.94
MAX	4.0	23	4.1	7.2	18	50	4.8	4.1	2.8	1.4	1.2	1.1
MIN	3.2	3.4	3.3	2.6	2.6	4.8	3.4	2.5	1.4	1.0	.95	.87
AC-FT	218	340	223	223	358	816	244	193	125	76	61	56

CAL YR 1969 TOTAL 16,478.80 MEAN 45.1 MAX 1,840 MIN 1.5 ACFT 32,690
WAT YR 1970 TOTAL 1,477.51 MEAN 4.05 MAX 50 MIN .87 ACFT 2,930

PEAK DISCHARGE (BASE, 130 CFS).--No peak above base.

SANTA ANA RIVER BASIN

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).--46 years, 10.8 cfs (7,820 acre-ft per year); median of yearly mean discharges, 6.5 cfs (4,700 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 205 cfs Feb. 28 (gage height, 4.24 ft); minimum daily, 0.05 cfs Aug. 8, 9.

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, 208 cfs Feb. 28; minimum daily, 1.4 cfs Sept. 26, 27.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	.78	5.5	.69	4.2	64	2.1	1.8	.85	.62	.11	.13
2	1.0	.76	5.4	.66	4.2	62	1.9	1.7	.77	.60	.11	.14
3	1.3	.79	5.4	.65	4.1	25	1.8	1.6	.77	.66	.10	.13
4	1.1	.80	5.5	.68	4.1	21	1.7	1.6	.81	.66	.10	.13
5	1.0	.82	5.6	.69	4.2	37	1.7	1.5	.82	.99	.10	.14
6	.94	12	5.5	.64	4.1	22	1.6	1.7	.87	.59	.09	.15
7	.93	24	5.6	.67	4.0	17	1.7	1.8	.85	.20	.06	.15
8	.91	9.3	4.0	.68	4.2	15	1.8	1.8	.90	.20	.05	.14
9	.83	7.4	1.5	.68	4.4	13	1.7	1.8	1.1	.20	.05	.13
10	.90	6.7	1.1	5.4	21	18	1.6	1.9	1.3	.20	.07	.13
11	.85	6.5	.99	2.2	20	13	1.6	1.9	1.2	.20	.07	.13
12	.90	5.7	.97	1.8	9.1	11	1.7	1.9	1.1	.20	.07	.14
13	.90	5.0	.91	1.4	7.6	10	1.7	1.8	1.4	.20	.09	.15
14	.95	4.9	.91	1.3	7.1	9.8	1.8	1.7	1.2	.19	.11	.18
15	1.1	5.1	.83	1.3	6.5	9.0	1.8	2.5	1.2	.16	.11	.20
16	1.1	6.0	.84	4.0	6.2	8.5	1.9	2.6	1.2	.15	.11	.20
17	1.2	5.3	.89	6.4	6.0	8.3	2.0	2.5	1.1	.15	.12	.18
18	1.4	4.9	.94	5.5	5.8	7.9	2.0	2.5	1.0	.14	.13	.16
19	1.3	4.8	.97	5.3	5.6	5.5	1.9	2.5	.91	.14	.13	.16
20	.96	4.8	1.1	5.2	5.6	2.3	1.8	2.8	.85	.14	.13	.18
21	.97	4.9	1.1	5.0	5.5	2.1	2.7	2.5	.78	.15	.13	.24
22	1.1	4.9	1.2	5.0	5.5	2.1	3.2	1.5	.73	.15	.13	.22
23	1.1	4.8	1.1	4.9	5.7	2.1	2.3	2.5	.72	.14	.13	.22
24	1.0	4.9	1.1	4.9	5.6	2.1	1.9	2.3	.72	.14	.12	.21
25	1.1	4.9	1.1	4.7	5.6	1.9	1.8	.87	.66	.14	.11	.23
26	.99	4.9	1.1	4.5	5.6	3.2	1.8	.96	.63	.14	.18	.14
27	.94	4.8	1.1	4.5	3.8	5.0	2.8	.97	.61	.13	.20	.15
28	.92	5.1	.92	4.5	42	2.0	2.3	1.1	.62	.13	.18	.13
29	.89	5.3	.68	4.4	-----	2.0	2.2	1.1	.66	.11	.17	.11
30	.87	5.5	.69	4.4	-----	3.0	2.0	1.0	.69	.11	.15	.17
31	.79	-----	.70	4.4	-----	3.1	-----	.92	-----	.11	.13	-----
TOTAL	31.21	166.35	65.24	97.04	217.3	407.9	58.8	55.62	27.02	8.04	3.54	4.87
MEAN	1.01	5.55	2.10	3.13	7.76	13.2	1.96	1.79	.90	.26	.11	.16
MAX	1.4	24	5.6	6.4	42	64	3.2	2.8	1.4	.99	.20	.24
MIN	.79	.76	.68	.64	3.8	1.9	1.6	.87	.61	.11	.05	.11
AC-FT	62	330	129	192	431	809	117	110	54	16	7.0	9.7

CAL YR 1969 TOTAL 28,440.80 MEAN 77.9 MAX 3,360 MIN .68 AC-FT 56,410
WTR YR 1970 TOTAL 1,142.93 MEAN 3.13 MAX 64 MIN .05 AC-FT 2,270

PEAK DISCHARGE (BASE, 150 CFS).--Feb. 28 (1800) 205 cfs (4.24 ft).

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	5.5	6.1	7.6	5.4	66	6.2	5.9	3.8	2.7	1.8	1.7
2	6.1	5.6	6.0	7.5	5.3	63	6.2	5.6	3.5	2.6	1.7	1.6
3	6.6	5.6	5.9	7.4	5.2	25	6.2	5.4	3.5	2.6	1.7	1.6
4	6.3	5.6	6.0	7.6	5.2	21	6.2	5.4	3.7	2.5	1.8	1.6
5	6.1	5.8	6.1	7.6	5.1	37	6.2	5.3	3.7	2.5	1.9	1.8
6	5.9	18	6.0	7.4	5.1	22	6.1	5.6	3.8	2.4	1.8	1.8
7	5.8	27	6.1	7.5	5.0	17	6.1	5.8	3.8	2.3	1.6	1.8
8	5.7	9.3	7.1	7.4	5.2	15	6.1	5.7	4.0	2.3	1.6	1.7
9	5.7	7.4	8.8	7.4	5.4	13	6.1	5.7	4.6	2.4	1.6	1.7
10	6.0	6.7	8.3	13	22	18	6.1	5.7	5.3	2.3	1.7	1.6
11	6.0	6.5	8.1	9.6	21	13	6.0	5.7	5.0	2.5	1.7	1.5
12	6.0	6.2	7.9	9.1	10	11	6.0	5.7	4.7	2.4	1.8	1.6
13	6.0	6.0	7.7	8.6	8.3	10	6.0	5.4	5.5	2.3	1.8	2.0
14	6.2	5.9	7.6	8.3	7.7	9.8	6.0	4.8	4.9	2.2	1.7	2.3
15	6.5	6.4	7.4	8.2	7.1	9.0	6.0	4.5	4.7	2.2	1.7	2.3
16	6.5	7.3	7.4	8.2	6.8	8.5	6.0	4.5	4.7	2.0	1.8	2.1
17	6.7	6.4	7.6	8.0	6.6	8.3	6.1	4.2	4.5	2.0	1.9	1.9
18	6.9	5.9	7.6	7.8	6.4	7.9	6.1	4.3	4.2	2.0	1.9	1.8
19	6.7	5.8	7.7	7.8	6.2	7.6	5.9	4.3	4.0	2.0	1.9	1.8
20	6.3	5.6	7.8	7.6	6.2	7.3	5.8	4.5	3.8	1.9	1.9	1.9
21	6.4	5.7	7.8	7.5	6.1	7.1	7.2	4.7	3.5	2.0	1.9	2.0
22	6.6	5.6	8.0	7.3	6.1	7.1	8.7	4.6	3.3	2.0	1.8	1.8
23	6.6	5.5	7.8	7.1	6.3	7.1	7.2	4.5	3.3	1.9	1.8	1.7
24	6.5	5.6	7.8	7.0	6.2	7.0	6.2	4.4	3.2	1.9	1.7	1.7
25	6.6	5.6	7.7	6.8	6.2	6.8	6.0	4.6	3.0	2.0	1.8	1.6
26	6.5	5.5	7.7	6.6	6.2	6.6	6.0	5.1	2.9	2.0	2.3	1.4
27	6.2	5.4	7.8	6.4	6.6	6.4	7.9	5.2	2.9	1.9	2.9	1.4
28	6.1	5.6	7.7	6.2	46	6.3	7.2	5.5	2.9	1.8	2.2	1.5
29	5.8	5.8	7.6	6.0	-----	6.3	7.7	5.2	3.1	1.8	2.1	1.5
30	5.7	6.1	7.6	5.8	-----	6.3	6.3	4.6	3.1	1.9	2.0	1.7
31	5.6	-----	7.6	5.6	-----	6.2	-----	4.2	-----	1.8	1.8	-----
TOTAL	192.4	214.9	228.3	235.9	244.9	462.6	191.8	156.6	116.9	67.1	57.6	52.4
MEAN	6.21	7.16	7.36	7.61	8.75	14.9	6.39	5.05	3.90	2.16	1.86	1.75
MAX	6.9	27	8.8	13	46	66	8.7	5.9	5.5	2.7	2.9	2.3
MIN	5.6	5.4	5.9	5.6	5.0	6.2	5.8	4.2	2.9	1.8	1.6	1.4
AC-FT	382	426	453	468	486	918	380	311	232	133	114	104

CAL YR 1969 TOTAL 28,813.6 MEAN 78.9 MAX 3,360 MIN 3.1 ACFT 57,150
WAT YR 1970 TOTAL 2,221.4 MEAN 6.09 MAX 66 MIN 1.4 ACFT 4,410

PEAK DISCHARGE (BASE, 150 CFS)--Feb. 28 (1800) 208 cfs.

SANTA ANA RIVER BASIN

11056200 SANTA ANA RIVER AT WATERMAN AVENUE, AT SAN BERNARDINO, CALIF.

LOCATION.--Lat 34°04'14", long 117°16'41", in San Bernardino Grant, San Bernardino County, on downstream end of fifth pier from left bank of south bound traffic bridge on Waterman Avenue, 0.1 mile upstream from San Timoteo Creek, and 2.7 miles southeast of San Bernardino.

DRAINAGE AREA.--359 sq mi (revised).

PERIOD OF RECORD.--October 1954 to December 1961, January 1964 to September 1970 (discontinued). Prior to January 1964, published as "near San Bernardino." Records, except Extremes, for October 1928 to September 1937 at site 1.6 miles upstream not equivalent owing to discharge of Mission ditch.

GAGE.--Water-stage recorder. Altitude of gage is 995 ft (from topographic map). Prior to Jan. 21, 1964, at different datum.

AVERAGE DISCHARGE.--13 years (1954-61, 1964-70), 28.0 cfs (20,290 acre-ft per year); median of yearly mean discharge, 2.4 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 424 cfs Jan. 16 (gage height, 5.13 ft); no flow most of year. Period of record: Maximum discharge, 20,000 cfs (estimated) Jan. 25, 1969 (gage height, 8.5 ft); no flow most of each year.

Maximum discharge, 75,700 cfs Mar. 2, 1938, from combined discharges of Santa Ana River near Mentone, Mill Creek near Yucaipa, and Plunge Creek near East Highlands.

REMARKS.--Records poor. 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. See schematic diagram of Santa Ana River basin.

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	14	2.8	4.0	1.0	3.0	42	2.4	0	.01	0		
2	13	2.7	5.0	1.0	3.0	40	2.2	0	.01	0		
3	11	2.7	6.5	1.0	3.0	15	2.0	0	.01	0		
4	9.0	2.6	6.6	1.0	3.0	25	1.8	0	.01	0		
5	7.0	2.5	6.3	1.0	3.6	20	1.6	.01	.50	0		
6	5.0	15	6.0	1.0	5.4	10	1.4	.02	1.0	0		
7	3.0	20	5.7	1.0	6.6	9.8	1.2	.02	1.8	0		
8	2.0	10	5.4	1.0	5.4	9.6	1.0	.02	2.0	0		
9	1.0	5.4	5.1	5.0	7.8	9.0	.80	.02	5.0	0		
10	0	1.5	4.8	30	40	10	.60	.02	7.8	0		
11	0	1.8	4.5	16	16	9.8	.40	.02	6.6	0		
12	0	2.5	4.2	6.6	11	9.6	.20	.02	2.0	0		
13	0	1.5	3.9	6.6	10	9.4	0	.02	1.0	0		
14	0	.60	3.6	9.0	7.8	9.2	0	.03	.50	0		
15	0	.50	3.3	7.8	7.8	9.0	0	.09	.20	0		
16	0	.40	3.0	16	5.4	8.6	0	.09	.10	0		
17	0	.30	2.7	8.0	7.8	8.2	0	.05	.05	0		
18	5.0	.20	2.4	7.6	9.0	7.8	0	.11	.01	0		
19	4.5	.10	2.2	7.2	9.0	7.4	0	.09	.01	0		
20	4.0	.05	2.0	6.8	9.0	7.0	0	.04	.01	0		
21	3.7	.01	1.8	6.4	9.0	6.6	0	.03	0	0		
22	3.5	0	1.7	6.0	9.0	6.2	0	.02	0	0		
23	3.4	0	1.6	5.6	10	5.8	0	.01	0	0		
24	3.3	0	1.5	5.2	10	5.4	0	.01	0	0		
25	3.2	0	1.4	4.8	10	5.0	0	.01	0	0		
26	3.1	0	1.3	4.4	14	4.6	0	.01	0	0		
27	3.0	0	1.2	4.0	11	4.2	0	.01	0	0		
28	2.9	0	1.2	3.6	24	3.8	0	.01	0	.11		
29	2.9	0	1.1	3.4	-----	3.4	0	.03	0	5.9		
30	2.8	3.0	1.1	3.2	-----	3.0	0	.05	0	.05		
31	2.8	-----	1.0	3.0	-----	2.6	-----	.11	-----	.01		-----
TOTAL	113.1	76.16	102.1	184.2	270.6	327.0	15.60	.97	28.62	6.07	0	0
MEAN	3.65	2.54	3.29	5.94	9.66	10.5	.52	.031	.95	.20	0	0
MAX	14	20	6.6	30	40	42	2.4	.11	7.8	5.9	0	0
MIN	0	0	1.0	1.0	3.0	2.6	0	0	0	0	0	0
AC-FT	224	151	203	365	537	649	31	1.9	57	12	0	0

CAL YR 1969 TOTAL 98,338.86 MEAN 269 MAX 8,200 MIN 0 ACFT 195,100
 WAT YR 1970 TOTAL 1,124.42 MEAN 3.08 MAX 42 MIN 0 ACFT 2,230

PEAK DISCHARGE (BASE, 350 CFS).--Jan. 16 (1430) 424 cfs (5.13 ft); Feb. 10 (2000) 365 cfs (4.85 ft).

NOTE.--No gage-height record Oct. 4 to Nov. 5, Nov. 15 to Jan. 9, Mar. 2 to June 30.

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 downstream side of left abutment of bridge on Oak Glen Road, 3.0 miles upstream from Wallace Creek, and 7 miles north of Beaumont.

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).

AVERAGE DISCHARGE.--22 years, 0.507 cfs (367 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11 cfs Feb. 28 (gage height, 1.33 ft); minimum daily, 0.02 cfs many days.

Period of record: Maximum discharge, 11,000 cfs (corrected) 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, 8.50 ft; no flow for several months in most years.

REMARKS.--Records good. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.4	1.4	.86	.86	3.8	.86	.60	.40	.16	.08	.02
2	1.6	1.4	1.4	1.0	.86	2.9	.86	.60	.40	.12	.08	.02
3	1.6	1.4	1.4	1.0	.86	1.6	.86	.60	.40	.12	.08	.02
4	1.6	1.6	1.4	1.0	.86	1.4	.86	.60	.40	.12	.08	.02
5	1.6	1.6	1.4	1.0	.72	1.6	.86	.60	.40	.12	.02	.02
6	1.6	2.4	1.4	1.0	.72	1.4	.86	.72	.40	.12	.02	.02
7	1.6	2.9	1.4	1.0	.72	1.4	.86	.72	.40	.12	.02	.02
8	1.6	1.9	1.4	1.0	.72	1.4	.86	.72	.40	.12	.02	.02
9	1.6	1.9	1.4	1.0	.72	1.4	.86	.72	.40	.12	.02	.02
10	1.6	1.9	1.4	1.2	.86	1.4	.86	.72	.40	.12	.02	.02
11	1.6	1.9	1.4	1.2	.86	1.4	.86	.72	.40	.12	.02	.02
12	1.4	1.6	1.4	1.2	.86	1.4	.86	.72	.40	.12	.02	.02
13	1.4	1.6	1.4	1.2	.86	1.4	.86	.72	.40	.08	.02	.02
14	1.4	1.6	1.4	1.2	.86	1.2	.86	.72	.32	.08	.02	.02
15	1.4	1.9	1.2	1.2	.86	1.2	.86	.72	.32	.08	.02	.02
16	1.4	1.9	1.2	1.2	.86	1.2	.86	.60	.32	.06	.02	.02
17	1.4	1.9	1.2	1.2	.72	1.2	.86	.60	.32	.06	.02	.02
18	1.4	1.9	1.2	1.2	.72	1.2	.72	.60	.26	.06	.02	.02
19	1.4	1.9	1.2	1.2	.72	1.2	.72	.60	.26	.06	.02	.02
20	1.4	1.9	1.0	1.2	.72	1.2	.72	.60	.26	.06	.02	.02
21	1.4	1.9	1.0	1.0	.72	1.2	.72	.60	.26	.06	.02	.02
22	1.4	1.9	1.0	1.0	.72	1.2	.72	.50	.26	.06	.02	.02
23	1.4	1.6	1.0	1.0	.72	1.2	.72	.50	.26	.06	.02	.02
24	1.4	1.6	1.0	.86	.72	1.0	.60	.50	.21	.06	.02	.02
25	1.4	1.6	1.0	.86	.72	1.0	.60	.50	.21	.06	.02	.02
26	1.4	1.6	1.0	.86	.72	1.0	.60	.50	.21	.06	.02	.04
27	1.4	1.6	1.0	.86	.72	1.0	.86	.60	.21	.06	.02	.04
28	1.4	1.4	1.0	.86	2.1	1.0	.86	.60	.21	.06	.02	.02
29	1.4	1.4	1.0	.86	-----	1.0	.86	.50	.21	.06	.02	.06
30	1.4	1.4	1.0	.86	-----	1.0	.72	.50	.21	.06	.02	.04
31	1.4	-----	.86	.86	-----	1.0	-----	.50	-----	.08	.02	-----
TOTAL	45.6	52.5	37.46	31.94	23.08	42.5	24.04	19.00	9.51	2.70	.86	.70
MEAN	1.47	1.75	1.21	1.03	.82	1.37	.80	.61	.32	.087	.028	.023
MAX	1.6	2.9	1.4	1.2	2.1	3.8	.86	.72	.40	.16	.08	.06
MIN	1.4	1.4	.86	.86	.72	1.0	.60	.50	.21	.06	.02	.02
AC-FT	90	104	74	63	46	84	48	38	19	5.4	1.7	1.4

GAL YR 1969 TOTAL 3,221.78 MEAN 8.83 MAX 1,180 MIN 0 ACFT 6,390
WAT YR 1970 TOTAL 289.89 MEAN .79 MAX 3.8 MIN .02 ACFT 575

PEAK DISCHARGE (BASE, 10 CFS).--Feb. 28 (1400) 11 cfs (1.33 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.--13 years (1954-65, 1968-70), 2.93 cfs (2,120 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 831 cfs Mar. 1 (gage height, 4.07 ft); no flow for several days. 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 good. No regulation above station. Natural flow affected by pumping and return flow from irrigated areas.

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	1.2	.42	.35	.80	2.0	122	0	.54	.42	.42	.03	.16
2	.85	.17	.85	.80	1.5	53	0	.54	.10	.58	.10	.22
3	.54	.06	1.0	.80	1.0	4.5	0	.42	.10	.42	.22	.31
4	.31	.42	1.0	.80	.80	4.6	0	.22	.54	.10	.54	.42
5	.31	.42	.85	.80	.60	28	0	.31	.68	0	.68	.31
6	.54	1.3	.54	1.0	.42	.54	0	.31	.31	.22	.68	.31
7	1.0	5.2	.54	1.2	.42	.42	.16	.31	.31	.42	.85	.31
8	.68	.85	1.0	1.8	.54	.25	.42	.68	.10	.42	1.0	.31
9	.54	.85	.85	1.8	.85	0	.46	.54	.31	.31	.54	.22
10	.54	1.0	.85	3.2	9.8	.33	.22	.42	.42	.42	.42	.16
11	.26	.26	.68	5.8	2.8	.42	.68	.42	.16	.16	.31	.10
12	0	0	.54	3.2	.68	.42	1.0	1.0	.31	.31	.22	.16
13	.28	0	.60	2.0	.31	.31	2.0	.85	.42	.54	.22	.42
14	.54	.21	.60	1.8	0	.68	2.4	.54	.42	.68	.31	.54
15	.54	.42	.60	2.4	0	.85	1.8	.42	.31	.68	.31	.54
16	.54	.54	.60	3.6	.17	.40	.54	.85	.31	.85	.42	.42
17	1.2	.34	.60	2.4	.08	.40	.54	1.2	.31	1.0	.42	.85
18	1.2	0	.60	2.4	0	.68	.68	.31	.16	.85	.54	1.0
19	.68	.08	.60	2.4	0	1.2	1.0	.54	.10	.68	.54	1.2
20	.85	.05	.60	1.8	0	1.8	.54	.85	.13	.68	.42	.42
21	1.0	1.8	.70	1.5	0	2.0	.42	.54	.42	1.0	.31	.68
22	1.2	1.0	.70	1.8	.10	3.6	.54	.22	.54	.85	.31	.85
23	1.5	.68	.70	1.8	.24	1.8	.42	.31	.42	.54	.31	.22
24	1.0	.23	.70	1.8	.35	2.0	.31	.68	.31	.54	.31	.22
25	1.0	.16	.70	2.4	0	2.4	.16	.54	.54	.42	.42	.42
26	.85	.31	.70	2.4	0	3.2	.16	1.2	.54	.16	.54	.22
27	.54	.42	.70	2.0	.42	3.6	.16	.85	.42	.22	.54	.03
28	.54	.68	.70	2.0	32	7.8	.85	.54	0	.22	.42	.31
29	.68	.54	.80	1.8	-----	7.4	.68	.42	.30	.16	.42	.54
30	1.0	.52	.80	1.8	-----	.11	.68	.42	.31	.31	.22	.68
31	.85	-----	.80	1.5	-----	0	-----	.42	-----	.22	.16	-----
TOTAL	22.76	18.93	21.85	61.60	55.08	254.71	16.82	17.41	9.72	14.38	12.73	12.55
MEAN	.73	.63	.70	1.99	1.97	8.22	.56	.56	.32	.46	.41	.42
MAX	1.5	5.2	1.0	5.8	32	122	2.4	1.2	.68	1.0	1.0	1.2
MIN	0	0	.35	.80	0	0	0	.22	0	0	.03	.03
AC-FT	45	38	43	122	109	505	33	35	19	29	25	25

CAL YR 1969 TOTAL 7,940.61 MEAN 21.8 MAX 3,500 MIN 0 ACFT 15,750
 WAT YR 1970 TOTAL 518.54 MEAN 1.42 MAX 122 MIN 0 ACFT 1,030

PEAK DISCHARGE (BASE, 150 CFS).--Mar. 1 (0500) 831 cfs (4.07 ft).

11058500 EAST TWIN CREEK NEAR ARROWHEAD SPRINGS, CALIF.

LOCATION.--Lat 34°10'45", long 117°15'53", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.14, T.1 N., 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.--50 years (1920-70), 4.60 cfs (3,330 acre-ft per year); median of yearly mean discharges, 2.8 cfs (2,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 39 cfs Mar. 2 (gage height, 2.69 ft); minimum daily, 0.81 cfs Sept. 19.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	2.8	2.9	4.2	2.1	21	3.0	2.7	1.4	1.2	1.1	1.0
2	3.5	2.9	3.7	4.3	2.1	16	3.0	2.6	1.4	1.1	1.0	1.1
3	3.6	2.9	2.9	4.2	1.9	13	2.9	2.6	1.4	1.1	1.0	1.1
4	3.4	2.9	2.9	4.2	2.0	10	2.9	2.5	1.5	1.2	1.1	1.1
5	3.4	3.0	2.9	4.2	1.9	9.8	2.9	2.5	1.6	1.2	.99	1.2
6	3.4	5.4	2.9	4.2	2.0	9.3	2.9	2.7	1.6	1.1	.99	1.1
7	3.4	7.1	2.9	4.2	2.0	9.5	2.9	2.8	1.6	1.2	.97	1.1
8	3.4	3.5	3.1	3.9	2.1	7.7	2.9	2.7	1.5	1.3	.98	1.1
9	3.4	3.1	3.4	3.9	2.1	7.1	2.9	2.7	1.4	1.3	1.0	1.0
10	3.4	2.9	3.0	7.0	9.0	8.5	2.9	2.9	1.6	1.2	.99	.98
11	3.4	2.8	3.0	4.3	12	7.1	2.9	2.8	1.3	1.1	1.0	.84
12	3.4	2.8	2.9	4.0	4.2	6.6	2.9	2.7	1.5	1.2	1.0	.91
13	3.4	2.8	3.0	3.8	3.4	6.2	2.9	2.6	2.3	1.1	1.0	.99
14	3.4	2.8	3.0	3.9	3.1	5.9	3.0	2.4	2.2	1.2	.98	.99
15	3.4	2.9	3.0	3.8	3.0	5.5	3.1	2.1	2.1	1.2	.98	1.1
16	3.4	3.1	2.9	4.2	3.0	5.0	3.1	2.2	2.0	1.2	.99	1.0
17	3.2	2.9	2.9	3.9	3.0	5.0	3.2	2.3	2.0	1.2	1.0	.88
18	3.2	2.8	2.9	3.6	3.0	4.9	3.0	2.1	1.9	1.2	.99	.87
19	3.2	2.5	3.0	3.1	2.5	4.7	2.9	2.1	1.8	1.2	1.0	.81
20	3.2	2.4	3.1	3.1	3.0	4.6	2.8	2.3	1.7	1.1	1.0	.83
21	3.2	2.3	3.1	2.9	2.6	4.5	3.9	2.2	1.6	1.1	.99	.86
22	3.2	2.6	3.2	2.9	2.4	4.3	3.6	2.1	1.3	1.1	1.0	.88
23	3.1	2.6	3.1	2.9	2.5	4.0	3.1	2.1	1.3	1.2	1.0	.84
24	2.8	2.6	3.9	2.9	2.5	3.8	2.9	2.1	1.3	1.2	1.1	.85
25	3.0	2.8	4.6	2.9	2.4	3.5	2.8	1.9	1.3	1.2	1.0	.95
26	3.0	2.7	4.7	2.8	2.4	3.2	2.9	2.2	1.2	1.1	1.1	1.0
27	2.9	2.7	4.5	2.5	2.4	3.0	3.2	2.3	1.3	1.1	1.1	1.0
28	2.9	2.7	4.1	2.4	7.8	3.0	3.1	2.3	1.3	1.1	1.1	.94
29	2.7	2.7	3.8	2.4	-----	3.0	3.0	2.0	1.3	1.1	1.0	.93
30	2.7	2.9	3.9	2.2	-----	3.2	2.8	1.7	1.3	1.1	1.0	.96
31	2.7	-----	4.2	2.1	-----	3.1	-----	1.5	-----	1.1	1.0	-----
TOTAL	99.6	90.9	103.4	110.9	92.4	206.0	90.3	72.7	47.0	36.0	31.45	29.21
MEAN	3.21	3.03	3.34	3.58	3.30	6.65	3.01	2.35	1.57	1.16	1.01	.97
MAX	3.6	7.1	4.7	7.0	12	21	3.9	2.9	2.3	1.3	1.1	1.2
MIN	2.7	2.3	2.9	2.1	1.9	3.0	2.8	1.5	1.2	1.1	.97	.81
AC-FT	198	180	205	220	183	409	179	144	93	71	62	58

CAL YR 1969 TOTAL 7,590.7 MEAN 20.8 MAX 795 MIN 1.6 AC-FT 15,060
 WTR YR 1970 TOTAL 1,009.86 MEAN 2.77 MAX 21 MIN .81 AC-FT 2,000

PEAK DISCHARGE (BASE, 40 CFS).--No peak above base.

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 $\frac{1}{4}$ 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.--52 years (1912-14, 1920-70), 2.65 cfs (1,920 acre-ft per year); median of yearly mean discharges, 1.6 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 38 cfs Nov. 7 (gage height, 2.60 ft); minimum daily, 0.36 cfs Sept. 28.

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. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.6	1.9	2.2	1.1	12	2.5	1.9	1.6	.67	.42	.46
2	1.8	1.6	1.8	2.2	1.1	10	2.4	1.8	1.5	.67	.42	.46
3	1.9	1.6	1.8	2.2	1.1	4.8	2.4	1.8	1.4	.64	.41	.51
4	1.8	1.6	1.8	2.3	1.1	6.4	2.3	1.7	1.4	.61	.38	.50
5	1.7	1.7	1.8	2.4	1.0	7.1	2.2	1.7	1.4	.61	.38	.46
6	1.6	7.0	1.8	2.3	1.0	4.7	2.2	1.7	1.3	.61	.38	.46
7	1.6	7.8	1.8	2.3	.98	4.3	2.1	1.7	1.3	.57	.38	.51
8	1.6	2.8	1.9	2.3	.98	4.1	2.1	1.7	1.3	.56	.40	.51
9	1.6	2.5	2.1	2.4	1.1	4.0	2.0	1.8	1.4	.56	.38	.51
10	1.7	2.4	2.0	4.4	7.7	4.7	2.1	1.8	1.2	.56	.38	.42
11	1.6	2.3	2.0	1.9	2.9	4.2	2.0	1.8	1.0	.55	.38	.43
12	1.6	2.2	2.0	1.8	1.4	4.0	2.0	1.8	1.1	.54	.42	.52
13	1.6	2.1	2.0	1.5	1.3	3.9	1.9	1.8	1.1	.51	.42	.62
14	1.6	2.0	2.0	1.3	1.3	3.7	1.9	1.8	1.0	.51	.42	.65
15	1.7	2.0	2.0	1.3	1.2	3.6	1.9	1.7	.99	.51	.38	.65
16	1.7	2.3	2.0	1.5	1.2	3.5	2.0	1.6	.99	.54	.42	.58
17	1.8	2.1	2.0	1.3	1.1	3.3	2.0	1.6	.98	.51	.42	.53
18	1.8	1.9	2.2	1.3	1.1	3.2	2.1	1.7	.96	.51	.42	.54
19	1.8	1.9	2.2	1.2	1.1	3.1	2.1	1.6	.93	.51	.42	.55
20	1.7	2.0	2.2	1.2	1.1	3.1	2.0	1.6	.90	.51	.42	.56
21	1.7	2.0	2.2	1.2	1.1	3.1	1.8	1.5	.90	.51	.46	.55
22	1.8	2.0	2.3	1.2	1.1	3.0	1.8	1.5	.89	.46	.46	.40
23	1.8	1.8	2.3	1.2	1.1	2.9	2.4	1.5	.84	.46	.43	.39
24	1.8	1.8	2.3	1.2	1.1	2.8	2.3	1.4	.83	.46	.42	.43
25	1.9	1.8	2.2	1.2	1.1	2.8	2.1	1.4	.79	.45	.46	.37
26	1.8	1.8	2.3	1.2	1.1	2.7	1.9	1.4	.77	.42	.46	.37
27	1.8	1.8	2.3	1.2	1.1	2.7	1.9	1.4	.73	.42	.46	.39
28	1.7	1.8	2.2	1.1	7.6	2.6	1.9	1.7	.73	.42	.46	.36
29	1.6	1.8	2.2	1.1	-----	2.5	2.1	1.7	.71	.42	.46	.41
30	1.6	1.9	2.2	1.1	-----	2.5	2.0	1.6	.67	.45	.51	.44
31	1.6	-----	2.1	1.1	-----	2.6	-----	1.6	-----	.42	.50	-----
TOTAL	52.9	69.9	63.9	52.1	46.16	127.9	62.4	51.3	31.61	16.15	13.13	14.54
MEAN	1.71	2.33	2.06	1.68	1.65	4.13	2.08	1.65	1.05	.52	.42	.48
MAX	1.9	7.8	2.3	4.4	7.7	12	2.5	1.9	1.6	.67	.51	.65
MIN	1.6	1.6	1.8	1.1	.98	2.5	1.8	1.4	.67	.42	.38	.36
AC-FT	105	139	127	103	92	254	124	102	63	32	26	29

CAL YR 1969 TOTAL 4,682.08 MEAN 12.8 MAX 590 MIN .61 AC-FT 9,290
 WTR YR 1970 TOTAL 601.99 MEAN 1.65 MAX 12 MIN .36 AC-FT 1,190

PEAK DISCHARGE (BASE, 35 CFS).--Nov. 7 (0145) 38 cfs (2.60 ft).

SANTA ANA RIVER BASIN

157

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, 1,390 cfs Nov. 7 (gage height, 4.50 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 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0		0	0	327	2.6				0	
2	0	0		0	0	276	.02				0	
3	0	0		0	0	19	0				0	
4	0	0		0	0	127	0				0	
5	0	0		0	0	198	0				0	
6	0	101		0	0	11	0				0	
7	0	159		0	0	2.0	0				0	
8	0	11		0	0	1.8	0				0	
9	0	4.4		0	1.4	2.4	0				0	
10	0	5.3		39	140	80	0				0	
11	0	6.1		15	15	2.0	0				0	
12	0	1.8		9.2	5.7	.08	0				0	
13	0	.25		6.6	4.0	.13	0				0	
14	0	0		8.1	1.1	.08	0				0	
15	0	2.8		5.3	.04	.04	0				0	
16	0	3.1		30	0	.02	0				0	
17	0	.25		8.6	0	0	0				0	
18	8.1	0		5.3	0	0	0				0	
19	.27	.75		2.0	0	0	0				0	
20	0	.21		.64	0	0	0				0	
21	0	0		0	0	0	5.0				0	
22	0	0		0	0	0	.22				0	
23	0	0		0	0	0	0				0	
24	0	0		0	0	0	0				0	
25	0	0		0	0	0	0				0	
26	0	0		0	0	0	0				11	
27	0	0		0	0	0	0				0	
28	0	0		0	192	0	0				0	
29	0	0		0	-----	0	0				0	
30	0	0		0	-----	15	0				0	
31	0	-----		0	-----	.44	-----		-----		0	-----
TOTAL	8.37	295.96	0	129.74	359.24	1,061.99	7.84	0	0	0	11	0
MEAN	.27	9.87	0	4.19	12.8	34.3	.26	0	0	0	.35	0
MAX	8.1	159	0	39	192	327	5.0	0	0	0	11	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	17	587	0	257	713	2,110	16	0	0	0	22	0
CAL YR 1969	TOTAL	15,097.81	MEAN	41.4	MAX	5,060	MIN	0	ACFT	29,950		
WAT YR 1970	TOTAL	1,874.14	MEAN	5.13	MAX	327	MIN	0	ACFT	3,720		

SANTA ANA RIVER BASIN

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 (revised).

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, 1,280 cfs Nov. 7 (gage height, 9.80 ft); minimum daily, 12 cfs July 19.

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 poor. 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 water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	14	15	13	17	297	17	14	14	14	14	14
2	29	14	16	13	17	342	16	14	14	13	13	14
3	25	14	17	13	17	190	15	13	14	14	14	14
4	23	14	17	14	16	177	15	14	14	13	14	14
5	20	14	17	14	16	263	15	14	14	13	13	13
6	19	120	17	14	16	40	15	13	14	15	13	14
7	18	164	17	14	15	26	15	13	13	14	14	14
8	17	60	17	14	15	25	15	14	14	14	13	14
9	16	35	16	14	15	27	15	14	13	14	13	14
10	14	25	16	40	25	68	15	13	13	14	14	14
11	14	21	16	30	80	32	15	14	14	13	14	15
12	14	19	16	25	45	26	15	14	14	13	14	14
13	14	17	16	23	30	20	15	14	14	14	14	14
14	14	16	16	22	25	19	15	14	13	14	13	14
15	14	16	15	22	20	19	15	14	14	14	13	14
16	14	16	14	35	19	19	15	14	13	14	13	14
17	14	15	14	30	18	19	15	14	14	14	14	14
18	20	15	14	27	17	19	15	15	13	14	14	14
19	18	14	14	25	17	19	15	14	14	12	13	14
20	16	14	14	23	17	19	15	14	14	15	13	14
21	15	14	14	22	17	17	17	14	13	15	14	15
22	15	14	14	21	17	17	15	14	15	13	13	14
23	15	14	13	20	18	17	14	14	14	13	13	14
24	15	13	13	20	18	17	14	13	14	14	14	14
25	15	13	13	20	18	16	14	14	14	13	13	14
26	14	13	13	20	18	16	14	13	14	14	13	14
27	14	13	13	19	18	16	13	14	13	14	14	14
28	14	13	13	19	220	18	14	13	13	14	14	14
29	14	13	13	18	-----	17	15	14	14	13	13	14
30	14	14	13	18	-----	16	15	13	14	14	13	14
31	14	-----	13	18	-----	16	-----	13	-----	14	15	-----
TOTAL	524	771	459	640	801	1,849	448	426	412	426	419	421
MEAN	16.9	25.7	14.8	20.6	28.6	59.6	14.9	13.7	13.7	13.7	13.5	14.0
MAX	32	164	17	40	220	342	17	15	15	15	15	15
MIN	14	13	13	13	15	16	13	13	13	12	13	13
AC-FT	1,040	1,530	910	1,270	1,590	3,670	889	845	817	845	831	835
CAL YR 1969	TOTAL 124,354	MEAN 341	MAX 14,800	MIN 13	ACFT 246,700							
WAT YR 1970	TOTAL 7,596	MEAN 20.8	MAX 342	MIN 12	ACFT 15,070							

		PEAK DISCHARGE (BASE, 400 CFS)					
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-	7 0300	9.80	1,280	3-	5 0100	9.72	1,070
3-	2 0600	9.58	794				

NOTE.--No gage-height record or stage-discharge relation indefinite most of year.

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.--6 years, 1.84 cfs (1,330 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 583 cfs Nov. 7 (gage height, 4.48 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 OCTUBFR 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	4.8	6.5	0	0	50	0					
2	0	4.0	5.4	0	0	38	0					
3	0	3.4	2.9	0	0	0	0					
4	0	2.2	1.2	0	0	32	0					
5	0	3.1	1.4	0	0	12	0					
6	0	21	3.6	0	0	0	0					
7	0	38	.80	0	0	0	0					
8	0	0	1.2	0	0	0	0					
9	0	0	1.5	0	0	0	0					
10	0	0	0	7.3	34	2.8	0					
11	0	0	1.0	.90	7.2	0	0					
12	0	0	2.3	0	0	0	0					
13	0	0	0	0	0	0	0					
14	0	0	0	0	0	0	0					
15	0	0	0	0	0	0	0					
16	0	0	1.3	11	0	0	0					
17	0	0	0	0	0	0	0					
18	.16	0	0	0	0	0	0					
19	0	0	0	0	0	0	0					
20	0	0	0	0	0	0	0					
21	0	0	0	0	0	0	1.7					
22	0	0	0	0	0	0	0					
23	0	0	0	0	0	0	0					
24	0	0	0	0	0	0	0					
25	3.2	0	0	0	0	0	0					
26	3.3	0	0	0	0	0	0					
27	.86	0	0	0	0	0	0					
28	.18	0	0	0	37	0	0					
29	1.0	0	0	0	-----	0	0					
30	2.8	0	0	0	-----	0	0					
31	3.8	-----	0	0	-----	0	-----					
TOTAL	15.30	76.5	29.10	19.20	78.2	134.8	1.7	0	0	0	0	0
MEAN	.49	2.55	.94	.62	2.79	4.35	.057	0	0	0	0	0
MAX	3.8	38	6.5	11	37	50	1.7	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	30	152	58	38	155	267	3.4	0	0	0	0	0

CAL YR 1969 TOTAL 1,991.90 MEAN 5.46 MAX 488 MIN 0 ACFT 3,950
WAT YR 1970 TOTAL 354.80 MEAN .97 MAX 50 MIN 0 ACFT 704

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.9	.78	.78	0	0	0	1.1	6.2	5.3	5.9	5.6
2	10	11	.78	.62	0	0	.59	.95	6.2	5.3	5.9	5.9
3	10	13	.78	.62	1.1	0	.95	.95	6.2	5.3	5.9	5.9
4	10	12	.78	.62	.78	0	.95	3.0	6.2	5.3	5.9	5.9
5	10	8.4	.52	.62	.78	0	1.1	6.6	6.2	5.3	5.9	5.6
6	10	5.9	0	.62	.78	0	.81	6.6	6.2	5.3	5.9	5.6
7	10	.27	.49	.62	.78	0	0	6.9	6.2	5.3	5.9	5.6
8	10	0	.78	.62	.78	0	0	6.9	6.2	5.3	5.9	5.6
9	10	0	.78	.25	.51	0	0	6.9	5.9	5.3	5.9	5.6
10	10	0	.78	0	0	0	0	6.9	5.9	5.3	5.9	5.6
11	11	0	.78	0	0	0	.56	6.9	5.9	5.3	5.9	5.3
12	11	0	.78	0	0	0	1.2	6.6	5.9	5.3	5.9	5.3
13	11	1.9	.78	0	0	0	.95	6.6	5.9	5.3	5.9	5.6
14	11	1.8	.26	0	0	0	3.7	6.6	5.6	5.3	5.9	5.6
15	11	5.0	.52	0	0	0	6.9	6.6	5.9	5.3	5.6	5.6
16	11	5.0	.78	0	0	0	6.9	6.6	5.6	5.3	5.9	5.6
17	11	5.0	.78	0	0	0	7.3	6.6	5.6	5.3	5.9	5.9
18	11	4.6	.78	0	0	0	7.3	6.6	5.6	5.3	5.9	5.9
19	11	4.6	.78	0	0	0	7.3	6.6	5.6	5.3	5.6	5.9
20	11	4.6	.78	0	0	0	7.3	6.6	5.6	5.3	5.6	5.6
21	11	5.0	.78	0	0	0	7.3	6.6	5.6	5.3	5.6	5.0
22	11	5.0	.78	0	0	.12	7.3	6.6	5.3	5.3	5.6	5.0
23	11	1.8	.78	0	0	.83	6.9	6.6	5.3	5.3	5.6	5.0
24	11	.62	.78	0	0	1.3	6.9	6.6	5.3	5.6	5.6	5.0
25	13	.62	.78	0	0	1.3	6.9	6.6	5.3	5.9	5.6	5.3
26	13	.62	.62	0	0	1.1	6.9	6.6	5.3	5.6	5.6	5.0
27	13	.40	.62	0	0	.95	4.1	6.2	5.3	5.6	5.6	5.3
28	9.5	0	.62	0	0	.95	0	6.6	5.3	5.9	5.6	5.9
29	10	0	.62	0	-----	.95	.76	6.6	5.0	5.9	5.6	6.2
30	11	.29	.62	0	-----	.48	1.1	6.6	5.3	5.9	5.6	6.2
31	10	-----	.62	0	-----	0	-----	6.6	-----	5.9	5.6	-----
TOTAL	330.5	107.32	21.11	5.37	5.51	7.98	101.97	185.30	171.6	168.2	178.7	167.1
MEAN	10.7	3.58	.68	.17	.20	.26	3.40	5.98	5.72	5.43	5.76	5.57
MAX	13	13	.78	.78	1.1	1.3	7.3	6.9	6.2	5.9	5.9	6.2
MIN	9.5	0	0	0	0	0	0	.95	5.0	5.3	5.6	5.0
AC-FT	656	213	42	11	11	16	202	368	340	334	354	331

CAL YR 1969 TOTAL 1,832.13 MEAN 5.02 MAX 13 MIN 0 ACFT 3,630
 WAT YR 1970 TOTAL 1,450.66 MEAN 3.97 MAX 13 MIN 0 ACFT 2,880

11062000 LYTLE CREEK NEAR FONTANA, CALIF.

LOCATION.--Lat 34°12'44", long 117°27'26", in SE¼NW¼SE¼ 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).--52 years, 14.5 cfs (10,510 acre-ft per year); median of yearly mean discharges, 1.7 cfs (1,230 acre-ft per year).

(Combined creek and diversions).--67 years, 43.3 cfs (31,370 acre-ft per year); median of yearly mean discharges, 33 cfs (23,900 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 145 cfs Feb. 28 (gage height, 5.30 ft); minimum daily, 0.05 cfs July 7-10.

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, 150 cfs Feb. 28; minimum daily, 18 cfs some days.

Period of record: Maximum discharge, 35,900 cfs Jan. 25, 1969; minimum daily, 6.0 cfs Nov. 7, 1963.

REMARKS.--Records poor. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	25	14	9.7	7.0	76	10	3.2	2.7	.10	.24	.54
2	33	25	14	9.7	6.0	65	10	3.2	2.2	.10	.24	.54
3	33	25	12	9.7	5.0	41	10	3.2	1.7	.60	.24	.54
4	33	25	12	9.4	4.0	41	9.0	3.0	1.1	.10	.24	.60
5	31	25	12	9.0	3.9	41	9.0	3.0	1.2	.10	.24	.60
6	30	25	12	9.0	4.3	34	9.0	2.8	1.1	.10	.18	.60
7	30	31	12	9.4	4.5	32	8.0	2.8	1.1	.05	.18	.54
8	30	27	12	9.7	4.8	29	8.0	2.8	1.1	.05	.18	.60
9	30	24	12	9.4	5.0	28	8.0	2.8	1.5	.05	.24	.60
10	28	23	12	15	38	27	7.0	2.8	1.5	.05	.32	.60
11	27	22	12	12	30	24	7.0	2.8	.86	.10	.32	.60
12	27	21	12	11	27	23	7.0	2.8	.66	.18	.24	.79
13	27	20	12	10	27	22	6.6	2.7	.60	.24	.18	1.0
14	28	19	12	9.7	26	21	6.3	2.5	.44	.21	.12	1.0
15	28	18	12	11	24	21	5.3	2.5	.40	.18	.24	1.0
16	28	17	11	14	22	20	4.5	2.5	.32	.21	.36	1.0
17	28	15	11	14	22	20	4.3	2.5	.24	.18	.36	1.0
18	28	14	11	11	20	19	3.9	2.7	.18	.16	.40	1.0
19	27	14	11	9.4	20	18	3.9	2.7	.18	.18	.44	1.0
20	27	14	11	8.7	20	17	3.7	2.7	.18	.21	.44	1.0
21	27	13	10	8.7	19	16	4.3	2.8	.14	.32	.49	1.0
22	27	13	10	8.4	18	16	4.3	2.8	.18	.54	.49	1.0
23	27	13	10	8.7	18	15	4.1	2.8	.14	.54	.44	1.0
24	27	13	10	9.4	18	15	3.7	2.7	.14	.44	.49	1.0
25	26	13	10	9.4	19	14	3.6	2.7	.18	.32	.49	1.1
26	26	13	10	9.4	20	13	3.6	2.7	.10	.30	.66	1.2
27	26	12	10	9.7	20	13	3.6	2.8	.10	.30	1.2	1.2
28	26	13	10	9.4	63	12	3.6	3.0	.10	.30	.49	1.2
29	26	13	10	9.4	-----	12	3.2	3.2	.10	.30	.49	1.2
30	26	13	10	9.0	-----	11	3.2	2.8	.10	.30	.49	1.2
31	26	-----	10	8.0	-----	11	-----	2.8	-----	.30	.49	-----
TOTAL	876	558	349	310.3	515.5	767	177.7	87.1	20.54	7.11	11.62	26.25
MEAN	28.3	18.6	11.3	10.0	18.4	24.7	5.92	2.81	.68	.23	.37	.88
MAX	33	31	14	15	63	76	10	3.2	2.7	.60	1.2	1.2
MIN	26	12	10	8.0	3.9	11	3.2	2.5	.10	.05	.12	.54
AC-FT	1,740	1,110	692	615	1,020	1,520	352	173	41	14	23	52

CAL YR 1969 TOTAL 66,361.60 MEAN 182 MAX 8,320 MIN 0 ACFT 131,600
WAT YR 1970 TOTAL 3,706.12 MEAN 10.2 MAX 76 MIN .05 ACFT 7,350

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

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	52	42	37	34	92	38	30	27	22	19	18
2	61	52	42	37	33	91	38	30	28	22	19	19
3	61	52	40	37	32	67	38	30	27	21	19	19
4	60	52	40	37	32	67	37	29	27	21	19	18
5	59	52	40	36	32	67	37	28	27	20	19	19
6	58	52	40	36	32	61	37	28	26	20	18	18
7	58	58	40	37	32	58	36	28	26	20	20	18
8	58	54	40	37	32	55	36	29	26	20	19	18
9	57	52	40	37	33	54	36	29	26	20	19	18
10	55	50	40	42	68	53	35	28	26	20	20	18
11	54	50	40	38	66	50	35	28	26	20	20	18
12	55	48	40	37	53	50	35	28	25	20	19	18
13	54	48	40	36	53	49	35	28	25	20	18	21
14	53	46	40	36	52	48	35	27	25	20	18	21
15	52	46	40	37	50	47	34	27	24	20	18	21
16	54	44	38	40	48	46	33	27	24	20	19	21
17	56	42	39	40	48	46	33	26	24	19	19	21
18	56	42	38	37	47	46	32	26	24	19	18	21
19	55	42	38	36	47	45	32	26	24	20	19	22
20	55	42	38	35	47	44	32	26	24	20	19	22
21	55	40	38	35	46	43	33	27	23	20	18	22
22	55	40	38	35	45	43	33	26	23	21	18	21
23	55	40	38	35	45	41	32	26	23	21	18	21
24	54	40	38	36	45	41	31	25	23	20	18	22
25	54	40	38	36	46	42	31	25	22	19	18	22
26	54	40	38	36	47	41	31	26	22	19	18	22
27	54	40	38	36	47	41	31	26	22	19	18	22
28	54	40	36	37	81	40	31	26	22	19	18	22
29	54	40	38	37	-----	40	30	26	22	19	18	22
30	54	40	38	36	-----	39	30	25	22	20	19	23
31	54	-----	38	35	-----	39	-----	25	-----	19	18	-----
TOTAL	1,729	1,376	1,211	1,139	1,273	1,586	1,017	841	735	620	577	608
MEAN	55.8	45.9	39.1	36.7	45.5	51.2	33.9	27.1	24.5	20.0	18.6	20.3
MAX	61	58	42	42	81	92	38	30	28	22	20	23
MIN	52	40	36	35	32	39	30	25	22	19	18	18
AC-FT	3,430	2,730	2,400	2,260	2,530	3,150	2,020	1,670	1,460	1,230	1,140	1,210

CAL YR 1969 TOTAL 73,193 MEAN 201 MAX 8,330 MIN 14 ACFT 145,200
WAT YR 1970 TOTAL 12,712 MEAN 34.8 MAX 92 MIN 18 ACFT 25,210

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

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.--50 years (1920-70), 9.09 cfs (6,590 acre-ft per year); median of yearly mean discharges, 5.8 cfs (4,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 550 cfs Mar. 1 (gage height, 4.62 ft, from floodmark), on basis of slope-conveyance measurement of peak flow; minimum daily, 3.6 cfs Aug. 26 to Sept. 11, Sept. 26-30.
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 except those for periods of no gage-height record, which are poor. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

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	4.6	5.5	5.5	6.1	4.6	6.5	6.7	6.7	6.7	4.6	4.4	3.6
2	4.9	5.8	5.5	6.1	4.4	4.0	6.7	6.7	6.7	4.6	4.4	3.6
3	4.6	5.8	5.5	6.1	4.4	35	6.7	6.7	6.7	4.6	4.4	3.6
4	4.6	6.1	5.5	6.1	4.4	25	6.7	6.7	6.7	4.6	4.4	3.6
5	4.6	6.1	5.5	6.1	4.4	20	6.7	7.1	6.7	4.4	4.4	3.6
6	4.6	15	5.5	6.1	4.4	15	6.7	7.1	6.4	4.4	4.4	3.6
7	4.9	13	5.8	6.1	4.4	11	6.7	7.1	6.4	4.4	4.4	3.6
8	4.9	6.7	5.8	6.1	4.4	9.7	6.7	7.1	6.4	4.4	4.4	3.6
9	4.9	6.4	5.8	6.7	4.4	9.2	6.7	7.1	6.1	4.4	4.4	3.6
10	4.9	6.1	5.8	7.1	13	8.3	6.7	7.1	6.1	4.4	4.4	3.6
11	4.9	5.5	5.8	7.1	6.6	7.8	6.7	7.1	6.1	4.4	4.4	3.6
12	4.9	5.2	5.8	7.1	4.4	7.1	6.4	7.1	5.8	4.4	4.1	3.8
13	5.2	5.2	5.5	8.7	4.4	7.1	6.4	7.1	5.8	4.4	4.1	3.8
14	5.2	5.5	5.5	8.7	4.2	7.1	6.4	7.1	5.5	4.4	4.1	3.8
15	5.2	5.5	5.5	8.3	4.1	7.1	6.4	7.1	5.5	4.4	4.1	3.8
16	5.2	5.5	5.5	7.9	4.1	7.1	6.4	7.1	5.5	4.4	4.1	3.8
17	5.5	5.5	5.5	7.5	4.1	7.1	6.4	7.1	5.2	4.4	4.1	3.8
18	5.5	5.5	5.5	7.1	4.1	7.1	6.4	7.1	5.2	4.4	3.8	3.8
19	5.2	5.5	5.5	6.7	4.1	7.1	6.4	7.1	5.2	4.4	3.8	3.8
20	4.9	5.5	5.5	6.4	4.4	7.1	6.7	7.1	5.2	4.4	3.8	3.8
21	5.2	5.5	5.5	6.1	4.4	7.1	6.7	7.1	5.2	4.4	3.8	3.8
22	5.2	5.5	5.5	5.8	4.4	7.1	6.7	6.7	5.2	4.4	3.8	3.8
23	5.2	5.5	5.5	5.5	4.4	7.1	6.7	6.7	5.2	4.4	3.8	3.8
24	5.2	5.5	5.5	5.2	4.4	7.1	6.7	6.7	5.2	4.4	3.8	3.8
25	5.5	5.5	5.5	5.2	4.4	7.1	6.7	6.7	4.9	4.4	3.8	3.8
26	5.5	5.5	5.5	4.9	4.4	7.1	6.7	6.7	4.9	4.4	3.6	3.6
27	5.5	5.5	6.1	4.9	4.6	7.1	6.7	6.7	4.9	4.4	3.6	3.6
28	5.5	5.5	6.1	4.6	35	6.7	6.7	6.7	4.9	4.4	3.6	3.6
29	5.5	5.5	6.4	4.6	-----	6.7	6.7	6.7	4.9	4.4	3.6	3.6
30	5.5	5.5	6.4	4.6	-----	6.7	6.7	6.7	4.6	4.4	3.6	3.6
31	5.5	-----	6.1	4.6	-----	6.7	-----	6.7	-----	4.4	3.6	-----
TOTAL	158.5	185.9	175.9	194.1	163.3	386.4	198.6	214.5	169.8	137.2	125.0	110.8
MEAN	5.11	6.20	5.67	6.26	5.83	12.5	6.62	6.92	5.66	4.43	4.03	3.69
MAX	5.5	15	6.4	8.7	35	65	6.7	7.1	6.7	4.6	4.4	3.8
MIN	4.6	5.2	5.5	4.6	4.1	6.7	6.4	6.7	4.6	4.4	3.6	3.6
AC-FT	314	369	349	385	324	766	394	425	337	272	248	220

CAL Y: 1969 TOTAL 12,445.1 MEAN 34.1 MAX 2,180 MIN 3.6 ACFT 24,680
WAT Y: 1970 TOTAL 2,220.0 MEAN 6.08 MAX 65 MIN 3.6 ACFT 4,400

PEAK DISCHARGE (BASE, 140 CFS).--Mar. 1 (1400) 550 cfs (4.62 ft).

NOTE.--No gage-height record Jan. 15 to Feb. 11, Feb. 28 to Mar. 12, May 9 to June 16.

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.--39 years (1920-38, 1949-70), 1.42 cfs (1,030 acre-ft per year); median of yearly mean discharges, 0.5 cfs (360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 90 cfs Mar. 1 (gage height, 2.72 ft); minimum daily, 1.8 cfs June 30 to July 7, July 15.

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 except those for period of no gage-height record, which are poor. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

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	3.6	4.5	4.8	3.6	3.4	20	3.2	3.8	2.4	1.8	2.6	2.2
2	3.8	4.5	4.8	3.6	3.4	9.0	3.2	3.8	2.4	1.8	2.4	2.2
3	3.8	4.8	4.8	3.6	3.4	3.0	3.4	3.8	2.4	1.8	2.4	2.2
4	3.8	4.8	4.8	3.6	3.6	3.8	3.4	4.0	2.4	1.8	2.4	2.2
5	3.6	4.8	4.8	3.6	3.6	3.4	3.6	4.3	2.4	1.8	2.4	2.2
6	3.8	7.5	4.8	3.6	3.4	2.6	3.6	4.8	2.4	1.8	2.4	2.2
7	3.8	6.6	5.0	3.8	3.2	2.8	3.6	4.8	2.4	1.8	2.4	2.2
8	3.8	5.0	5.0	3.8	3.4	3.0	3.6	4.8	2.4	1.9	2.4	2.2
9	3.8	4.8	5.0	3.6	3.8	3.2	3.6	4.8	2.6	2.1	2.4	2.2
10	3.8	4.8	5.0	4.0	7.5	3.4	3.6	4.8	2.6	2.1	2.4	2.2
11	3.8	4.3	5.0	3.6	4.5	3.2	3.6	4.8	2.4	2.1	2.4	2.2
12	3.8	4.0	5.0	3.6	3.4	3.2	3.6	4.5	2.4	2.1	2.4	2.4
13	4.0	4.0	5.0	3.6	3.6	3.2	3.6	4.3	2.4	1.9	2.4	2.4
14	4.0	4.3	5.0	3.6	3.4	3.0	4.0	4.3	2.4	1.9	2.4	2.4
15	4.0	4.5	5.0	3.6	3.4	3.0	4.0	4.0	2.4	1.8	2.4	2.4
16	4.0	4.8	4.8	3.8	3.4	3.0	4.0	3.8	2.4	1.9	2.4	2.2
17	4.0	4.8	4.8	3.8	3.2	3.0	4.0	3.8	2.4	1.9	2.4	2.2
18	3.8	4.3	4.8	3.6	3.2	3.0	4.0	3.8	2.4	1.9	2.4	2.2
19	3.8	4.3	4.8	3.6	3.2	3.2	4.0	3.8	2.4	2.1	2.4	2.2
20	3.8	4.3	4.5	3.6	3.2	3.2	3.8	3.6	2.4	2.2	2.4	2.2
21	3.6	4.3	4.5	3.6	3.2	3.2	3.8	3.6	2.2	2.2	2.4	2.2
22	3.4	4.3	4.8	3.6	3.2	3.2	3.8	3.6	2.2	2.2	2.4	2.2
23	3.4	4.0	4.5	3.6	3.4	3.0	3.8	3.6	2.2	2.4	2.2	2.2
24	3.4	4.3	4.3	3.4	3.4	3.0	3.8	3.6	2.2	2.4	2.2	2.2
25	3.4	4.5	4.3	3.4	3.4	3.0	3.8	3.6	2.2	2.4	2.2	2.2
26	3.6	4.5	4.0	3.2	3.2	3.0	4.0	3.6	2.2	2.4	2.2	2.2
27	3.8	4.5	3.8	3.2	3.4	3.0	4.0	3.6	2.2	2.4	2.2	2.2
28	3.8	4.8	3.4	3.2	21	2.8	3.8	3.6	2.2	2.4	2.2	2.2
29	4.0	4.5	3.4	3.2	-----	3.0	3.8	3.4	2.2	2.4	2.2	2.2
30	4.0	4.8	3.4	3.2	-----	3.2	3.8	3.2	1.8	2.6	2.2	2.2
31	4.3	-----	3.6	3.2	-----	3.2	-----	2.8	-----	2.6	2.2	-----
TOTAL	117.3	140.2	141.5	110.0	117.4	118.8	111.8	122.6	70.0	64.9	72.8	66.8
MEAN	3.78	4.67	4.56	3.55	4.19	3.83	3.73	3.95	2.33	2.09	2.35	2.23
MAX	4.3	7.5	5.0	4.0	21	20	4.0	4.8	2.6	2.6	2.6	2.4
MIN	3.4	4.0	3.4	3.2	3.2	2.6	3.2	2.8	1.8	1.8	2.2	2.2
AC-FT	233	278	281	218	233	236	222	243	139	129	144	133

CAL YR 1969 TOTAL 3,861.8 MEAN 10.6 MAX 701 MIN .36 ACFT 7,660

WAT YR 1970 TOTAL 1,254.1 MEAN 3.44 MAX 21 MIN 1.8 ACFT 2,490

PEAK DISCHARGE (BASE, 80 CFS).--Mar. 1 (1200) 90 cfs (2.72 ft).

NOTE.--No gage-height record Aug. 6 to Sept. 8.

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, non-recording 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).--51 years (1913-14, 1920-70), 1.88 cfs (1,360 acre-ft per year); median of yearly mean discharges, 0.8 cfs (580 acre-ft per year).
(Combined creek and diversion).--36 years (1913-14, 1934-70), 3.63 cfs (2,630 acre-ft per year); median of yearly mean discharges, 2.3 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 96 cfs Mar. 1 (gage height, 3.90 ft, from floodmark); minimum daily, 0.88 cfs Oct. 1.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	1.1	2.2	2.7	2.4	35	3.0	2.1	2.0	1.8	1.8	2.3
2	1.3	1.0	2.2	2.7	2.5	16	2.9	1.9	2.0	1.8	1.8	2.3
3	1.3	1.0	2.3	2.7	2.2	9.5	2.9	2.2	2.0	1.8	1.7	2.5
4	1.2	1.0	2.3	2.7	2.3	6.6	2.8	2.1	1.8	1.8	1.7	2.6
5	1.1	1.0	2.3	2.8	2.3	9.0	2.8	2.1	2.0	1.8	1.8	2.4
6	1.1	2.2	2.3	2.9	2.3	7.6	2.8	2.1	1.9	1.8	1.9	2.4
7	1.1	3.3	2.3	2.8	2.3	6.2	2.7	2.1	1.8	1.8	1.8	2.8
8	1.1	2.4	2.3	2.8	2.2	6.1	2.7	2.1	1.7	1.7	1.7	1.7
9	1.1	2.3	2.5	3.2	2.4	5.7	2.7	2.1	1.7	1.8	1.9	2.2
10	1.0	2.2	2.5	4.9	4.5	6.0	2.6	2.1	1.7	1.8	1.9	1.9
11	1.0	2.2	2.8	4.1	5.3	5.9	2.6	2.1	1.7	1.8	1.9	2.0
12	1.0	2.2	2.6	3.9	4.7	6.4	2.6	2.1	1.7	1.8	1.9	1.9
13	1.0	2.0	2.5	3.5	3.5	6.4	2.6	2.1	1.6	1.9	1.8	1.9
14	1.0	2.0	2.4	2.9	3.0	5.6	2.6	2.1	1.7	1.9	1.8	1.8
15	1.0	2.1	2.4	3.4	2.7	5.5	2.4	2.1	1.7	1.8	2.0	1.9
16	1.1	2.8	2.3	4.0	2.5	4.9	2.3	2.1	1.7	1.9	2.0	1.9
17	1.1	2.5	2.3	4.0	2.4	4.4	2.3	2.1	1.8	1.8	2.0	1.9
18	1.4	2.1	2.3	3.6	2.3	4.2	2.4	2.1	2.1	1.8	2.0	1.9
19	1.1	2.1	2.3	3.1	2.3	4.1	2.4	2.1	2.1	1.9	2.0	1.9
20	1.0	2.0	2.3	2.7	2.3	4.0	2.5	2.1	2.2	1.8	2.0	1.8
21	1.1	1.9	2.3	2.7	2.2	3.9	2.2	2.1	2.1	1.9	2.0	1.9
22	1.1	1.8	2.7	2.5	2.2	3.7	2.2	2.1	1.9	2.0	2.1	1.9
23	1.1	1.8	2.8	2.2	2.2	3.6	2.3	2.1	1.8	1.8	2.1	1.9
24	1.0	1.9	2.6	2.4	2.2	3.5	2.3	2.1	1.7	1.7	2.1	1.9
25	1.0	1.8	2.6	2.5	2.2	3.5	2.2	2.1	1.7	1.7	2.1	1.8
26	1.0	1.9	2.7	2.5	2.2	3.4	2.1	2.0	1.5	1.7	2.0	1.8
27	1.0	2.0	2.7	2.3	2.2	3.3	2.2	2.0	1.6	1.7	2.2	1.7
28	1.1	2.0	2.7	2.4	20	3.2	2.0	2.0	1.7	1.7	2.3	1.7
29	1.0	2.0	2.8	2.6	-----	3.2	2.1	2.0	1.7	1.7	2.3	1.7
30	1.0	2.0	2.9	2.6	-----	3.1	2.2	2.0	1.8	1.8	2.3	1.8
31	1.1	-----	2.8	2.6	-----	3.0	-----	2.0	-----	1.8	2.4	-----
TOTAL	33.38	58.6	77.0	92.7	91.8	196.5	74.4	64.4	54.4	55.8	61.3	60.1
MEAN	1.08	1.95	2.48	2.99	3.28	6.34	2.48	2.08	1.81	1.80	1.98	2.00
MAX	1.4	3.3	2.9	4.9	20	35	3.0	2.2	2.2	2.0	2.4	2.8
MIN	.88	1.0	2.2	2.2	2.2	3.0	2.0	1.9	1.5	1.7	1.7	1.7
AC-FT	66	116	153	184	182	390	148	128	108	111	122	119
(a)	166	191	239	251	237	438	248	235	224	209	193	203

CAL YR 1969 TOTAL 5,493.91 MEAN 15.1 MAX 556 MIN .77 ACFT 10,900 AC-FT a 1,220
WAT YR 1970 TOTAL 920.38 MEAN 2.52 MAX 35 MIN .88 ACFT 1,830 AC-FT a 2,830

PEAK DISCHARGE (BASE, 25 CFS).--Mar. 1 (time unknown), 96 cfs (3.90 ft).

a Combined discharge, in acre-ft, of Devil Canyon Creek and city of San Bernardino diversion.

NOTE.--No gage-height record Feb. 13 to Mar. 2.

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.--13 years, 8.04 cfs (5,820 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 726 cfs Nov. 7 (gage height, 2.67 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	.26		0	0	110	0	.08		.10	0	
2	3.5	.39		0	0	92	0	.16		.08	0	
3	2.8	.62		0	0	.25	0	.16		.08	0	
4	2.2	.76		0	0	12	0	.20		.08	0	
5	2.2	.26		0	0	12	0	.20		.08	0	
6	1.8	14		0	0	.39	0	.16		0	0	
7	1.0	97		0	0	.39	0	.16		0	0	
8	.55	4.2		0	0	.26	0	.16		0	0	
9	.55	1.8		0	0	.26	0	.16		0	0	
10	.55	.76		3.2	20	.22	0	.16		0	0	
11	.26	.76		.51	4.2	.16	0	.08		0	0	
12	1.8	.55		.71	1.0	.16	0	.08		0	0	
13	2.2	1.8		.16	.55	.16	0	.08		0	0	
14	1.4	1.4		.44	.24	.08	0	.08		0	0	
15	.76	.55		.76	.08	.08	0	.08		0	0	
16	.26	.55		7.1	0	0	0	0		0	0	
17	.26	.26		.50	0	0	0	0		0	0	
18	1.0	.16		.08	0	0	0	0		0	0	
19	.39	.08		.08	0	0	0	0		0	0	
20	.26	.08		.08	0	0	0	0		0	0	
21	.16	0		0	0	0	.13	0		0	0	
22	.76	0		0	0	0	.08	0		0	0	
23	.76	0		0	0	0	.08	0		0	0	
24	.55	0		0	0	0	.08	0		0	0	
25	1.8	0		0	0	0	.08	0		0	0	
26	.76	0		0	0	0	.08	0		0	0	
27	.39	0		0	0	0	.08	0		0	0	
28	.76	0		0	52	0	.08	0		0	0	
29	.39	0		0	-----	0	.08	0		0	.10	
30	.26	0		0	-----	.16	.08	0		0	.05	
31	.16	-----		0	-----	.08	-----	0	-----	0	.05	-----
TOTAL	32.69	126.24	0	13.62	78.07	228.65	.85	2.00	0	.42	.20	0
MEAN	1.05	4.21	0	.44	2.79	7.38	.028	.065	0	.014	.006	0
MAX	3.5	97	0	7.1	52	110	.13	.20	0	.10	.10	0
MIN	.16	0	0	0	0	0	0	0	0	0	0	0
AC-FT	65	250	0	27	155	454	1.7	4.0	0	.8	.4	0

CAL YR 1969 TOTAL 24,045.56 MEAN 65.9 MAX 5,040 MIN 0 ACFT 47,690
 WAT YR 1970 TOTAL 482.74 MEAN 1.32 MAX 110 MIN 0 ACFT 958

NOTE.--No gage-height record for discharge less than 0.50 cfs.

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.

PERIOD OF RECORD.--March to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 685 ft (from topographic map).

EXTREMES.--Maximum daily discharge during period March to September 1970, 48 cfs Mar. 11; minimum daily, 20 cfs Sept. 30.

REMARKS.--Records poor. 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 water year 1970 are published in Part 2 of this report. See schematic diagram of Santa Ana River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, MARCH TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							22	24	22	21	21	21
2							21	25	22	21	21	21
3							21	26	22	21	21	21
4							25	28	22	21	21	21
5							31	30	22	21	21	21
6							29	32	22	22	21	21
7							28	32	22	22	21	21
8							27	32	22	22	21	21
9						36	26	31	22	22	21	21
10						45	26	31	22	22	21	22
11						48	26	31	22	23	21	22
12						44	27	30	22	23	21	22
13						41	27	29	22	23	21	23
14						38	27	28	22	23	21	23
15						37	27	27	22	23	21	23
16						34	26	26	22	23	21	22
17						32	27	26	22	23	21	21
18						31	28	25	22	23	21	21
19						32	29	25	22	23	21	21
20						35	28	24	22	23	21	21
21						38	27	24	22	23	21	21
22						41	27	23	22	23	21	21
23						39	26	23	22	22	21	21
24						36	27	23	22	22	21	21
25						33	28	23	22	22	21	21
26						30	29	22	21	21	22	21
27						27	28	22	21	21	23	21
28						26	27	22	21	21	22	21
29					-----	25	24	22	21	21	22	21
30					-----	23	23	22	21	21	21	20
31		-----			-----	23	-----	22	-----	21	21	-----
TOTAL							794	810	655	683	656	639
MEAN							26.5	26.1	21.8	22.0	21.2	21.3
MAX							31	32	22	23	23	23
MIN							21	22	21	21	21	20
AC-FT							1,570	1,610	1,300	1,350	1,300	1,270

SANTA ANA RIVER BASIN

11066480 RIVERSIDE WATER QUALITY CONTROL PLANT AT RIVERSIDE NARROWS, NEAR ARLINGTON, CALIF.
(Formerly published as 11066550 Sheehan Ditch at Riverside Narrows, near Arlington)

LOCATION.--Lat 33°57'53", long 117°27'26", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.25, T.2 S., Riverside County, at effluent end of chlorine contact chambers, 0.4 mile upstream from Van Buren Boulevard, and 3.1 miles northwest of Arlington.

PERIOD OF RECORD --October 1946 to current year. Prior to May 25, 1967, published as "Sheehan ditch."

GAGE.--Water-stage recorders and concrete controls for Plants Nos. 1 and 2. Altitude of gage is 690 ft (from topographic map).

EXTREMES.--Maximum and minimum daily discharges for the water years 1967-70 are contained in the following table:

Water year	Maximum		Minimum	
	Date	Discharge (cfs)	Date	Discharge (cfs)
1967	Dec. 5, 1966	29	Dec. 25, 1966, Jan. 1, 1967	18
1968	Mar. 8, 1968	31	Dec. 25, 1967, Mar. 31, 1968	19
1969	Apr. 6, 1969	32	May 11, June 8, 1969	17
1970	Nov. 22, 1969	31	Oct. 10, 1969	20

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 water year 1970 are published in Part 2 of this report.

COOPERATION.--Records prior to Dec. 20, 1969 furnished by city of Riverside's Department of Public Works.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	24	22	18	23	24	22	24	24	23	25	26
2	21	24	23	20	24	24	20	24	24	20	25	23
3	24	23	28	24	24	23	24	24	23	23	25	20
4	23	20	22	22	23	23	23	24	22	20	25	22
5	24	22	29	23	21	21	24	23	24	24	23	26
6	23	20	28	23	24	24	23	22	24	25	21	26
7	23	24	25	22	23	24	23	20	24	25	25	26
8	22	23	24	21	23	24	22	24	24	24	25	26
9	21	24	24	24	23	23	20	24	23	21	24	24
10	23	23	23	23	24	23	24	23	22	25	25	22
11	23	24	21	23	23	22	24	24	20	25	25	26
12	24	22	23	23	20	21	24	24	24	23	23	27
13	22	21	23	23	24	24	24	21	24	25	21	26
14	23	23	23	22	23	24	24	20	24	25	25	26
15	22	23	24	21	24	24	22	24	24	23	25	26
16	20	22	23	23	24	24	21	24	24	21	23	24
17	23	23	22	23	23	24	24	24	22	25	26	22
18	23	24	21	23	23	23	24	24	21	25	26	25
19	23	23	23	23	21	21	25	24	24	25	23	26
20	23	21	23	23	24	24	24	22	24	25	21	26
21	24	22	23	22	23	24	23	20	25	25	26	26
22	22	23	23	23	24	24	23	25	24	22	25	26
23	20	23	23	25	24	23	21	24	24	20	26	25
24	24	19	21	24	24	24	23	25	23	25	27	21
25	23	21	18	24	22	24	24	24	20	26	26	26
26	23	21	20	24	21	19	24	24	25	25	24	26
27	23	21	21	24	22	24	24	22	24	25	22	26
28	23	23	21	23	23	23	24	20	24	25	27	26
29	23	23	21	21	-----	24	22	22	24	23	26	26
30	22	23	21	23	-----	24	20	20	25	21	25	24
31	23	-----	21	23	-----	24	-----	23	-----	24	26	-----
TOTAL	703	672	707	703	644	721	689	712	703	733	761	747
MEAN	22.7	22.4	22.8	22.7	23.0	23.3	23.0	23.0	23.4	23.6	24.5	24.9
MAX	24	24	29	25	24	24	25	25	25	26	27	27
MIN	20	19	18	18	20	19	20	20	20	20	21	20
AC-FT	1,390	1,330	1,400	1,390	1,280	1,430	1,370	1,410	1,390	1,450	1,510	1,480

CAL YR 1966 TOTAL - MEAN - MAX - MIN - ACFT -
WAT YR 1967 TOTAL 8,495 MEAN 23.3 MAX 29 MIN 18 ACFT 16,850

11066480 RIVERSIDE WATER QUALITY CONTROL PLANT AT
RIVERSIDE NARROWS, NEAR ARLINGTON, CALIF.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	25	24	20	24	24	24	25	21	26	25	20
2	26	25	23	23	24	23	24	25	21	25	25	21
3	26	25	22	24	24	21	24	24	25	25	24	24
4	27	24	24	24	21	24	24	23	25	23	22	24
5	26	22	24	24	24	24	24	21	25	23	25	25
6	25	25	24	23	24	24	22	25	24	22	25	24
7	24	25	24	22	24	25	21	24	24	21	25	24
8	22	25	23	23	24	31	25	24	22	26	25	22
9	25	25	22	24	24	24	24	25	21	25	25	26
10	25	25	21	23	23	22	25	25	25	25	24	25
11	25	24	24	24	20	25	25	23	25	26	24	25
12	25	21	23	24	24	24	24	20	25	26	26	25
13	26	25	23	23	24	25	23	25	25	24	25	24
14	24	25	23	21	24	25	20	24	24	22	25	23
15	22	24	23	24	25	25	25	24	24	26	25	22
16	25	25	22	24	25	24	23	24	22	25	25	25
17	25	24	20	24	23	21	24	24	26	25	23	25
18	26	23	24	24	22	25	24	23	25	25	21	25
19	25	21	25	24	25	25	22	22	25	25	24	25
20	25	26	24	23	24	24	20	25	25	24	24	24
21	24	26	24	21	24	26	21	25	26	23	24	24
22	21	25	23	24	24	27	25	24	23	26	24	22
23	25	21	22	23	25	26	22	25	21	26	24	23
24	25	22	21	23	24	23	24	24	25	26	23	24
25	25	21	19	24	21	27	25	23	25	26	21	24
26	25	21	23	24	25	27	25	22	25	26	24	25
27	25	25	24	23	24	27	23	26	25	24	24	24
28	24	24	23	22	25	27	20	25	25	23	24	23
29	24	25	23	24	25	23	25	24	23	27	24	22
30	26	25	22	24	-----	22	25	21	22	26	24	24
31	24	-----	20	24	-----	19	-----	23	-----	26	22	-----
TOTAL	764	719	706	721	689	759	702	737	719	768	745	713
MEAN	24.6	24.0	22.8	23.3	23.8	24.5	23.4	23.8	24.0	24.8	24.0	23.8
MAX	27	26	25	24	25	31	25	26	26	27	26	26
MIN	21	21	19	20	20	19	20	20	21	21	21	20
AC-FT	1,520	1,430	1,400	1,430	1,370	1,510	1,390	1,460	1,430	1,520	1,480	1,410
CAL YR 1967	TOTAL	8,602	MEAN	23.6	MAX	27	MIN	18	ACFT	17,060		
WAT YR 1968	TOTAL	8,742	MEAN	23.9	MAX	31	MIN	19	ACFT	17,340		

SANTA ANA RIVER BASIN

11066480 RIVERSIDE WATER QUALITY CONTROL PLANT AT
RIVERSIDE NARROWS, NEAR ARLINGTON, CALIF.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	24	22	20	24	24	26	26	18	24	25	21
2	24	22	22	25	24	24	26	26	21	24	23	26
3	24	22	24	24	24	24	27	24	24	24	21	27
4	25	25	24	26	24	24	25	23	20	20	24	26
5	24	24	25	24	24	24	24	24	21	20	25	26
6	22	24	25	25	24	24	32	27	21	19	25	25
7	24	24	24	25	24	24	25	25	19	25	25	24
8	25	24	22	25	23	24	25	26	17	25	24	27
9	24	23	25	26	23	24	24	26	20	24	23	31
10	25	21	25	27	24	24	25	24	21	25	21	27
11	23	25	26	25	24	24	25	17	27	23	25	26
12	21	25	26	23	24	24	23	25	22	24	26	26
13	24	24	25	26	23	24	23	25	21	22	26	24
14	25	23	24	28	24	24	24	25	22	25	25	24
15	25	24	23	27	24	24	24	26	19	23	27	26
16	25	23	23	27	24	24	24	29	23	25	23	25
17	25	22	21	27	23	24	24	24	23	25	23	25
18	23	24	25	26	23	24	25	30	23	25	26	23
19	21	25	25	25	24	24	23	25	22	22	26	27
20	25	24	24	29	24	24	21	24	22	25	29	24
21	25	24	23	28	24	24	26	23	20	26	24	22
22	25	24	22	23	24	24	27	25	20	25	26	26
23	26	23	23	28	24	24	26	23	23	26	25	25
24	26	22	23	30	24	24	27	22	22	28	23	25
25	24	24	19	22	24	24	26	20	22	26	26	25
26	23	24	22	22	24	24	25	23	22	23	26	24
27	21	24	23	22	24	24	22	24	22	20	26	23
28	25	24	22	22	24	24	27	25	21	24	27	23
29	25	24	20	23	-----	24	26	24	20	23	26	25
30	25	23	23	23	-----	24	25	21	23	24	23	24
31	25	-----	30	23	-----	25	-----	20	-----	25	22	-----
TOTAL	748	708	730	776	667	745	752	751	641	739	766	752
MEAN	24.1	23.6	23.5	25.0	23.8	24.0	25.1	24.2	21.4	23.8	24.7	25.1
MAX	26	25	30	30	24	25	32	30	27	28	29	31
MIN	21	21	19	20	23	24	21	17	17	19	21	21
AC-FT	1,480	1,400	1,450	1,540	1,320	1,480	1,490	1,490	1,270	1,470	1,520	1,490
CAL YR 1968	TOTAL	8,739	MEAN	23.9	MAX	31	MIN	19	ACFT	17,330		
WAT YR 1969	TOTAL	8,775	MEAN	24.0	MAX	32	MIN	17	ACFT	17,410		

11066480 RIVERSIDE WATER QUALITY CONTROL PLANT AT
RIVERSIDE NARROWS, NEAR ARLINGTON, CALIF.--Continued

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	26	21	24	22	24	25	26	26	28	28	26	27
2	25	21	23	24	26	30	28	24	28	28	25	26
3	23	23	24	24	26	28	28	24	28	27	29	26
4	22	23	25	23	25	28	25	26	28	24	28	26
5	21	23	25	26	27	29	23	26	28	24	28	24
6	24	24	24	26	27	28	26	26	25	29	28	23
7	24	26	23	25	25	26	25	27	24	28	28	25
8	23	22	25	26	24	25	26	27	27	28	26	27
9	24	21	24	25	27	28	26	26	27	29	24	28
10	20	24	25	24	29	27	27	22	27	28	29	28
11	22	25	24	23	28	28	25	25	27	25	28	28
12	26	25	24	24	27	27	24	26	27	24	28	24
13	24	23	23	25	27	27	27	26	25	28	27	24
14	24	26	23	24	26	26	27	27	24	28	27	27
15	28	23	24	25	24	24	27	28	27	28	26	27
16	23	23	25	27	27	28	27	26	27	28	24	27
17	24	24	27	24	27	27	27	24	27	29	27	27
18	23	25	24	24	28	27	26	27	27	26	27	27
19	22	24	25	26	27	27	25	27	27	25	27	25
20	26	24	24	26	27	28	28	27	26	28	27	24
21	25	24	23	26	25	25	26	27	24	28	27	27
22	24	31	25	26	23	24	26	28	28	28	26	27
23	25	22	25	26	28	28	27	25	28	29	24	27
24	24	28	25	25	27	28	27	25	28	30	27	27
25	23	24	21	24	27	27	25	28	28	27	27	27
26	23	23	24	27	27	26	24	27	29	25	28	26
27	25	21	23	25	27	27	27	27	26	29	28	25
28	25	23	22	26	26	26	27	27	24	28	28	29
29	25	21	25	26	-----	23	27	26	28	28	25	29
30	25	22	25	26	-----	27	27	24	27	29	24	29
31	23	-----	25	25	-----	27	-----	23	-----	29	28	-----
TOTAL	741	709	748	775	738	831	786	804	804	852	831	793
MEAN	23.9	23.6	24.1	25.0	26.4	26.8	26.2	25.9	26.8	27.5	26.8	26.4
MAX	28	31	27	27	29	30	28	28	29	30	29	29
MIN	20	21	21	22	23	23	23	22	24	24	24	23
AC-FT	1,470	1,410	1,480	1,540	1,460	1,650	1,560	1,590	1,590	1,690	1,650	1,570
CAL YR 1969	TOTAL 8,787	MEAN 24.1	MAX 32	MIN 17	ACFT 17,430							
WAT YR 1970	TOTAL 9,412	MEAN 25.8	MAX 31	MIN 20	ACFT 18,670							

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 (revised).

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for October 1927 to January 1929, 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, 1,670 cfs Mar. 2 (gage height, 6.76 ft); minimum daily, 36 cfs Oct. 4.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	40	54	46	50	298	48	50	50	49	47	48
2	42	40	55	50	52	336	49	49	50	49	46	47
3	44	41	53	48	51	83	49	50	50	48	49	47
4	36	42	50	48	49	75	50	54	50	45	49	47
5	39	41	50	48	49	120	54	56	49	45	49	45
6	44	76	47	47	48	74	55	58	47	51	49	44
7	42	275	49	46	47	76	53	59	46	50	49	46
8	40	75	52	46	46	68	53	59	49	50	47	48
9	39	55	48	49	48	64	52	57	49	51	45	49
10	39	51	48	59	102	72	53	53	49	50	49	50
11	39	50	47	70	170	76	51	56	49	48	49	50
12	43	50	49	53	69	71	51	56	49	47	48	46
13	48	49	50	49	67	68	54	55	47	51	48	47
14	47	51	49	60	63	64	54	55	46	51	48	50
15	46	48	53	63	61	61	54	55	49	51	46	50
16	45	48	55	86	63	62	53	52	49	51	45	49
17	48	48	62	62	63	59	54	50	49	52	48	48
18	47	50	62	63	64	58	54	52	49	49	48	48
19	48	48	57	63	63	59	54	52	48	48	48	46
20	54	47	58	63	63	63	56	51	47	51	48	45
21	54	47	55	62	61	63	53	51	46	51	48	48
22	56	46	58	62	59	65	53	51	50	51	47	48
23	52	43	59	60	65	67	53	48	50	51	45	48
24	50	44	57	62	67	64	54	48	50	52	47	48
25	46	46	50	58	68	60	53	51	49	49	47	48
26	46	46	52	57	69	56	53	49	49	46	50	47
27	44	44	52	50	74	54	55	49	47	50	51	46
28	40	44	50	48	100	52	54	49	45	49	50	50
29	40	49	48	48	-----	48	51	48	48	49	47	50
30	40	49	46	52	-----	48	50	46	48	50	45	49
31	40	-----	44	52	-----	50	-----	45	-----	50	49	-----
TOTAL	1,378	1,683	1,619	1,730	1,851	2,534	1,580	1,614	1,453	1,535	1,481	1,432
MEAN	44.5	56.1	52.2	55.8	66.1	81.7	52.7	52.1	48.4	49.5	47.8	47.7
MAX	56	275	62	86	170	336	56	59	50	52	51	50
MIN	36	40	44	46	46	48	48	45	45	45	45	44
AC-FT	2,730	3,340	3,210	3,430	3,670	5,030	3,130	3,200	2,880	3,040	2,940	2,840

CAL YR 1969 TOTAL 132,591 MEAN 363 MAX 18,600 MIN 36 ACFT 263,000
 WAT YR 1970 TOTAL 19,890 MEAN 54.5 MAX 336 MIN 36 ACFT 39,450

NOTE.--No gage-height record or stage-discharge relation indefinite most of year.

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 (revised).

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).--43 years, 4.15 cfs (3,010 acre-ft per year); median of yearly mean discharges, 1.9 cfs (1,400 acre-ft per year).

(Combined).--20 years, 5.33 cfs (3,860 acre-ft per year); median of yearly mean discharges, 2.4 cfs (1,700 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 25 cfs Feb. 28 (gage height, 3.75 ft); minimum daily, 1.2 cfs Sept. 1-4, 7-12.

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, 25 cfs Feb. 28; minimum daily, 1.1 cfs Sept. 1-4, 7-12.

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 good. No regulation above station. Etiwanda Water Co. has diverted water above station during entire period of record. Diversion destroyed by flood of Jan. 25, 1969; reconstructed Apr. 2, 1970. In addition, an infiltration gallery, unwatering the gravel in the bed of the stream at gaging station, produced 1,360 acre-ft during year. See schematic diagram of Santa Ana River basin. For records of combined discharge of creek and Etiwanda Water Co.'s diversion, see following page.

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	4.5	4.3	4.5	4.4	3.3	19	5.1	1.6	1.8	1.9	1.6	1.2
2	4.5	4.2	4.5	4.4	3.3	8.6	4.1	1.5	1.9	1.9	1.6	1.2
3	4.5	4.2	4.5	4.4	3.3	4.9	1.8	1.5	1.8	1.9	1.6	1.2
4	4.5	4.3	4.5	4.4	3.3	6.2	1.7	1.4	1.8	1.9	1.6	1.2
5	4.4	4.3	4.5	4.4	3.3	8.4	1.7	1.5	1.8	1.9	1.5	1.3
6	4.4	6.8	4.5	4.3	3.3	7.4	1.7	1.5	1.9	1.9	1.5	1.3
7	4.4	7.2	4.5	4.3	3.3	6.6	1.7	1.7	1.9	1.9	1.5	1.2
8	4.4	5.0	4.6	4.3	3.3	5.8	1.7	1.7	1.9	2.0	1.5	1.2
9	4.4	4.9	4.6	4.2	3.4	5.6	1.7	1.7	1.9	2.0	1.5	1.2
10	4.5	4.8	4.6	4.7	5.2	5.5	1.7	1.7	2.0	2.1	1.5	1.2
11	4.5	4.7	4.6	4.4	5.9	5.4	1.7	1.6	2.0	2.1	1.5	1.2
12	4.4	4.6	4.5	4.3	4.7	5.2	1.7	1.7	2.0	2.1	1.5	1.2
13	4.4	4.6	4.5	4.3	4.5	5.1	1.7	1.7	2.0	2.0	1.5	1.4
14	4.5	4.6	4.5	4.3	4.3	5.1	1.7	1.7	2.0	2.0	1.5	1.6
15	4.5	4.7	4.5	4.2	4.1	5.2	1.7	1.7	1.9	2.0	1.5	1.6
16	4.5	4.7	4.5	4.6	3.9	5.4	1.6	1.7	1.9	1.8	1.5	1.5
17	4.5	4.6	4.5	4.5	3.9	5.6	1.5	1.8	1.9	1.8	1.5	1.8
18	4.5	4.5	4.5	4.2	3.8	5.5	1.5	1.7	1.9	1.8	1.5	1.8
19	4.4	4.5	4.5	4.0	3.7	5.5	1.5	1.7	1.9	1.8	1.5	1.8
20	4.4	4.5	4.5	4.0	3.6	5.4	1.5	1.7	1.9	1.9	1.5	1.8
21	4.4	4.6	4.5	3.9	3.6	5.2	1.6	1.6	1.9	1.9	1.5	1.8
22	4.4	4.6	4.5	3.8	3.6	5.1	1.6	1.6	1.9	1.9	1.5	1.9
23	4.4	4.5	4.5	3.7	3.7	5.1	1.5	1.7	1.9	1.8	1.5	1.9
24	4.4	4.5	4.5	3.7	3.6	4.9	1.5	1.7	1.9	1.8	1.4	2.2
25	4.4	4.5	4.5	3.6	3.7	4.9	1.5	1.7	2.0	1.7	1.4	2.2
26	4.4	4.5	4.5	3.5	3.6	4.9	1.5	1.7	2.0	1.7	1.4	2.2
27	4.4	4.5	4.5	3.5	3.6	4.9	1.6	1.7	1.9	1.7	1.4	2.2
28	4.4	4.5	4.5	3.4	9.4	4.9	1.6	1.7	2.0	1.7	1.4	2.1
29	4.3	4.5	4.4	3.4	-----	4.9	1.6	1.7	1.8	1.7	1.3	2.1
30	4.3	4.5	4.4	3.3	-----	5.4	1.6	1.8	1.9	1.7	1.3	2.1
31	4.3	-----	4.4	3.3	-----	5.2	-----	1.8	-----	1.6	1.3	-----
TOTAL	137.2	141.2	139.6	125.7	112.2	186.8	54.6	51.5	57.3	57.9	45.8	48.6
MEAN	4.43	4.71	4.50	4.05	4.01	6.03	1.82	1.66	1.91	1.87	1.48	1.62
MAX	4.5	7.2	4.6	4.7	9.4	19	5.1	1.8	2.0	2.1	1.6	2.2
MIN	4.3	4.2	4.4	3.3	3.3	4.9	1.5	1.4	1.8	1.6	1.3	1.2
AC-FT	272	280	277	249	223	371	108	102	114	115	91	96
CAL YR 1969	TOTAL 14,158.04		MEAN 38.8		MAX 4,070		MIN .27		AC-FT 28,080			
WTR YR 1970	TOTAL 1,158.4		MEAN 3.17		MAX 19		MIN 1.2		AC-FT 2,300			

PEAK DISCHARGE (BASE, 25 CFS).--Feb. 28 (1945) 25 cfs (3.75 ft).

SANTA ANA RIVER BASIN

11067000 DAY CREEK NEAR ETIWANDA, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF DAY CREEK AND ETIWANDA WATER CO.'S DIVERSION
NEAR ETIWANDA, CALIF., WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	4.3	4.5	4.4	3.3	19	5.1	2.9	2.2	2.2	1.9	1.4
2	4.5	4.2	4.5	4.4	3.3	8.6	5.0	2.7	2.2	2.2	1.9	1.4
3	4.5	4.2	4.5	4.4	3.3	4.9	4.9	2.6	2.2	2.2	1.9	1.4
4	4.5	4.3	4.5	4.4	3.3	6.2	4.8	2.5	2.2	2.2	1.9	1.4
5	4.4	4.3	4.5	4.4	3.3	8.4	4.6	2.6	2.2	2.2	1.9	1.5
6	4.4	6.8	4.5	4.3	3.3	7.4	4.4	2.6	2.3	2.2	1.8	1.5
7	4.4	7.2	4.5	4.3	3.3	6.6	4.2	2.8	2.3	2.2	1.8	1.4
8	4.4	5.0	4.6	4.3	3.3	5.8	4.0	2.8	2.3	2.3	1.8	1.4
9	4.4	4.9	4.6	4.2	3.4	5.6	3.8	2.6	2.3	2.3	1.8	1.4
10	4.5	4.8	4.6	4.7	5.2	5.5	3.7	2.5	2.4	2.4	1.8	1.4
11	4.5	4.7	4.6	4.4	5.9	5.4	3.6	2.3	2.4	2.4	1.8	1.4
12	4.4	4.6	4.5	4.3	4.7	5.2	3.5	2.3	2.4	2.4	1.8	1.4
13	4.4	4.6	4.5	4.3	4.5	5.1	3.4	2.3	2.4	2.3	1.8	2.0
14	4.5	4.6	4.5	4.3	4.3	5.1	3.3	2.3	2.4	2.3	1.8	2.4
15	4.5	4.7	4.5	4.2	4.1	5.2	3.2	2.3	2.3	2.3	1.8	2.4
16	4.5	4.7	4.5	4.6	3.9	5.4	3.1	2.2	2.3	2.1	1.7	2.2
17	4.5	4.6	4.5	4.5	3.9	5.6	3.0	2.2	2.3	2.0	1.7	2.5
18	4.5	4.5	4.5	4.2	3.8	5.5	2.9	2.2	2.3	2.0	1.7	2.4
19	4.4	4.5	4.5	4.0	3.7	5.5	2.9	2.1	2.3	2.0	1.7	2.5
20	4.4	4.5	4.5	4.0	3.6	5.4	2.9	2.1	2.3	2.2	1.7	2.4
21	4.4	4.6	4.5	3.9	3.6	5.2	3.2	2.0	2.2	2.2	1.7	2.4
22	4.4	4.6	4.5	3.8	3.6	5.1	3.3	2.0	2.2	2.1	1.7	2.5
23	4.4	4.5	4.5	3.7	3.7	5.1	3.0	2.0	2.2	2.1	1.7	2.4
24	4.4	4.5	4.5	3.7	3.6	4.9	2.9	2.0	2.2	2.1	1.6	2.3
25	4.4	4.5	4.5	3.6	3.7	4.9	2.8	2.0	2.3	2.1	1.6	2.3
26	4.4	4.5	4.5	3.5	3.6	4.9	2.8	2.1	2.3	2.1	1.6	2.3
27	4.4	4.5	4.5	3.5	3.6	4.9	3.2	2.1	2.2	2.1	1.6	2.3
28	4.4	4.5	4.5	3.4	9.4	4.9	3.2	2.1	2.3	2.1	1.6	2.2
29	4.3	4.5	4.4	3.4	-----	4.9	3.0	2.1	2.1	2.1	1.5	2.2
30	4.3	4.5	4.4	3.3	-----	5.4	2.9	2.1	2.2	2.1	1.5	2.2
31	4.3	-----	4.4	3.3	-----	5.2	-----	2.1	-----	2.0	1.5	-----
TOTAL	137.2	141.2	139.6	125.7	112.2	186.8	106.6	71.5	68.2	67.5	53.6	58.9
MEAN	4.43	4.71	4.50	4.05	4.01	6.03	3.55	2.31	2.27	2.18	1.73	1.96
MAX	4.5	7.2	4.6	4.7	9.4	19	5.1	2.9	2.4	2.4	1.9	2.5
MIN	4.3	4.2	4.4	3.3	3.3	4.9	2.8	2.0	2.1	2.0	1.5	1.4
AC-FT	272	280	277	249	223	371	211	142	135	134	106	117

CAL YR 1969 TOTAL 14,143.7 MEAN 38.7 MAX 4,070 MIN 2.0 ACFT 28,050
WAT YR 1970 TOTAL 1,269.0 MEAN 3.48 MAX 19 MIN 1.4 ACFT 2,520

PEAK DISCHARGE (BASE, 25 CFS).--(Same as that listed on previous page.)

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, 11,050 acre-ft Apr. 29 to June 3 (elevation, 4,331.00 ft); minimum, 8,320 acre-ft Sept. 30 (elevation, 4,323.17 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 1969 TO SEPTEMBER 1970

Date	Elevation (feet) ^a	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 ^b	4,330.46	10,840	-
Oct. 31.....	4,328.21	10,000	-840
Nov. 30.....	4,327.83	9,860	-140
Dec. 31.....	4,328.00	9,920	+60
CAL YR 1969.....	-	-	+3,370
Jan. 31.....	4,328.50	10,100	+180
Feb. 28.....	4,328.92	10,260	+160
Mar. 31.....	4,330.67	10,920	+660
Apr. 30.....	4,331.00	11,050	+130
May 31.....	4,331.00	11,050	0
June 30.....	4,329.67	10,540	-510
July 31.....	4,327.58	9,770	-770
Aug. 31.....	4,325.58	9,100	-670
Sept. 30.....	4,323.17	8,340	-760
WTR YR 1970.....	-	-	-2,500

^a Elevation at 0800.

SANTA ANA RIVER BASIN

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. Prior to Oct. 1, 1969, at site 350 ft downstream.

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).--22 years (1948-70), 19.9 cfs (14,420 acre-ft per year); median of yearly mean discharges, 9.6 cfs (7,000 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 288 cfs Mar. 2 (gage height, 11.52 ft); no flow many days.

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, 305 cfs Mar. 2; minimum daily, 2.2 cfs Feb. 5.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.59	1.2	1.8	2.1	.36	40	11	3.1	.14	.01	3.9	.01
2	.65	1.2	1.8	2.1	.51	71	9.5	3.6	.10	0	2.0	0
3	.73	1.2	2.0	2.0	.58	38	9.0	3.1	.10	.01	1.5	0
4	.73	1.2	2.0	2.0	.29	24	7.6	2.8	.12	.01	.15	0
5	.73	1.2	2.0	2.0	.25	27	5.4	2.5	.13	.01	.01	0
6	.73	1.3	2.1	2.0	.25	26	4.6	1.5	.13	.01	0	.81
7	.73	1.5	2.1	2.1	.25	26	3.5	1.4	.13	0	0	.15
8	.65	1.6	2.3	2.0	.17	26	3.3	.90	.13	0	0	.06
9	.65	1.9	2.3	2.0	.06	21	2.5	.55	.13	0	0	.04
10	.66	6.8	2.5	2.8	.29	17	2.7	.35	.15	0	0	.01
11	.74	5.0	2.3	5.5	2.7	17	2.5	.34	.17	0	0	.01
12	.73	4.4	2.3	5.9	2.3	17	2.2	.30	.17	0	0	0
13	.65	3.7	2.3	5.6	2.0	16	2.2	.28	.17	0	0	0
14	.74	3.4	2.1	4.6	2.1	21	2.2	.29	.16	0	0	0
15	.90	3.3	2.1	4.1	2.0	24	2.0	.27	.13	.50	1.1	0
16	.99	3.2	2.1	4.1	2.0	24	2.1	.27	.12	.69	.03	0
17	.99	3.1	2.1	16	2.1	22	2.1	.22	.13	.74	0	0
18	1.1	3.0	2.1	8.7	2.0	21	2.0	.15	.12	.91	.22	0
19	1.2	2.9	2.1	5.0	1.7	18	2.1	.16	.08	.76	1.0	0
20	1.4	2.8	2.1	3.7	.43	17	2.9	.17	.04	.74	1.6	0
21	1.4	2.7	2.1	2.5	.17	16	2.3	.17	.04	.79	1.4	0
22	1.4	2.7	2.1	.79	.08	16	2.7	.20	.02	.63	1.3	0
23	1.4	2.6	2.1	.46	.08	16	2.7	.23	.02	.48	1.2	0
24	1.4	2.5	2.1	.39	.13	16	2.5	.23	.01	.47	1.1	0
25	1.4	2.4	2.1	.34	.13	16	2.4	.21	.01	.66	3.2	0
26	1.4	2.2	2.1	.28	.13	17	2.4	.21	.01	.32	6.9	0
27	1.2	1.8	2.1	.25	.13	17	3.3	.21	.01	.08	5.8	0
28	1.2	1.6	2.1	.24	5.5	15	4.5	.21	.01	.03	.68	0
29	1.2	1.6	2.1	.21	-----	15	3.9	.21	.01	0	.16	0
30	1.2	1.6	2.1	.17	-----	13	4.0	.19	.01	0	.04	0
31	1.2	-----	2.1	.17	-----	13	-----	.17	-----	0	.01	-----
TOTAL	30.69	75.6	65.6	90.10	28.69	683	112.1	24.49	2.70	7.85	33.30	1.09
MEAN	.99	2.52	2.12	2.91	1.02	22.0	3.74	.79	.090	.25	1.07	.036
MAX	1.4	6.8	2.5	16	5.5	71	11	3.6	.17	.91	6.9	.81
MIN	.59	1.2	1.8	.17	.06	13	2.0	.15	.01	0	0	0
AC-FT	61	150	130	179	57	1,350	222	49	5.4	16	66	2.2

CAL YR 1969 TOTAL 30,013.24 MEAN 82.2 MAX 3,060 MIN 0 ACFT 59,530
WAT YR 1970 TOTAL 1,155.21 MEAN 3.17 MAX 71 MIN 0 ACFT 2,290

PEAK DISCHARGE (BASE, 100 CFS).--Mar. 2 (0915) 288 cfs (11.52 ft).

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	8.1	8.1	6.1	2.6	49	11	9.7	2.4	10	4.3	8.3
2	16	7.5	9.8	6.1	2.7	86	9.7	9.7	2.1	10	12	8.3
3	16	7.2	10	5.6	2.6	46	9.2	8.8	3.7	10	11	8.2
4	17	8.7	11	5.7	2.3	28	9.3	8.0	8.3	11	10	8.3
5	17	13	11	5.5	2.2	30	9.4	8.7	9.3	11	10	8.3
6	16	14	11	5.7	2.4	29	10	8.5	9.5	11	10	8.8
7	15	16	11	6.1	2.6	29	10	8.8	9.9	11	9.3	8.2
8	16	9.7	11	5.7	2.4	29	10	8.6	10	11	8.5	8.3
9	16	9.3	12	5.6	2.3	24	9.3	8.2	11	11	8.4	7.2
10	17	15	9.4	7.6	3.4	20	9.4	7.8	10	11	8.1	6.0
11	17	14	8.4	11	6.7	20	9.4	7.5	9.4	11	7.3	6.2
12	17	12	7.2	12	6.2	20	9.0	7.1	9.8	11	7.1	6.2
13	17	11	6.9	12	5.6	17	8.8	7.0	9.9	11	6.9	6.3
14	17	11	6.7	10	5.5	21	8.9	7.0	9.7	11	7.2	6.5
15	17	8.3	6.6	9.9	5.1	24	8.7	6.2	9.3	10	8.3	5.9
16	16	9.3	6.5	10	4.9	24	8.8	5.8	9.0	11	7.6	5.7
17	13	8.3	6.5	23	4.9	22	9.1	5.3	8.6	11	7.2	5.6
18	13	7.1	6.5	14	4.8	21	7.9	5.4	8.9	12	7.5	5.6
19	10	5.8	6.5	8.5	4.3	18	7.8	5.5	8.5	12	8.8	5.6
20	14	5.4	6.6	6.7	3.1	17	7.2	5.4	8.1	13	11	5.0
21	14	5.3	6.5	5.6	2.6	16	7.4	5.4	7.7	12	11	5.3
22	13	5.1	6.5	4.1	2.5	16	8.1	5.2	7.4	12	11	5.4
23	13	5.0	6.6	3.5	2.3	16	7.8	4.9	6.9	12	11	6.3
24	13	4.9	6.3	3.3	2.3	16	7.4	4.8	8.3	12	11	6.2
25	11	4.6	6.3	3.1	2.3	16	7.0	4.7	8.5	12	12	6.1
26	11	5.1	6.3	2.9	2.3	17	6.8	4.7	8.3	12	16	6.0
27	13	4.9	6.2	2.6	2.3	17	9.1	4.7	8.5	11	16	6.8
28	12	6.6	6.3	2.6	9.1	15	11	4.8	8.6	11	10	9.6
29	12	7.6	6.1	2.6	-----	15	9.4	4.6	8.5	11	9.2	10
30	12	7.6	6.0	2.4	-----	13	11	3.9	8.9	11	8.8	10
31	11	-----	6.0	2.4	-----	13	-----	3.1	-----	8.7	8.7	-----
TOTAL	446	257.4	241.8	211.9	102.3	744	267.9	199.8	249.0	344.7	295.2	210.2
MEAN	14.4	8.58	7.80	6.84	3.65	24.0	8.93	6.45	8.30	11.1	9.52	7.01
MAX	17	16	12	23	9.1	86	11	9.7	11	13	16	10
MIN	10	4.6	6.0	2.4	2.2	13	6.8	3.1	2.1	8.7	4.3	5.0
AC-FT	885	511	480	420	203	1,480	531	396	494	684	586	417

CAL YR 1969 TOTAL 36,654.9 MEAN 100 MAX 3,070 MIN .89 ACFT 72,710
WAT YR 1970 TOTAL 3,570.2 MEAN 9.7 MAX 86 MIN 2.1 ACFT 7,080

PEAK DISCHARGE (BASE, 100 CFS)--Mar. 2 (0915) 305 cfs.

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, 302 cfs Mar. 6 (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.

REMARKS.--Records poor. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.35	0	14	0	0	0	0	0	0
2			0	2.6	.86	11	0	0	0	0	.02	0
3			0	1.2	7.7	.30	0	0	0	0	0	0
4			0	2.8	5.7	.57	0	0	0	0	0	0
5			0	3.5	2.2	.10	0	3.3	0	.02	0	0
6			0	.92	.83	54	0	0	0	.02	0	0
7			0	.90	0	0	0	0	0	0	0	0
8			0	0	0	0	0	0	0	0	0	0
9			0	0	.04	0	0	0	0	0	0	0
10			0	.36	1.7	.01	0	0	0	0	.02	0
11			0	4.8	1.3	0	0	0	0	0	0	0
12			0	3.8	1.4	0	0	0	0	0	0	0
13			0	3.9	1.2	0	0	0	0	0	0	0
14			0	1.7	1.7	0	0	0	0	0	0	0
15			0	.02	0	0	0	0	.53	0	.36	0
16			0	1.8	0	.47	0	0	0	0	.02	0
17			0	.59	0	1.2	0	0	.09	0	0	0
18			0	2.8	0	0	0	0	0	0	0	0
19			0	2.3	0	0	0	0	.66	0	0	0
20			1.2	2.2	0	0	0	0	0	0	0	0
21			.68	1.3	0	0	0	.01	0	0	0	0
22			.57	1.2	0	.03	0	.02	0	0	0	0
23			.97	.49	0	.06	0	9.0	0	0	0	0
24			4.5	.86	0	.27	0	.18	0	0	0	0
25			9.4	.65	0	.53	0	0	0	0	0	0
26			2.6	.08	0	.01	0	0	0	0	.95	0
27			.13	0	0	.12	.10	0	0	0	0	0
28			.85	0	4.3	.01	.10	0	.27	0	0	0
29			.39	0	-----	.05	.15	0	0	0	0	.03
30			.97	0	-----	.03	.02	0	0	0	0	.08
31		-----	.03	0	-----	.17	-----	0	-----	0	0	-----
TOTAL	0	0	22.29	41.12	28.93	82.93	.37	12.51	1.55	.04	1.37	.11
MEAN	0	0	.72	1.33	1.03	2.68	.012	.40	.052	.001	.044	.003
MAX	0	0	9.4	4.8	7.7	54	.15	9.0	.66	.02	.95	.08
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	44	82	57	164	.7	25	3.1	.08	2.7	.2
CAL YR 1969	TOTAL	22.29	MEAN .061	MAX 9.4	MIN 0	ACFT 44						
WAT YR 1970	TOTAL	191.22	MEAN .52	MAX 54	MIN 0	ACFT 379						

PEAK DISCHARGE (BASE, 25 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-10	2345	1.23	28	3- 6	1030	1.94	302
3- 1	0730	1.91	286				

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, 299 cfs Mar. 5 (gage height, 1.61 ft); no flow most of 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		0	0	57						
2		0		0	0	58						
3		0		0	0	0						
4		0		0	0	0						
5		0		0	0	69						
6		0		0	0	0						
7		12		0	0	0						
8		0		0	0	0						
9		0		0	0	0						
10		0		0	17	0						
11		0		0	29	0						
12		0		0	0	0						
13		0		0	0	0						
14		0		0	0	0						
15		0		0	0	0						
16		0		5.7	0	0						
17		0		0	0	0						
18		0		0	0	0						
19		0		0	0	0						
20		0		0	0	0						
21		0		0	0	0						
22		0		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	17	0						
29		0		0	-----	0						
30		0		0	-----	0						
31		-----		0	-----	0	-----		-----			-----
TOTAL	0	12	0	5.7	63	184	0	0	0	0	0	0
MEAN	0	.40	0	.18	2.25	5.94	0	0	0	0	0	0
MAX	0	12	0	5.7	29	69	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0.	24	0	11	125	365	0	0	0	0	0	0
(a)	0	1.02	.01	.94	2.38	1.67	.07	0	0	0	.15	0

CAL YR 1969 TOTAL 12.0 MEAN .033 MAX 12 MIN 0 ACFT 24 a -
 WAT YR 1970 TOTAL 264.7 MEAN .73 MAX 69 MIN 0 ACFT 525 a 6.24

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, 15 cfs Mar. 1 (gage height, 2.62 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 800 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.02	.23	5.9	9.4	0	0	0	0	0
2	0	0	0	.02	.22	4.5	9.5	0	0	0	0	0
3	0	0	0	.02	.22	2.6	8.3	0	0	0	0	0
4	0	0	0	.02	.22	2.7	7.5	0	0	0	0	0
5	0	0	0	.02	.22	3.9	7.4	0	0	0	0	0
6	0	0	0	.04	.22	2.5	3.1	.18	0	0	0	0
7	0	0	0	.06	.22	2.5	.19	.18	0	0	0	0
8	0	0	0	.06	.25	2.5	.16	.14	0	0	0	0
9	0	0	0	.08	.25	2.6	.21	.11	0	0	0	0
10	0	0	0	.09	.56	2.6	.18	.09	0	0	0	0
11	0	0	0	.10	2.2	2.5	.10	.07	0	0	0	0
12	0	0	0	.16	.98	2.6	.04	.03	0	0	0	0
13	0	0	0	.21	.88	2.6	0	0	0	0	0	0
14	0	0	0	.22	.85	2.6	0	0	0	0	0	0
15	0	0	0	.21	.80	2.6	0	0	0	0	0	0
16	0	0	0	.22	.74	2.6	0	0	0	0	0	0
17	0	0	0	.29	.72	2.5	0	0	0	0	0	0
18	0	0	0	.32	.68	2.5	0	0	0	0	0	0
19	0	0	0	.30	.66	2.5	0	0	0	0	0	0
20	0	0	0	.29	.60	2.5	0	0	0	0	0	0
21	0	0	0	.29	.59	2.5	0	0	0	0	0	0
22	0	0	0	.32	.55	2.5	0	0	0	0	0	0
23	0	0	0	.30	.55	4.2	0	0	0	0	0	0
24	0	0	0	.29	1.7	7.6	0	0	0	0	0	0
25	0	0	0	.29	2.0	8.3	0	0	0	0	0	0
26	0	0	0	.29	2.1	8.9	0	0	0	0	0	0
27	0	0	0	.32	2.1	9.7	0	0	0	0	0	0
28	0	0	0	.32	3.0	9.7	0	0	0	0	0	0
29	0	0	0	.33	-----	9.8	0	0	0	0	0	0
30	0	0	0	.25	-----	9.7	0	0	0	0	0	0
31	0	-----	0	.25	-----	9.6	-----	0	-----	0	-----	-----
TOTAL	0	0	0	6.00	24.31	140.3	46.08	0.80	0	0	0	0
MEAN	0	0	0	.19	.87	4.53	1.54	.026	0	0	0	0
MAX	0	0	0	.33	3.0	9.8	9.5	.18	0	0	0	0
MIN	0	0	0	.02	.22	2.5	0	0	0	0	0	0
AC-FT	0	0	0	12	48	278	91	1.6	0	0	0	0
CAL YR 1969	TOTAL	29,311.17	MEAN	80.3	MAX	4,900	MIN	0	AC-FT	58,140		
WTYR 1970	TOTAL	217.49	MEAN	.60	MAX	9.8	MIN	0	AC-FT	431		

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.--43 years, 3.61 cfs (2,620 acre-ft per year); median of yearly mean discharge, 0.06 cfs (43 acre-ft per year).

EXTREMES --Current year: Maximum discharge, 200 cfs (estimated) Mar. 1; minimum daily, 0.02 cfs Sept. 29, 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 water year 1970 are published in Part 2 of this report.

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	2.2	2.2	3.1	2.9	4.7	70	2.7	1.7	1.1	.67	.34	.16
2	2.2	2.2	3.0	2.9	4.7	40	2.7	1.7	1.0	.66	.33	.16
3	2.2	2.2	3.0	3.0	4.7	15	2.6	1.6	1.0	.64	.32	.15
4	2.2	2.2	2.9	3.0	4.7	8.0	2.6	1.6	1.0	.62	.31	.15
5	2.2	2.2	2.9	3.0	4.7	35	2.5	1.6	1.0	.62	.30	.15
6	2.2	2.2	2.8	3.0	4.6	15	2.5	1.5	1.0	.60	.30	.15
7	2.2	2.5	2.8	3.0	4.6	11	2.5	1.5	1.0	.59	.29	.14
8	2.2	12	2.8	3.0	4.6	9.0	2.4	1.5	.99	.58	.28	.14
9	2.2	10	2.7	3.0	4.6	8.0	2.4	1.5	.98	.56	.27	.14
10	2.2	9.4	2.7	12	18	6.8	2.3	1.4	.97	.55	.27	.13
11	2.2	8.6	2.7	9.8	11	6.2	2.3	1.4	.97	.54	.26	.13
12	2.2	7.8	2.7	9.0	9.2	5.6	2.2	1.4	.96	.53	.26	.13
13	2.2	7.2	2.7	8.6	8.2	5.3	2.2	1.4	.96	.52	.25	.12
14	2.2	6.8	2.7	8.0	7.4	5.0	2.1	1.3	.95	.51	.24	.12
15	2.2	6.4	2.7	7.5	7.0	4.7	2.1	1.3	.95	.50	.23	.12
16	2.2	6.1	2.7	9.0	6.6	4.4	2.1	1.3	.94	.49	.23	.11
17	2.2	5.8	2.7	7.7	6.4	4.2	2.1	1.3	.93	.48	.22	.11
18	2.2	5.4	2.7	7.0	6.2	4.0	2.0	1.3	.92	.47	.22	.11
19	2.2	5.2	2.7	6.4	6.0	3.9	2.0	1.3	.90	.46	.21	.11
20	2.2	5.0	2.7	6.0	5.8	3.7	2.0	1.2	.88	.45	.21	.10
21	2.2	4.7	2.7	5.8	5.7	3.6	2.0	1.2	.86	.44	.20	.10
22	2.2	4.5	2.7	5.6	5.6	3.5	1.9	1.2	.84	.43	.20	.10
23	2.2	4.3	2.7	5.5	5.6	3.4	1.9	1.2	.82	.42	.19	.08
24	2.2	4.1	2.8	5.4	5.5	3.3	1.9	1.2	.80	.40	.19	.08
25	2.2	3.9	2.8	5.2	5.4	3.2	1.9	1.2	.78	.39	.19	.06
26	2.2	3.7	2.8	5.2	5.4	3.1	1.8	1.1	.76	.38	.18	.06
27	2.2	3.6	2.8	5.1	5.4	3.1	1.8	1.1	.74	.37	.18	.04
28	2.2	3.5	2.8	5.0	30	3.0	1.8	1.1	.72	.36	.17	.04
29	2.2	3.3	2.8	4.8	-----	2.9	1.8	1.1	.70	.36	.17	.02
30	2.2	3.2	2.9	4.8	-----	2.8	1.7	1.1	.68	.35	.17	.02
31	2.2	-----	2.9	4.7	-----	2.8	-----	1.1	-----	.34	.16	-----
TOTAL	68.2	172.7	86.4	174.9	202.3	299.5	64.8	41.4	27.10	15.28	7.34	3.23
MEAN	2.20	5.76	2.79	5.64	7.23	9.66	2.16	1.34	.90	.49	.24	.11
MAX	2.2	25	3.1	12	30	70	2.7	1.7	1.1	.67	.34	.16
MIN	2.2	2.2	2.7	2.9	4.6	2.8	1.7	1.1	.68	.34	.16	.02
AC-FT	135	343	171	347	401	594	129	82	54	30	15	6.4

CAL YR 1969 TOTAL 14,844.70 MEAN 40.7 MAX 2,500 MIN 0 ACFT 29,440
 WAT YR 1970 TOTAL 1,163.15 MEAN 3.19 MAX 70 MIN .02 ACFT 2,310

NOTE.--No gage-height record prior to June 12.

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, 212 cfs Mar. 4 (gage height, 2.67 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 water year 1970 are published in Part 2 of this report.

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		0		0	0	40	.01	0				
2		0		0	0	55	.08	0				
3		0		0	0	.03	.08	0				
4		0		0	0	20	.08	.02				
5		0		0	0	15	.06	.04				
6		.64		0	0	.33	.01	0				
7		8.6		0	0	.24	.01	0				
8		0		0	0	.17	.02	.01				
9		0		0	0	.10	.08	0				
10		0		.01	29	.02	.10	0				
11		0		1.9	13	.02	.10	0				
12		0		0	0	0	.12	0				
13		0		0	0	0	.12	0				
14		0		0	0	0	.42	0				
15		0		0	0	0	.24	0				
16		0		2.5	0	0	.24	0				
17		0		0	0	0	.20	0				
18		0		0	0	0	.17	0				
19		0		0	0	0	.12	0				
20		0		0	0	0	0	0				
21		0		0	0	0	0	0				
22		0		0	0	0	0	0				
23		0		0	0	0	0	0				
24		0		0	0	0	.05	0				
25		0		0	0	0	.05	0				
26		0		0	0	0	.02	0				
27		0		0	0	0	.06	0				
28		0		0	1.8	0	.05	0				
29		0		0	-----	0	.07	0				
30		0		0	-----	0	.01	0				
31		-----		0	-----	.02	-----	0	-----			-----
TOTAL	0	9.24	0	4.41	43.8	130.93	2.57	.07	0	0	0	0
MEAN	0	.31	0	.14	1.56	4.22	.086	.002	0	0	0	0
MAX	0	8.6	0	2.5	29	55	.42	.04	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	18	0	8.8	87	260	5.1	.1	0	0	0	0
CAL Yr 1969	TOTAL	9,685.17	MEAN	26.5	MAX	3,000	MIN	0	ACFT	19,210		
WAT Yr 1970	TOTAL	191.02	MEAN	.52	MAX	55	MIN	0	ACFT	379		

11073000 SAN ANTONIO CREEK NEAR CLAREMONT, CALIF.

LOCATION.--Lat 34°12'58", long 117°40'04", in SE¹SW¹NE¹ 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).--53 years (1917-70), 10.3 cfs (7,460 acre-ft per year); median of yearly mean discharges, 2.3 cfs (1,700 acre-ft per year).

(Combined creek and conduit).--64 years (1901-2, 1903-4, 1905-9, 1910-15, 1916-70), 23.1 cfs (16,740 acre-ft per year); median of yearly mean discharges, 16 cfs (11,600 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 56 cfs Mar. 1 (gage height, 1.67 ft); minimum daily, 0.56 cfs Sept. 29, 30.

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, 56 cfs Mar. 1; minimum daily, 4.6 cfs Aug. 28.

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 good. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	17	14	12	13	30	19	15	12	.99	.76	.95
2	15	16	14	12	13	26	19	16	12	.92	.76	.95
3	15	16	13	12	13	21	19	15	12	.88	.76	.99
4	15	16	13	12	13	19	19	15	12	.88	.76	.95
5	15	16	13	12	13	20	19	15	12	.85	.76	.95
6	15	16	13	12	13	19	20	15	12	.82	.76	1.0
7	15	18	13	12	13	19	20	14	13	.82	.76	1.0
8	16	18	13	12	13	19	20	14	13	.82	.76	.95
9	15	17	11	13	13	18	20	14	13	.82	.82	.95
10	15	17	12	14	20	19	20	14	13	.79	.82	.95
11	14	17	12	14	20	19	19	14	13	.74	1.1	.89
12	15	16	12	14	17	20	18	13	13	.69	.83	.84
13	16	15	12	14	15	19	18	13	13	.69	.76	.88
14	16	15	12	14	14	19	18	13	13	.69	.76	.88
15	16	16	12	14	14	20	18	13	13	.69	.76	.82
16	16	16	12	14	14	21	18	12	13	.69	.76	.82
17	16	16	12	14	13	19	18	12	13	.69	.76	.82
18	16	15	12	14	13	19	18	12	10	1.2	.76	.82
19	16	14	12	14	13	20	18	11	9.8	1.3	.85	.76
20	16	15	12	14	13	20	18	11	9.9	1.1	.95	.76
21	16	15	12	14	13	20	18	11	10	.62	.93	.76
22	16	15	12	14	13	20	18	11	8.1	.69	.88	.69
23	16	14	12	14	13	19	18	11	3.2	.69	.88	.69
24	16	14	12	14	13	19	18	11	1.6	.69	.88	.69
25	17	14	12	14	13	17	18	11	4.0	.69	.88	.62
26	17	14	12	14	13	18	17	11	1.5	.69	.88	.62
27	17	14	12	14	13	19	17	11	1.2	.69	.88	.62
28	17	14	11	14	22	19	17	11	1.1	.69	.95	.62
29	17	14	12	14	-----	19	17	11	1.1	.69	.95	.56
30	17	14	12	14	-----	19	17	12	1.0	.69	.95	.56
31	17	-----	12	14	-----	19	-----	12	-----	.76	.95	-----
TOTAL	492	464	380	417	396	614	551	394	277.5	24.66	26.02	24.36
MEAN	15.9	15.5	12.3	13.5	14.1	19.8	18.4	12.7	9.25	.80	.84	.81
MAX	17	18	14	14	22	30	20	16	13	1.3	1.1	1.0
MIN	14	14	11	12	13	17	17	11	1.0	.62	.76	.56
AC-FT	976	920	754	827	785	1,220	1,090	781	550	49	52	48

CAL YR 1969 TOTAL 39,105.64 MEAN 107 MAX 4,430 MIN .56 AC-FT 77,570
 FTR YR 1970 TOTAL 4,060.54 MEAN 11.1 MAX 30 MIN .56 AC-FT 8,050

PEAK DISCHARGE (BASE, 50 CFS).--Mar. 1 (0015) 56 cfs (1.67 ft).

SANTA ANA RIVER BASIN

11073000 SAN ANTONIO CREEK NEAR CLAREMONT, CALIF.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SAN ANTONIO CREEK AND SOUTHERN CALIFORNIA EDISON CO.'S
SIERRA CONDUIT NEAR CLAREMONT, CALIF., WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	17	14	12	13	30	19	15	12	8.7	7.4	6.4
2	15	16	14	12	13	26	19	16	12	8.6	7.4	6.2
3	15	16	13	12	13	21	19	15	12	8.6	7.4	6.5
4	15	16	13	12	13	19	19	15	12	8.6	7.3	6.4
5	16	16	13	12	13	20	19	15	12	8.5	7.3	6.6
6	15	16	13	12	13	19	20	15	12	8.4	7.4	6.2
7	15	18	13	12	13	19	20	14	13	8.4	7.6	6.0
8	16	18	13	12	13	19	20	14	13	8.3	7.0	6.0
9	15	17	11	13	13	18	20	14	13	8.2	7.0	6.0
10	15	17	12	14	20	19	20	14	13	8.2	7.0	6.0
11	14	17	12	14	20	19	19	14	13	8.1	7.0	6.1
12	15	16	12	14	17	20	18	13	13	8.1	7.0	6.3
13	16	15	12	14	15	19	18	13	13	8.0	7.0	6.4
14	16	15	12	14	14	19	18	13	13	8.0	6.5	6.6
15	16	16	12	14	14	20	18	13	13	7.9	7.0	6.5
16	16	16	12	14	13	21	18	12	13	7.8	7.0	6.3
17	16	16	12	14	13	19	18	12	13	7.8	6.8	6.3
18	16	15	12	14	13	19	18	12	10	7.8	6.5	6.5
19	16	14	12	14	13	20	18	11	9.8	7.8	6.0	6.3
20	16	15	12	14	13	20	18	11	9.9	7.7	6.0	6.5
21	16	15	12	14	13	20	18	11	10	7.7	6.4	6.5
22	16	15	12	14	13	20	18	11	9.6	7.6	7.6	6.4
23	16	14	12	14	13	19	18	11	9.5	7.6	7.4	6.4
24	16	14	12	14	13	19	18	11	9.4	7.6	7.0	6.0
25	17	14	12	14	13	17	18	11	9.3	7.6	6.9	6.1
26	17	14	12	14	13	18	17	11	9.2	7.5	6.6	6.3
27	17	14	12	14	13	19	17	11	9.1	7.5	6.6	6.6
28	17	14	12	14	22	19	17	11	9.0	7.5	4.6	6.6
29	17	14	12	14	-----	19	17	11	8.9	7.4	8.2	6.6
30	17	14	12	14	-----	19	17	12	8.8	7.4	8.0	6.8
31	17	-----	12	14	-----	19	-----	12	-----	7.4	7.4	-----
TOTAL	492	464	381	417	395	614	551	394	337.5	246.3	216.3	190.4
MEAN	15.9	15.5	12.3	13.5	14.1	19.8	18.4	12.7	11.3	7.95	6.98	6.35
MAX	17	18	14	14	22	30	20	16	13	8.7	8.2	6.8
MIN	14	14	11	12	13	17	17	11	8.8	7.4	4.6	6.0
AC-FT	976	920	756	827	783	1,220	1,090	782	669	489	429	378

CAL YR 1969 TOTAL 39,392.0 MEAN 108 MAX 4,430 MIN 9.0 ACFT 78,130
WAT YR 1970 TOTAL 4,698.5 MEAN 12.9 MAX 30 MIN 4.6 ACFT 9,320

PEAK DISCHARGE (BASE, 50 CFS).--(Same as that listed on previous page).

NOTE.--Discharge for June 22 to Aug. 6, Aug. 10-13, adjusted for sluice water used to clear conduit.

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.--8 years, 13.9 cfs (10,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 78 cfs Mar. 2 (gage height, 1.55 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, revised). Water diverted out of basin for power, domestic use, and irrigation. See schematic diagram of Santa Ana River basin.

COOPERATION.--One discharge measurement furnished by Los Angeles County Flood Control District.

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		0			0	2.2						
2		0			0	43						
3		0			0	59						
4		0			0	36						
5		0			0	2.6						
6		.36			0	1.8						
7		.08			0	1.5						
8		0			0	1.5						
9		0			0	1.5						
10		0			0	1.5						
11		0			0	1.2						
12		.07			0	1.2						
13		0			0	.94						
14		0			0	.94						
15		0			0	.94						
16		0			0	.72						
17		0			0	.52						
18		0			0	.52						
19		0			0	.52						
20		0			0	.52						
21		0			0	.52						
22		0			0	.36						
23		0			0	.36						
24		0			0	.36						
25		0			0	.36						
26		0			0	.36						
27		0			0	.36						
28		0			1.5	.36						
29		0			-----	.36						
30		0			-----	.36						
31		-----			-----	.09	-----	-----	-----	-----	-----	-----
TOTAL	0	.51	0	0	1.5	162.47	0	0	0	0	0	0
MEAN	0	.017	0	0	.054	5.24	0	0	0	0	0	0
MAX	0	.36	0	0	1.5	59	0	0	0	0	0	0
MIN	0	0	0	0	0	.09	0	0	0	0	0	0
AC-FT	0	1.0	0	0	3.0	322	0	0	0	0	0	0
CAL YR 1969	TOTAL	27,522.41	MEAN	75.4	MAX	3,760	MIN	0	ACFT	54,590		
WAT YR 1970	TOTAL	164.48	MEAN	.45	MAX	59	MIN	0	ACFT	326		

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, 1,520 cfs Mar. 1 (gage height, 5.84 ft), from rating curve extended above 7.4 cfs on basis of computation of flow in concrete-lined channel at 1,600 cfs; minimum daily, 0.07 cfs Jan. 13.

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 poor prior to Nov. 26 and good thereafter. Flow partly regulated by San Antonio flood-control reservoir (capacity, 9,110 acre-ft). Natural stream flow affected by extensive ground-water withdrawals, diversions for power, domestic use, irrigation, and return flow from irrigated areas. Records of chemical analyses for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	.50	.65	.29	.44	307	.48	.73	.48	.49	.38	.43
2	.80	.50	.54	.30	.42	91	.49	.71	.49	.52	.33	.44
3	.70	.50	.67	.28	.20	.35	.49	.70	.51	.48	.35	.43
4	.65	2.1	.52	.23	.26	129	.52	.77	.50	.55	.31	.44
5	.62	2.2	.78	.20	.32	17	.54	.83	.59	.42	.27	.52
6	.60	2.3	.37	.22	.31	.41	.48	.89	.39	.52	.30	.39
7	.57	2.5	.37	.23	.46	.31	.39	.83	.47	.28	.37	.43
8	.55	2.0	8.2	.30	.19	.29	.31	.90	.61	.32	.53	.45
9	.54	1.5	.30	3.3	1.9	.66	.34	.88	.56	.53	.46	.38
10	.53	1.0	.15	20	215	.30	.37	.86	1.2	.33	.38	.31
11	.52	.90	.17	9.9	4.9	.31	.38	.74	.40	.43	.37	.30
12	.51	.80	.14	2.0	.20	.38	.37	.37	.45	.40	.32	.35
13	.50	.70	.16	.07	.23	.34	.39	.48	.39	.49	.29	.31
14	.50	.60	.15	16	.23	.35	.39	.50	.34	.52	.34	.32
15	.50	.59	.17	7.2	.18	.37	.35	.53	.38	.45	.28	.37
16	.50	.58	.16	68	.20	.35	.41	.82	.40	.36	.29	.43
17	.50	.57	.21	.42	.21	.28	.43	.56	.38	.35	.31	.37
18	.50	.56	.22	.24	.20	.34	.48	.60	.44	.54	.30	.22
19	.50	.55	.25	.24	.18	.31	.69	.52	.39	.70	.33	.30
20	.50	.54	.19	.21	.18	.31	.44	.48	.38	.33	.33	.27
21	.50	.53	.19	.23	.20	.34	.55	.44	.36	.34	.34	.28
22	.50	.52	.41	.31	.20	.27	.50	.47	.31	.38	.31	.29
23	.50	.51	.22	.39	.21	.32	.58	.55	.31	.50	.32	.29
24	.50	.50	.16	.39	.23	.35	.65	.46	.38	.37	.37	.34
25	.50	.50	.10	.31	.23	.39	.73	.59	.42	.41	.42	.33
26	.50	.50	.23	.27	.25	.38	.71	.45	.70	.32	.36	.45
27	.50	.61	.14	.35	.26	.36	.69	.47	.34	.38	.38	.39
28	.50	.70	.15	.43	113	.38	.70	.41	.33	.42	.52	.38
29	.50	.82	.16	.53	-----	.33	.68	.53	.40	.43	.41	.36
30	.50	.80	.19	.50	-----	7.9	.69	.61	.52	.37	.49	.69
31	.50	-----	.23	.43	-----	1.4	-----	.72	-----	.38	.57	-----
TOTAL	16.99	27.48	16.55	133.77	340.79	562.08	15.22	19.40	13.82	13.31	11.33	11.26
MEAN	.55	.92	.53	4.32	12.2	18.1	.51	.63	.46	.43	.37	.38
MAX	.90	2.5	8.2	68	215	307	.73	.90	1.2	.70	.57	.69
MIN	.50	.50	.10	.07	.18	.27	.31	.37	.31	.28	.27	.22
AC-FT	34	55	33	265	676	1,110	30	38	27	26	22	22
CAL YR 1969	TOTAL	—	MEAN	—	MAX	—	MIN	—	AC-FT	—		
WTR YR 1970	TOTAL	1,182.00	MEAN	3.24	MAX	307	MIN	.07	AC-FT	2,340		

PEAK DISCHARGE (BASE, 200 CFS)							NOTE.--No gage-height record Oct. 1 to Nov. 25.		
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE		
1-16	1430	5.47	964	3- 1	1515	5.84	1,520		
2-10	2045	5.42	904	3- 4	2130	5.40	880		

11073470 CUCAMONGA CREEK NEAR UPLAND, CALIF.

LOCATION.--Lat 34°10'26", long 117°37'51", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.17, T.1 N., R.7 W., San Bernardino County, on right bank 0.5 mile downstream from unnamed tributary, and 5.3 miles north of Upland.

DRAINAGE AREA.--10.1 sq mi.

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. Broad-crested weir since December 1938. Datum of gage is 2,367 ft above mean sea level. See WSP 1735 for history of changes prior to Dec. 13, 1938. Dec. 14, 1938, to Aug. 5, 1969, at same site at datum 2.00 ft higher.

AVERAGE DISCHARGE.--43 years, 8.02 cfs (5,810 acre-ft per year); median of yearly mean discharges, 5.0 cfs (3,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 160 cfs (estimated) Feb. 28; minimum daily, 1.1 cfs Aug. 25. Period of record: Maximum discharge, 14,100 cfs Jan. 25, 1969 (gage height, 14.44 ft, present datum), 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 fair. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

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	10	6.2	4.6	5.6	4.9	65	11	7.8	3.2	2.4	1.9	1.3
2	10	5.5	4.6	5.6	4.8	47	10	7.5	2.9	2.4	1.9	1.4
3	10	4.6	4.6	5.6	4.6	25	9.8	7.3	2.9	2.6	1.8	1.4
4	11	4.4	4.6	5.6	4.6	22	9.5	7.2	2.9	2.5	1.8	1.4
5	10	4.4	4.6	5.6	4.6	27	9.0	7.0	2.9	2.3	1.9	1.7
6	9.6	10	4.6	5.6	4.4	22	8.4	7.0	3.0	2.3	1.6	1.8
7	9.6	14	5.1	5.6	4.3	20	8.4	7.3	3.1	2.5	1.4	1.7
8	9.6	8.2	5.1	5.4	4.8	19	8.4	7.2	3.1	2.6	1.4	1.7
9	9.2	7.2	5.1	5.2	5.1	19	8.2	7.0	3.1	3.0	1.4	1.7
10	9.2	7.1	5.1	9.3	16	17	8.0	7.0	3.2	2.9	1.5	1.7
11	9.2	6.7	5.1	8.1	17	16	7.8	7.0	3.3	3.1	1.4	1.8
12	9.2	6.4	5.1	8.1	9.9	15	7.6	7.2	3.4	2.9	1.6	1.8
13	8.8	6.0	5.1	7.1	9.9	13	7.6	6.8	3.5	2.9	1.7	1.8
14	8.8	5.9	4.9	7.0	9.5	13	7.4	6.3	3.5	2.8	1.5	1.8
15	8.8	6.3	4.9	7.0	8.3	12	7.2	5.6	3.6	2.7	1.4	1.7
16	8.8	6.6	4.9	11	7.5	12	7.1	5.2	3.7	2.4	1.5	1.7
17	8.8	5.8	4.9	9.4	6.7	12	7.0	5.0	4.0	2.5	1.5	1.7
18	8.6	5.3	4.5	8.2	6.2	12	7.0	5.1	4.0	2.5	1.5	1.7
19	8.8	5.1	4.2	7.6	5.6	12	7.0	5.1	3.1	2.6	1.6	1.7
20	8.8	5.1	4.1	6.9	5.6	12	7.3	5.1	2.4	2.5	1.6	1.7
21	8.8	4.7	4.1	6.6	5.6	11	8.7	5.1	2.2	2.6	1.5	1.7
22	8.4	4.6	4.1	6.6	5.3	11	9.4	4.4	2.0	2.5	1.3	1.7
23	8.4	4.4	4.1	6.3	5.1	10	8.7	4.1	1.8	2.6	1.3	1.6
24	8.4	4.4	4.1	6.3	5.1	10	8.0	4.0	1.8	2.5	1.2	1.6
25	8.4	4.4	4.2	6.0	5.1	10	7.5	4.0	1.8	2.4	1.1	1.6
26	8.2	4.2	5.0	5.3	5.1	10	7.7	4.1	1.9	2.4	1.2	1.6
27	7.5	4.0	5.9	5.1	5.2	10	8.6	4.1	1.8	2.1	1.5	1.6
28	7.0	4.4	5.9	5.1	40	10	8.5	4.5	2.3	2.0	1.7	1.6
29	6.9	4.6	5.6	5.1	-----	10	8.1	4.4	3.2	2.0	1.7	1.6
30	6.6	4.6	5.6	5.1	-----	12	7.8	4.0	3.0	2.3	1.5	1.6
31	6.3	-----	5.6	5.1	-----	13	-----	3.7	-----	2.2	1.3	-----
TOTAL	271.7	175.1	149.9	202.1	220.8	529	246.7	177.1	86.6	78.0	47.2	49.4
MEAN	8.76	5.84	4.84	6.52	7.89	17.1	8.22	5.71	2.89	2.52	1.52	1.65
MAX	11	14	5.9	11	40	65	11	7.8	4.0	3.1	1.9	1.8
MIN	6.3	4.0	4.1	5.1	4.3	10	7.0	3.7	1.8	2.0	1.1	1.3
AC-FT	539	347	297	401	438	1,050	489	351	172	155	94	98

CAL YR 1969 TOTAL 18,171.9 MEAN 49.8 MAX 4,050 MIN 2.2 AC-FT 36,040
 WTR YR 1970 TOTAL 2,233.6 MEAN 6.12 MAX 65 MIN 1.1 AC-FT 4,430

PEAK DISCHARGE (BASE, 80 CFS).--Feb. 28 (time unknown) 160 cfs (gage height unknown).

NOTE.--No gage-height record Feb. 25 to Mar. 1.

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, 77 cfs Mar. 4 (gage height, 1.60 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 water year 1970 are published in Part 2 of this report.

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		0		0	.14	16	.21					
2		0		0	.06	19	.07					
3		0		0	0	7.0	.12					
4		0		0	0	12	.12					
5		0		0	.11	6.0	.10					
6		0		0	0	.06	.12					
7		.58		0	.17	0	.08					
8		0		0	.08	0	.05					
9		0		0	.16	0	.01					
10		0		0	2.9	0	0					
11		0		0	.02	.03	0					
12		0		0	0	0	0					
13		0		0	0	.02	0					
14		0		0	0	.03	0					
15		0		0	0	0	0					
16		0		3.2	0	.01	0					
17		0		.48	0	.03	0					
18		0		.08	0	.06	0					
19		0		.03	0	.21	0					
20		0		.01	0	.28	.52					
21		0		.02	0	.18	.07					
22		0		.03	0	.42	.08					
23		0		.05	0	.42	.04					
24		0		.18	0	.24	.02					
25		0		.21	0	.07	.06					
26		0		.32	0	.06	.12					
27		0		.42	0	.07	.07					
28		0		.28	2.8	.07	.03					
29		0		.10	-----	.06	0					
30		0		.24	-----	.03	0					
31		-----		.23	-----	.32	-----					
TOTAL	0	.58	0	5.88	6.44	62.67	1.89	0	0	0	0	0
MEAN	0	.019	0	.19	.23	2.02	.063	0	0	0	0	0
MAX	0	.58	0	3.2	2.9	19	.52	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	1.2	0	12	13	124	3.8	0	0	0	0	0
CAL YR 1969	TOTAL	6,113.28	MEAN	16.7	MAX	2,600	MIN	0	ACFT	12,130		
WAT YR 1970	TOTAL	77.46	MEAN	.21	MAX	19	MIN	0	ACFT	154		

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

11074000 SANTA ANA RIVER BELOW PRADO DAM, CALIF.

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.

DRAINAGE AREA.--1,490 sq mi (revised), excludes 768 sq mi above Lake Elsinore.

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.

EXTREMES.--Current year: Maximum discharge, 198 cfs May 8 (gage height, 2.89 ft); minimum daily, 17 cfs Sept. 26.

Period of record: Maximum discharge, 5,800 cfs Jan. 26, 1969 (gage height, 5.75 ft); minimum daily, 12 cfs for some days in 1960.

Flood of Mar. 2, 1938, 100,000 cfs, by slope-area measurement at site 2.5 miles downstream.

REMARKS.--Records good. Flow regulated since 1941 by Prado Reservoir (capacity, 201,200 acre-ft, revised) and Big Bear Lake (see sta 11049000). Natural streamflow affected by extensive ground-water withdrawals, diversion for irrigation, and return flow from irrigated areas. Santa Ana River Development Co. pumps water from wells in Prado Reservoir into conduit which passes through dam and is released to river immediately downstream from gage. No water pumped in 1970. See schematic diagram of Santa Ana River basin. Records of chemical analyses for the water year 1970 are published in Part 2 of this report.

COOPERATION.--Thirty-two discharge measurements and records of bypass flow furnished by Orange County Flood Control District.

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	42	52	61	66	71	108	130	161	57	31	28	24
2	49	52	64	63	66	100	132	156	54	33	30	24
3	44	52	71	66	76	111	132	151	52	33	31	30
4	30	48	70	68	80	134	134	140	52	33	35	31
5	33	52	70	63	83	143	136	130	57	30	33	25
6	35	60	70	66	87	148	116	94	54	30	28	25
7	42	121	71	60	82	146	100	77	54	30	28	24
8	41	136	76	70	80	143	98	63	54	31	27	24
9	44	159	99	64	85	143	100	52	54	28	27	25
10	46	159	78	106	136	143	96	55	54	30	25	27
11	42	156	70	109	154	143	92	54	52	27	31	28
12	35	134	61	136	134	140	91	54	50	25	31	28
13	36	78	61	121	154	138	91	54	48	25	30	28
14	42	70	61	96	151	138	91	52	47	35	30	27
15	46	75	66	123	154	138	89	46	47	41	28	28
16	50	73	64	123	151	136	89	31	47	35	28	28
17	55	64	61	128	151	136	89	33	52	39	27	30
18	56	54	58	123	146	136	89	53	47	43	27	31
19	52	52	58	151	117	136	89	52	47	39	28	31
20	46	49	63	161	102	136	89	60	43	37	33	31
21	48	55	63	130	100	136	89	61	43	37	31	31
22	50	56	64	96	98	136	91	60	41	39	35	31
23	48	54	71	98	94	136	92	61	41	33	30	22
24	50	48	76	87	92	136	94	61	41	33	27	24
25	58	52	78	83	91	136	98	54	37	39	30	24
26	63	55	76	85	90	136	100	55	31	37	25	17
27	63	55	71	85	85	134	118	60	33	39	27	21
28	64	49	63	70	91	132	149	60	35	31	27	22
29	56	50	61	66	-----	132	170	63	36	28	22	25
30	52	54	68	75	-----	132	167	60	37	28	20	25
31	52	-----	68	76	-----	132	-----	58	-----	30	20	-----
TOTAL	1,470	2,224	2,112	2,914	3,001	4,174	3,241	2,221	1,397	1,029	879	791
MEAN	47.4	74.1	68.1	94.0	107	135	108	71.6	46.6	33.2	28.4	26.4
MAX	64	159	99	161	154	148	170	161	57	43	35	31
MIN	30	48	58	60	66	100	89	31	31	25	20	17
AC-FT	2,920	4,410	4,190	5,780	5,950	8,280	6,430	4,410	2,770	2,040	1,740	1,570
CAL YR 1969	TOTAL	190,604	MEAN	522	MAX	5,700	MIN	26	ACFT	378,100		
WAT YR 1970	TOTAL	25,453	MEAN	69.7	MAX	170	MIN	17	ACFT	50,490		

SANTA ANA RIVER BASIN

11075720 CARBON CREEK BELOW CARBON CANYON DAM, CALIF.

LOCATION.--Lat 33°54'40", long 117°50'29", in SW¹/₄NE¹/₄ 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.--9 years, 0.725 cfs (525 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15 cfs Mar. 3 (gage height, 0.46 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	.05						
2				0	0	.33						
3				0	0	1.9						
4				0	0	0						
5				0	0	0						
6				0	0	2.2						
7				0	0	.05						
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				.01	0	0						
16				.10	.01	0						
17				.03	0	0						
18				0	0	0						
19				0	0	0						
20				0	0	0						
21				0	0	0						
22				0	0	0						
23				0	0	0						
24				0	0	0						
25				0	0	0						
26				0	0	0						
27				0	0	0						
28				0	.02	0						
29				0	-----	0						
30				0	-----	0						
31		-----		0	-----	0	-----		-----			-----
TOTAL	0	0	0	.14	.03	4.53	0	0	0	0	0	0
MEAN	0	0	0	.004	.001	.15	0	0	0	0	0	0
MAX	0	0	0	.10	.02	2.2	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	.3	.06	9.0	0	0	0	0	0	0
CAL YR 1969	TOTAL	1,667.65	MEAN	4.57	MAX	219	MIN	0	ACFT	3,310		
WAT YR 1970	TOTAL	4.70	MEAN	.013	MAX	2.2	MIN	0	ACFT	9.3		

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.--9 years, 9.33 cfs (6,760 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 90 cfs Mar. 11 (gage height, 3.11 ft); minimum daily, 0.01 cfs Aug. 10 to Sept. 30.

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 fair. Slight regulation by Modjeska Reservoir on Harding Creek. No diversion above station. See schematic diagram of Santa Ana River basin.

COOPERATION.--Six discharge measurements furnished by Orange County Flood Control District.

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	.60	1.9	.86	1.0	1.1	35	1.5	1.1	.66	.14	.02	.01
2	.50	1.4	.78	1.0	1.1	53	1.4	1.1	.60	.13	.02	.01
3	.50	1.4	.78	1.0	1.3	19	1.5	1.0	.55	.12	.02	.01
4	.55	1.5	.78	1.0	1.3	18	1.4	.96	.55	.11	.02	.01
5	.59	1.2	.78	1.0	1.3	44	1.1	.91	.50	.10	.02	.01
6	.28	1.2	.78	1.0	1.3	19	1.2	.95	.50	.09	.02	.01
7	.31	8.0	.78	.88	1.2	13	1.3	1.1	.55	.08	.02	.01
8	.29	2.0	.79	.88	1.1	10	1.5	.99	.55	.07	.02	.01
9	.31	1.4	.88	.89	1.1	7.9	1.5	.92	.55	.06	.02	.01
10	.33	1.5	.88	1.1	3.6	7.3	1.5	.86	.55	.06	.01	.01
11	.49	1.4	.88	1.3	5.9	6.1	1.5	.86	.52	.05	.01	.01
12	.78	1.1	.88	1.3	3.7	5.3	1.4	.94	.50	.05	.01	.01
13	.79	1.0	.88	1.5	3.5	4.4	1.5	.86	.48	.05	.01	.01
14	.81	1.0	.88	1.5	3.0	3.9	1.5	.86	.45	.04	.01	.01
15	.88	1.0	.88	1.6	3.0	3.6	1.4	.79	.43	.04	.01	.01
16	.90	1.1	.88	2.6	2.8	3.0	1.4	.79	.40	.04	.01	.01
17	1.1	1.1	.88	3.4	2.7	2.8	1.5	.86	.38	.04	.01	.01
18	1.1	.88	.88	2.4	2.4	2.7	1.4	.86	.36	.03	.01	.01
19	1.4	.88	.88	2.0	2.3	2.6	1.3	.86	.34	.03	.01	.01
20	1.5	.88	.88	1.9	2.2	2.4	1.4	.86	.32	.03	.01	.01
21	1.6	.88	.88	1.9	2.0	2.2	1.4	.79	.30	.03	.01	.01
22	1.7	.88	.88	1.9	2.3	2.0	1.3	.79	.28	.03	.01	.01
23	1.7	.88	.88	1.8	2.2	1.6	1.3	.79	.26	.02	.01	.01
24	1.9	.88	.88	1.6	1.8	2.0	1.2	.72	.24	.02	.01	.01
25	2.0	.88	.88	1.6	2.1	2.0	1.2	.66	.22	.02	.01	.01
26	1.7	.88	.88	1.6	2.2	1.8	1.2	.86	.20	.02	.01	.01
27	1.6	.84	.88	1.5	2.3	1.7	1.3	1.0	.19	.02	.01	.01
28	1.7	.78	.72	1.3	7.0	1.7	1.3	.94	.18	.02	.01	.01
29	2.0	.78	.98	1.3	-----	1.6	1.3	.86	.17	.02	.01	.01
30	1.7	.78	1.1	1.3	-----	1.6	1.2	.72	.15	.02	.01	.01
31	2.1	-----	1.1	1.2	-----	1.5	-----	.72	-----	.02	.01	-----
TOTAL	33.71	40.30	26.95	46.25	67.8	282.7	40.9	27.28	11.93	1.60	0.40	0.30
MEAN	1.09	1.34	.87	1.49	2.42	9.12	1.36	.88	.40	.052	.013	.010
MAX	2.1	8.0	1.1	3.4	7.0	53	1.5	1.1	.66	.14	.02	.01
MIN	.28	.78	.72	.88	1.1	1.5	1.1	.66	.15	.02	.01	.01
AC-FT	67	80	53	92	134	561	81	54	24	3.2	.8	.6

CAL YR 1969 TOTAL 19,417.03 MEAN 53.2 MAX 3,590 MIN 0 AC-FT 38,510
 WTR YR 1970 TOTAL 580.12 MEAN 1.59 MAX 53 MIN .01 AC-FT 1,150

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

SANTA ANA RIVER BASIN

11076000 SANTIAGO CREEK AT SANTIAGO DAM, NEAR VILLA PARK, CALIF.

LOCATION.--Lat 33°47'10", long 117°43'33", near west corner of lot 70 of Lomas de Santiago Grant, Orange County, on upstream face near left end of Santiago Dam, 0.3 mile upstream from Fremont Canyon, and 5.7 miles south-east of Villa Park.

DRAINAGE AREA.--63.1 sq mi.

PERIOD OF RECORD.--October 1931 to September 1960, October 1961 to current year.

GAGE.--Nonrecording gage read on last day of each month. Datum of gage is at mean sea level.

AVERAGE DISCHARGE --38 years, 18.3 cfs (13,220 acre-ft per year); median of yearly mean discharges, 10 cfs (7,500 acre-ft per year).

REMARKS.--Records of total inflow represent all water reaching Santiago Reservoir, including precipitation on the reservoir and supplemental Colorado River water delivered through aqueduct of Metropolitan Water District of Southern California. Total inflow computed on basis of records of storage, release (draft), spill, leakage, and evaporation. Monthly evaporation from lake surface computed on basis of evaporation from class A pan using coefficient of 0.80. Records of net inflow exclude supplemental water from Colorado River. Dam was completed in December 1931. Area and capacity tables for the reservoir are dated December 1930. Capacity of reservoir at spillway level (gage height, 790.0 ft), 25,000 acre-ft. At times flashboards installed on spillway to increase storage. Dead storage below lowest outlet included in these records. Minor diversions in basin above this reservoir. See schematic diagram of Santa Ana River basin.

COOPERATION.--Reservoir operation records and related data furnished by Serrano and Carpenter Irrigation Districts and Irvine Co. Spill, in acre-ft, furnished by Orange County Flood Control District.

MONTHLY NET INFLOW, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

Date	Elevation (feet) ^a	Contents (acre- feet)	Change in contents (acre- feet)	Draft (acre- feet)	Evapo- ration (acre- feet)	Spill waste, and leakage (acre- feet)	Total inflow (acre- feet)	Colorado River water imported (acre- feet)	Net inflow (acre- feet)
Santiago Reservoir									
Sept. 30.....	783.1	21,000	-	-	-	-	-	-	-
Oct. 31.....	779.2	19,000	-2,000	2,304	262	0	566	63	503
Nov. 30.....	777.1	17,900	-1,100	1,729	191	0	820	49	771
Dec. 31.....	776.3	17,500	-400	515	108	0	223	45	178
CAL YR 1969.....	-	-	+7,550	13,397	2,653	57,380	80,984	1,146	79,834
Jan. 31.....	775.9	17,300	-200	353	99	0	252	36	216
Feb. 28.....	775.3	17,000	-300	707	156	0	563	30	533
Mar. 31.....	776.6	17,700	+700	460	230	0	1,390	38	1,352
Apr. 30.....	773.2	16,100	-1,600	2,266	230	0	896	97	799
May 31.....	773.8	16,300	+200	3,528	259	0	3,987	3,251	736
June 30.....	776.6	17,700	+1,400	3,186	254	0	4,840	4,252	588
July 31.....	771.1	15,100	-2,600	2,792	295	0	487	126	361
Aug. 31.....	763.8	11,900	-3,200	3,522	277	0	599	207	392
Sept. 30.....	757.7	9,660	-2,240	2,504	219	0	483	176	307
WTR YR 1970.....	-	-	-11,340	23,866	2,580	0	15,106	8,370	6,736

^a Elevation at 1700.

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.

11077500 SANTIAGO CREEK AT SANTA ANA, CALIF.

LOCATION.--Lat 33°46'13", long 117°53'02", in NW¹/₄SW¹/₄NW¹/₄ 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. Prior to Sept. 8, 1969, at site 0.1 mile upstream.

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.--42 years, 5.49 cfs (3,980 acre-ft per year); median of yearly mean discharges, 0.7 cfs (510 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,100 cfs (estimated) Mar. 2 (gage height, 5.65 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.

COOPERATION.--Three discharge measurements furnished by Orange County Flood Control District.

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		0		0	0	29						
2		0		0	0	96						
3		0		0	0	0						
4		0		0	0	80						
5		0		0	0	14						
6		38		0	0	0						
7		25		0	0	0						
8		0		0	0	0						
9		0		0	.12	0						
10		0		0	16	0						
11		0		12	.18	0						
12		0		1.0	0	0						
13		0		0	0	0						
14		0		0	0	0						
15		0		0	0	0						
16		0		26	0	0						
17		0		0	0	0						
18		0		0	0	0						
19		0		0	0	0						
20		0		0	0	0						
21		0		0	0	0						
22		0		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	7.3	0						
29		0		0	-----	0						
30		0		0	-----	0						
31		-----		0	-----	0	-----		-----			-----
TOTAL	0	63	0	39.0	23.60	219	0	0	0	0	0	0
MEAN	0	2.10	0	1.26	.84	7.06	0	0	0	0	0	0
MAX	0	38	0	26	16	96	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	125	0	77	47	434	0	0	0	0	0	0
CAL YR 1969	TOTAL	26,212.78	MEAN	71.8	MAX	4,270	MIN	0	ACFT	51,990		
WAT YR 1970	TOTAL	344.60	MEAN	.94	MAX	96	MIN	0	ACFT	684		

SANTA ANA RIVER BASIN

11078000 SANTA ANA RIVER AT SANTA ANA, CALIF.

LOCATION.--Lat 33°44'56", long 117°54'30", in NW¼SW¼SE¼ 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 (revised), 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); 30 years (1940-70), 31.4 cfs (22,750 acre-ft per year); median of yearly mean discharges, 2.4 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,710 cfs Mar. 2 (gage height, 4.01 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 poor. 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, revised) 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		0	0	38						
2		0		0	0	498						
3		0		0	0	.50						
4		0		0	0	205						
5		0		0	0	95						
6		50		0	0	.05						
7		40		0	0	0						
8		0		0	0	0						
9		0		0	0	0						
10		0		0	116	0						
11		0		25	12	0						
12		0		10	0	0						
13		0		0	0	0						
14		0		0	0	0						
15		0		0	0	0						
16		0		54	0	0						
17		0		2.0	0	0						
18		0		0	0	0						
19		0		0	0	0						
20		0		0	0	0						
21		0		0	0	0						
22		0		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	18	0						
29		0		0	-----	0						
30		0		0	-----	0						
31		-----		0	-----	0	-----		-----			-----
TOTAL	0	90	0	91.0	146	836.55	0	0	0	0	0	0
MEAN	0	3.00	0	2.94	5.21	27.0	0	0	0	0	0	0
MAX	0	50	0	54	116	498	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	179	0	181	290	1,660	0	0	0	0	0	0
CAL YR 1969	TOTAL	196,076.50	MEAN	537	MAX	11,400	MIN	0	ACFT	388,900		
WAT YR 1970	TOTAL	1,163.55	MEAN	3.19	MAX	498	MIN	0	ACFT	2,310		

NOTE.--No gage-height record Nov. 6, 7, Jan. 11, 12, 16, 17.

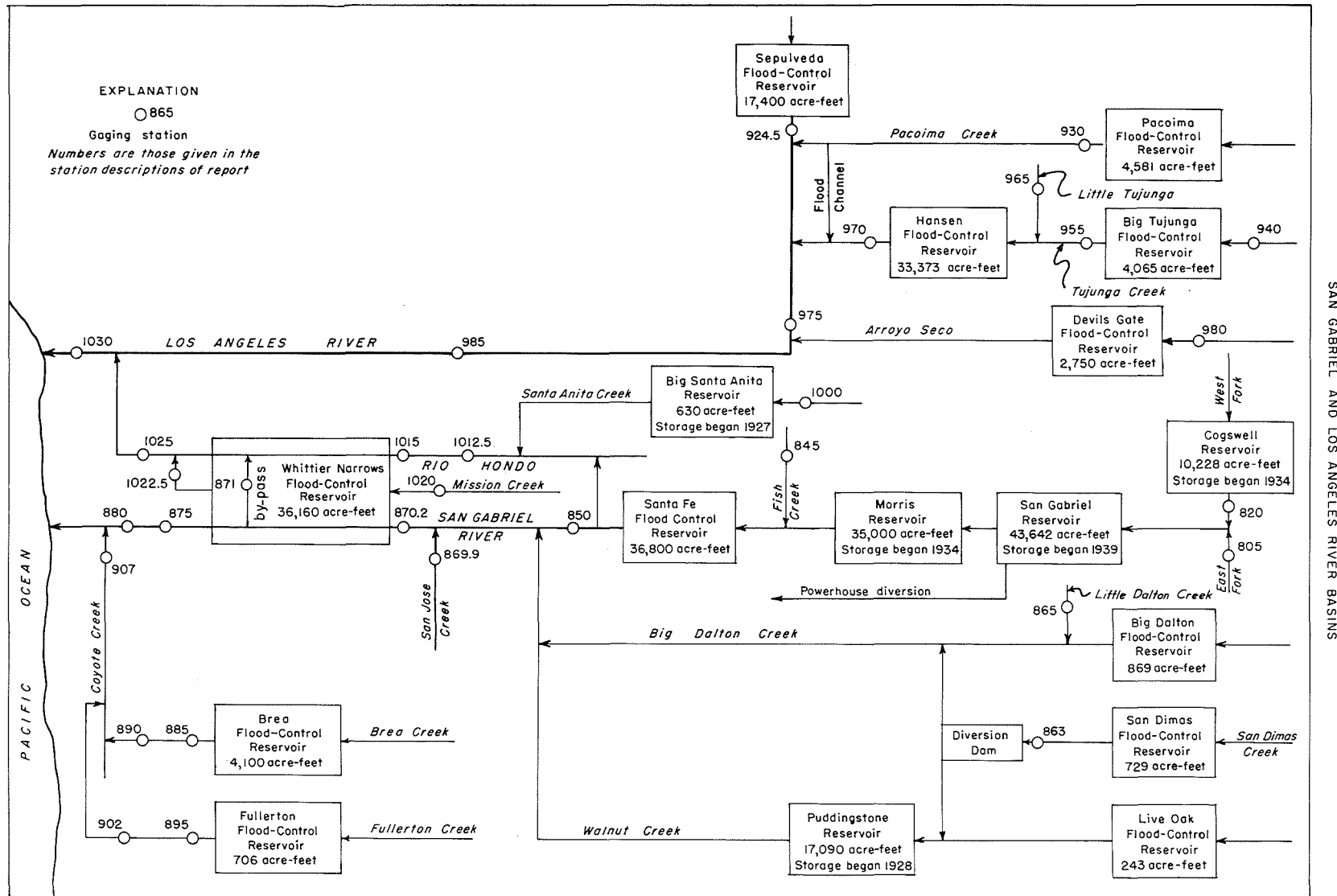


Figure 4.--Schematic diagram showing diversions and storage in San Gabriel and Los Angeles River basins.

SAN GABRIEL RIVER BASIN

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.--37 years (1933-70), 72.2 cfs (52,310 acre-ft per year); median of yearly mean discharges, 43 cfs (31,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 590 cfs Mar. 1 (gage height, 9.58 ft); minimum daily, 13 cfs Sept. 9-11.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	30	27	24	27	346	69	45	34	20	18	15
2	37	30	27	25	27	287	68	45	33	20	17	14
3	37	30	28	25	27	146	64	45	33	21	17	14
4	37	30	28	25	27	133	64	46	32	21	17	14
5	36	30	28	25	27	138	62	48	31	22	16	14
6	36	51	28	25	26	117	61	49	30	22	17	14
7	36	60	29	24	26	108	62	50	30	21	17	14
8	35	45	29	24	25	106	64	49	29	22	16	14
9	35	42	29	24	27	106	64	49	30	21	16	13
10	36	40	29	37	60	101	69	50	32	20	16	13
11	36	40	29	32	80	92	72	49	30	20	16	13
12	36	38	28	31	51	88	71	49	30	20	16	15
13	36	37	28	30	46	86	71	49	32	20	18	15
14	36	36	28	29	41	94	68	48	31	19	19	15
15	36	36	28	30	38	101	64	46	30	19	18	15
16	36	34	28	35	34	101	62	44	29	19	19	16
17	36	32	27	37	32	101	62	42	29	19	27	15
18	36	30	27	35	30	99	58	41	28	19	21	15
19	35	29	27	33	29	95	55	40	28	18	19	16
20	35	27	27	32	29	90	53	39	27	18	18	16
21	35	28	26	31	29	87	57	39	27	18	18	15
22	35	28	26	30	29	86	55	38	25	18	17	15
23	34	30	27	29	29	83	51	38	24	17	17	15
24	34	30	27	29	29	84	50	38	23	18	17	16
25	34	30	27	29	27	84	49	39	23	18	16	16
26	34	30	26	29	27	84	49	39	22	18	16	16
27	34	28	26	29	27	84	54	39	22	18	16	16
28	33	27	25	29	144	80	51	40	22	18	16	15
29	31	27	24	29	-----	75	49	39	21	18	16	15
30	30	27	24	28	-----	81	48	38	21	18	15	15
31	30	-----	24	27	-----	78	-----	36	-----	18	15	-----
TOTAL	1,084	1,012	841	901	1,050	3,441	1,796	1,346	838	598	537	444
MEAN	35.0	33.7	27.1	29.1	37.5	111	59.9	43.4	27.9	19.3	17.3	14.8
MAX	37	60	29	37	144	346	72	50	34	22	27	16
MIN	30	27	24	24	25	75	48	36	21	17	15	13
AC-FT	2,150	2,010	1,670	1,790	2,080	6,830	3,560	2,670	1,660	1,190	1,070	881

CAL YR 1969 TOTAL 107,290 MEAN 294 MAX 8,070 MIN 16 ACFT 212,800
WAT YR 1970 TOTAL 13,888 MEAN 38.0 MAX 346 MIN 13 ACFT 27,550

NOTE.--Stage-discharge relation indefinite July 6 to Sept. 30.

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.--43 years, 69.6 cfs (50,430 acre-ft per year); median of yearly mean discharges, 33 cfs (23,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,370 cfs Feb. 28 (gage height, 17.54 ft); minimum daily, 12 cfs Sept. 6-8, 28.

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, revised). 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	39	24	23	24	738	51	33	23	18	15	13
2	43	39	24	23	24	788	46	32	23	18	15	13
3	43	39	25	23	24	486	45	32	23	18	15	13
4	42	39	25	23	24	469	45	32	23	18	15	13
5	35	39	25	23	23	269	43	32	23	17	15	13
6	30	65	25	23	23	280	42	33	23	17	15	12
7	43	78	25	23	23	268	43	33	23	17	15	12
8	43	90	25	23	23	256	42	33	23	17	14	12
9	43	99	25	25	33	248	40	32	24	17	14	13
10	43	99	25	47	210	230	39	32	26	17	14	13
11	42	99	25	38	224	186	39	31	26	17	14	13
12	42	99	25	32	159	146	38	30	26	17	14	14
13	42	97	25	39	126	144	39	29	26	17	14	15
14	40	97	25	38	91	144	40	28	26	17	14	15
15	43	95	25	38	87	139	40	27	25	17	14	15
16	43	95	25	45	85	137	40	27	25	17	13	14
17	43	84	25	42	79	127	40	27	24	16	14	14
18	42	87	25	39	74	129	39	27	23	16	14	14
19	42	87	25	37	45	125	39	27	22	16	14	14
20	40	87	25	36	39	123	39	27	21	16	14	14
21	40	89	25	30	38	120	40	27	20	16	14	14
22	40	91	25	28	36	116	40	27	20	16	14	14
23	40	93	25	27	35	114	38	27	20	16	14	14
24	42	95	24	26	33	109	37	27	20	16	13	14
25	42	64	24	26	27	107	37	27	20	16	13	14
26	42	27	24	26	26	105	37	27	19	16	13	13
27	42	26	23	25	27	101	37	28	19	15	13	13
28	42	24	23	24	625	99	36	29	19	15	13	12
29	42	24	23	24	-----	99	35	28	19	15	13	13
30	42	23	23	24	-----	103	34	27	18	15	13	13
31	42	-----	23	24	-----	92	-----	26	-----	15	13	-----
TOTAL	1,282	2,109	760	924	2,287	6,597	1,200	904	672	511	432	403
MEAN	41.4	70.3	24.5	29.8	81.7	213	40.0	29.2	22.4	16.5	13.9	13.4
MAX	43	99	25	47	625	788	51	33	26	18	15	15
MIN	30	23	23	23	23	92	34	26	18	15	13	12
AC-FT	2,540	4,180	1,510	1,830	4,540	13,090	2,380	1,790	1,330	1,010	857	799
CAL YR 1969	TOTAL	135,245	MEAN	371	MAX	14,400	MIN	12	ACFT	268,300		
WAT YR 1970	TOTAL	18,081	MEAN	49.5	MAX	788	MIN	12	ACFT	35,860		

SAN GABRIEL RIVER BASIN

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 current year.

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.--53 years (1917-70), 4.64 cfs (3,360 acre-ft per year); median of yearly mean discharges, 2.3 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 898 cfs Feb. 28 (gage height, 5.27 ft, from inside gage); minimum daily, 0.76 cfs Aug. 16-24.
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 except those for periods of no gage-height record, which are poor. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.6	2.0	1.8	2.4	98	5.9	4.3	2.7	2.4	1.2	.91
2	2.4	1.7	2.2	1.8	2.4	92	5.4	4.2	2.6	2.3	1.1	.91
3	2.5	1.7	2.3	1.8	2.4	32	5.4	4.1	2.6	2.3	1.1	.91
4	2.4	1.8	2.3	1.8	2.4	33	5.4	4.3	2.6	2.3	1.1	.91
5	2.0	1.9	2.3	1.9	2.4	43	5.3	4.4	2.6	2.2	1.1	.91
6	1.9	1.3	2.3	1.9	2.4	26	5.2	4.4	2.9	2.1	.96	.91
7	1.8	1.2	2.1	1.9	2.4	17	5.0	4.5	2.9	2.1	.82	.91
8	1.9	2.0	2.0	1.9	2.7	15	4.8	4.6	2.9	2.1	.86	.91
9	1.9	1.9	2.0	1.9	2.4	14	4.7	4.7	2.7	2.1	.92	.91
10	1.9	1.9	1.9	5.1	4.1	11	4.6	4.7	2.7	2.0	.88	.91
11	1.9	1.9	1.9	2.7	2.1	10	4.7	4.5	2.7	1.9	1.0	.91
12	1.9	1.9	1.9	2.3	5.1	9.4	4.6	4.5	2.7	1.9	1.0	.91
13	1.9	1.8	1.9	2.0	4.3	9.1	4.5	4.4	2.9	1.9	.96	.91
14	1.8	1.8	1.9	2.2	4.4	8.6	4.4	4.2	2.8	1.9	.92	.91
15	1.9	1.8	1.9	2.2	4.5	8.4	4.3	4.1	3.0	1.9	.85	.91
16	1.9	2.5	1.9	3.9	4.5	7.9	4.2	4.2	3.0	1.8	.76	.91
17	1.9	1.9	1.9	3.3	4.4	7.7	4.2	4.3	3.0	1.8	.76	.91
18	1.9	1.9	2.0	2.6	4.4	7.4	4.1	4.2	3.0	1.7	.76	.91
19	1.8	1.8	2.0	2.5	4.3	7.4	4.0	4.1	3.0	1.7	.76	.91
20	1.8	1.8	2.1	2.5	4.6	7.3	4.0	4.1	2.9	1.6	.76	.91
21	1.8	1.8	2.2	2.5	4.6	7.2	3.9	4.1	2.9	1.4	.76	.91
22	1.8	1.7	2.3	2.5	4.4	7.0	3.9	4.1	2.9	1.3	.76	.91
23	1.7	1.7	2.3	2.5	4.1	6.9	3.8	4.1	2.9	1.3	.76	.91
24	1.8	1.7	2.2	2.5	3.7	6.7	3.8	4.1	2.9	1.3	.76	.91
25	1.8	1.6	2.2	2.5	3.6	6.6	3.9	4.1	2.8	1.3	.83	.91
26	1.8	1.6	2.1	2.5	3.7	6.5	4.0	4.1	2.7	1.4	.83	.91
27	1.8	1.6	1.8	2.5	3.7	6.4	4.5	3.4	2.5	1.4	.87	.91
28	1.7	1.7	1.7	2.5	99	6.3	4.7	3.3	2.5	1.4	.91	.91
29	1.7	1.8	1.7	2.5	-----	6.0	4.4	4.3	2.5	1.3	.91	.91
30	1.7	1.8	1.8	2.5	-----	6.2	4.3	3.9	2.5	1.3	.91	.91
31	1.6	-----	1.8	2.4	-----	6.5	-----	2.9	-----	1.3	.91	-----
TOTAL	59.1	75.6	62.9	75.4	251.2	536.5	135.9	129.2	83.3	54.7	27.78	27.30
MEAN	1.91	2.52	2.03	2.43	8.97	17.3	4.53	4.17	2.78	1.76	.90	.91
MAX	2.5	1.3	2.3	5.1	99	98	5.9	4.7	3.0	2.4	1.2	.91
MIN	1.6	1.6	1.7	1.8	2.4	6.0	3.8	2.9	2.5	1.3	.76	.91
AC-FT	117	150	125	150	498	1,060	270	256	165	108	55	54

CAL YR 1969 TOTAL 15,068.2 MEAN 41.3 MAX 3,370 MIN 1.1 AC-FT 29,890
WTR YR 1970 TOTAL 1,518.88 MEAN 4.16 MAX 99 MIN .76 AC-FT 3,010

PEAK DISCHARGE (BASE, 60 CFS).--Feb. 10 (2045) 119 cfs (3.09 ft); Feb. 28 (1730) 898 cfs (5.27 ft).

NOTE.--No gage-height record Mar. 20 to Apr. 21, June 15 to July 20.

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.10 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, 458 cfs Mar. 4 (gage height, 11.23 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, revised). 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; 1,360 acre-ft diverted during year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Nine 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	107	58					
2					0	248	55					
3					0	237	53					
4					0	261	43					
5					0	263	20					
6					0	238	9.5					
7					0	218	9.5					
8					0	218	9.5					
9					0	218	9.5					
10					0	213	9.5					
11					0	208	8.6					
12					9.6	204	6.9					
13					7.7	204	7.7					
14					.62	199	9.5					
15					0	199	8.6					
16					0	205	8.6					
17					0	125	5.0					
18					0	85	0					
19					0	85	0					
20					0	85	0					
21					0	79	0					
22					0	75	0					
23					0	75	0					
24					0	75	0					
25					0	72	0					
26					0	72	0					
27					0	66	0					
28					.23	40	0					
29					-----	20	0					
30					-----	37	0					
31					-----	60	-----					
TOTAL	0	0	0	0	18.15	4,491	331.4	0	0	0	0	0
MEAN	0	0	0	0	.65	145	11.0	0	0	0	0	0
MAX	0	0	0	0	9.6	263	58	0	0	0	0	0
MIN	0	0	0	0	0	20	0	0	0	0	0	0
AC-FT	0	0	0	0	36	8,910	657	0	0	0	0	0
(a)	0	0	0	0	36	9,580	1,120	228	0	0	0	0

CAL YR 1969 TOTAL 197,228.10 MEAN 540 MAX 26,000 MIN 0 ACFT 391,200 AC-FT a 415,600
 WAT YR 1970 TOTAL 4,840.55 MEAN 13.3 MAX 263 MIN 0 ACFT 9,600 AC-FT a 10,980

a Combined discharge, in acre-ft, of river and diversion to Rio Hondo.

SAN GABRIEL RIVER BASIN

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, 60 cfs Apr. 14 (gage height, 0.77 ft); minimum daily, 0.36 cfs Oct. 1, 2.

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, revised) 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	18	5.6	7.0	.81	13	14	4.0	3.8	2.6	1.3	1.5
2	.36	7.5	5.8	7.0	11	7.1	11	3.9	3.4	2.6	1.3	1.5
3	.45	5.2	6.5	7.0	14	8.3	9.2	3.7	3.1	2.6	1.3	1.4
4	.54	3.0	7.0	6.5	14	18	7.0	3.5	2.8	2.5	1.3	1.4
5	.54	2.8	7.0	6.5	14	14	6.5	3.3	2.9	2.5	1.3	1.4
6	.54	2.8	7.0	6.5	14	26	4.8	3.2	3.0	2.4	1.3	1.4
7	.54	2.8	7.0	6.5	14	26	4.8	3.1	3.1	2.4	1.4	1.3
8	.63	2.8	7.0	4.6	14	25	5.1	3.3	3.2	2.3	1.4	1.3
9	.63	2.8	7.0	.72	9.8	26	4.8	3.6	3.3	2.3	1.5	1.3
10	.72	2.6	7.0	.72	.90	24	5.1	3.8	3.4	2.2	1.5	1.3
11	.81	2.6	7.0	.72	8.3	21	5.1	4.1	3.5	2.1	1.6	1.3
12	.81	2.6	7.0	.72	17	21	5.1	4.3	3.5	2.0	1.6	1.3
13	.72	2.6	7.0	.72	17	21	32	4.5	3.4	1.9	1.7	1.3
14	.72	2.6	7.0	.72	17	21	29	4.7	3.4	1.8	1.6	1.3
15	8.2	2.6	7.0	.72	17	21	5.6	4.5	3.3	1.7	1.6	1.3
16	23	2.6	7.0	.90	16	21	5.1	4.2	3.2	1.6	1.5	1.3
17	23	2.6	7.0	.90	16	21	6.7	3.9	3.1	1.6	1.4	1.3
18	23	5.3	7.0	.90	16	21	4.8	3.6	3.1	1.6	1.3	1.3
19	23	7.0	7.0	.90	11	21	7.2	3.3	3.1	1.6	1.3	1.3
20	22	7.0	7.0	.90	.90	20	7.7	3.1	3.1	1.6	1.2	1.3
21	22	7.0	7.0	.90	.90	19	8.2	2.8	3.0	1.6	1.3	1.4
22	16	6.5	7.0	.81	.90	18	7.7	3.2	3.0	1.6	1.4	1.4
23	16	6.5	7.0	.81	.90	17	7.2	3.6	2.9	1.6	1.4	1.4
24	19	6.5	7.0	.81	1.1	18	6.7	4.0	2.8	1.6	1.5	1.4
25	20	6.5	7.0	.81	1.3	16	6.2	4.4	2.8	1.5	1.6	1.4
26	20	6.5	7.0	.81	1.5	15	5.7	4.8	2.8	1.5	1.7	1.4
27	20	6.5	7.0	.81	1.5	12	5.2	5.0	2.7	1.4	1.8	1.4
28	11	6.2	7.0	.81	2.0	11	4.7	5.2	2.6	1.4	1.8	1.4
29	15	6.2	7.0	.81	-----	11	4.2	4.9	2.6	1.3	1.7	1.4
30	20	6.5	7.0	.81	-----	11	4.1	4.5	2.5	1.3	1.6	1.4
31	20	-----	7.0	.81	-----	13	-----	4.2	-----	1.3	1.6	-----
TOTAL	329.57	152.7	213.9	70.14	252.81	557.4	240.5	122.2	92.4	58.0	45.8	40.8
MEAN	10.6	5.09	6.90	2.26	9.03	18.0	8.02	3.94	3.08	1.87	1.48	1.36
MAX	23	18	7.0	7.0	17	26	32	5.2	3.8	2.6	1.8	1.5
MIN	.36	2.6	5.6	.72	.81	7.1	4.1	2.8	2.5	1.3	1.2	1.3
AC-FT	654	303	424	139	501	1,110	477	242	183	115	91	81
CAL YR 1969	TOTAL 14,880.73	MEAN 40.8	MAX 1,720	MIN 0	ACFT 29,520							
WAT YR 1970	TOTAL 2,176.22	MEAN 5.96	MAX 32	MIN .36	ACFT 4,320							

11086500 LITTLE DALTON CREEK NEAR GLENDORA, CALIF.

LOCATION.--Lat 34°10'03", long 117°50'15", in NE¼SE¼SE¼ 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 current year. 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.--31 years, 0.72 cfs (522 acre-ft per year); median of yearly mean discharges, 0.3 cfs (220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 30 cfs (estimated) Mar. 4; no flow June 26-30, July 6 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.20	.20	.20	.10	12	.50	.20	.30	.10		
2	.30	.20	.20	.20	.10	9.0	.50	.20	.30	.10		
3	.30	.20	.20	.20	.10	6.0	.50	.20	.20	.10		
4	.30	.20	.20	.20	.10	15	.40	.20	.20	.10		
5	.30	.20	.20	.20	.20	10	.40	.30	.30	.10		
6	.20	3.0	.20	.20	.20	4.0	.40	.30	.40	0		
7	.20	2.0	.20	.20	.20	3.5	.30	.30	.50	0		
8	.20	1.0	.30	.20	.20	3.0	.30	.30	.60	0		
9	.20	.80	.30	.20	.30	2.4	.30	.30	.70	0		
10	.20	.70	.30	1.0	5.0	1.9	.20	.30	.80	0		
11	.30	.60	.30	.50	4.5	1.4	.20	.20	.70	0		
12	.30	.50	.30	.40	1.6	1.3	.30	.20	.60	0		
13	.30	.40	.30	.30	1.4	1.2	.30	.20	.50	0		
14	.40	.40	.30	.30	1.2	1.1	.40	.20	.50	0		
15	.40	.40	.30	.50	1.0	1.0	.40	.20	.50	0		
16	.40	.40	.30	1.0	.80	.90	.40	.20	.40	0		
17	.40	.40	.30	.90	.70	.80	.40	.20	.30	0		
18	.40	.40	.30	.80	.60	.80	.40	.20	.20	0		
19	.40	.40	.30	.70	.50	.80	.30	.20	.20	0		
20	.30	.40	.30	.60	.50	.80	.30	.20	.20	0		
21	.30	.40	.20	.50	.50	.70	.30	.20	.20	0		
22	.30	.30	.20	.50	.50	.70	.20	.20	.10	0		
23	.30	.30	.20	.40	.40	.70	.20	.30	.10	0		
24	.30	.30	.20	.30	.40	.60	.20	.30	.10	0		
25	.30	.20	.20	.20	.40	.60	.20	.40	.10	0		
26	.30	.20	.20	.10	.40	.60	.20	.40	0	0		
27	.20	.20	.20	0	.40	.60	.20	.50	0	0		
28	.20	.20	.20	0	7.8	.60	.20	.50	0	0		
29	.20	.20	.20	0	-----	.50	.20	.50	0	0		
30	.20	.20	.20	0	-----	.50	.20	.40	0	0		
31	.20	-----	.20	0	-----	.50	-----	.40	-----	0		-----
TOTAL	8.90	15.30	7.50	10.80	30.10	83.50	9.30	8.70	9.00	.50	0	0
MEAN	.29	.51	.24	.35	1.08	2.69	.31	.28	.30	.016	0	0
MAX	.40	3.0	.30	1.0	7.8	15	.50	.50	.80	.10	0	0
MIN	.20	.20	.20	0	.10	.50	.20	.20	0	0	0	0
AC-FT	18	30	15	21	60	166	18	17	18	1.0	0	0

CAL YR 1969 TOTAL - MEAN - MAX - MIN - ACFT -
 WAT YR 1970 TOTAL 183.60 MEAN .50 MAX 15 MIN 0 ACFT 364

NOTE.--No gage-height record except Feb. 10-12, Feb. 28 to Mar. 5.

SAN GABRIEL RIVER BASIN

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).

EXTREMES.--Current year: Maximum discharge, 3,930 cfs Mar. 4 (gage height, 4.59 ft); minimum daily, 9.0 cfs Aug. 31, Sept. 2.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	22	15	21	898	22	22	23	17	11	11
2	18	17	21	15	22	298	22	22	22	17	13	9.0
3	18	17	19	17	22	20	22	22	25	15	15	10
4	17	17	17	15	22	472	22	22	26	15	17	13
5	17	15	17	17	22	194	22	22	22	13	18	13
6	18	372	18	18	22	22	22	22	18	13	15	11
7	19	182	19	19	19	22	22	22	18	14	18	13
8	21	19	32	18	18	22	22	22	18	14	15	14
9	21	18	28	31	52	22	22	22	17	14	15	14
10	21	19	18	71	490	22	22	22	18	14	15	13
11	19	19	18	39	94	22	22	22	18	17	17	14
12	19	19	18	43	23	22	22	22	19	14	15	14
13	19	19	17	19	22	22	22	22	18	15	14	13
14	21	21	15	54	23	22	22	22	17	17	15	11
15	19	21	14	36	22	22	22	22	18	18	15	10
16	21	18	10	182	22	22	22	22	18	14	13	12
17	18	17	10	23	22	22	22	22	17	17	13	14
18	18	17	14	19	22	22	22	22	17	13	11	15
19	18	15	14	21	23	22	22	22	15	11	14	15
20	18	17	14	22	23	22	22	22	13	13	13	14
21	18	17	14	22	23	22	22	22	13	14	13	19
22	18	19	22	23	22	22	22	22	15	11	14	14
23	18	15	15	23	23	22	22	22	17	11	13	14
24	18	14	15	23	23	22	22	22	18	11	14	14
25	18	17	14	23	23	22	22	22	17	11	14	15
26	17	15	15	23	23	22	22	22	14	10	13	13
27	17	18	14	23	25	22	22	22	14	13	13	13
28	18	18	15	23	467	22	22	25	15	17	11	15
29	19	21	14	23	-----	22	22	25	15	15	10	15
30	18	19	17	23	-----	40	22	21	15	13	10	15
31	19	-----	17	22	-----	30	-----	21	-----	11	9.0	-----
TOTAL	575	1,049	527	945	1,635	2,480	660	686	530	432	426.0	400.0
MEAN	18.5	35.0	17.0	30.5	58.4	80.0	22.0	22.1	17.7	13.9	13.7	13.3
MAX	21	372	32	182	490	898	22	25	26	18	18	19
MIN	17	14	10	15	18	20	22	21	13	10	9.0	9.0
AC-FT	1,140	2,080	1,050	1,870	3,240	4,920	1,310	1,360	1,050	857	845	793
CAL YR 1969	TOTAL 27,356.3		MEAN 74.9	MAX 4,370		MIN 9.3	ACFT 54,260					
WAT YR 1970	TOTAL 10,345.0		MEAN 28.3	MAX 898		MIN 9.0	ACFT 20,520					

NOTE.--No gage-height record Mar. 6 to May 27.

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, 6,120 cfs Mar. 4 (gage height, 6.62 ft); minimum daily, 9.0 cfs Sept. 3.

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. No Colorado River water was released to the San Gabriel River at a site 4.2 miles upstream from gage and 460 ft downstream from San Bernardino Road for ground-water replenishment during year. Los Angeles County Flood Control District diverted 1,360 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	122	90	81	84	1,460	51	54	87	65	93	14
2	27	118	90	81	84	496	51	51	87	68	97	12
3	27	118	90	81	84	38	68	51	87	84	97	9.0
4	26	122	90	81	84	706	62	51	87	87	78	10
5	26	101	97	81	84	464	59	51	87	87	81	45
6	24	668	93	81	84	84	62	54	87	84	81	78
7	24	467	90	81	84	57	59	54	87	87	81	78
8	26	31	106	78	81	51	20	54	87	90	78	78
9	26	27	97	38	120	48	15	59	84	90	78	81
10	27	29	29	170	1,230	48	18	59	87	90	78	84
11	27	26	27	70	173	51	16	62	84	90	84	84
12	26	31	35	69	26	54	16	68	87	90	90	84
13	26	101	81	31	24	57	20	71	97	90	93	84
14	26	106	84	61	24	51	65	68	84	87	93	84
15	26	106	84	83	27	48	68	74	84	84	93	84
16	33	106	84	355	24	48	65	74	84	84	93	84
17	87	106	84	55	22	48	20	74	90	84	90	90
18	84	101	84	31	38	27	27	78	84	84	93	93
19	84	101	84	31	68	22	65	81	81	84	93	93
20	84	97	84	31	68	24	71	87	78	81	93	93
21	84	93	84	31	68	24	84	26	78	84	93	72
22	87	87	101	31	65	24	87	18	78	87	93	16
23	87	84	84	74	68	24	87	16	81	81	90	16
24	90	81	84	40	68	24	78	15	68	84	90	14
25	90	84	84	29	71	24	65	36	68	84	93	16
26	87	84	90	31	71	24	65	87	65	84	93	13
27	93	84	81	78	71	26	65	87	62	84	93	13
28	101	84	81	87	1,020	51	51	87	65	90	93	13
29	122	84	81	84	-----	57	51	87	65	93	93	13
30	122	84	81	84	-----	72	52	87	65	93	93	14
31	122	-----	81	84	-----	90	-----	87	-----	93	51	-----
TOTAL	1,848	3,533	2,535	2,323	4,015	4,322	1,583	1,908	2,415	2,647	2,732	1,562.0
MEAN	59.6	118	81.8	74.9	143	139	52.8	61.5	80.5	85.4	88.1	52.1
MAX	122	668	106	355	1,230	1,460	87	87	97	93	97	93
MIN	24	26	27	29	22	22	15	15	62	65	51	9.0
AC-FT	3,670	7,010	5,030	4,610	7,960	8,570	3,140	3,780	4,790	5,250	5,420	3,100

CAL YR 1969 TOTAL 250,418.5 MEAN 686 MAX 24,800 MIN 6.0 ACFT 496,700
 WAT YR 1970 TOTAL 31,423.0 MEAN 86.1 MAX 1,460 MIN 9.0 ACFT 62,330

11087020
 SAN GABRIEL RIVER
 ABOVE WHITTIER NARROWS DAM
 CALIF.

SAN GABRIEL RIVER BASIN

11087100 RIO HONDO FLOOD-FLOW CHANNEL AT WHITTIER NARROWS DAM, CALIF.

LOCATION.--Lat 34°01'27", long 118°04'10", in La Merced Grant, Los Angeles County, on upstream side of left abutment of Rosemead Boulevard bridge, 1,100 ft north of axis of Whittier Narrows Dam, and 2.2 miles north-east of Montebello.

PERIOD OF RECORD.--October 1965 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 196.90 ft above mean sea level (Corps of Engineers bench mark).

EXTREMES.--Current year: Maximum discharge, 170 cfs Mar. 5 (gage height, 198.30 ft, from floodmark); no flow all year except Mar. 1, 5.

Period of record: Maximum discharge, unknown, probably occurred Jan. 25, 1969, while gage was submerged from 0800 hours Jan. 25 to 0900 hours Jan. 26; no flow most of each year.

REMARKS.--Records poor. Flow regulated by operation of gates on San Gabriel River side of dam. Flow reported herein is San Gabriel River water passed to the Rio Hondo. See schematic diagram of San Gabriel and Los Angeles River basins.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						.96						
2						0						
3						0						
4						0						
5						5.9						
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					-----	0						
30					-----	0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	0	6.86	0	0	0	0	0	0
MEAN	0	0	0	0	0	.22	0	0	0	0	0	0
MAX	0	0	0	0	0	5.9	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	14	0	0	0	0	0	0
CAL YR 1969	TOTAL	108,572.80	MEAN	297	MAX	14,600	MIN	0	ACFT	215,400		
WAT YR 1970	TOTAL	6.86	MEAN	.019	MAX	5.9	MIN	0	ACFT	14		

11087500 SAN GABRIEL RIVER AT PICO, CALIF.

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.

DRAINAGE AREA.--448 sq mi.

PERIOD OF RECORD.--October 1928 to current year. Since 1954, Colorado River water released to San Gabriel River above station. Since 1954 records not equivalent.

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.

EXTREMES.--Current year: Maximum discharge, 5,530 cfs Mar. 4 (gage height, 5.36 ft); minimum daily, 13 cfs Sept. 3.
Period of record: Maximum discharge, 22,700 cfs Mar. 2, 1938; no flow for periods in most years.

REMARKS.--Flow regulated by Cogswell Reservoir since 1934 and San Gabriel flood-control reservoir since 1939 (combined capacity, 46,087 acre-ft, revised), Morris Reservoir since 1934 (capacity, 35,000 acre-ft), Santa Fe flood-control reservoir since October 1942 (capacity, 36,800 acre-ft), Whittier Narrows flood-control reservoir since January 1956 (capacity, 36,160 acre-ft), and several small flood-control reservoirs (combined capacity, 19,100 acre-ft). Diversions for irrigation, power development, and ground-water replenishment. For Colorado River water released to San Gabriel River at site 6.7 miles upstream for ground-water replenishment (see sta 11087020). During the year, 1,360 acre-ft was diverted from the San Gabriel River below Santa Fe Dam to Rio Hondo. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	136	125	110	106	1,880	64	86	106	94	97	21
2	54	140	114	110	106	874	65	82	102	102	99	17
3	44	120	110	108	102	69	74	84	106	114	101	13
4	42	122	112	108	102	577	73	72	106	114	78	15
5	37	110	112	106	106	765	71	62	106	110	98	60
6	37	655	108	106	102	108	69	60	102	95	115	99
7	37	741	108	108	104	84	62	60	102	92	116	99
8	36	65	119	108	102	74	32	58	104	93	118	99
9	34	55	94	63	129	73	31	65	102	92	122	101
10	37	47	43	237	1,090	73	30	65	100	89	118	99
11	38	49	40	94	460	71	32	69	104	94	122	98
12	37	41	44	87	65	73	36	74	104	87	133	99
13	34	131	102	47	60	73	39	73	108	88	136	100
14	36	147	104	63	54	65	80	78	102	85	136	98
15	39	156	102	106	62	65	84	82	98	96	133	99
16	37	152	102	432	54	65	84	82	100	104	127	101
17	82	149	104	78	54	65	40	80	100	110	102	104
18	88	140	106	52	56	60	42	80	92	107	122	105
19	96	133	104	47	98	58	88	90	91	105	94	105
20	102	127	104	47	98	58	96	94	92	108	92	105
21	114	125	106	46	94	54	110	44	92	109	88	75
22	120	118	117	47	92	55	110	46	93	105	86	20
23	133	116	100	94	94	58	114	43	93	106	86	32
24	147	114	98	60	92	54	108	42	95	106	84	49
25	140	116	98	50	94	54	96	56	103	106	86	52
26	136	114	100	52	100	49	94	118	96	108	92	51
27	145	118	100	104	104	34	96	114	96	110	94	50
28	147	118	98	108	900	57	88	110	96	110	92	47
29	142	122	102	108	-----	71	86	110	92	108	91	48
30	145	127	102	104	-----	79	86	108	97	99	93	48
31	138	-----	104	102	-----	98	-----	106	-----	97	55	-----
TOTAL	2,523	4,604	3,082	3,092	4,680	5,893	2,180	2,393	2,980	3,143	3,206	2,109
MEAN	81.4	153	99.4	99.7	167	190	72.7	77.2	99.3	101	103	70.3
MAX	147	741	125	432	1,090	1,880	114	118	108	114	136	105
MIN	34	41	40	46	54	34	30	42	91	85	55	13
AC-FT	5,000	9,130	6,110	6,130	9,280	11,690	4,320	4,750	5,910	6,230	6,360	4,180
CAL YR 1969	TOTAL	142,747	MEAN	391	MAX	10,200	MIN	17	ACFT	283,100		
WAT YR 1970	TOTAL	39,885	MEAN	109	MAX	1,880	MIN	13	ACFT	79,110		

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 $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ 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 north-west 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.--42 years, 28.2 cfs (20,430 acre-ft per year); median of yearly mean discharges, 3.8 cfs (2,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,550 cfs Mar. 5 (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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.12	.06	.12	.09	1,760	.12	.12	7.7	15	16	12
2	.04	.20	.09	.04	.06	699	.04	.09	10	15	18	12
3	.04	.30	.09	0	.06	3.7	.06	.09	9.3	13	19	14
4	.09	1.2	.06	0	.09	111	.04	.09	11	12	20	10
5	.06	.20	.06	0	.12	1,110	0	.12	.40	11	21	13
6	.01	254	.06	0	.09	20	0	.09	6.2	12	22	13
7	.01	779	.04	0	.09	3.7	0	.09	9.8	14	22	13
8	.04	.40	.06	0	.09	.09	.06	.09	9.3	15	22	7.7
9	.12	.02	1.4	11	.18	.06	0	.30	8.8	16	22	14
10	.12	.40	.02	54	593	.04	0	.30	10	15	20	14
11	.02	.04	.02	12	673	0	0	.20	9.3	12	18	12
12	.12	0	0	20	1.6	0	.06	.12	9.3	13	18	10
13	.20	0	0	7.4	.12	0	.06	.20	11	13	16	10
14	.20	0	0	20	.12	0	0	.20	8.8	11	11	10
15	.20	0	.09	4.5	.12	.06	.06	.12	9.3	13	11	10
16	1.4	0	.20	262	.12	.06	.06	.20	12	16	11	9.3
17	1.2	0	.06	88	.30	0	.20	.20	14	14	8.4	11
18	.30	0	.20	1.2	.30	0	.09	.20	17	14	.04	13
19	1.4	.04	.06	.12	.06	0	.20	.30	21	16	.06	15
20	.20	.09	.06	.30	.06	0	.12	.20	18	13	.04	13
21	.09	0	.06	.30	.06	0	.20	7.7	16	11	.04	14
22	.09	0	.04	.12	.02	.09	.30	16	19	13	1.8	15
23	.09	0	.04	.09	.02	.06	.12	15	19	14	5.9	18
24	.20	0	.12	.09	.02	.06	.04	16	16	14	6.7	16
25	.20	.06	.12	.09	.02	.04	.12	16	18	14	7.7	15
26	.30	0	.06	1.2	.02	.04	.09	16	17	15	9.8	10
27	.12	0	.06	2.9	.02	.06	0	16	16	16	11	12
28	.12	0	0	.30	560	.12	0	15	18	14	16	14
29	.09	0	0	.06	-----	.12	.20	11	17	16	13	13
30	.12	.06	0	.04	-----	.12	.12	10	18	16	9.8	11
31	.12	-----	.12	.06	-----	.12	-----	8.8	-----	15	11	-----
TOTAL	7.37	1,036.13	3.25	485.93	1,847.67	3,708.54	2.36	150.82	386.20	431	388.28	374.0
MEAN	.24	34.5	.10	15.7	66.0	120	.079	4.87	12.9	13.9	12.5	12.5
MAX	1.4	779	1.4	262	673	1,760	.30	16	21	16	22	18
MIN	.01	0	0	0	.02	0	0	.09	.40	11	.04	7.7
AC-FT	15	2,060	6.5	964	3,660	7,360	4.7	299	766	855	770	742
CAL YR 1969	TOTAL	105,162.85	MEAN	288	MAX	9,350	MIN	0	ACFT	208,600		
WAT YR 1970	TOTAL	8,821.55	MEAN	24.2	MAX	1,760	MIN	0	ACFT	17,500		

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), 0.190 cfs (135 acre-ft per year); median of yearly mean discharges, 0.02 cfs (14 acre-ft per year); 16 years (1954-70), 0.529 cfs (383 acre-ft per year); median of yearly mean discharges, 0.3 cfs (220 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 36 cfs Mar. 5 (gage height, 1.13 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		0	0	11		0				
2		0		0	0	7.1		0				
3		0		0	0	.04		0				
4		0		0	0	4.0		0				
5		2.9		0	0	16		0				
6		7.6		0	0	.06		0				
7		0		0	0	0		0				
8		0		0	0	0		0				
9		0		0	0	0		0				
10		0		.12	7.8	0		0				
11		0		.03	5.7	0		0				
12		0		.35	0	0		0				
13		0		0	0	0		0				
14		0		.26	0	0		0				
15		0		.16	0	0		0				
16		0		5.0	0	0		0				
17		0		1.3	0	0		0				
18		0		0	0	0		0				
19		0		0	0	0		.01				
20		0		0	0	0		.01				
21		0		0	0	0		0				
22		0		0	0	0		0				
23		0		0	0	0		0				
24		0		0	0	0		0				
25		0		0	0	0		0				
26		0		0	0	0		0				
27		0		0	0	0		0				
28		0		0	4.6	0		0				
29		0		0	-----	0		0				
30		0		0	-----	.03		0				
31		-----		0	-----	.10	-----	0	-----			-----
TOTAL	0	10.5	0	7.22	18.1	38.33	0	.02	0	0	0	0
MEAN	0	.35	0	.23	.65	1.24	0	.0006	0	0	0	0
MAX	0	7.6	0	5.0	7.8	16	0	.01	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	21	0	14	36	76	0	.04	0	0	0	0

CAL YR 1969 TOTAL 911.43 MEAN 2.50 MAX 198 MIN 0 ACFT 1,810
WAT YR 1970 TOTAL 74.17 MEAN .20 MAX 16 MIN 0 ACFT 147

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.--11 years, 1.91 cfs (1,380 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 525 cfs Nov. 6 (gage height, 4.03 ft); no flow most of year.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.10	0	.10	.10	32	0	0	.10	.10	.10	.10
2	.10	.10	.10	.10	0	31	0	0	0	.10	.10	.10
3	0	.10	.10	0	.10	.30	0	0	0	.10	.10	.10
4	0	.10	.10	0	.10	41	0	0	.10	.10	.20	.10
5	.10	0	.10	0	.10	14	0	0	.10	.10	.20	.10
6	0	98	0	0	.10	.20	0	0	.10	.10	.20	.10
7	.10	30	0	.10	.20	0	0	0	.10	.10	.20	.10
8	.10	.10	.30	.10	.40	0	0	0	.10	.10	.20	.10
9	.10	.10	.10	5.3	3.6	0	.10	0	.20	.10	.20	.10
10	.10	.20	0	19	54	0	0	0	.10	.20	.20	.10
11	.10	0	0	5.1	3.7	0	0	0	.10	.10	.20	0
12	.10	.10	0	9.3	0	.10	0	0	.10	.10	.30	.10
13	0	.10	0	.10	0	0	0	0	.10	.10	.20	0
14	0	0	0	3.6	0	.10	0	0	.10	.10	.20	0
15	0	.10	0	1.6	0	.10	.20	0	.10	.10	.30	0
16	0	.20	0	28	0	.10	0	0	.20	.10	.30	0
17	0	.10	0	1.3	0	.10	0	0	.40	.10	.30	.10
18	.10	.10	0	0	0	0	0	0	.60	.10	.30	.10
19	.10	.40	0	0	0	0	0	0	.70	.10	.20	.10
20	.10	.10	0	0	0	0	0	0	.60	.10	.10	.10
21	.10	.10	.10	0	0	0	0	0	.30	.10	.10	.10
22	.10	.10	.30	.20	.10	0	0	0	.80	.10	.10	.10
23	0	.10	0	.40	.10	0	.10	0	.60	.20	.10	.20
24	0	.10	0	.40	.10	0	.10	0	.40	.20	.20	.10
25	.10	.10	0	.10	.10	0	.10	0	.20	.20	0	.10
26	.10	0	0	.10	.10	0	.10	0	.10	.40	0	.10
27	.10	0	0	0	.10	0	0	0	.10	.30	0	.10
28	.10	0	0	0	34	0	0	0	.10	.10	.10	.20
29	.10	0	0	0	-----	0	0	.10	.20	.10	.20	.20
30	.10	0	0	0	-----	10	0	0	.20	.10	.20	.20
31	.10	-----	0	.10	-----	.30	-----	.10	-----	.10	.20	-----
TOTAL	2.10	130.50	1.20	75.00	97.00	129.30	.70	.20	6.90	4.00	5.30	2.90
MEAN	.068	4.35	.039	2.42	3.46	4.17	.023	.006	.23	.13	.17	.097
MAX	.10	98	.30	28	54	41	.20	.10	.80	.40	.30	.20
MIN	0	0	0	0	0	0	0	0	0	.10	0	0
AC-FT	4.2	259	2.4	149	192	256	1.4	.4	14	7.9	11	5.8
CAL YR 1969	TOTAL	3,343.20	MEAN	9.16	MAX	521	MIN	0	ACFT	6,630		
WAT YR 1970	TOTAL	455.10	MEAN	1.25	MAX	98	MIN	0	ACFT	903		

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.--7 years, 33.8 cfs (24,490 acre-ft per year)

EXTREMES.--Current year: Maximum discharge, 4,600 cfs Feb. 10 (gage height, 4.21 ft); minimum daily, 2.5 cfs July 7.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	4.6	5.5	4.6	4.9	530	11	4.9	15	4.3	4.9	6.2
2	4.3	4.9	6.8	4.6	4.9	97	6.8	4.0	7.4	4.2	6.2	6.2
3	6.2	5.2	10	4.9	5.5	10	6.8	4.3	8.8	4.0	7.4	5.2
4	4.9	6.2	5.2	6.2	6.2	587	6.8	4.6	7.4	4.6	7.4	7.4
5	5.2	10	8.1	6.2	6.8	389	7.4	5.2	7.4	4.0	6.8	4.6
6	4.9	579	15	5.2	7.4	16	10	4.9	3.7	4.3	5.5	4.6
7	4.9	440	20	6.8	10	11	7.4	5.5	4.3	2.5	5.5	5.2
8	4.9	4.9	19	6.2	11	8.1	7.4	4.6	4.6	3.7	6.2	8.8
9	4.3	3.4	21	77	84	8.8	5.5	5.5	5.2	4.0	5.2	10
10	8.8	6.8	12	328	1,000	9.4	5.5	6.2	4.9	4.6	7.4	9.4
11	6.2	4.3	9.4	108	191	10	8.1	6.8	4.3	4.9	6.2	7.4
12	5.5	4.9	6.8	138	8.8	11	5.2	4.9	5.5	4.9	4.3	8.1
13	5.5	6.2	9.4	4.9	7.4	11	4.9	5.2	7.4	5.5	5.2	8.8
14	6.2	8.1	8.8	100	7.4	9.4	7.4	5.5	8.1	7.4	8.8	8.8
15	6.8	8.8	8.1	66	8.1	8.1	11	4.6	8.8	9.4	11	10
16	6.8	11	5.5	606	8.8	7.4	11	5.5	9.4	8.1	6.2	6.8
17	6.8	11	13	54	8.8	10	8.1	7.4	8.8	6.2	8.1	6.8
18	5.5	12	15	10	8.8	19	11	8.1	5.2	4.3	6.8	6.8
19	4.6	6.8	9.4	10	5.5	6.8	6.8	6.8	8.1	4.3	4.9	7.4
20	4.9	6.2	8.8	9.4	5.5	7.4	7.4	5.5	5.5	4.9	6.2	4.6
21	7.4	6.8	13	8.8	6.2	6.8	6.8	4.9	5.2	4.0	8.8	3.4
22	5.5	6.2	11	9.4	5.2	9.4	7.4	4.9	4.9	4.0	4.9	3.1
23	5.2	6.2	8.8	7.4	7.4	19	4.9	5.5	4.9	3.7	8.1	3.7
24	7.4	5.5	4.9	7.4	5.2	17	4.9	6.2	6.2	6.8	8.8	5.5
25	6.8	4.9	4.9	6.2	8.1	15	7.4	6.2	5.2	7.4	11	5.5
26	6.8	6.2	13	9.4	7.4	8.1	7.4	11	5.0	8.1	8.8	8.1
27	7.4	5.2	5.2	8.8	9.4	6.2	6.8	5.5	4.9	11	6.8	6.8
28	10	6.2	4.9	6.8	560	6.2	7.4	7.4	4.8	6.8	7.4	5.5
29	10	6.2	4.6	4.9	-----	7.4	5.5	6.2	4.6	6.2	4.9	5.5
30	6.2	7.4	7.4	5.2	-----	12	4.9	5.2	4.4	4.6	4.0	4.0
31	4.6	-----	8.1	4.9	-----	31	-----	12	-----	5.5	5.5	-----
TOTAL	190.7	1,205.1	302.6	1,635.2	2,009.7	1,904.5	218.9	185.0	189.9	168.2	209.2	194.2
MEAN	6.15	40.2	9.76	52.7	71.8	61.4	7.30	5.97	6.33	5.43	6.75	6.47
MAX	10	579	21	606	1,000	587	11	12	15	11	11	10
MIN	4.3	3.4	4.6	4.6	4.9	6.2	4.9	4.0	3.7	2.5	4.0	3.1
AC-FT	378	2,390	600	3,240	3,990	3,780	434	367	377	334	415	385
CAL YR 1969	TOTAL	32,556.0	MEAN	89.2	MAX	4,420	MIN	3.1	ACFT	64,570		
WAT YR 1970	TOTAL	8,413.2	MEAN	23.0	MAX	1,000	MIN	2.5	ACFT	16,690		

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.--40 years (1929-37, 1938-70), 28.4 cfs (20,580 acre-ft per year); median of yearly mean discharges, 20 cfs (14,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,180 cfs Feb. 28 (gage height, 7.92 ft); minimum daily, 3.1 cfs Nov. 11, 12.
 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. City of Los Angeles reports no water released during year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of released water from reservoirs furnished by city of Los Angeles.

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	5.9	9.7	7.9	6.9	7.9	1,540	10	12	13	16	9.7	11
2	5.4	9.1	7.9	7.4	9.1	446	11	13	16	16	9.7	10
3	4.6	9.1	7.9	6.9	9.1	32	12	13	11	16	12	9.7
4	5.0	8.5	8.5	7.9	9.7	898	14	9.1	9.0	12	12	8.5
5	5.0	7.9	8.5	7.9	11	178	15	9.1	9.0	12	12	8.5
6	5.4	1,050	8.5	7.4	11	24	16	7.4	8.0	12	11	8.5
7	5.9	339	8.5	7.9	11	14	16	7.9	8.0	12	11	9.7
8	5.9	7.9	8.5	8.5	12	14	16	7.9	8.0	12	12	12
9	5.9	4.2	8.5	233	707	13	16	7.9	10	15	13	16
10	5.4	9.1	8.5	154	1,180	12	17	7.9	10	12	13	15
11	5.4	3.1	8.5	117	141	12	17	7.9	10	11	13	14
12	6.4	3.1	8.5	26	20	12	18	7.4	10	12	13	12
13	6.4	3.4	8.5	9.7	9.7	13	20	8.5	11	13	12	9.1
14	6.4	3.4	8.5	30	7.4	13	22	7.9	12	14	14	8.5
15	7.4	3.8	8.5	16	6.4	9.7	16	10	12	13	11	8.5
16	7.4	3.8	8.5	729	6.9	6.9	16	12	12	12	12	9.7
17	8.5	3.4	8.5	25	7.9	6.4	16	9.7	12	11	15	10
18	6.9	3.4	8.5	14	6.9	5.9	15	10	12	12	10	10
19	7.4	3.8	8.5	9.1	5.9	5.9	15	12	12	13	10	10
20	7.9	5.4	8.5	7.9	6.4	6.4	15	12	11	14	10	9.7
21	9.7	8.5	8.5	8.5	7.4	7.4	14	11	10	17	9.1	12
22	10	8.5	9.7	7.9	7.4	7.9	15	12	11	19	8.5	12
23	10	9.1	9.1	8.5	7.9	7.4	12	13	12	19	9.7	9.7
24	10	7.4	7.9	30	8.5	9.1	13	16	10	15	9.7	11
25	9.7	7.4	7.9	8.5	8.5	11	12	17	9.7	13	9.7	11
26	11	8.5	7.9	8.5	8.5	12	11	16	10	9.7	9.7	11
27	11	7.4	7.9	7.9	9.7	11	9.7	14	10	9.7	10	9.5
28	11	6.4	7.4	7.4	1,930	11	9.7	12	10	9.7	10	9.1
29	10	6.9	6.4	7.4	-----	11	10	12	11	15	11	10
30	9.7	7.4	5.4	7.9	-----	13	12	13	14	9.7	12	9.1
31	9.1	-----	5.9	7.4	-----	14	-----	15	-----	9.7	12	-----
TOTAL	235.7	1,568.6	252.2	1,541.4	4,174.2	3,377.0	431.4	343.6	323.7	406.5	346.8	314.8
MEAN	7.60	52.3	8.14	49.7	149	109	14.4	11.1	10.8	13.1	11.2	10.5
MAX	11	1,050	9.7	729	1,930	1,540	22	17	16	19	15	16
MIN	4.6	3.1	5.4	6.9	5.9	5.9	9.7	7.4	8.0	9.7	8.5	8.5
AC-FT	468	3,110	500	3,060	8,280	6,700	856	682	642	806	688	624

CAL YR 1969 TOTAL 45,034.7 MEAN 123 MAX 8,250 MIN 3.1 ACFT 89,330
 WAT YR 1970 TOTAL 13,315.9 MEAN 36.5 MAX 1,930 MIN 3.1 ACFT 26,410

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 (revised).

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.--53 years (1917-70), 9.71 cfs (7,030 acre-ft per year); median of yearly mean discharges, 4.2 cfs (3,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 153 cfs Mar. 3 (gage height, 1.71 ft); no flow Oct. 3 to Nov. 5, Nov. 7-19.

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, revised). 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	0	.10	.20	3.0	4.1	3.5	3.6	3.3	33	.70	.80
2	1.9	0	.20	.20	3.0	.70	3.5	3.6	3.3	45	.70	.80
3	0	0	.20	.20	3.0	52	3.5	3.6	3.3	43	.70	.80
4	0	0	.20	.20	3.0	25	3.4	3.6	3.3	42	.70	.80
5	0	0	.20	.20	3.0	2.8	3.4	3.6	3.3	41	.70	.80
6	0	.20	.20	.20	3.0	7.6	3.4	3.6	3.3	40	.70	.80
7	0	0	.20	.20	3.0	5.8	3.4	3.6	3.3	40	.70	.80
8	0	0	.20	.20	3.0	4.7	3.3	3.6	3.3	38	.70	.80
9	0	0	.20	.20	3.3	4.6	3.3	3.6	3.2	35	.70	.80
10	0	0	.20	.20	3.6	4.4	3.3	3.6	3.2	2.0	.70	.80
11	0	0	.20	.20	3.0	4.2	3.3	3.6	3.2	2.0	.70	.80
12	0	0	.20	.20	3.0	4.2	3.3	3.5	3.2	1.9	.70	.70
13	0	0	.20	.20	3.0	4.0	3.3	3.5	3.2	1.8	.70	.70
14	0	0	.20	.20	3.0	3.8	3.3	3.5	3.2	1.8	.80	.70
15	0	0	.20	.20	3.0	3.8	3.3	3.5	3.2	1.7	.80	.70
16	0	0	.20	.20	3.0	3.6	3.3	3.5	3.1	1.6	.80	.70
17	0	0	.20	.20	2.9	3.6	3.3	3.4	3.0	1.6	.80	.70
18	0	0	.20	.20	2.8	3.7	3.3	3.4	3.0	1.8	.80	.70
19	0	0	.20	.20	2.8	3.8	3.3	3.4	3.0	1.7	.80	.60
20	0	.10	.20	.20	2.8	3.8	3.3	3.4	3.0	1.7	.80	.60
21	0	.10	.20	.20	2.8	3.7	3.3	3.4	3.0	1.7	.80	.60
22	0	.10	.20	.20	2.8	3.7	3.3	3.4	3.0	1.7	.80	.60
23	0	.10	.20	.20	2.8	3.7	3.3	3.4	3.0	1.7	.80	.60
24	0	.10	.20	.20	2.8	3.7	3.3	3.4	3.0	1.7	.80	.60
25	0	.10	.20	.20	2.8	3.7	3.3	3.4	3.0	1.7	.80	.60
26	0	.10	.20	.20	2.8	3.7	3.5	3.4	3.0	1.7	.80	.60
27	0	.10	.20	.20	2.8	3.8	3.6	3.3	3.0	1.7	.80	.60
28	0	.10	.20	.20	3.2	3.8	3.6	3.3	3.0	1.3	.80	.60
29	0	.10	.20	.20	-----	3.8	3.6	3.3	3.0	.70	.80	.60
30	0	.10	.20	1.5	-----	3.7	3.6	3.3	14	.70	.80	.60
31	0	-----	.20	3.0	-----	3.6	-----	3.3	-----	.70	.80	-----
TOTAL	4.6	1.30	6.10	10.30	83.0	191.10	101.4	107.6	104.9	391.90	23.50	20.90
MEAN	.15	.043	.20	.33	2.96	6.16	3.38	3.47	3.50	12.6	.76	.70
MAX	2.7	.20	.20	3.0	3.6	52	3.6	3.6	14	45	.80	.80
MIN	0	0	.10	.20	2.8	.70	3.3	3.3	3.0	.70	.70	.60
AC-FT	9.1	2.6	12	20	165	379	201	213	208	777	47	41
CAL YR 1969	TOTAL 21,628.50	MEAN 59.3	MAX 1,490	MIN 0	ACFT 42,900							
WAT YR 1970	TOTAL 1,046.60	MEAN 2.87	MAX 52	MIN 0	ACFT 2,080							

NOTE.--No gage-height record Nov. 20 to Jan. 29.

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 (revised).

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.

EXTREMES.--Current year: Maximum discharge, 6.5 cfs probably occurred Nov. 7 (gage height, 1.91 ft); minimum daily, 0.04 cfs Aug. 5 to Sept. 15.

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 each year. Rainfall data not reliable.

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

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	.98	1.4	1.2	2.4	2.0	3.0	1.1	1.1	.36	.05	.05	.04
2	.98	1.4	1.2	2.4	1.8	2.8	1.1	1.1	.36	.05	.05	.04
3	.98	1.4	1.2	2.4	1.8	2.4	1.1	1.1	.30	.05	.05	.04
4	.98	1.4	1.2	2.4	1.8	2.4	1.1	1.1	.30	.05	.05	.04
5	.98	1.4	1.2	2.4	1.8	2.6	1.1	1.1	.30	.05	.04	.04
6	.98	2.0	1.2	2.4	1.8	2.4	1.1	1.2	.21	.05	.04	.04
7	.98	1.8	1.2	2.2	1.6	1.6	1.1	1.4	.15	.05	.04	.04
8	.98	1.4	1.2	2.2	1.6	1.4	1.1	1.2	.18	.05	.04	.04
9	.86	1.4	1.2	2.8	2.0	1.4	1.1	1.1	.21	.05	.04	.04
10	.86	1.4	1.2	3.2	2.8	1.2	1.1	1.1	.18	.05	.04	.04
11	.86	1.4	1.4	3.2	2.4	1.2	1.1	1.1	.12	.05	.04	.04
12	.86	1.4	1.4	3.2	1.8	1.2	1.1	1.1	.21	.05	.04	.04
13	.98	1.4	1.4	3.2	1.4	1.4	1.2	1.1	.25	.05	.04	.04
14	1.1	1.4	1.4	3.2	1.2	1.4	1.2	1.1	.21	.05	.04	.04
15	1.1	1.4	1.4	3.2	1.2	1.2	1.2	.86	.18	.05	.04	.04
16	1.2	1.3	1.4	3.9	1.1	1.2	1.2	.75	.15	.05	.04	.05
17	1.2	1.3	1.4	3.5	1.1	1.1	1.2	.75	.07	.05	.04	.05
18	1.4	1.3	1.4	3.2	1.1	1.2	1.1	.75	.05	.05	.04	.05
19	1.4	1.3	1.4	3.2	1.1	1.2	1.1	.75	.05	.05	.04	.05
20	1.4	1.3	1.6	3.2	1.1	1.2	.98	.75	.05	.05	.04	.05
21	2.0	1.3	1.6	2.8	1.1	1.2	1.1	.75	.05	.05	.04	.05
22	2.0	1.3	1.6	2.4	1.1	1.2	1.1	.75	.05	.05	.04	.05
23	2.0	1.3	1.6	2.4	1.1	1.1	1.1	.75	.05	.05	.04	.05
24	2.0	1.3	1.6	2.2	1.1	1.1	.98	.75	.05	.05	.04	.05
25	1.8	1.3	1.4	2.2	1.1	1.1	.98	.75	.05	.05	.04	.05
26	1.8	1.3	1.4	2.2	1.1	1.1	1.1	.75	.05	.05	.04	.05
27	1.8	1.2	1.6	2.2	1.1	1.1	1.4	.75	.05	.05	.04	.05
28	1.4	1.2	2.0	2.2	1.8	1.1	1.2	.75	.05	.05	.04	.05
29	1.4	1.2	2.4	2.0	-----	1.1	1.2	.75	.05	.05	.04	.05
30	1.4	1.2	2.4	2.0	-----	1.1	1.2	.57	.05	.05	.04	.05
31	1.4	-----	2.4	2.0	-----	1.1	-----	.49	-----	.05	.04	-----
TOTAL	40.06	41.1	46.2	82.4	42.0	45.8	33.74	28.32	4.39	1.55	1.28	1.35
MEAN	1.29	1.37	1.49	2.66	1.50	1.48	1.12	.91	.15	.050	.041	.045
MAX	2.0	2.0	2.4	3.9	2.8	3.0	1.4	1.4	.36	.05	.05	.05
MIN	.86	1.2	1.2	2.0	1.1	1.1	.98	.49	.05	.05	.04	.04
AC-FT	79	82	92	163	83	91	67	56	8.7	3.1	2.5	2.7

CAL YR 1969 TOTAL 2,355.61 MEAN 6.45 MAX 180 MIN .12 ACFT 4,670
WAT YR 1970 TOTAL 368.19 MEAN 1.01 MAX 3.9 MIN .04 ACFT 730

NOTE.--No gage-height record Oct. 31 to Dec. 17, Feb. 10 to Mar. 11, June 19 to Sept. 30.

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 current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,650 ft (from topographic map).

AVERAGE DISCHARGE.--22 years, 12.3 cfs (8,910 acre-ft per year); median of yearly mean discharges, 3.0 cfs (2,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 707 cfs Feb. 28 (gage height, 6.76 ft); minimum daily, 1.0 cfs Sept. 26.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	7.6	9.1	8.8	8.6	320	14	9.7	5.5	2.8	1.3	1.3
2	6.3	7.6	9.1	8.8	8.6	185	14	9.1	5.1	2.5	1.4	1.3
3	6.3	7.8	9.1	8.8	8.6	76	13	8.8	4.9	2.2	1.4	1.3
4	6.3	7.6	9.1	8.8	8.6	70	12	8.3	4.7	2.2	1.4	1.4
5	6.3	8.0	9.1	8.8	8.6	69	12	8.0	4.7	2.0	1.4	1.4
6	6.3	14	9.1	8.6	8.6	61	12	7.8	4.7	1.9	1.4	1.4
7	6.1	18	9.1	8.8	8.3	52	12	7.6	4.7	1.8	1.4	1.3
8	6.1	11	9.1	8.8	8.3	43	12	7.3	4.7	1.8	1.4	1.2
9	6.3	10	9.1	9.4	17	36	12	7.3	4.7	1.8	1.4	1.2
10	6.3	10	9.1	13	106	29	12	7.3	4.9	1.8	1.4	1.2
11	6.3	9.7	9.1	12	60	26	11	7.3	4.7	1.8	1.4	1.2
12	6.3	9.4	9.1	12	27	22	11	7.3	4.9	1.7	1.6	1.2
13	6.8	9.4	9.1	11	20	21	11	7.3	5.3	1.7	1.7	1.2
14	7.0	9.4	9.1	11	16	20	11	7.3	5.3	1.6	1.7	1.5
15	7.0	9.4	9.1	11	13	19	11	7.3	4.9	1.6	1.6	1.5
16	7.3	9.4	8.8	13	13	19	11	7.3	4.9	1.6	1.5	1.3
17	7.8	9.4	9.1	12	12	18	11	7.0	4.7	1.6	1.5	1.2
18	7.8	9.4	9.1	11	12	18	11	7.0	4.2	1.5	1.5	1.1
19	7.6	9.1	9.1	11	13	18	11	7.3	3.8	1.4	1.6	1.2
20	7.6	9.1	9.1	11	12	17	11	7.3	3.6	1.4	1.7	1.2
21	7.6	9.1	9.1	10	12	17	11	7.0	3.2	1.4	1.7	1.2
22	7.8	9.1	9.1	10	12	16	11	6.8	3.1	1.4	1.4	1.1
23	7.8	9.1	9.1	9.4	12	16	11	6.8	2.8	1.4	1.4	1.1
24	7.8	9.1	9.1	9.1	12	15	11	7.0	2.8	1.4	1.4	1.1
25	8.0	9.1	9.1	9.1	12	15	11	7.3	2.8	1.3	1.4	1.1
26	8.0	9.1	9.1	8.6	12	15	11	7.3	2.8	1.3	1.3	1.0
27	7.8	8.8	9.1	8.6	12	15	11	7.3	2.8	1.3	1.3	1.1
28	7.8	8.6	9.1	8.6	227	15	11	7.3	2.8	1.3	1.3	1.1
29	7.8	8.6	8.8	8.6	-----	15	11	7.0	2.8	1.3	1.3	1.1
30	7.6	8.8	8.8	8.6	-----	15	10	6.8	2.8	1.4	1.3	1.1
31	7.6	-----	8.8	8.3	-----	15	-----	6.1	-----	1.3	1.3	-----
TOTAL	219.5	284.7	280.9	306.5	700.2	1,308	344	230.3	123.6	51.5	44.8	36.6
MEAN	7.08	9.49	9.06	9.89	25.0	42.2	11.5	7.43	4.12	1.66	1.45	1.22
MAX	8.0	18	9.1	13	227	320	14	9.7	5.5	2.8	1.7	1.5
MIN	6.1	7.6	8.8	8.3	8.3	15	10	6.1	2.8	1.3	1.3	1.0
AC-FT	435	565	557	608	1,390	2,590	682	457	245	102	89	73
CAL YR 1969	TOTAL	36,766.1	MEAN	101	MAX	5,320	MIN	1.6	ACFT	72,930		
WAT YR 1970	TOTAL	3,930.6	MEAN	10.8	MAX	320	MIN	1.0	ACFT	7,800		

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.--53 years, 29.7 cfs (21,520 acre-ft per year); median of yearly mean discharges, 15 cfs (10,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 560 cfs Feb. 28 (gage height, 6.88 ft); minimum daily, 2.6 cfs Aug. 27.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	19	19	18	208	43	20	12	4.6	3.2	3.7
2	12	16	19	19	18	187	45	20	12	4.5	3.2	4.0
3	13	17	19	19	17	143	42	19	11	4.4	3.3	4.3
4	13	17	18	18	17	194	37	18	11	4.2	3.3	4.1
5	13	18	20	18	17	185	34	17	11	4.1	3.4	3.9
6	14	25	20	18	17	120	31	16	11	3.9	3.4	3.7
7	14	44	20	18	11	113	29	16	11	3.7	3.5	3.5
8	14	26	21	18	10	115	26	16	10	3.5	3.7	3.3
9	14	25	22	18	16	120	24	16	10	3.3	3.8	3.1
10	15	24	23	23	71	118	24	16	10	3.3	4.1	3.0
11	15	23	23	22	149	115	24	15	10	3.3	4.3	2.9
12	15	22	23	24	50	115	23	15	10	3.2	4.4	3.0
13	16	22	22	23	27	94	79	15	10	3.2	4.5	3.1
14	16	22	21	22	21	62	101	15	10	3.2	4.4	3.2
15	16	22	21	21	22	59	34	15	10	3.2	4.3	3.3
16	16	21	21	26	24	58	34	15	9.5	3.2	4.2	3.4
17	16	21	20	29	21	57	32	14	9.0	3.1	4.1	3.5
18	16	21	21	24	20	51	30	14	8.5	3.1	4.0	3.5
19	16	21	21	21	19	48	28	14	8.0	3.1	3.9	3.5
20	16	21	21	21	21	48	26	13	7.5	3.1	3.8	3.5
21	16	21	20	21	21	47	24	13	7.0	3.0	3.6	3.4
22	16	21	20	21	23	46	22	13	6.5	3.0	3.4	3.4
23	16	21	20	21	24	45	22	13	6.0	3.0	3.2	3.4
24	16	21	19	20	25	44	22	13	6.0	3.0	3.1	3.4
25	16	21	19	20	26	44	21	13	5.4	3.0	3.0	3.4
26	16	21	19	19	26	44	21	13	5.3	3.1	2.8	3.3
27	16	21	19	19	27	44	21	13	5.2	3.1	2.6	3.3
28	15	19	19	19	134	45	20	12	5.1	3.2	2.8	3.2
29	15	19	18	18	-----	46	20	12	5.0	3.2	3.0	3.1
30	15	19	19	18	-----	46	20	12	4.8	3.2	3.2	3.0
31	16	-----	19	18	-----	45	-----	12	-----	3.2	3.5	-----
TOTAL	465	648	626	635	892	2,706	959	458	257.8	105.2	111.0	102.4
MEAN	15.0	21.6	20.2	20.5	31.9	87.3	32.0	14.8	8.59	3.39	3.58	3.41
MAX	16	44	23	29	149	208	101	20	12	4.6	4.5	4.3
MIN	12	16	18	18	10	44	20	12	4.8	3.0	2.6	2.9
AC-FT	922	1,290	1,240	1,260	1,770	5,370	1,900	908	511	209	220	203

CAL YR 1969 TOTAL 76,210.6 MEAN 209 MAX 9,250 MIN 1.9 ACFT 151,200
 WAT YR 1970 TOTAL 7,965.4 MEAN 21.8 MAX 208 MIN 2.6 ACFT 15,800

NOTE.--No gage-height record Oct. 1 to Nov. 26, Apr. 15 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.--42 years, 2.61 cfs (1,890 acre-ft per year); median of yearly mean discharges, 0.6 cfs (430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 353 cfs Feb. 28 (gage height, 4.11 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0			0	37						
2		0			0	17						
3		0			0	4.1						
4		0			0	7.6						
5		0			0	16						
6		0			0	3.7						
7		1.0			0	1.4						
8		1.0			0	.88						
9		0			7.3	.64						
10		0			7.9	.40						
11		0			2.0	0						
12		0			.20	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	0						
22		0			0	0						
23		0			0	0						
24		0			0	0						
25		0			0	0						
26		0			0	0						
27		0			0	0						
28		0			36	0						
29		0			-----	0						
30		0			-----	0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	2.0	0	0	53.40	88.72	0	0	0	0	0	0
MEAN	0	.067	0	0	1.91	2.86	0	0	0	0	0	0
MAX	0	1.0	0	0	36	37	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	4.0	0	0	106	176	0	0	0	0	0	0
CAL YR 1969	TOTAL	6,178.40	MEAN	16.9	MAX	1,180	MIN	0	ACFT	12,250		
WAT YR 1970	TOTAL	144.12	MEAN	.39	MAX	37	MIN	0	ACFT	286		

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 (revised).

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, 200 cfs Mar. 17 (gage height, 1.59 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, revised). 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	22	0	.50	34	0				
2	0	0	0	22	.50	.18	31	0				
3	0	0	0	22	0	.74	18	0				
4	0	0	0	22	0	0	0	0				
5	0	0	0	8.9	0	0	0	.17				
6	0	31	0	1.1	0	0	0	0				
7	0	40	0	1.1	0	0	0	0				
8	0	20	0	.50	0	0	0	.42				
9	0	24	0	.50	1.2	0	0	0				
10	0	10	0	.50	.14	0	0	0				
11	0	9.0	0	.50	0	0	0	0				
12	0	11	0	.50	0	0	0	0				
13	0	0	0	.50	0	0	0	0				
14	0	0	0	.50	0	0	0	0				
15	0	0	0	.50	0	0	0	0				
16	0	0	0	.50	0	0	0	0				
17	0	0	0	.50	0	36	.12	0				
18	0	0	0	0	0	58	0	0				
19	0	0	0	0	.24	58	0	0				
20	0	0	0	0	0	53	0	0				
21	0	0	0	0	0	49	.29	0				
22	0	0	1.1	0	0	49	0	0				
23	0	0	1.9	0	0	49	0	0				
24	0	0	19	0	0	49	0	0				
25	0	0	25	0	0	49	0	0				
26	0	0	25	0	0	49	0	0				
27	0	0	22	0	0	45	0	0				
28	0	0	22	0	.87	49	0	0				
29	3.2	0	8.1	0	-----	49	0	0				
30	0	0	1.1	0	-----	49	0	0				
31	2.8	-----	9.5	0	-----	42	-----	0	-----			-----
TOTAL	6.0	145.0	134.7	104.10	2.95	734.42	83.41	.59	0	0	0	0
MEAN	.19	4.83	4.35	3.36	.11	23.7	2.78	.019	0	0	0	0
MAX	3.2	40	25	22	1.2	58	34	.42	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	12	288	267	206	5.9	1,460	165	1.2	0	0	0	0
(a)	1,780	1,810	1,700	1,600	1,220	4,680	908	645	0	0	0	0

CAL YR 1969 TOTAL 57,868.59 MEAN 159 MAX 9,450 MIN 0 ACFT 114,800 AC-FT a 153,000
WAT YR 1970 TOTAL 1,211.17 MEAN 3.3 MAX 58 MIN 0 ACFT 2,400 AC-FT a 14,340

a Combined discharge, in acre-ft, 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.--41 years, 69.5 cfs (50,350 acre-ft per year); median of yearly mean discharges, 41 cfs (29,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 17,000 cfs Mar. 4 (gage height, 6.65 ft); minimum daily, 6.9 cfs July 19.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	16	16	25	12	2,270	12	16	13	23	16	10
2	19	14	22	28	16	1,090	13	15	16	13	14	8.7
3	24	14	12	26	14	89	13	11	19	12	16	12
4	14	14	12	24	31	1,900	17	15	16	9.2	19	13
5	12	17	16	23	39	611	14	17	14	8.3	20	9.2
6	13	1,770	12	11	33	58	14	18	12	10	22	7.8
7	16	845	12	10	33	30	12	16	12	9.8	22	11
8	17	49	14	12	34	20	12	15	14	9.8	23	14
9	18	56	28	26	1,210	20	16	12	18	9.2	20	12
10	16	53	18	798	2,600	24	15	9.8	15	10	21	15
11	15	35	14	162	398	27	12	9.8	16	9.2	20	16
12	12	32	13	121	45	27	10	12	14	8.3	24	14
13	16	33	13	27	33	28	12	11	50	10	17	9.8
14	17	15	10	41	16	25	17	9.8	28	9.8	18	8.7
15	25	12	12	104	13	14	17	9.2	20	9.2	14	12
16	17	12	14	1,250	13	14	16	14	16	9.8	12	9.2
17	15	12	12	111	16	13	17	13	15	8.7	16	11
18	14	12	14	24	14	13	22	15	17	7.8	19	11
19	13	11	14	15	15	11	18	16	14	6.9	25	9.8
20	14	11	13	14	13	12	17	18	13	9.8	25	8.3
21	14	13	13	14	14	11	21	16	10	8.7	28	8.3
22	15	14	19	14	12	14	24	14	11	9.8	16	8.7
23	14	15	13	14	13	22	21	13	14	21	24	9.2
24	15	14	14	16	14	16	28	12	12	19	10	10
25	15	12	36	32	14	16	28	16	14	19	13	11
26	14	12	26	16	14	16	25	13	16	7.4	13	8.7
27	16	11	21	17	14	16	26	12	19	15	12	7.8
28	16	20	17	15	2,760	12	28	12	12	16	12	7.4
29	15	12	25	13	-----	12	15	11	16	22	11	12
30	24	9.8	21	13	-----	98	16	11	25	18	7.8	12
31	15	-----	14	12	-----	69	-----	9.8	-----	16	7.8	-----
TOTAL	497	3,165.8	510	3,028	7,453	6,598	528	412.4	501	375.7	537.6	317.6
MEAN	16.0	106	16.5	97.7	266	213	17.6	13.3	16.7	12.1	17.3	10.6
MAX	25	1,770	36	1,250	2,760	2,270	28	18	50	23	28	16
MIN	12	9.8	10	10	12	11	10	9.2	10	6.9	7.8	7.4
AC-FT	986	6,280	1,010	6,010	14,780	13,090	1,050	818	994	745	1,070	630
CAL YR 1969	TOTAL	155,395.0	MEAN	426	MAX	23,400	MIN	6.9	ACFT	308,200		
WAT YR 1970	TOTAL	23,924.1	MEAN	65.5	MAX	2,760	MIN	6.9	ACFT	47,450		

11098000 ARROYO SECO NEAR PASADENA, CALIF.

LOCATION.--Lat 34°13'20", long 118°10'36", in NW¼NW¼NE¼ 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.--56 years (1913-15, 1916-70), 9.62 cfs (6,970 acre-ft per year); median of yearly mean discharges, 5.0 cfs (3,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 668 cfs Feb. 28 (gage height, 3.78 ft); minimum daily, 0.73 cfs Sept. 28.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	5.0	4.4	5.2	4.4	143	5.7	3.4	2.3	1.9	1.1	1.1
2	4.2	4.7	4.4	5.2	4.4	104	5.4	3.2	2.1	1.9	1.1	1.1
3	4.7	4.7	4.4	5.2	4.4	35	5.4	3.2	2.1	1.9	1.1	1.1
4	4.7	4.7	4.4	5.2	4.4	42	5.2	3.0	2.1	1.9	1.1	1.1
5	4.4	4.7	4.4	5.2	4.4	59	5.2	3.2	2.1	1.9	1.1	.89
6	4.7	15	4.4	5.2	4.4	30	5.2	3.2	2.3	1.9	1.1	.85
7	5.0	22	4.7	5.2	4.4	21	5.2	3.4	2.5	1.9	1.1	.85
8	5.0	6.8	4.7	5.2	4.2	16	5.2	3.4	2.5	1.9	1.1	.85
9	5.0	5.2	5.2	5.4	5.6	14	5.2	3.4	2.5	1.9	1.1	.98
10	5.0	5.0	5.2	7.7	6.9	12	5.2	3.4	2.5	1.9	1.1	.98
11	5.0	4.7	5.2	5.4	38	11	5.2	3.4	2.5	1.9	1.1	.98
12	5.0	4.7	5.2	5.2	13	9.9	5.0	3.4	2.5	1.9	1.1	1.1
13	5.0	4.7	5.0	5.0	9.9	9.6	5.0	3.4	2.5	1.9	1.1	1.1
14	5.2	4.7	5.0	5.0	8.5	8.2	5.0	3.2	2.5	1.7	1.1	1.1
15	5.4	4.7	5.0	5.4	7.6	8.2	5.0	2.7	2.5	1.5	1.1	1.1
16	5.4	5.0	5.0	7.7	6.8	8.2	5.0	2.5	2.5	1.5	1.1	1.1
17	5.7	5.0	5.0	7.4	6.6	8.2	5.0	2.5	2.5	1.5	1.1	1.1
18	5.7	5.0	5.0	5.4	6.0	7.9	5.0	2.5	2.5	1.5	1.1	1.1
19	5.7	5.0	5.2	5.0	5.2	7.6	4.7	2.5	2.5	1.3	1.1	1.1
20	5.7	5.0	5.4	5.0	5.0	7.4	4.7	2.7	2.3	1.3	1.1	1.1
21	5.7	5.0	5.4	5.0	5.2	7.4	4.7	2.7	2.3	1.1	1.1	1.1
22	5.7	5.0	5.7	4.7	5.2	7.1	4.7	2.7	2.3	1.1	1.3	1.1
23	6.0	5.0	5.7	4.7	5.0	7.1	4.7	2.7	2.3	1.1	1.3	1.1
24	6.0	4.7	5.7	4.4	5.0	6.8	4.4	2.7	2.3	1.1	1.3	1.1
25	6.0	4.7	5.7	4.4	5.0	6.8	4.4	2.7	2.3	1.3	1.3	.98
26	6.0	4.4	5.4	4.4	4.7	6.3	4.3	2.7	2.1	1.3	1.3	.98
27	6.0	4.2	5.2	4.4	5.0	6.3	4.0	2.7	1.9	1.3	1.1	.85
28	5.7	4.2	5.2	4.2	116	6.0	4.0	3.0	1.9	1.3	1.1	.73
29	5.4	4.4	5.2	4.2	-----	6.0	3.7	3.0	1.9	1.1	1.1	.85
30	5.2	4.4	5.2	4.2	-----	6.6	3.4	2.7	1.9	1.1	1.1	.85
31	5.2	-----	5.2	4.4	-----	6.8	-----	2.5	-----	1.1	1.1	-----
TOTAL	163.6	172.3	156.8	160.2	367.3	635.4	144.8	91.7	69.0	47.9	35.1	30.32
MEAN	5.28	5.74	5.06	5.17	13.1	20.5	4.83	2.96	2.30	1.55	1.13	1.01
MAX	6.0	22	5.7	7.7	116	143	5.7	3.4	2.5	1.9	1.3	1.1
MIN	4.2	4.2	4.4	4.2	4.2	6.0	3.4	2.5	1.9	1.1	1.1	.73
AC-FT	325	342	311	318	729	1,260	287	182	137	95	70	60

CAL YR 1969 TOTAL 21,405.65 MEAN 58.6 MAX 3,210 MIN .62 ACFT 42,460
 WAT YR 1970 TOTAL 2,074.42 MEAN 5.68 MAX 143 MIN .73 ACFT 4,110

PEAK DISCHARGE (BASE, 150 CFS).--Feb. 28 (1615) 668 cfs (3.78 ft); Mar. 4 (2300) 189 cfs (2.73 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.--42 years, 108 cfs (78,250 acre-ft per year); median of yearly mean discharges, 67 cfs (48,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,900 cfs Feb. 28 (gage height, 5.50 ft); minimum daily, 13 cfs Sept. 6.

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 July 1941 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	28	25	31	23	3,030	23	27	22	33	34	20
2	30	24	29	36	26	1,780	24	24	25	24	27	18
3	43	25	24	37	22	82	24	22	28	25	29	19
4	29	25	22	35	32	2,740	32	23	26	24	35	18
5	26	26	26	34	49	1,100	25	26	26	22	34	16
6	30	2,800	26	27	42	71	24	27	24	24	33	13
7	35	845	22	23	49	34	22	29	29	24	31	16
8	32	68	41	21	41	26	23	25	26	23	30	16
9	31	57	32	62	1,190	28	27	22	34	27	29	16
10	29	57	25	264	3,000	33	28	20	28	29	25	17
11	27	48	26	109	402	41	23	19	29	31	28	19
12	23	42	30	132	54	36	21	23	31	34	27	19
13	28	44	22	35	32	32	22	21	56	36	24	15
14	30	42	21	78	23	30	26	21	36	38	20	16
15	35	28	20	120	23	28	27	22	25	42	22	20
16	31	27	24	1,350	23	29	28	25	26	25	18	20
17	25	27	24	103	28	27	29	26	27	18	17	21
18	24	26	24	31	27	28	29	27	29	16	22	21
19	20	25	25	25	27	24	28	32	29	17	23	20
20	21	25	26	23	26	25	27	30	25	18	20	17
21	26	24	26	22	23	24	31	27	25	20	17	18
22	28	25	36	25	22	24	35	27	24	21	20	20
23	28	26	34	25	19	35	28	25	25	24	24	19
24	28	24	34	24	23	32	38	24	24	35	20	19
25	27	22	44	41	22	33	36	31	24	30	21	20
26	25	22	36	28	23	32	32	29	32	21	21	16
27	25	23	28	29	26	31	35	28	28	26	22	14
28	29	27	26	27	4,250	23	37	28	18	28	22	15
29	29	24	27	24	-----	22	28	27	22	35	20	16
30	36	20	29	25	-----	145	27	24	27	36	18	18
31	28	-----	29	27	-----	101	-----	22	-----	32	16	-----
TOTAL	890	4,526	863	2,873	9,547	9,726	839	783	830	838	749	532
MEAN	28.7	151	27.8	92.7	341	314	28.0	25.3	27.7	27.0	24.2	17.7
MAX	43	2,800	44	1,350	4,250	3,030	38	32	56	42	35	21
MIN	20	20	20	21	19	22	21	19	18	16	16	13
AC-FT	1,770	8,980	1,710	5,700	18,940	19,290	1,660	1,550	1,650	1,660	1,490	1,060
CAL YR 1969	TOTAL	200,414	MEAN	549	MAX	31,800	MIN	12	ACFT	397,500		
WAT YR 1970	TOTAL	32,996	MEAN	90.4	MAX	4,250	MIN	13	ACFT	65,450		

11100000 SANTA ANITA CREEK NEAR SIERRA MADRE, CALIF.

LOCATION.--Lat 34°11'30", long 118°00'59", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.1 N., R.11 W., Los Angeles County, on right bank at head of Hermits Falls, 0.9 mile upstream from Big Santa Anita Dam, and 3 miles northeast of Sierra Madre.

DRAINAGE AREA --9.71 sq mi.

PERIOD OF RECORD.--July 1916 to September 1970 (discontinued)

GAGE.--Water-stage recorder. Datum of gage is 1,475.3 ft above mean sea level (levels by U.S. Forest Service). Prior to Mar. 2, 1938, at datum 0.4 ft lower (destroyed by flood). Mar. 18 to Sept. 27, 1938, at datum 0.7 ft higher.

AVERAGE DISCHARGE.--54 years, 6.71 cfs (4,860 acre-ft per year); median of yearly mean discharges, 3.6 cfs (2,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 314 cfs Feb. 28 (gage height, 3.51 ft); minimum daily, 0.96 cfs Sept. 28.

Period of record: Maximum discharge, 8,500 cfs Jan. 25, 1969 (gage height, 18.44 ft, from floodmark), from rating curve extended above 450 cfs on basis of slope-area measurement of maximum flow; practically no flow Aug. 18 to Sept. 14, 1929.

REMARKS.--Records good except those for Jan. 14 to Feb. 16, which are poor. No diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

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	3.2	2.8	3.2	3.2	3.4	94	5.1	3.7	2.4	1.9	1.3	1.1
2	3.4	2.9	3.4	3.1	3.4	99	4.8	3.5	2.2	1.9	1.3	1.1
3	3.5	2.9	3.3	3.1	3.4	30	4.8	3.4	2.2	1.8	1.3	1.2
4	3.3	3.0	3.3	3.1	3.4	29	4.5	3.4	2.3	1.7	1.4	1.1
5	3.1	3.1	3.3	3.1	3.4	33	4.3	3.3	2.3	1.7	1.4	1.2
6	3.1	13	3.3	3.1	3.4	23	4.4	3.4	2.3	1.7	1.4	1.1
7	3.0	15	3.3	3.1	3.4	18	4.5	3.5	2.3	1.7	1.3	1.1
8	3.0	6.0	3.4	3.0	3.4	16	4.5	3.5	2.5	1.8	1.2	1.1
9	3.1	4.9	3.6	3.1	3.4	14	4.4	3.5	2.7	1.8	1.2	1.1
10	3.2	4.5	3.5	6.7	48	13	4.2	3.3	2.9	1.8	1.2	1.1
11	3.1	4.1	3.5	4.7	25	11	4.1	3.3	2.8	1.8	1.2	1.1
12	3.0	4.0	3.4	4.6	7.0	9.8	4.2	3.2	3.0	1.8	1.3	1.2
13	3.0	3.8	3.3	3.8	6.0	8.9	4.2	3.1	3.6	1.7	1.3	1.3
14	3.1	3.8	3.2	3.7	5.4	8.3	4.2	3.0	3.0	1.7	1.3	1.2
15	3.2	3.8	3.1	4.7	5.1	7.7	4.1	2.7	2.7	1.7	1.3	1.3
16	3.3	4.0	3.1	6.8	4.6	7.2	4.2	2.6	2.7	1.7	1.3	1.2
17	3.3	3.7	3.2	5.5	4.4	7.0	4.2	2.5	2.7	1.6	1.4	1.1
18	3.3	3.6	3.3	4.5	4.2	6.6	4.2	2.5	2.5	1.6	1.4	1.1
19	3.3	3.5	3.3	3.5	3.9	6.3	4.4	2.5	2.4	1.5	1.4	1.1
20	3.1	3.4	3.3	3.5	3.8	6.1	4.3	2.7	2.4	1.5	1.4	1.1
21	3.1	3.4	3.2	3.5	3.7	5.9	4.2	2.7	2.4	1.5	1.4	1.1
22	3.1	3.4	3.3	3.5	3.6	5.7	4.1	2.7	2.3	1.5	1.4	1.1
23	3.3	3.4	3.2	3.5	3.5	5.7	4.0	2.7	2.1	1.4	1.3	1.1
24	3.2	3.3	3.2	3.5	3.4	5.5	3.9	2.7	2.0	1.4	1.3	1.1
25	3.2	3.3	3.3	3.5	3.2	5.4	3.9	2.8	1.9	1.5	1.2	1.0
26	3.3	3.3	3.2	3.5	3.1	5.4	3.9	2.9	1.9	1.5	1.2	1.0
27	3.2	3.2	3.1	3.5	3.1	5.3	4.2	3.1	1.9	1.4	1.2	.98
28	3.1	3.1	3.0	3.5	02	5.0	4.0	3.1	1.9	1.4	1.3	.96
29	3.0	3.1	3.1	3.5	-----	5.0	3.8	3.0	1.9	1.4	1.2	.99
30	2.9	3.1	3.1	3.4	-----	5.9	3.8	2.8	1.9	1.4	1.2	1.0
31	2.9	-----	3.1	3.4	-----	5.8	-----	2.6	-----	1.3	1.2	-----
TOTAL	97.9	124.4	101.1	118.2	253.6	508.5	127.4	93.7	72.1	50.1	40.2	33.23
MEAN	3.16	4.28	3.26	3.81	9.06	16.4	4.25	3.02	2.40	1.62	1.30	1.11
MAX	3.5	15	3.6	6.8	82	99	5.1	3.7	3.6	1.9	1.4	1.3
MIN	2.9	2.8	3.0	3.0	3.1	5.0	3.8	2.5	1.9	1.3	1.2	.96
AC-FT	194	255	201	234	503	1,010	253	186	143	99	80	66

CAL YR 1969 TOTAL 16,875.6 MEAN 46.2 MAX 2,500 MIN 1.6 AC-FT 33,470
WTR YR 1970 TOTAL 1,624.43 MEAN 4.45 MAX 99 MIN .96 AC-FT 3,220

PEAK DISCHARGE (BASE, 40 CFS).--Feb. 10 (time unknown) 50 cfs (estimated) (gage height unknown); Feb. 28 (1530) 314 cfs (3.51 ft).

NOTE.--No gage-height record Jan. 14 to Feb. 16.

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.--14 years, 35.0 cfs (25,360 acre-ft per year); median of yearly mean discharges, 14 cfs (10,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,280 cfs Feb. 28 (gage height, 4.87 ft); minimum daily, 0.53 cfs Jan. 31.

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 1,360 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.--Seven discharge measurements and records of diversion furnished by the Los Angeles County Flood Control District.

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	6.6	6.6	2.5	4.4	.62	1,290	2.7	2.9	5.4	2.7	3.1	2.3
2	7.4	5.4	1.7	4.4	.84	365	2.5	2.7	5.4	3.1	2.5	2.7
3	6.8	5.4	2.3	4.6	1.2	60	2.3	2.3	3.9	3.1	2.7	2.3
4	6.8	5.4	2.1	3.8	1.2	986	1.7	2.7	1.9	2.5	2.7	2.7
5	7.9	5.4	2.3	4.1	1.1	165	2.1	2.3	1.9	2.1	2.9	1.4
6	6.8	783	1.9	6.4	1.2	38	3.4	2.7	1.9	2.9	2.3	1.2
7	7.1	84	1.7	8.8	2.3	82	4.6	2.7	1.9	2.5	2.7	1.6
8	7.4	1.9	6.2	7.8	1.7	66	3.8	2.7	2.3	2.5	2.7	1.9
9	5.4	1.6	3.6	20	44	38	3.4	2.3	1.9	3.1	3.1	2.1
10	4.1	4.4	2.1	112	1,120	27	3.1	2.1	1.9	2.7	3.1	2.1
11	2.7	1.9	2.1	19	30	51	3.4	2.3	2.1	2.5	3.8	2.1
12	2.5	4.2	2.1	8.8	18	55	3.1	3.1	3.1	2.5	3.1	2.1
13	3.1	18	1.9	5.5	13	43	3.4	2.9	3.8	2.7	2.9	1.2
14	2.9	18	1.9	25	11	32	2.7	3.4	2.1	2.9	2.5	1.9
15	3.1	17	2.3	13	8.5	28	2.7	4.8	2.1	2.7	2.7	2.1
16	3.8	16	2.3	246	7.4	23	3.4	3.8	2.3	2.7	2.7	1.9
17	4.1	11	2.3	7.6	5.8	17	3.4	2.9	2.1	2.7	2.7	1.9
18	3.8	1.7	2.3	7.1	4.6	14	5.4	3.8	2.5	3.1	2.9	2.3
19	3.1	5.9	4.8	6.8	3.6	16	6.6	5.8	2.5	3.1	4.4	1.9
20	3.4	7.9	2.5	7.9	2.9	8.5	3.6	3.6	2.7	3.4	4.8	1.1
21	4.1	6.8	2.5	6.6	2.5	6.4	2.3	4.1	2.5	3.4	3.8	1.9
22	4.4	5.6	5.8	6.6	1.7	3.4	2.5	4.4	2.7	3.6	3.8	1.9
23	4.1	4.4	2.7	4.6	2.5	5.4	2.7	4.4	2.9	3.6	3.1	1.9
24	5.1	4.8	4.3	1.1	2.3	4.6	2.7	3.8	2.7	2.7	3.1	1.9
25	5.4	3.6	2.3	1.2	2.7	4.1	2.5	4.1	3.0	2.9	3.1	2.5
26	4.4	3.8	4.9	2.7	2.7	3.4	2.1	5.4	3.1	3.4	2.9	1.9
27	5.1	3.8	2.9	6.1	2.1	3.1	2.7	7.4	2.7	4.1	3.1	1.6
28	6.1	1.9	2.3	6.5	1,640	2.9	2.5	9.7	2.1	3.6	3.1	2.5
29	6.1	1.7	5.8	6.4	-----	8.5	2.5	2.3	2.5	4.1	2.9	2.5
30	6.6	1.7	6.0	3.4	-----	162	2.5	2.1	2.3	2.7	2.7	2.5
31	6.6	-----	4.4	.53	-----	3.7	-----	1.9	-----	2.7	2.5	-----
TOTAL	156.8	1,042.8	94.8	568.73	2,935.46	3,612.0	92.3	111.4	80.2	92.3	94.4	59.9
MEAN	5.06	34.8	3.06	18.3	105	117	3.08	3.59	2.67	2.98	3.05	2.00
MAX	7.9	783	6.2	246	1,640	1,290	6.6	9.7	5.4	4.1	4.8	2.7
MIN	2.5	1.6	1.7	.53	.62	2.9	1.7	1.9	1.9	2.1	2.3	1.1
AC-FT	311	2,070	188	1,130	5,820	7,160	183	221	159	183	187	119

CAL YR 1969 TOTAL 67,906.10 MEAN 186 MAX 7,700 MIN 1.4 ACFT 134,700
 WAT YR 1970 TOTAL 8,941.09 MEAN 24.5 MAX 1,640 MIN .53 ACFT 17,730

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 Feb. 28 (gage height, 10.65 ft); minimum daily, 5.0 cfs Sept. 20.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	12	106	106	120	1,030	155	9.6	11	8.0	7.9	8.5
2	15	12	112	110	120	399	153	9.4	10	9.1	8.5	7.4
3	14	78	108	103	122	72	155	9.4	10	8.8	9.6	7.1
4	14	165	110	101	122	888	162	9.3	9.4	7.4	9.4	6.8
5	13	148	112	110	122	279	153	9.2	9.4	7.1	9.4	6.3
6	12	637	112	103	122	47	151	9.1	8.5	6.8	9.4	5.7
7	12	153	110	115	115	115	100	9.1	8.5	6.8	9.4	6.0
8	12	14	122	105	119	115	15	9.1	8.5	6.3	9.6	6.6
9	11	14	122	50	173	86	11	9.0	8.2	6.3	9.9	7.1
10	11	13	108	160	840	50	9.6	9.0	8.2	7.6	9.7	7.6
11	11	9.6	100	53	83	98	9.6	9.0	8.2	7.4	9.5	7.9
12	11	61	101	49	34	90	9.0	9.0	8.8	6.8	9.3	7.9
13	11	129	106	108	25	76	9.0	9.0	9.4	6.8	9.1	7.7
14	12	120	110	190	20	65	9.0	8.8	9.0	7.4	9.4	7.5
15	12	131	103	101	16	50	9.0	9.1	8.5	7.1	9.0	7.3
16	12	137	101	283	64	40	8.8	8.8	8.0	8.2	7.5	7.0
17	12	129	101	17	126	30	9.1	8.7	7.4	7.1	7.5	6.8
18	12	110	100	16	129	67	8.2	8.6	7.6	6.6	7.5	7.1
19	11	108	103	16	119	131	7.9	8.5	7.4	6.8	7.5	6.8
20	11	120	103	60	110	129	7.1	9.1	7.1	5.5	7.4	5.0
21	11	112	108	124	128	139	6.6	8.2	7.1	11	7.1	31
22	11	95	103	120	140	124	7.4	7.9	7.3	15	6.8	101
23	11	86	103	97	137	119	9.1	8.5	7.5	12	7.0	120
24	11	142	106	16	131	130	9.1	9.0	7.9	10	7.2	144
25	11	205	105	16	115	150	9.1	9.0	8.2	7.0	7.6	146
26	11	106	108	57	128	188	9.1	10	7.4	7.0	7.9	137
27	11	106	98	115	100	158	9.1	11	7.4	7.0	8.2	120
28	12	90	96	119	1,680	144	9.1	12	7.5	7.0	8.2	91
29	12	96	105	128	-----	142	9.1	12	7.5	7.0	8.5	7.6
30	11	105	106	126	-----	257	9.1	11	7.5	6.6	8.2	7.1
31	12	-----	105	122	-----	160	-----	11	-----	7.1	8.2	-----
TOTAL	367	3,443.6	3,293	2,996	5,260	5,568	1,238.1	290.4	248.4	240.6	261.4	1,044.8
MEAN	11.8	115	106	96.6	188	180	41.3	9.37	8.28	7.76	8.43	34.8
MAX	15	637	122	283	1,680	1,030	162	12	11	15	9.9	146
MIN	11	9.6	96	16	16	30	6.6	7.9	7.1	5.5	6.8	5.0
AC-FT	729	6,830	6,530	5,940	10,430	11,040	2,460	576	493	477	518	2,070
(a)	0	4,550	5,850	3,810	4,450	3,500	1,950	0	0	0	0	1,690

CAL YR 1969 TOTAL 73,531.9 MEAN 201 MAX 8,600 MIN 7.0 ACFT 145,900 AC-FT a 10,890
 WAT Y 1970 TOTAL 24,251.3 MEAN 66.4 MAX 1,680 MIN 5.0 ACFT 48,100 AC-FT a 25,800

a Colorado River water, in acre-ft, released to Rio Hondo via Alhambra Wash, at site 1.6 miles upstream.

LOS ANGELES RIVER BASIN

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 (revised) above mean sea level. Prior to Nov. 3, 1938, at datum 6.30 ft higher.

AVERAGE DISCHARGE.--41 years, 11.6 cfs (8,400 acre-ft per year); median of yearly mean discharges, 12 cfs (8,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 30 cfs Mar. 4 (gage height, 8.39 ft); minimum daily, 1.4 cfs for some days.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	6.7	7.8	7.6	8.7	24	7.3	5.4	4.4	2.6	1.8	1.4
2	5.6	6.8	8.2	8.1	7.8	20	7.2	5.2	4.2	2.6	1.8	1.4
3	5.7	6.9	8.5	8.9	7.5	13	7.1	5.2	4.0	2.5	1.9	1.4
4	5.8	7.0	8.2	8.6	7.2	13	6.9	5.2	4.1	2.5	1.8	1.4
5	5.7	7.0	8.2	8.5	7.0	20	6.8	5.2	4.1	2.5	2.0	1.5
6	5.8	8.0	8.1	8.3	6.9	14	6.7	5.2	4.0	2.5	1.8	1.6
7	5.8	14	8.0	8.5	6.8	12	6.7	5.3	4.0	2.5	1.8	1.6
8	5.9	10	8.1	8.3	6.7	11	6.4	5.3	4.0	2.5	1.8	1.7
9	5.9	9.3	8.3	8.1	6.8	10	6.4	5.3	4.0	2.5	1.8	1.8
10	6.0	8.9	8.3	11	11	9.8	6.3	5.4	4.0	2.5	1.8	1.8
11	6.3	8.6	8.1	9.8	16	9.6	6.2	5.4	3.7	2.5	1.9	1.8
12	6.1	8.5	8.1	9.6	11	9.5	6.0	5.4	4.0	2.5	1.8	1.9
13	6.2	8.5	8.1	9.3	9.5	9.3	6.0	5.6	4.0	2.5	1.7	1.9
14	6.3	8.6	8.1	9.3	8.8	9.2	5.9	5.5	4.0	2.5	1.7	2.0
15	6.5	8.7	8.1	8.7	8.3	8.8	5.9	5.2	4.0	2.5	1.6	2.1
16	6.6	8.5	8.1	11	8.0	8.6	5.8	4.8	4.0	2.5	1.6	2.0
17	6.6	8.2	8.1	13	8.0	8.4	5.8	4.6	4.0	2.4	1.6	2.0
18	6.6	8.0	8.1	10	8.1	8.3	5.7	4.4	4.0	2.2	1.6	2.0
19	6.6	7.8	8.1	9.3	7.8	8.1	5.7	4.2	3.8	2.2	1.6	2.0
20	6.6	7.8	8.0	8.9	7.7	8.0	5.7	4.0	3.5	2.1	1.4	2.0
21	6.6	7.7	8.0	8.8	7.7	7.7	5.7	3.9	3.4	2.0	1.4	1.8
22	6.6	7.7	8.2	8.8	7.7	7.6	5.7	3.9	3.2	1.9	1.4	1.8
23	6.5	7.4	8.2	8.8	7.8	7.6	5.7	4.0	3.0	1.8	1.4	1.8
24	6.6	7.3	8.2	8.8	7.7	7.6	5.6	4.0	2.8	1.8	1.4	1.8
25	6.6	7.4	8.1	8.8	7.5	7.6	5.6	4.0	2.7	1.8	1.5	1.8
26	6.6	7.4	7.8	8.9	7.6	7.6	5.5	4.1	2.7	1.8	1.5	1.8
27	6.7	7.4	7.7	9.0	7.6	7.5	5.6	4.3	2.6	1.8	1.5	1.7
28	6.8	7.5	7.6	9.0	14	7.3	5.7	4.5	2.6	1.8	1.5	1.7
29	7.0	7.6	7.4	8.7	-----	7.3	5.6	4.5	2.6	1.7	1.5	1.6
30	7.0	7.6	7.4	8.6	-----	7.3	5.5	4.5	2.6	1.7	1.4	1.6
31	6.9	-----	7.6	8.5	-----	7.6	-----	4.4	-----	1.8	1.4	-----
TOTAL	196.2	242.8	248.8	281.5	236.7	317.3	182.7	147.9	108.0	69.0	50.7	52.7
MEAN	6.33	8.09	8.03	9.08	8.45	10.2	6.09	4.77	3.60	2.73	1.64	1.76
MAX	7.0	14	8.5	13	16	24	7.3	5.6	4.4	2.6	2.0	2.1
MIN	5.6	6.7	7.4	7.6	6.7	7.3	5.5	3.9	2.6	1.7	1.4	1.4
AC-FT	389	432	493	558	469	629	362	293	214	137	101	105

CAL YR 1969 TOTAL 3,226.7 MEAN 8.84 MAX 39 MIN 3.0 ACFT 6,400
 WAT YR 1970 TOTAL 2,134.3 MEAN 5.95 MAX 24 MIN 1.4 ACFT 4,230

11102250 MISSION CREEK BELOW WHITTIER NARROWS DAM, CALIF.

LOCATION.--Lat 34°01'15", long 118°04'15", near north boundary of Paso de Bartolo Grant, Los Angeles County, on left bank about 500 ft downstream from axis of Whittier Narrows Dam and 1.4 miles north of Pico.

PERIOD OF RECORD.--December 1955 to September 1970 (discontinued).

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 187.1 ft above mean sea level (Corps of Engineers Survey).

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

Period of record: Maximum daily discharge, 18 cfs Jan. 6, 1959; no flow many days in most years.

REMARKS.--No flow since Mar. 11, 1969. Flow is almost entirely from ground-water seepage. Flow regulated or diverted at Whittier Narrows Dam. Discharge for the calendar year 1969 is as follows: Maximum daily, 2.9 cfs; minimum, zero; mean, 0.16 cfs; total, 117 acre-ft. See schematic diagram of San Gabriel and Los Angeles River basins.

LOS ANGELES RIVER BASIN

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, 8,620 cfs Mar. 4 (gage height, 6.14 ft); no flow some days.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	28	121	116	126	1,080	191	.76	28	.60	19	4.4
2	17	28	121	121	136	421	172	0	28	0	19	6.8
3	24	67	111	116	148	199	172	0	34	0	24	10
4	22	111	111	111	154	723	191	7.6	36	0	24	10
5	19	101	111	121	160	573	191	28	40	0	15	10
6	19	303	111	111	154	205	155	28	36	19	6.8	10
7	19	307	111	121	148	198	115	28	40	40	1.3	10
8	19	59	116	121	148	184	59	28	36	36	2.3	10
9	19	51	121	69	217	136	47	30	34	40	3.6	10
10	19	55	116	207	556	91	47	30	36	40	3.6	10
11	19	47	111	84	242	136	47	30	36	40	2.3	10
12	22	96	111	75	86	131	47	34	40	44	3.6	12
13	24	160	116	126	71	121	47	36	51	40	1.2	12
14	22	154	121	176	63	106	47	36	30	36	0	12
15	22	154	116	110	55	91	47	28	40	14	1.3	26
16	22	148	111	372	86	81	47	24	34	5.2	2.3	40
17	22	142	111	67	142	81	47	22	34	1.2	1.9	44
18	24	121	116	59	142	90	47	22	34	1.3	22	55
19	28	121	111	51	131	142	47	24	30	1.2	34	55
20	22	131	116	79	131	154	47	28	36	1.0	44	55
21	2.3	131	121	148	148	172	47	14	40	1.3	40	63
22	0	126	116	142	154	160	47	5.2	40	2.3	40	101
23	0	121	116	129	142	126	33	2.3	44	5.2	40	106
24	0	166	121	51	148	116	3.6	2.3	24	6.8	47	111
25	0	212	116	47	136	131	3.6	3.6	3.6	8.4	47	121
26	0	121	121	73	136	154	2.3	12	2.3	8.4	22	101
27	0	121	111	142	131	154	2.3	30	2.3	8.4	5.2	101
28	7.0	111	116	126	1,230	148	2.3	34	2.3	18	5.2	81
29	30	116	121	131	-----	148	2.3	30	2.3	24	3.6	5.2
30	30	126	116	131	-----	266	1.3	24	2.3	19	3.6	0
31	30	-----	116	126	-----	218	-----	28	-----	19	3.6	-----
TOTAL	509.6	3,735	3,581	3,659	5,321	6,736	1,954.7	649.76	876.1	480.30	488.4	1,202.4
MEAN	16.4	125	116	118	190	217	65.2	21.0	29.2	15.5	15.8	40.1
MAX	30	307	121	372	1,230	1,080	191	36	51	44	47	121
MIN	0	28	111	47	55	81	1.3	0	2.3	0	0	0
AC-FT	1,010	7,410	7,100	7,260	10,550	13,360	3,880	1,290	1,740	953	969	2,380
CAL YR 1969	TOTAL	193,423.40	MEAN	530	MAX	19,900	MIN	0	ACFT	383,700		
WAT YR 1970	TOTAL	29,193.26	MEAN	80.0	MAX	1,230	MIN	0	ACFT	57,900		

LOS ANGELES RIVER BASIN

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, 7,540 cfs Feb. 28 (gage height, 5.47 ft); minimum daily, 0.03 cfs Dec. 28.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.06	.84	.45	.07	664	1.2	1.0	.45	.45	.84	.84
2	.04	.06	.84	.06	.06	240	.64	.64	.26	.64	.84	.84
3	.26	.05	.84	.04	.06	5.7	1.0	.04	.84	.64	1.2	1.0
4	.84	.26	1.2	.04	.07	494	.84	.04	.26	.26	1.2	.84
5	.45	.07	.84	.06	.06	212	.64	.84	.45	.04	1.2	.84
6	.26	180	.45	.04	.26	2.0	.84	.84	.04	.05	.84	.64
7	.07	35	.07	.04	.26	1.4	.64	.84	.04	.07	.84	.45
8	.03	1.4	.45	.26	.26	1.4	.84	1.0	.04	.07	.64	.84
9	.05	1.4	.84	28	28	1.4	.64	.84	.04	.06	.26	.45
10	.07	1.8	.26	34	377	1.0	.84	.84	.05	.26	.26	.45
11	.05	1.4	.64	8.7	7.0	1.2	.84	.84	.45	.26	.64	.64
12	.04	1.4	.26	2.0	2.6	1.2	.84	1.0	.45	.07	.05	.64
13	.04	1.4	.07	.84	1.0	1.2	.45	.84	.26	.07	.06	.64
14	.05	1.4	.45	23	.64	1.0	.45	.64	.45	.26	.07	.64
15	.06	1.4	.45	5.7	.64	1.0	.84	.45	.26	.07	.05	.64
16	.45	1.4	.64	124	.45	1.2	.64	.84	.07	.84	.05	.07
17	.05	1.4	.64	1.8	.45	1.0	.45	.45	.26	.45	.04	.07
18	.45	1.4	.64	1.0	.45	1.2	.64	.07	.45	.05	.04	.06
19	.45	1.2	.64	1.2	.45	.64	.84	.07	.45	.04	.04	.05
20	.64	1.0	.64	1.2	.04	.45	1.0	.05	.45	.04	.45	.04
21	.45	.84	.64	1.0	.64	.64	.64	.64	.45	.04	.64	.04
22	.64	1.0	.84	1.2	.64	.64	.07	.84	.26	.07	.64	.04
23	.45	.84	.45	.84	.64	.84	.07	.84	.45	.84	.45	.04
24	.64	.84	.84	.64	.84	.84	.05	.64	.45	.84	.45	.05
25	.45	.84	.64	.07	.84	.84	.26	.84	.07	.84	.84	.05
26	.84	1.0	.26	.45	.84	.84	.64	.64	.45	.84	.84	.05
27	.45	.84	.06	.45	.84	.64	.07	.64	.64	.84	1.4	.04
28	.45	.84	.03	.45	964	.64	.07	.45	.45	.84	1.6	.04
29	.45	.84	.04	.05	-----	.45	.04	.07	.07	2.0	.45	.26
30	.05	.64	.04	.05	-----	24	.45	.07	.45	.84	1.2	.04
31	.04	-----	.06	.06	-----	1.4	-----	.26	-----	.84	1.4	-----
TOTAL	9.30	242.02	15.60	237.69	1,389.10	1,664.76	17.47	18.10	9.76	13.52	19.52	11.33
MEAN	.30	8.07	.50	7.67	49.6	53.7	.58	.58	.33	.44	.63	.38
MAX	.84	180	1.2	124	964	664	1.2	1.0	.84	2.0	1.6	1.0
MIN	.03	.05	.03	.04	.04	.45	.04	.04	.04	.04	.04	.04
AC-FT	18	480	31	471	2,760	3,300	35	36	19	27	39	22
CAL YR 1969	TOTAL	154,884.72	MEAN	424	MAX	23,100	MIN	0	ACFT	307,200		
WAT YR 1970	TOTAL	3,648.17	MEAN	10.0	MAX	964	MIN	.03	ACFT	7,240		

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.--41 years (1929-70), 166 cfs (120,300 acre-ft per year); median of yearly mean discharges, 98 cfs (71,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 25,500 cfs Mar. 4 (gage height, 7.54 ft); minimum daily, 22 cfs Sept. 28.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	35	36	37	31	4,490	44	30	28	49	39	31
2	39	32	40	38	36	2,740	34	30	35	34	37	31
3	49	35	36	39	40	168	32	23	40	34	36	30
4	38	36	31	35	41	2,680	38	30	39	34	45	35
5	30	39	36	37	63	2,410	32	38	36	34	48	30
6	31	2,210	33	33	43	101	34	38	33	35	42	25
7	38	1,980	28	28	57	54	37	45	29	39	45	25
8	40	136	36	28	42	47	34	43	30	39	45	30
9	40	75	68	74	1,120	47	36	39	37	39	53	30
10	40	86	40	1,390	4,010	47	38	30	32	38	36	29
11	34	62	38	170	1,000	47	35	25	31	37	47	31
12	39	48	47	385	101	45	30	30	32	34	44	33
13	33	54	31	63	69	42	30	27	42	32	39	28
14	38	37	29	170	35	39	50	33	69	38	33	26
15	41	34	30	258	29	37	57	33	42	40	30	31
16	41	32	37	2,310	30	35	37	35	32	36	30	31
17	37	34	36	413	35	35	38	33	31	32	26	30
18	33	34	35	69	33	34	40	35	41	30	31	30
19	30	33	36	37	34	30	45	43	42	25	35	27
20	32	34	32	36	35	33	35	40	36	32	32	23
21	38	37	30	35	33	33	37	40	30	34	30	24
22	41	39	34	37	29	33	37	38	36	34	32	28
23	33	36	36	36	30	42	35	35	40	37	34	25
24	30	38	30	33	40	42	48	31	39	48	30	27
25	30	38	41	45	35	36	45	34	37	40	31	28
26	25	35	39	37	36	37	40	36	37	24	32	24
27	34	36	39	40	32	35	37	35	45	30	33	30
28	35	36	33	38	5,300	31	41	34	30	32	32	22
29	36	31	32	35	-----	29	33	36	32	45	32	27
30	40	28	42	33	-----	30	30	30	39	41	32	30
31	36	-----	34	34	-----	352	-----	29	-----	39	31	-----
TOTAL	1,122	5,420	1,125	6,053	12,419	13,861	1,139	1,058	1,102	1,115	1,122	851
MEAN	36.2	181	36.3	195	444	447	38.0	34.1	36.7	36.0	36.2	28.4
MAX	49	2,210	68	2,310	5,300	4,490	57	45	69	49	53	35
MIN	25	28	28	28	29	29	30	23	28	24	26	22
AC-FT	2,230	10,750	2,230	12,010	24,630	27,490	2,260	2,100	2,190	2,210	2,230	1,690

CAL YR 1969 TOTAL 392,780 MEAN 1,076 MAX 55,000 MIN 22 ACFT 779,100
 WAT YR 1970 TOTAL 46,387 MEAN 127 MAX 5,300 MIN 22 ACFT 92,010

BALLONA CREEK BASIN

11103500 BALLONA CREEK NEAR CULVER CITY, CALIF.

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.

DRAINAGE AREA.--89.5 sq mi, excludes that of Sepulveda Creek. Prior to January 1951, 111 sq mi, change due to tributary channel realignment.

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.

AVERAGE DISCHARGE.--22 years (1928-50), 35.2 cfs (25,480 acre-ft per year); 20 years (1950-70), 43.5 cfs (31,520 acre-ft per year); median of yearly mean discharges, 34 cfs (24,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,900 cfs Mar. 4 (gage height, 6.82 ft); minimum daily, 7.6 cfs June 14.
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.

COOPERATION.--Records furnished by Los Angeles County Flood Control District and reviewed by Geological Survey.

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	24	13	30	9.4	11	415	8.8	13	11	11	14	12
2	18	13	30	10	12	123	11	11	11	10	13	13
3	21	17	30	10	12	13	12	12	11	11	18	25
4	17	15	30	11	14	1,060	11	13	11	10	15	12
5	17	15	30	11	15	72	9.4	11	11	10	12	12
6	17	752	25	11	15	15	12	12	11	13	15	10
7	17	96	16	10	15	12	13	13	11	11	15	11
8	18	15	20	10	12	11	13	12	12	12	12	13
9	20	13	17	222	260	12	13	11	11	12	12	13
10	20	19	16	208	748	12	14	11	10	14	15	15
11	19	14	12	81	64	12	13	13	11	12	14	14
12	17	14	12	34	16	12	12	13	11	12	14	13
13	20	18	11	17	15	12	13	13	56	13	13	13
14	17	19	11	73	14	11	12	14	7.6	14	15	17
15	16	15	13	21	12	9.4	12	16	11	15	14	17
16	19	15	12	585	13	10	14	15	13	16	18	15
17	16	14	12	14	13	10	14	15	11	17	32	15
18	13	14	12	11	12	11	13	21	10	13	36	15
19	12	16	12	12	13	10	13	19	9.4	11	16	12
20	16	13	10	12	14	9.4	14	15	10	12	15	11
21	18	13	10	12	12	10	13	12	9.4	9.4	16	15
22	18	15	11	12	11	8.8	15	12	13	12	14	15
23	20	14	12	12	11	11	14	12	12	13	13	15
24	20	19	12	11	12	9.4	15	12	13	12	17	14
25	19	19	10	11	11	15	13	12	15	12	15	14
26	18	30	10	15	11	15	11	12	14	12	15	14
27	18	25	8.2	13	10	15	12	12	12	13	18	14
28	17	25	8.8	13	1,380	13	13	12	11	11	17	17
29	16	23	10	12	-----	12	12	12	11	14	12	26
30	16	23	12	13	-----	125	13	10	10	16	9.4	22
31	15	-----	12	12	-----	18	-----	9.4	-----	17	14	-----
TOTAL	549	1,326	477.0	1,508.4	2,758	2,104.0	378.2	400.4	380.4	390.4	488.4	444
MEAN	17.7	44.2	15.4	48.7	98.5	67.9	12.6	12.9	12.7	12.6	15.8	14.8
MAX	24	752	30	585	1,380	1,060	15	21	56	17	36	26
MIN	12	13	8.2	9.4	10	8.8	8.8	9.4	7.6	9.4	9.4	10
AC-FT	1,090	2,630	946	2,990	5,470	4,170	750	794	755	774	969	881
CAL YR 1969	TOTAL 36,722.8	MEAN 101	MAX 4,840	MIN 8.2	ACFT 72,840							
WAT YR 1970	TOTAL 11,204.2	MEAN 30.7	MAX 1,380	MIN 7.6	ACFT 22,220							

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.--39 years, 5.71 cfs (4,140 acre-ft per year); median of yearly mean discharges, 1.9 cfs (1,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 844 cfs Mar. 4 (gage height, 5.73 ft); no flow for several days. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.20	.40	1.0	.60	37	.60	.40	.60	.20	0	.20
2	.40	.20	.60	1.0	.60	13	.40	.40	.60	0	0	.20
3	.40	.20	.60	1.0	.60	3.6	.40	.40	.40	0	0	.40
4	.40	.20	.60	.80	.40	84	.40	.40	.40	0	0	.40
5	.20	.20	.80	.60	.60	34	.40	.40	.40	.20	0	.20
6	.20	6.3	.80	.60	.60	8.4	.60	.40	.40	.20	.20	.20
7	.20	6.9	.80	.60	.60	3.2	.60	.20	.20	.20	.20	.20
8	.20	.60	.80	.60	.60	2.8	.60	.20	.20	.20	.20	.20
9	.40	.60	.80	2.0	8.3	2.4	.80	.40	.20	.20	0	.20
10	.40	.80	.80	6.5	23	2.4	.60	.40	.20	.20	.20	.20
11	.40	.80	.80	1.4	5.1	2.0	.60	.40	.20	.20	.40	.20
12	.40	.80	.80	1.6	1.8	1.8	.60	.40	.20	.40	0	.20
13	.20	.80	.80	.60	1.4	1.6	.60	.40	.20	.20	0	.40
14	.20	.80	.80	.40	1.4	1.4	.40	.40	.40	0	0	.20
15	.40	1.0	.60	.40	1.2	1.2	.60	.40	.40	0	0	.20
16	.40	1.0	.60	4.8	1.2	1.0	.60	.20	.40	0	0	.20
17	.40	1.0	.60	2.0	1.2	2.3	.60	.20	.40	.20	0	.20
18	.40	.60	.60	1.2	1.0	1.0	.60	0	.40	0	0	0
19	.60	.60	.80	1.0	.80	.60	.80	0	.20	0	0	0
20	.60	.60	.80	1.2	.80	.60	.80	.20	.20	0	.20	0
21	.40	.80	.80	1.2	.80	.60	.60	0	.40	.20	.20	.20
22	.40	1.0	.80	1.0	.80	.80	.60	0	.40	.20	0	.20
23	.40	1.0	.60	1.0	.80	.80	.40	0	.20	.20	.20	0
24	.40	.60	.60	1.2	.80	.80	.40	.20	.20	.20	.20	.20
25	.60	.60	.60	1.0	.80	1.0	.60	.40	0	.20	.20	.20
26	.60	.60	.60	1.2	.80	1.2	.60	.40	0	.20	.20	0
27	.40	.40	.60	1.2	.80	1.2	.60	.40	0	.20	.20	0
28	.60	.40	.60	1.0	30	1.0	.60	.40	0	.20	.20	0
29	.60	.20	.80	.80	-----	1.0	.60	.40	.20	.20	.20	.20
30	.60	.40	.80	.80	-----	1.0	.60	.40	.20	.20	.20	.40
31	.40	-----	.80	.80	-----	.80	-----	.60	-----	0	.20	-----
TOTAL	12.60	30.20	21.80	40.50	87.40	214.50	17.20	9.40	8.20	4.40	3.40	5.40
MEAN	.41	1.01	.70	1.31	3.12	6.92	.57	.30	.27	.14	.11	.18
MAX	.60	6.9	.80	6.5	30	84	.80	.60	.60	.40	.40	.40
MIN	.20	.20	.40	.40	.40	.60	.40	0	0	0	0	0
AC-FT	25	60	43	80	173	425	34	19	16	8.7	6.7	11
CAL YR 1969	TOTAL	14,865.20	MEAN	40.7	MAX	4,920	MIN	0	ACFT	29,490		
WAT YR 1970	TOTAL	455.00	MEAN	1.25	MAX	84	MIN	0	ACFT	902		

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.--39 years, 21.9 cfs (15,870 acre-ft per year); median of yearly mean discharges, 6.4 cfs (4,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,150 cfs Mar. 4 (gage height, 5.65 ft); minimum daily, 0.51 cfs Aug. 27.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	6.3	4.0	4.8	6.6	368	4.6	3.8	3.8	2.7	1.1	1.9
2	4.6	6.3	4.6	5.1	5.8	212	21	2.9	3.6	2.5	1.2	2.0
3	4.4	6.4	4.4	5.8	5.6	80	10	3.6	3.8	2.3	2.3	1.9
4	4.4	6.4	4.4	6.1	5.6	182	8.0	4.0	4.2	2.2	1.7	1.7
5	3.1	6.4	4.4	5.4	4.2	351	7.4	4.8	4.6	1.9	2.2	2.5
6	2.5	6.5	4.6	4.0	5.1	107	6.6	4.0	4.4	1.9	2.2	4.0
7	4.2	6.5	4.8	4.8	6.1	61	6.4	4.4	3.3	1.9	2.5	2.7
8	4.2	6.5	4.8	4.6	6.6	44	6.1	5.1	3.6	2.0	3.1	2.3
9	4.6	6.5	4.8	6.8	19	36	6.1	4.6	3.8	2.7	3.1	1.5
10	5.1	6.6	5.1	12	31	30	5.1	4.8	3.1	2.5	3.3	1.7
11	5.1	6.6	5.1	6.8	52	25	4.2	5.1	3.8	2.5	3.3	1.5
12	4.4	6.6	4.6	6.8	47	19	4.2	4.8	4.0	2.2	3.6	1.7
13	4.8	6.6	4.2	5.4	47	18	4.8	4.0	4.0	1.9	1.7	.77
14	5.4	6.8	4.4	5.8	37	17	5.8	4.8	4.0	2.0	3.1	1.1
15	5.8	6.4	4.4	5.4	11	16	5.8	3.6	3.6	2.7	3.3	8.4
16	6.1	6.6	4.4	11	8.6	16	5.8	3.8	3.8	2.7	3.1	25
17	4.8	5.8	4.4	8.0	8.3	13	5.4	3.6	3.6	2.5	3.1	8.0
18	5.4	5.1	4.6	6.8	7.1	11	5.1	4.4	3.3	2.2	2.7	5.8
19	5.6	4.0	4.6	6.4	4.8	11	4.8	4.4	2.7	2.0	1.2	4.6
20	5.6	4.6	4.6	6.4	53	11	4.8	4.4	3.6	2.0	2.0	5.1
21	4.4	4.6	4.4	6.6	9.9	10	5.6	4.2	3.6	2.2	2.2	4.4
22	3.8	5.1	4.2	6.8	8.3	9.6	5.4	3.1	3.3	2.7	1.9	4.8
23	3.3	4.8	4.4	6.8	7.7	35	5.4	3.3	2.7	2.5	1.2	2.7
24	4.0	4.8	4.4	6.6	7.4	15	4.6	3.8	2.5	2.7	1.1	1.9
25	4.2	4.8	4.4	6.4	6.8	9.3	4.8	3.6	2.3	2.9	.77	3.3
26	4.4	4.6	4.6	6.4	6.6	8.0	4.4	3.8	2.2	2.7	1.5	3.8
27	4.6	4.4	4.6	5.8	6.6	7.4	3.3	4.2	2.3	2.0	.51	3.3
28	4.4	4.4	4.4	5.8	139	7.1	3.3	4.2	2.5	1.4	1.7	3.3
29	7.4	4.0	4.4	6.1	-----	6.8	4.6	4.4	2.7	3.3	2.2	3.3
30	6.3	3.1	4.6	5.8	-----	6.6	4.4	4.4	2.5	2.5	1.4	3.3
31	6.3	-----	4.8	6.4	-----	6.1	-----	4.2	-----	1.4	1.2	-----
TOTAL	146.3	168.1	140.4	197.7	563.7	1,748.9	177.8	128.1	101.2	71.6	65.48	118.27
MEAN	4.72	5.60	4.53	6.38	20.1	56.4	5.93	4.13	3.37	2.31	2.11	3.94
MAX	7.4	6.8	5.1	12	139	368	21	5.1	4.6	3.3	3.6	25
MIN	2.5	3.1	4.0	4.0	4.2	6.1	3.3	2.9	2.2	1.4	.51	.77
AC-FT	290	333	278	392	1,120	3,470	353	254	201	142	130	235

CAL YR 1969 TOTAL 60,701.10 MEAN 166 MAX 24,200 MIN 2.5 ACFT 120,400
WAT YR 1970 TOTAL 3,627.55 MEAN 9.94 MAX 368 MIN .51 ACFT 7,200

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 Kujaski Road, 0.5 mile upstream from Brea Canyon, and 1.1 miles northwest of Simi.

DRAINAGE AREA.--66.5 sq mi (revised).

PERIOD OF RECORD.--October 1968 to current year.

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, 750 cfs Mar. 2 (gage height, 1.71 ft); no flow most of year.
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 for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		0	0	120						
2		0		0	0	84						
3		0		0	0	.32						
4		0		0	0	66						
5		0		0	0	11						
6		32		0	0	.44						
7		3.6		0	0	.10						
8		0		0	0	.10						
9		0		0	41	.10						
10		0		0	72	.03						
11		0		4.1	9.3	0						
12		0		0	1.1	0						
13		0		0	0	0						
14		0		1.1	0	0						
15		0		.22	0	0						
16		0		36	0	0						
17		0		.10	0	0						
18		0		.07	0	0						
19		0		.05	0	0						
20		0		.03	0	0						
21		0		0	0	0						
22		0		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	167	0						
29		0		0	-----	0						
30		0		0	-----	0						
31		-----		0	-----	0	-----		-----			-----
TOTAL	0	35.6	0	41.67	290.4	282.09	0	0	0	0	0	0
MEAN	0	1.19	0	1.34	10.4	9.10	0	0	0	0	0	0
MAX	0	32	0	36	167	120	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	71	0	83	576	560	0	0	0	0	0	0
CAL YR 1969	TOTAL	7,592.90	MEAN	20.8	MAX	1,680	MIN	0	ACFT	15,060		
WAT YR 1970	TOTAL	649.76	MEAN	1.78	MAX	167	MIN	0	ACFT	1,290		

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.--243 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, 1,750 cfs Mar. 4 (gage height, 3.66 ft); no flow many days.
 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 loads for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.4	3.4	3.4	3.4	440	4.2	2.5	1.8	3.0	0	.72
2	3.4	3.4	3.4	3.4	3.4	346	4.6	2.1	1.8	3.0	0	.27
3	3.4	3.4	3.4	3.4	3.4	3.4	3.8	4.6	1.8	4.2	0	0
4	3.4	3.4	3.4	3.4	3.4	203	2.5	3.8	1.8	2.1	.18	0
5	3.4	3.4	3.4	3.4	3.4	245	1.3	3.8	1.8	2.1	.18	.36
6	3.4	12	3.4	3.4	3.4	11	.90	2.5	3.0	.72	0	1.3
7	3.4	96	3.4	3.4	3.4	8.2	5.0	.72	3.8	1.3	0	.54
8	3.4	3.4	3.4	3.4	3.4	4.6	4.2	.72	.72	0	.18	.72
9	3.4	3.4	3.4	3.4	41	5.0	2.1	3.0	.45	1.7	0	.72
10	3.4	3.4	3.4	3.4	296	4.6	3.0	1.7	.45	1.3	0	.36
11	3.4	3.4	3.4	3.4	116	5.0	5.8	.36	.09	2.1	0	.36
12	3.4	3.4	3.4	3.4	3.4	4.6	6.6	.36	.45	.54	0	.54
13	3.4	3.4	3.4	3.4	3.4	6.6	6.6	.36	.45	1.3	0	.54
14	3.4	3.4	3.4	3.4	3.4	6.6	5.0	.36	0	0	0	.54
15	3.4	3.4	3.4	3.4	3.4	6.6	6.6	.36	.18	0	0	2.1
16	3.4	3.4	3.4	20	3.4	7.4	6.6	1.3	.81	.18	0	1.7
17	3.4	3.4	3.4	3.4	3.4	8.2	8.2	2.5	.81	2.5	0	2.1
18	3.4	3.4	3.4	3.4	3.4	6.6	4.6	1.7	.63	.63	0	1.3
19	3.4	3.4	3.4	3.4	3.4	5.8	4.2	2.5	.54	0	0	1.3
20	3.4	3.4	3.4	3.4	3.4	6.6	4.6	1.7	1.3	0	0	1.3
21	3.4	3.4	3.4	3.4	3.4	5.8	.81	1.8	.81	0	0	1.3
22	3.4	3.4	3.4	3.4	3.4	4.2	1.3	1.8	.27	0	0	1.3
23	3.4	3.4	3.4	3.4	3.4	4.6	.90	1.8	.63	0	0	1.3
24	3.4	3.4	3.4	3.4	3.4	2.1	0	1.8	2.1	0	0	1.3
25	3.4	3.4	3.4	3.4	3.4	4.2	.63	1.8	3.0	0	0	1.7
26	3.4	3.4	3.4	3.4	3.4	5.8	2.1	1.8	1.7	0	0	1.7
27	3.4	3.4	3.4	3.4	3.8	3.8	3.8	1.8	.18	0	0	1.7
28	3.4	3.4	3.4	3.4	376	3.0	1.3	1.8	2.5	.54	0	1.7
29	3.4	3.4	3.4	3.4	-----	3.4	.27	1.8	2.5	0	.90	1.7
30	3.4	3.4	3.4	3.4	-----	4.6	2.1	1.8	3.8	0	.90	1.7
31	3.4	-----	3.4	3.4	-----	3.0	-----	1.8	-----	.54	.45	-----
TOTAL	105.4	203.2	105.4	122.0	911.0	1,379.3	103.61	56.74	40.17	27.75	2.79	32.17
MEAN	3.40	6.77	3.40	3.94	32.5	44.5	3.45	1.83	1.34	.90	.090	1.07
MAX	3.4	96	3.4	20	376	440	8.2	4.6	3.8	4.2	.90	2.1
MIN	3.4	3.4	3.4	3.4	3.4	2.1	0	.36	0	0	0	0
AC-FT	209	403	209	242	1,810	2,740	206	113	80	55	5.5	64
CAL YR 1969	TOTAL 27,858.60	MEAN 76.3	MAX 7,960	MIN .50	ACFT 55,260							
WAT YR 1970	TOTAL 3,089.53	MEAN 8.46	MAX 440	MIN 0	ACFT 6,130							

NOTE.--No gage-height record Oct. 1 to Nov. 5, Nov. 8 to Feb. 8.

SANTA CLARA RIVER BASIN

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.--18 years, 36.5 cfs (26,440 acre-ft per year); median of yearly mean discharges, 8.8 cfs (6,400 acre-ft per year).

EXTREMES. -Current year: Maximum discharge, 992 cfs Mar. 2 (gage height, 5.04 ft); minimum daily, 8.5 cfs Sept. 11-14.

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 chemical analyses and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

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	22	40	27	28	24	548	39	27	29	26	18	9.9
2	22	38	27	27	24	339	39	27	30	25	18	9.8
3	22	36	27	27	27	99	39	26	30	25	18	9.7
4	22	35	28	27	28	125	39	26	30	25	18	9.6
5	22	34	29	26	31	204	39	25	30	25	18	9.4
6	22	36	30	26	30	155	38	26	30	25	18	9.2
7	21	60	31	25	29	100	38	26	30	25	18	9.0
8	21	57	32	25	33	73	38	26	29	24	18	8.8
9	21	53	33	25	61	58	37	27	29	24	18	8.7
10	21	51	34	45	194	48	37	27	29	24	18	8.6
11	21	49	34	35	101	46	36	27	29	24	17	8.5
12	20	47	34	30	63	45	36	27	29	24	17	8.5
13	20	45	35	27	43	45	36	27	29	24	17	8.5
14	20	43	35	26	38	44	35	28	29	24	17	8.5
15	20	41	35	26	41	44	34	28	29	23	17	8.6
16	30	40	35	27	42	44	33	28	29	23	17	8.7
17	34	38	35	30	39	43	32	28	29	23	16	8.8
18	34	36	34	28	42	43	31	28	29	23	16	8.8
19	35	36	33	27	38	42	31	28	29	23	16	8.9
20	35	35	32	26	39	42	30	28	29	23	15	9.0
21	35	34	32	25	39	42	30	28	29	23	15	9.0
22	36	32	32	25	38	41	30	28	29	24	15	9.1
23	36	31	32	25	38	41	30	28	28	24	14	9.1
24	37	30	31	25	36	41	29	28	28	24	14	9.2
25	38	29	30	24	34	41	29	28	28	23	13	9.3
26	38	28	30	24	35	40	29	28	28	22	13	9.4
27	39	28	30	24	32	40	28	28	27	21	12	9.5
28	39	28	29	24	188	39	28	28	27	20	12	9.6
29	40	27	29	24	-----	39	28	29	27	19	11	9.8
30	40	27	29	24	-----	39	27	29	26	19	11	10
31	40	-----	28	24	-----	39	-----	29	-----	18	10	-----
TOTAL	903	1,144	972	831	1,407	2,629	1,005	851	863	719	485	273.5
MEAN	29.1	38.1	31.4	26.8	50.3	84.8	33.5	27.5	28.8	23.2	15.6	9.12
MAX	40	60	35	45	194	548	39	29	30	26	18	10
MIN	20	27	27	24	24	39	27	25	26	18	10	8.5
AC-FT	1,790	2,270	1,930	1,650	2,790	5,210	1,990	1,690	1,710	1,430	962	542

CAL YR 1969 TOTAL 130,407.8 MEAN 357 MAX 28,800 MIN .90 ACFT 258,700
WAT YR 1970 TOTAL 12,082.5 MEAN 33.1 MAX 548 MIN 8.5 ACFT 23,970

PEAK DISCHARGE (BASE, 750 CFS).--Mar. 2 (0500) 992 cfs (5.04 ft).

NOTE.--Stage-discharge relation indefinite except Feb. 6 to Mar. 6.

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.--15 years, 57.8 cfs (41,880 acre-ft per year); median of yearly mean discharges, 20 cfs (14,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,150 cfs Feb. 28 (gage height, 8.10 ft); minimum daily, 0.90 cfs Aug. 11-17.

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.

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	9.7	13	20	20	22	877	46	28	15	5.0	1.1	2.2
2	9.7	14	19	20	22	725	46	28	15	5.0	1.1	2.2
3	9.7	14	20	18	22	350	46	27	14	4.9	1.1	2.2
4	9.7	14	19	17	21	240	45	27	14	4.9	1.1	2.2
5	11	15	20	18	22	200	44	26	13	4.8	1.0	2.2
6	11	47	20	18	21	180	44	25	13	4.7	1.0	2.1
7	10	60	20	18	21	160	44	25	12	4.6	1.0	2.1
8	10	34	21	20	21	140	44	24	12	4.5	.95	2.1
9	10	29	21	24	54	125	43	23	11	4.4	.95	2.1
10	10	25	21	94	267	115	43	22	11	4.3	.95	2.1
11	10	24	21	49	293	110	43	22	11	4.2	.90	2.1
12	11	23	21	33	189	105	42	22	11	4.1	.90	2.1
13	11	22	20	28	145	100	42	22	10	4.0	.90	2.1
14	12	22	20	29	71	98	42	21	10	4.0	.90	2.1
15	12	21	20	25	65	95	41	21	10	3.9	.90	2.2
16	12	22	19	27	51	95	39	20	9.0	3.8	.90	2.2
17	13	21	20	29	43	91	38	20	9.0	3.7	.90	2.2
18	13	20	20	27	39	85	37	20	9.0	3.7	5.0	2.2
19	14	19	20	26	38	76	36	19	8.0	3.6	3.0	2.2
20	13	19	21	25	37	69	35	19	8.0	3.6	2.5	2.2
21	13	20	21	25	37	64	35	19	7.4	3.5	2.4	2.0
22	13	20	21	24	36	60	34	18	7.4	3.5	2.4	2.2
23	14	20	20	23	32	56	33	18	7.0	3.4	2.4	2.2
24	14	20	20	24	29	52	32	18	7.0	3.3	2.4	2.2
25	14	19	20	23	28	50	31	18	6.4	3.0	2.4	2.4
26	14	19	20	24	26	49	31	17	6.2	2.5	2.4	2.4
27	13	19	21	23	26	48	31	17	5.6	2.0	2.3	2.4
28	13	19	21	25	654	48	31	17	5.4	1.3	2.3	2.4
29	12	19	19	22	-----	47	30	16	5.2	1.3	2.3	2.4
30	13	19	18	21	-----	47	30	16	5.2	1.2	2.3	2.7
31	13	-----	20	21	-----	46	-----	16	-----	1.2	2.3	-----
TOTAL	367.8	672	624	820	2,332	4,603	1,158	651	287.8	111.9	52.95	66.4
MEAN	11.9	22.4	20.1	26.5	83.3	148	38.6	21.0	9.59	3.61	1.71	2.21
MAX	14	60	21	94	654	877	46	28	15	5.0	5.0	2.7
MIN	9.7	13	18	17	21	46	30	16	5.2	1.2	.90	2.0

CAL YR 1969 TOTAL 108,570.9 MEAN 297 MAX 15,600 MIN 6.9 AC-FT 215,400
 WTR YR 1970 TOTAL 11,746.85 MEAN 32.2 MAX 877 MIN .90 AC-FT 23,300

PEAK DISCHARGE (BASE, 800 CFS).--Feb. 28 (1500) 2,150 cfs (8.10 ft).

SANTA CLARA RIVER BASIN

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, 71,200 acre-ft Apr. 1 (elevation, 1,028.40 ft); minimum contents, 27,800 acre-ft Sept. 30 (elevation, 977.40 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 1969 TO SEPTEMBER 1970

Date	Elevation (feet) ^a	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,018.50	61,400	-
Oct. 31.....	1,007.55	51,300	-10,100
Nov. 30.....	1,005.70	49,700	-1,600
Dec. 31.....	1,004.70	48,900	-800
CAL YR 1969.....	-	-	+23,900
Jan. 31.....	1,007.10	50,900	+2,000
Feb. 28.....	1,011.70	55,000	+4,100
Mar. 31.....	1,028.30	71,100	+16,100
Apr. 30.....	1,027.25	70,100	-1,000
May 31.....	1,018.05	61,000	-9,100
June 30.....	1,005.75	49,800	-11,200
July 31.....	990.95	37,700	-12,100
Aug. 31.....	982.75	31,600	-6,100
Sept. 30.....	977.40	27,800	-3,800
WTR YR 1970.....	-	-	-33,600

^a Elevation at 0800.

SANTA CLARA RIVER BASIN

11110000 PIRU CREEK NEAR PIRU, CALIF.

LOCATION.--Lat 34°25'30", long 118°45'40", in southern part of Temescal Grant, Ventura County, on right bank 1.8 miles northeast of Piru and 2 miles upstream from mouth.

DRAINAGE AREA.--437 sq mi.

PERIOD OF RECORD.--October 1911 to September 1913, October 1917 to current year. Published as "at Piru" 1927-34. Records not equivalent prior to May 20, 1955, due to regulation by Lake Piru. Published as "below Santa Felicia dam" May 20, 1955, to September 30, 1968.

GAGE.--Water-stage recorder. Broad-crested weir since Oct. 20, 1940. Altitude of gage is 750 ft (from topographic map) See WSP 1315-B for history of changes prior to Feb. 20, 1939. Feb. 20, 1939, to Dec. 2, 1969, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--29 years (1927-56), 54.8 cfs (39,700 acre-ft per year); median of yearly mean discharges, 25 cfs (18,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 202 cfs July 23 (gage height, 3.50 ft); minimum daily, 0.68 cfs Feb. 6.

Period of record: Maximum discharge, 35,600 cfs Mar. 2, 1938, from rating curve extended above 750 cfs on basis of slope-area measurement of maximum flow; no flow at times in some years.

REMARKS.--Records good. Flow regulated beginning in May 1955 by Lake Piru 2.8 miles upstream (see sta 11109700). No diversion above station. Records of chemical analyses for the water year 1970 are published in Part 2 of this report.

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	191	151	54	1.3	.96	18	22	46	177	176	197	59
2	191	143	67	1.2	.74	12	44	46	179	176	196	9.4
3	189	147	112	.99	.70	4.6	43	45	180	176	196	9.0
4	190	156	112	.96	.70	16	41	45	179	179	194	3.5
5	191	155	134	.72	.70	6.6	42	71	180	178	193	8.5
6	191	70	148	2.4	.68	4.7	42	106	182	177	192	8.5
7	191	10	148	9.0	.70	4.2	42	106	183	177	144	7.8
8	191	10	149	8.9	.70	4.3	42	106	178	177	55	16
9	191	13	99	9.4	1.9	4.2	42	105	185	180	55	40
10	191	28	4.8	5.8	11	4.2	43	105	183	182	54	52
11	191	28	3.9	3.2	6.7	4.0	44	115	182	183	54	67
12	191	28	3.7	2.9	3.4	4.2	43	140	182	181	54	74
13	191	28	3.2	2.5	2.0	4.2	44	157	183	185	66	75
14	189	14	3.0	2.2	1.9	4.2	45	166	182	181	72	75
15	190	6.0	3.2	2.2	1.9	4.2	44	178	180	190	72	75
16	191	6.0	3.0	4.6	1.9	4.6	34	181	176	190	73	74
17	191	6.0	3.0	2.9	1.9	4.6	29	180	179	190	73	74
18	191	6.0	2.9	2.4	1.7	7.9	44	180	178	192	74	73
19	190	6.0	2.6	2.2	1.5	3.3	44	178	170	195	74	72
20	190	30	2.6	1.9	1.3	3.4	44	177	177	196	74	72
21	193	52	2.6	1.9	1.2	3.4	44	178	176	197	76	66
22	146	53	2.6	1.8	1.2	3.4	45	178	175	198	77	62
23	116	53	2.4	1.5	1.2	3.4	45	178	174	200	78	61
24	116	53	2.2	1.5	1.0	3.8	45	178	175	198	78	61
25	106	52	2.6	1.5	.96	3.8	45	175	175	197	79	59
26	116	52	2.6	1.3	.96	3.8	45	175	175	197	80	59
27	106	52	2.2	1.2	.96	3.8	45	175	177	198	77	58
28	117	53	2.2	1.1	32	3.8	45	175	177	198	76	63
29	117	53	1.9	.96	-----	3.8	46	177	177	197	76	69
30	97	53	1.8	.74	-----	3.8	46	177	175	197	76	70
31	110	-----	1.5	.96	-----	3.8	-----	176	-----	197	75	-----
TOTAL	5,152	1,567.0	1,083.5	82.13	82.46	164.0	1,269	4,375	5,351	5,835	3,010	1,577.7
MEAN	166	52.2	35.0	2.65	2.95	5.29	42.3	141	178	188	97.1	52.6
MAX	193	156	149	9.4	32	18	46	181	185	200	197	75
MIN	97	6.0	1.5	.72	.68	3.3	22	45	170	176	54	7.8

CAL YR 1969 TOTAL 88,523.50 MEAN 243 MAX 7,800 MIN 0 AC-FT 175,600
WTR YR 1970 TOTAL 29,548.79 MEAN 81.0 MAX 200 MIN .68 AC-FT 58,610

SANTA CLARA RIVER BASIN

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.--38 years, 5.63 cfs (4,080 acre-ft per year); median of yearly mean discharges, 2.2 cfs (1,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 800 cfs Feb. 28 (gage height, 7.98 ft), from rating curve extended above 320 cfs on basis of slope-area measurement of maximum flow; no flow Aug. 7 to Sept. 30.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.73	.91	1.1	.72	142	1.7	1.0	.26	.02	.01	
2	.49	.70	.91	1.1	.65	95	1.7	.94	.18	.02	.01	
3	.48	.70	.93	1.1	.72	7.1	1.7	.94	.26	.01	.01	
4	.47	.70	.97	1.0	.80	38	1.5	.83	.31	.01	.01	
5	.47	.70	1.0	1.0	.80	38	1.4	.73	.36	.01	.01	
6	.46	1.8	1.1	1.0	.80	7.9	1.4	.83	.42	.01	.01	
7	.46	1.6	1.1	1.0	.72	3.6	1.5	.73	.42	.01	0	
8	.48	1.2	1.1	1.0	.72	2.4	1.7	.73	.49	.02	0	
9	.52	1.1	1.2	1.1	2.8	2.1	1.6	.64	.56	.07	0	
10	.56	1.0	1.2	1.1	55	2.0	1.6	.64	.49	.06	0	
11	.59	1.0	1.2	1.1	28	1.7	1.6	.56	.42	.04	0	
12	.63	1.0	1.2	1.1	2.1	1.6	1.6	.56	.49	.04	0	
13	.66	1.0	1.2	1.1	2.1	1.6	1.6	.49	.56	.04	0	
14	.69	1.0	1.2	1.1	2.1	1.9	1.6	.42	.42	.03	0	
15	.73	1.0	1.2	1.0	2.1	1.9	1.6	.26	.42	.02	0	
16	.76	.99	1.2	5.2	2.1	2.0	1.7	.26	.42	.02	0	
17	.79	.99	1.2	1.8	2.0	2.0	1.7	.22	.42	.01	0	
18	.83	.98	1.2	1.2	1.7	2.0	1.6	.26	.31	.01	0	
19	.86	.97	1.3	1.1	1.6	1.9	1.4	.26	.26	.01	0	
20	.88	.96	1.3	.88	1.5	1.8	1.4	.31	.18	.01	0	
21	.88	.96	1.3	.88	1.2	1.6	1.4	.36	.15	.01	0	
22	.88	.95	1.3	.88	1.1	1.5	1.2	.31	.11	.01	0	
23	.87	.95	1.3	.88	.88	1.5	1.2	.36	.07	.01	0	
24	.87	.95	1.3	.88	.80	1.6	1.0	.36	.05	.02	0	
25	.87	.95	1.3	.88	.65	1.6	.94	.36	.04	.02	0	
26	.86	.94	1.3	.72	.58	2.0	1.0	.49	.03	.02	0	
27	.86	.94	1.2	.72	.38	1.9	1.2	.64	.03	.02	0	
28	.83	.93	1.2	.72	247	1.7	1.4	.64	.04	.01	0	
29	.81	.93	1.2	.65	-----	1.8	1.2	.49	.03	.01	0	
30	.78	.92	1.2	.72	-----	2.0	1.2	.36	.03	.01	0	
31	.75	-----	1.1	.72	-----	1.9	-----	.36	-----	.01	0	-----
TOTAL	21.57	29.54	36.32	34.73	361.62	375.6	43.34	16.34	8.23	.62	.06	0
MEAN	.70	.98	1.17	1.12	12.9	12.1	1.44	.53	.27	.020	.001	0
MAX	.88	1.8	1.3	5.2	247	142	1.7	1.0	.56	.07	.01	0
MIN	.46	.70	.91	.65	.38	1.5	.94	.22	.03	.01	0	0
AC-FT	43	59	72	69	717	745	86	32	16	1.2	.1	0
CAL YR 1969	TOTAL	11,886.99	MEAN	32.6	MAX	2,400	MIN	.15	ACFT	23,580		
WAT YR 1970	TOTAL	927.97	MEAN	2.54	MAX	247	MIN	0	ACFT	1,840		

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-10	2000	7.10	261	3- 4	2200	6.45	194
2-28	1300	7.98	800				

NOTE.--No gage-height record Oct. 1 to Jan. 14.

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.--23 years (1947-70), 10.7 cfs (7,750 acre-ft per year); median of yearly mean discharges, 3.0 cfs (2,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 765 cfs Feb. 28 (gage height, 5.70 ft); minimum daily, 0.16 cfs Sept. 10-19.
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 water year 1970 are published in Part 2 of this report.

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	1.4	2.8	1.5	5.0	2.5	441	7.1	4.5	2.2	1.0	.43	.21
2	1.4	3.1	1.5	5.0	2.3	174	7.1	4.5	1.9	.88	.43	.21
3	1.4	3.1	1.5	4.1	2.3	72	7.1	4.5	1.9	.88	.43	.21
4	1.4	3.3	1.5	3.8	2.0	56	6.7	4.1	1.9	.75	.43	.21
5	1.5	4.1	1.5	3.6	1.8	58	6.7	4.1	1.9	.75	.43	.21
6	1.5	35	1.5	3.1	1.8	55	6.7	4.1	1.9	.75	.43	.21
7	1.5	15	1.8	3.1	1.5	52	6.2	4.1	1.9	.75	.43	.21
8	1.5	8.0	2.0	3.1	1.4	44	6.2	4.1	1.9	.75	.43	.21
9	1.5	4.1	2.3	18	11	39	5.8	3.8	2.2	.75	.35	.21
10	1.5	3.1	2.3	17	38	33	5.8	3.8	2.2	.75	.35	.16
11	1.5	2.0	2.0	7.5	18	28	6.2	3.8	1.9	.75	.35	.16
12	1.5	1.5	2.0	5.8	9.5	24	6.7	3.8	1.9	.75	.35	.16
13	1.5	1.4	2.0	5.0	7.5	21	6.7	3.8	2.6	.75	.35	.16
14	1.5	1.3	2.0	4.1	6.2	20	6.7	3.8	2.6	.64	.35	.16
15	1.5	6.2	2.0	3.8	5.4	18	6.7	3.5	2.4	.64	.35	.16
16	1.5	6.2	2.3	6.7	5.0	17	6.7	3.2	2.2	.64	.35	.16
17	1.5	2.0	2.3	5.8	5.0	15	6.7	2.9	1.9	.64	.35	.16
18	1.5	2.0	2.3	4.5	5.4	15	6.2	2.9	1.7	.64	.35	.16
19	1.8	2.0	2.3	3.8	5.0	13	5.6	2.9	1.5	.64	.35	.16
20	1.8	2.3	2.3	3.6	5.0	13	5.6	2.9	1.3	.64	.28	.21
21	1.8	2.3	2.3	3.6	4.5	12	5.6	2.9	1.2	.64	.28	.21
22	2.0	2.0	2.3	3.3	4.1	12	5.6	2.9	1.0	.53	.28	.21
23	2.0	2.0	2.0	3.3	3.8	11	5.2	2.9	1.0	.53	.28	.21
24	2.0	1.9	2.0	3.3	3.6	10	4.8	2.9	1.0	.53	.28	.21
25	2.0	1.8	2.0	3.3	3.8	9.5	4.5	2.6	1.0	.43	.28	.21
26	2.0	1.8	2.8	3.3	3.6	9.0	4.5	2.6	1.0	.43	.28	.21
27	2.0	1.5	5.8	3.1	3.8	8.4	4.8	2.6	1.0	.43	.28	.21
28	2.0	1.5	5.8	3.1	266	8.0	4.8	2.6	1.0	.43	.28	.21
29	2.3	1.5	5.0	3.1	-----	7.5	4.8	2.4	1.0	.43	.28	.28
30	2.3	1.5	4.5	2.8	-----	7.5	4.8	2.2	1.0	.43	.21	.28
31	2.5	-----	4.5	2.8	-----	7.5	-----	2.2	-----	.43	.21	-----
TOTAL	53.1	126.3	77.9	151.4	429.8	1,310.4	178.6	103.9	50.1	19.98	10.51	5.94
MEAN	1.71	4.21	2.51	4.88	15.4	42.3	5.95	3.35	1.67	.64	.34	.20
MAX	2.5	35	5.8	18	266	441	7.1	4.5	2.6	1.0	.43	.28
MIN	1.4	1.3	1.5	2.8	1.4	7.5	4.5	2.2	1.0	.43	.21	.16
AC-FT	105	251	155	300	853	2,600	354	206	99	40	21	12

CAL YR 1969 TOTAL 22,056.90 MEAN 60.4 MAX 3,840 MIN .57 ACFT 43,750
WAT YR 1970 TOTAL 2,517.93 MEAN 6.90 MAX 441 MIN .16 ACFT 4,990

PEAK DISCHARGE (BASE, 50 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11- 6	1330	2.69	53	2-10	1900	3.15	88
1- 9	2400	3.07	75	2-28	1500	5.70	765

SANTA CLARA RIVER BASIN

11113000 SESPE CREEK NEAR FILLMORE, CALIF.

LOCATION.--Lat 34°27'03", long 118°55'30", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ 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).--45 years, 105 cfs (76,070 acre-ft per year); median of yearly mean discharges, 51 cfs (36,900 acre-ft per year).

(Combined creek and canal).--43 years, 111 cfs (80,420 acre-ft per year); median of yearly mean discharges, 46 cfs (33,300 acre-ft per year).

EXTREMES (Creek only).--Current year: Maximum discharge, 8,800 cfs Feb. 28 (gage height, 16.20 ft); minimum daily, 0.42 cfs Sept. 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, 8,800 cfs Feb. 28; minimum daily, 5.5 cfs Sept. 22.

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 water year 1970 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.

COOPERATION.--Two discharge measurements furnished by Ventura County Flood Control District.

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	8.6	11	18	15	26	5,240	64	33	13	5.5	.76	.42
2	9.0	11	18	15	26	2,650	60	32	11	4.9	.76	.42
3	9.0	11	18	15	26	855	59	31	9.1	3.7	.76	.42
4	9.0	11	17	15	26	972	56	30	7.8	2.5	.85	2.5
5	9.0	11	16	15	26	845	54	29	6.8	2.5	.85	7.3
6	9.0	37	16	14	26	595	53	35	7.3	2.5	.99	7.3
7	8.6	35	17	15	26	462	53	39	7.3	2.5	.99	11
8	8.6	28	17	15	26	380	53	39	7.8	3.1	.99	9.6
9	9.0	24	17	24	125	327	52	33	8.2	11	.99	4.3
10	9.0	23	18	110	1,010	273	50	29	8.6	11	.67	3.4
11	9.0	22	17	47	778	216	48	27	8.6	9.1	.67	3.1
12	9.4	21	17	43	168	175	44	27	9.1	3.7	.67	2.1
13	9.4	21	16	35	96	159	43	26	9.1	2.0	.67	1.1
14	9.8	20	16	32	76	156	43	25	9.6	1.8	.67	.99
15	11	20	14	31	66	150	43	24	9.6	1.3	.58	.99
16	11	20	14	41	60	142	43	23	9.1	1.0	.58	.67
17	12	20	14	43	56	125	43	23	9.1	.85	.58	.58
18	12	20	14	39	51	118	43	23	9.1	.76	.58	.85
19	12	20	14	34	48	108	42	23	9.1	.76	.58	.85
20	12	20	14	31	43	100	42	23	8.6	.76	.50	.76
21	12	20	14	28	39	96	42	22	8.6	.76	.58	.67
22	12	20	14	28	37	90	40	22	8.6	.76	.67	.58
23	12	20	14	27	32	86	40	21	7.8	.76	1.3	.99
24	12	20	14	28	30	80	38	18	7.3	.76	2.7	.76
25	12	20	14	28	35	78	37	16	7.3	.76	2.7	.76
26	12	20	14	28	37	76	37	16	6.8	.76	2.0	.76
27	12	19	14	28	38	75	38	16	7.3	.76	1.3	.76
28	12	19	14	28	3,730	73	38	15	11	.76	.67	.76
29	12	19	16	27	-----	71	35	14	9.1	.76	.50	.76
30	12	18	15	27	-----	67	34	12	6.4	.76	.50	.76
31	12	-----	15	26	-----	66	-----	13	-----	.76	.50	-----
TOTAL	328.4	601	480	932	6,763	14,906	1,367	759	258.1	79.59	28.11	66.21
MEAN	10.6	20.0	15.5	30.1	242	481	45.6	24.5	8.60	2.57	.91	2.21
MAX	12	37	18	110	3,730	5,240	64	39	13	11	2.7	11
MIN	8.6	11	14	14	26	66	34	12	6.4	.76	.50	.42
AC-FT	651	1,190	952	1,850	13,410	29,570	2,710	1,510	512	158	56	131

CAL YR 1969 TOTAL 235,088.90 MEAN 644 MAX 29,100 MIN 4.8 ACFT 466,300
WAT YR 1970 TOTAL 26,568.41 MEAN 72.8 MAX 5,240 MIN .42 ACFT 52,700

PEAK DISCHARGE (BASE, 1,300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-10	2000	15.60	3,300	3- 4	2000	14.25	2,910
2-28	1900	16.20	8,800				

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	24	22	27	5,240	64	40	21	12	6.9	5.6
2	18	18	25	21	27	2,650	60	38	18	12	6.8	5.6
3	18	18	25	22	27	855	59	37	16	11	6.8	5.6
4	17	18	25	22	27	972	56	36	16	9.7	6.8	6.6
5	17	18	25	22	27	845	54	36	16	9.7	6.8	10
6	18	40	25	20	27	595	53	38	16	9.5	6.9	10
7	18	35	26	20	27	463	53	40	15	9.4	6.7	13
8	18	28	26	20	27	382	53	40	16	9.9	6.6	12
9	18	25	26	28	126	329	52	37	16	13	6.4	8.8
10	18	23	27	110	1,010	274	50	35	16	16	6.3	8.1
11	18	22	26	47	778	216	50	34	16	16	6.4	7.7
12	18	21	26	43	168	175	50	34	16	11	6.5	7.2
13	18	22	25	36	96	159	49	33	16	9.3	6.5	6.7
14	19	22	25	33	76	157	49	32	17	9.1	6.4	6.7
15	20	22	23	31	66	152	50	30	17	8.6	6.2	6.7
16	20	22	23	42	60	143	50	29	17	8.4	6.2	6.3
17	20	21	23	44	56	125	50	28	16	8.2	6.3	5.9
18	20	21	23	40	51	118	51	29	16	8.0	6.4	6.0
19	20	21	22	35	48	108	50	29	16	7.8	6.5	6.0
20	20	21	22	32	43	100	49	28	16	7.7	6.4	6.1
21	20	21	22	29	39	96	49	27	16	7.7	6.5	6.0
22	20	21	23	30	37	90	47	27	16	7.6	6.6	5.5
23	20	21	22	28	32	86	47	27	15	7.5	6.5	5.7
24	20	22	21	29	30	80	46	24	15	7.5	6.7	6.0
25	20	22	21	29	35	78	45	24	15	7.5	6.7	5.8
26	20	23	20	29	37	77	46	24	14	7.4	6.9	5.6
27	19	22	20	29	38	76	45	24	14	7.2	6.2	5.6
28	19	22	21	29	3,730	74	45	23	16	7.4	6.1	5.6
29	19	22	23	28	-----	72	42	21	16	7.2	5.9	5.7
30	19	22	22	28	-----	67	41	19	14	7.2	5.8	5.7
31	19	-----	22	27	-----	66	-----	20	-----	6.9	5.7	-----
TOTAL	585	674	729	1,005	6,772	14,920	1,505	943	480	287.4	200.4	207.8
MEAN	18.9	22.5	23.5	32.4	242	481	50.2	30.4	16.0	9.27	6.46	6.93
MAX	20	40	27	110	3,730	5,240	64	40	21	16	6.9	13
MIN	17	18	20	20	27	66	41	19	14	6.9	5.7	5.5
AC-FT	1,160	1,340	1,450	1,990	13,430	29,590	2,990	1,870	952	570	397	412

CAL YR 1969 TOTAL 236,064.1 MEAN 647 MAX 29,100 MIN 6.8 ACFT 468,200
WAT YR 1970 TOTAL 28,308.6 MEAN 77.6 MAX 5,240 MIN 5.5 ACFT 56,150

PEAK DISCHARGE (BASE, 1,300 CFS).--(Same as those listed on previous page.)

SANTA CLARA RIVER BASIN

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. Altitude of gage is 650 ft (from topographic map). Oct. 1, 1927, to Feb. 19, 1931, at site 500 ft downstream at different datum. Feb. 20, 1931, to Dec. 5, 1963, at present site and datum. Dec. 6, 1963, to July 29, 1965, at site 50 ft upstream at present datum.

AVERAGE DISCHARGE.--43 years, 21.7 cfs (15,720 acre-ft per year); median of yearly mean discharges, 10 cfs (7,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 940 cfs Feb. 28 (gage height, 7.55 ft); minimum daily, 1.5 cfs Aug. 24.

Period of record: Maximum discharge, 21,000 cfs Feb. 25, 1969 (gage height, 15.18 ft, from floodmark), from rating curve extended above 2,300 cfs on basis of critical-depth measurement at gage height 12.2 ft; no flow at times in 1949, 1951-52, 1965.

REMARKS.--Records poor. No regulation above station. Diversion above station for irrigation of 60 acres by Santa Paula Water Works began prior to October 1927; 463 acre-ft was diverted during year. Records of chemical analyses for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	5.4	6.8	5.6	4.2	298	15	8.5	6.4	4.1	2.3	2.2
2	5.0	5.3	6.8	5.3	4.1	220	15	8.5	6.3	4.0	2.3	2.3
3	5.0	5.2	6.8	5.0	4.0	93	14	8.4	6.2	3.8	2.3	2.3
4	5.0	5.2	7.2	5.0	3.9	121	14	8.4	6.1	3.6	2.2	2.3
5	5.0	5.2	7.1	5.0	3.9	148	13	8.6	6.0	3.5	2.2	2.3
6	5.0	12	7.1	5.0	3.9	105	13	9.0	6.0	3.4	2.1	2.3
7	5.2	10	7.6	5.0	3.9	79	13	9.0	5.9	3.3	2.1	2.3
8	5.2	8.0	7.6	5.0	10	54	12	8.8	5.8	3.2	2.0	2.3
9	5.2	7.0	7.6	6.0	20	40	12	8.7	5.8	3.2	1.9	2.3
10	5.2	6.5	7.6	32	100	34	12	8.6	5.7	3.1	1.8	2.3
11	5.2	6.4	7.6	16	39	32	11	8.5	5.6	3.1	1.8	2.3
12	5.2	6.4	7.6	9.5	20	28	11	8.4	5.5	3.0	1.7	2.3
13	5.2	6.4	7.6	8.0	13	26	10	8.3	5.4	3.0	1.7	2.3
14	5.4	6.4	8.0	7.0	11	25	10	8.2	5.4	3.0	1.7	2.3
15	5.6	6.4	8.0	6.5	9.5	23	10	8.0	5.4	2.9	1.7	2.3
16	5.6	6.4	8.0	8.0	9.0	22	10	7.9	5.3	2.9	1.7	2.3
17	5.6	6.2	8.0	8.5	8.3	21	9.8	7.8	5.3	2.8	1.7	2.2
18	5.6	6.1	8.0	8.0	7.8	20	9.7	7.7	5.3	2.8	1.7	2.3
19	5.6	6.0	7.6	7.5	7.3	20	9.6	7.6	5.2	2.8	1.6	2.3
20	5.8	6.1	7.6	7.0	6.9	19	9.5	7.5	5.2	2.8	1.6	2.3
21	5.8	6.2	7.6	6.4	6.5	18	9.4	7.4	5.2	2.7	1.6	2.3
22	5.8	6.2	7.6	6.0	6.3	18	9.3	7.3	5.1	2.7	1.6	2.3
23	5.8	6.2	7.3	5.7	6.0	17	9.2	7.2	5.0	2.7	1.6	2.3
24	5.8	6.3	7.0	5.4	6.0	17	9.0	7.1	4.9	2.7	1.5	2.3
25	5.8	6.3	6.8	5.2	5.9	17	8.8	7.0	4.8	2.6	1.6	2.3
26	5.8	6.4	6.6	5.0	5.9	17	8.8	6.9	4.8	2.6	1.8	2.3
27	5.6	6.5	6.6	4.8	5.9	16	8.8	6.8	4.7	2.5	2.0	2.3
28	5.6	6.6	6.6	4.7	222	16	8.8	6.7	4.6	2.5	2.1	2.3
29	5.6	6.6	6.8	4.6	-----	16	8.7	6.6	4.5	2.5	2.2	2.3
30	5.6	6.6	6.4	4.4	-----	16	8.7	6.5	4.3	2.4	2.2	2.4
31	5.6	-----	6.0	4.3	-----	15	-----	6.5	-----	2.4	2.2	-----
TOTAL	168.4	196.5	225.5	221.4	554.2	1,611	323.1	242.4	161.7	92.6	58.5	68.9
MEAN	5.43	6.55	7.27	7.14	19.8	52.0	10.8	7.82	5.39	2.99	1.89	2.30
MAX	5.8	12	8.0	32	222	298	15	9.0	6.4	4.1	2.3	2.4
MIN	5.0	5.2	6.0	4.3	3.9	15	8.7	6.5	4.3	2.4	1.5	2.2
AC-FT	334	390	447	439	1,100	3,200	641	481	321	184	116	137
CAL YR 1969	TOTAL	57,195.9	MEAN	157	MAX	8,900	MIN	2.1	ACFT	113,400		
WAT YR 1970	TOTAL	3,924.2	MEAN	10.8	MAX	298	MIN	1.5	ACFT	7,780		

PEAK DISCHARGE (BASE, 200 CFS)				NOTE.--Stage-discharge relation indefinite most of year.			
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-10	2245	5.99	268	3- 5	0030	6.10	235
2-28	1630	7.55	940				

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 water year 1970 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 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	358	197	171	116	274
2							26	333	197	139	211	268
3							288	335	165	143	275	260
4							284	344	151	136	274	251
5							279	341	147	134	255	249
6							301	333	146	143	255	245
7							355	334	153	148	258	252
8							371	317	157	138	259	259
9							395	298	162	127	263	252
10							404	283	159	121	273	244
11							405	272	169	170	287	240
12							402	274	193	126	279	241
13							402	269	183	155	266	242
14							400	306	159	81	260	250
15							396	266	159	87	262	257
16							393	250	180	89	269	246
17							397	237	175	138	277	248
18							396	231	180	153	286	252
19							395	212	170	190	278	254
20							395	220	158	202	270	256
21							388	222	188	213	265	257
22							389	217	175	199	263	263
23							391	214	169	200	262	262
24							384	211	183	200	265	209
25							369	211	189	207	272	232
26							341	206	183	214	276	129
27							361	195	187	232	278	138
28							377	186	189	232	273	169
29					-----		370	191	197	228	264	190
30					-----		362	196	212	222	262	137
31	-----				-----		-----	199	-----	133	267	-----
TOTAL							10,416	8,061	5,232	5,071	8,120	7,026
MEAN							347	260	174	164	262	234
MAX							405	358	212	232	287	274
MIN							0	186	146	81	116	129
AC-FT							20,660	15,990	10,380	10,060	16,110	13,940

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CALIF.--Continued

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	64	106	161	119	122	0	157	67	128	130	122	51	
2	109	136	154	104	126	0	157	64	118	127	125	38	
3	176	146	163	120	112	0	151	64	115	129	127	41	
4	185	160	170	120	123	0	143	66	111	135	115	29	
5	176	172	180	122	132	0	136	61	111	145	116	20	
6	161	207	202	104	128	0	139	76	110	153	118	19	
7	177	156	224	107	129	0	131	95	112	154	113	20	
8	167	150	233	110	123	0	140	87	133	140	77	20	
9	165	131	240	109	151	0	148	85	132	138	29	18	
10	171	109	196	236	27	0	136	95	112	136	28	12	
11	198	111	115	211	0	84	118	100	108	135	15	11	
12	179	107	64	187	0	169	127	100	116	141	15	21	
13	186	106	75	149	16	180	125	115	116	141	15	29	
14	182	108	81	119	191	167	108	115	121	144	26	49	
15	171	107	80	122	179	169	103	98	121	136	44	61	
16	180	99	70	179	189	150	104	104	115	137	44	53	
17	184	94	64	195	168	136	103	113	118	137	47	51	
18	195	83	62	165	156	124	99	121	116	135	59	48	
19	209	80	61	148	151	107	112	115	114	135	49	53	
20	210	79	63	131	113	131	112	117	118	139	49	56	
21	201	108	69	123	115	140	81	94	124	135	50	54	
22	196	143	84	122	109	120	85	94	134	129	57	75	
23	108	159	85	121	72	123	86	101	129	128	65	54	
24	88	148	74	122	101	144	84	111	125	125	88	42	
25	86	153	80	122	101	156	79	108	124	122	84	30	
26	81	146	92	116	103	147	76	114	135	125	66	16	
27	92	146	94	116	106	133	83	118	136	127	59	17	
28	82	157	97	120	56	117	81	120	134	130	57	42	
29	79	148	95	104	-----	136	76	105	141	130	56	47	
30	67	149	105	108	-----	165	70	94	135	121	57	38	
31	78	-----	116	115	-----	173	-----	103	-----	124	56	-----	
TOTAL	4,603	3,904	3,649	4,146	3,099	2,971	3,350	3,020	3,662	4,163	2,028	1,115	
MEAN	148	130	118	134	111	95.8	112	97.4	122	134	65.4	37.2	
MAX	210	207	240	236	191	180	157	121	141	154	127	75	
MIN	64	79	61	104	0	0	70	61	108	121	15	11	
AC-FT	9,130	7,740	7,240	8,220	6,150	5,890	6,640	5,990	7,260	8,260	4,020	2,210	
CAL YR 1969	TOTAL -	MEAN -	MAX -	MIN -	AC-FT -								
WTR YR 1970	TOTAL 39,710	MEAN 109	MAX 240	MIN 0	AC-FT 78,760								

SANTA CLARA RIVER BASIN

11114000 SANTA CLARA RIVER AT MONTALVO, CALIF.
(Formerly published as 11113920 Santa Clara River at Saticoy)

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. Prior to Feb. 2, 1970, at site 3.9 miles upstream.

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.--26 years, 115 cfs (83,320 acre-ft per year); median of yearly mean discharges, 21 cfs (15,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,960 cfs Mar. 1 (gage height, 8.48 ft); no flow Dec. 28 to Feb. 1, Feb. 26.
Period of record: Maximum discharge, 165,000 cfs Jan. 25, 1969 (gage height, 17.41 ft, present datum); no flow for long periods in each year.
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 loads for the water year 1970 are published in Part 2 of this report.

COOPERATION.--Thirty-four 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.5	4.7		0	5,930	25	.40	.70	.46	.13	.07
2	13	8.1	2.7		.42	3,690	15	.40	1.2	.47	.13	.07
3	13	7.6	3.1		.42	1,250	13	.39	1.4	.47	.12	.06
4	11	8.1	3.7		.70	1,740	12	.39	1.5	.47	.12	.06
5	10	8.9	3.7		1.8	1,740	11	.39	1.5	.48	.12	.06
6	10	122	3.5		2.5	875	10	.38	1.5	.48	.12	.06
7	10	144	3.5		1.4	828	9.8	.38	1.4	.48	.12	.06
8	9.4	15	3.3		.98	617	9.2	.38	1.4	.49	.12	.05
9	8.9	6.0	3.3		18	500	8.6	.37	1.3	.49	.11	.05
10	9.0	5.3	3.1		575	381	8.0	.25	1.3	.49	.11	.05
11	9.0	5.0	3.1	1,270		234	7.5	.19	1.3	.49	.11	.05
12	9.0	4.7	2.9	300		153	7.0	.18	1.3	.48	.11	.05
13	9.0	4.4	2.9	213		150	6.7	.17	1.4	.48	.11	.05
14	9.5	4.4	2.7	54		150	6.4	.17	1.4	.47	.11	.05
15	9.5	4.4	2.7	46		152	5.9	.25	1.5	.46	.11	.05
16	9.5	4.1	2.5		2.5	154	5.2	.70	1.5	.44	.10	.05
17	10	3.5	2.5		1.0	157	4.5	1.4	1.6	.42	.10	.05
18	10	3.3	2.3		.80	160	3.6	1.5	1.6	.40	.10	.05
19	10	3.1	2.3		.70	155	3.1	1.5	1.6	.39	.10	.05
20	10	2.9	2.0		.60	140	2.7	1.5	1.5	.37	.10	.05
21	10	3.3	1.7		.50	120	2.1	1.4	1.4	.35	.10	.05
22	10	3.5	1.4		.40	108	1.7	1.3	1.3	.34	.10	.05
23	10	3.3	1.2		.30	97	1.4	.90	1.1	.32	.10	.05
24	10	3.3	1.0		.20	88	1.2	.50	.90	.30	.10	.05
25	10	3.3	.50		.10	81	1.0	.39	.70	.27	.09	.05
26	11	2.9	.40		0	75	.85	.33	.55	.23	.09	.05
27	11	3.1	.20		.55	71	.66	.32	.47	.15	.09	.05
28	11	2.9	0	2,730		66	.52	.32	.45	.14	.09	.06
29	11	3.5	0	-----		62	.46	.33	.45	.14	.08	.08
30	11	5.3	0	-----		54	.41	.35	.46	.13	.08	.10
31	10	-----	0	-----		40	-----	.45	-----	.13	.07	-----
TOTAL	317.8	407.7	.66.90	0	5,221.87	20,018	184.50	17.88	35.68	11.68	3.24	1.68
MEAN	10.3	13.6	2.16	0	186	646	6.15	.58	1.19	.38	.10	.056
MAX	13	144	4.7	0	2,730	5,930	25	1.5	1.6	.49	.13	.10
MIN	8.9	2.9	0	0	0	40	.41	.17	.45	.13	.07	.05
AC-FT	630	809	133	0	10,360	39,710	366	35	71	23	6.4	3.3

CAL YR 1969 TOTAL 449,240.30 MEAN 1,231 MAX 92,300 MIN 0 ACFT 891,100
WAT YR 1970 TOTAL 26,286.93 MEAN 72.0 MAX 5,930 MIN 0 ACFT 52,140

PEAK DISCHARGE (BASE, 1,500 CFS)				NOTE.--No gage-height record Mar. 12 to Sept. 30.			
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-11	0100	7.40	3,650	3- 4	2100	7.20	7,400
3- 1	2130	8.48	9,960				

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, 496 cfs Mar. 2 (gage height, 4.14 ft); minimum daily, 0.47 cfs Feb. 20.

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.--Four discharge measurements furnished by Ventura River Municipal Water District.

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	6.6	6.4	5.6	24	36	132	25	7.1	6.3	7.0	6.4	131
2	6.6	6.4	5.6	44	8.6	461	25	7.3	6.3	6.9	6.4	29
3	6.6	6.6	5.6	7.7	.52	469	23	7.6	6.7	7.1	6.4	4.4
4	6.6	6.6	5.6	4.3	.50	403	23	7.5	6.7	7.0	6.7	3.3
5	6.6	6.6	5.6	8.7	.52	398	22	6.8	6.7	6.9	6.7	3.2
6	6.6	7.2	5.6	8.0	.51	207	15	7.6	6.7	7.1	6.7	2.7
7	6.6	6.8	5.6	7.0	.60	46	11	7.7	6.7	7.1	6.3	2.5
8	6.6	6.8	5.3	6.2	.63	47	18	7.8	6.7	7.1	6.3	2.7
9	6.6	6.8	5.9	6.6	30	141	19	7.9	7.0	7.3	6.3	2.8
10	6.6	6.8	5.0	6.2	60	114	14	8.2	7.1	7.4	6.3	2.6
11	6.6	6.8	8.3	.60	56	69	13	7.9	6.8	7.5	6.3	2.6
12	6.6	6.8	8.6	.50	19	27	13	7.5	6.7	7.5	5.9	2.7
13	6.6	6.8	6.5	.50	.74	36	13	7.5	6.7	7.4	5.9	2.7
14	6.6	6.8	3.9	.50	.53	82	13	7.3	7.1	7.1	5.9	2.7
15	6.6	6.8	2.5	.50	.53	57	13	7.1	7.1	6.7	6.0	2.6
16	6.6	6.8	2.5	.60	.53	37	14	7.0	7.1	6.7	5.9	2.4
17	6.6	6.8	6.8	.50	.50	37	11	6.3	7.1	6.7	5.9	2.4
18	6.6	6.8	7.9	.50	.53	36	6.3	6.4	7.1	6.7	5.9	2.6
19	6.6	6.8	6.5	.50	.51	36	5.9	6.4	7.0	6.7	5.9	2.5
20	6.6	6.8	1.0	.50	.47	23	5.9	6.3	7.0	6.7	5.9	2.9
21	6.6	6.8	.90	.50	.48	17	5.9	6.4	6.7	6.6	5.9	2.6
22	6.6	6.8	1.1	.50	.50	17	5.9	6.1	7.1	6.6	5.9	2.5
23	6.4	6.8	2.0	.50	.50	24	5.9	6.2	7.5	6.6	5.9	2.4
24	6.4	6.8	8.0	.50	.55	29	5.5	6.1	7.5	6.7	5.9	2.4
25	6.4	1.7	7.5	.60	.55	28	5.7	7.0	7.5	6.7	5.9	2.6
26	6.4	5.8	5.9	.60	.50	27	5.8	6.5	6.7	6.7	5.9	2.5
27	6.4	5.8	.80	.60	4.9	26	5.5	6.3	6.7	6.6	5.9	2.3
28	6.4	4.4	1.0	.60	2.3	25	1.6	6.7	6.7	6.5	5.9	2.3
29	6.4	5.6	1.0	.60	-----	25	2.0	6.7	6.8	6.4	5.9	2.2
30	6.4	5.6	1.0	8.3	-----	24	1.6	6.7	6.8	6.3	5.9	2.4
31	6.4	-----	1.0	1.76	-----	24	-----	6.5	-----	6.3	8.0	-----
TOTAL	202.8	246.0	804.30	391.90	247.20	3,124	395.3	216.4	206.6	212.6	263.0	234.5
MEAN	6.54	8.20	25.9	12.6	8.83	101	13.2	6.98	6.89	6.86	8.48	7.82
MAX	6.6	4.4	8.6	1.76	6.0	469	2.5	8.2	7.5	7.5	8.0	1.31
MIN	6.4	5.6	.80	.50	.47	1.7	5.5	6.1	6.3	6.3	5.9	2.2

CAL YR 1969 TOTAL 59,527.40 MEAN 163 MAX 8,340 MIN .80 AC-FT 118,100
 WTR YR 1970 TOTAL 6,544.60 MEAN 17.9 MAX 469 MIN .47 AC-FT 12,980

VENTURA RIVER BASIN

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.--41 years, 10.4 cfs (7,530 acre-ft per year); median of yearly mean discharges, 4.2 cfs (3,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 516 cfs Mar. 1 (gage height, 3.58 ft); minimum daily, 1.0 cfs Sept. 1, 2, 9, 26-30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.8	3.5	3.1	3.7	239	7.0	3.4	2.6	1.9	1.3	1.0
2	3.1	2.8	3.5	3.1	3.7	65	7.0	3.4	2.4	1.7	1.3	1.0
3	3.1	2.8	3.5	2.8	3.7	33	6.6	3.4	2.4	1.7	1.3	1.2
4	3.1	2.8	3.5	2.8	3.7	58	6.2	3.4	2.4	1.7	1.3	1.2
5	3.1	3.1	3.5	2.6	3.4	52	5.8	3.1	2.4	1.7	1.3	1.2
6	3.1	12	3.5	2.6	3.4	34	5.8	3.1	2.4	1.7	1.3	1.2
7	3.1	7.9	3.5	2.6	3.4	24	5.8	3.1	2.4	1.9	1.5	1.2
8	3.1	5.8	3.5	2.8	3.4	21	5.8	3.1	2.4	1.9	1.5	1.2
9	3.1	5.1	3.5	8.0	5.6	17	5.4	2.8	2.6	1.7	1.5	1.0
10	3.1	4.8	3.5	10	13	15	5.1	2.8	2.4	1.9	1.5	1.2
11	3.1	4.8	3.5	6.2	11	14	5.1	2.8	2.4	1.9	1.5	1.2
12	3.1	4.4	3.4	5.4	7.0	13	4.8	2.8	2.4	1.9	1.5	1.2
13	3.1	4.0	3.4	5.1	6.2	11	4.8	2.8	2.6	1.9	1.5	1.2
14	3.1	4.0	3.4	4.8	5.8	11	5.1	2.8	2.6	1.7	1.3	1.2
15	3.1	3.7	3.4	4.4	5.4	10	5.1	2.8	2.4	1.7	1.3	1.2
16	3.1	3.7	3.4	7.0	5.1	10	5.1	2.8	2.6	1.7	1.3	1.2
17	3.1	3.7	3.4	6.6	5.1	9.4	5.1	3.1	2.6	1.7	1.3	1.2
18	3.4	3.7	3.4	5.8	5.1	10	4.8	2.8	2.6	1.7	1.3	1.2
19	3.4	3.7	3.4	5.1	4.8	9.4	4.8	2.6	2.6	1.5	1.3	1.3
20	3.4	3.4	3.4	4.8	4.8	8.9	4.4	2.6	2.6	1.5	1.3	1.3
21	3.4	3.4	3.4	4.8	4.4	8.9	4.0	2.6	2.6	1.5	1.2	1.3
22	3.4	3.4	3.4	4.4	4.0	8.4	4.0	2.6	2.4	1.5	1.2	1.3
23	3.4	3.4	3.4	4.8	4.0	7.9	3.7	2.4	2.4	1.5	1.2	1.2
24	3.4	3.4	3.4	4.4	4.0	6.6	3.4	2.6	2.1	1.5	1.3	1.2
25	3.4	3.4	3.4	4.4	4.0	6.6	3.4	2.6	2.1	1.5	1.3	1.2
26	3.4	3.4	3.4	4.0	4.0	6.6	3.7	2.8	1.9	1.5	1.3	1.0
27	3.4	3.4	3.1	4.0	4.0	7.0	3.4	2.8	1.9	1.5	1.2	1.0
28	3.4	3.4	3.1	4.0	136	7.0	3.7	2.8	1.9	1.5	1.2	1.0
29	3.4	3.4	3.1	4.0	-----	7.0	3.4	2.6	2.1	1.3	1.3	1.0
30	3.4	3.4	3.1	3.7	-----	7.0	3.4	2.6	2.1	1.3	1.3	1.0
31	3.1	-----	3.1	3.7	-----	6.6	-----	2.6	-----	1.3	1.1	-----
TOTAL	100.0	123.0	105.0	141.8	271.7	744.3	145.7	88.5	71.3	50.9	41.0	34.8
MEAN	3.23	4.10	3.39	4.57	9.70	24.0	4.86	2.85	2.38	1.64	1.32	1.16
MAX	3.4	12	3.5	10	136	239	7.0	3.4	2.6	1.9	1.5	1.3
MIN	3.1	2.8	3.1	2.6	3.4	6.6	3.4	2.4	1.9	1.3	1.1	1.0
AC-FT	198	244	208	281	539	1,480	289	176	141	101	81	69
CAL YR 1969	TOTAL	27,722.2	MEAN	76.0	MAX	4,980	MIN	1.7	ACFT	54,990		
WAT YR 1970	TOTAL	1,918.0	MEAN	5.25	MAX	239	MIN	1.0	ACFT	3,800		

PEAK DISCHARGE (BASE, 40 CFS).--Mar. 1 (0500) 516 cfs (3.58 ft).

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. Prior to Oct. 30, 1969, at site 500 ft downstream.

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, 258 cfs Mar. 2 (gage height, 5.20 ft); no flow Dec. 27 to Jan. 11, Sept. 5-30.
 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 Casitas Reservoir on Coyote Creek. Flow reported herein is that released through gates in Robles diversion dam.

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	6.8	10	7.0	0	1.6	4.0	5.9	5.4	3.8	1.8	.79	2.0
2	6.8	10	7.0	0	2.0	50	6.4	7.5	2.0	2.5	1.4	13
3	6.8	10	7.0	0	1.6	.34	6.4	4.5	1.0	2.5	1.6	2.0
4	6.8	10	7.0	0	1.4	11	3.5	6.0	1.6	2.5	1.6	1.6
5	6.8	10	7.0	0	1.7	.44	2.9	7.5	3.9	2.5	1.0	0
6	6.8	18	7.0	0	1.8	23	2.1	6.9	3.7	2.5	2.1	0
7	6.8	14	7.0	0	1.9	4.2	1.9	4.0	2.4	1.5	2.0	0
8	6.8	13	53	0	1.8	3.0	1.8	4.8	2.5	4.2	2.1	0
9	6.8	12	60	0	1.7	10	11	6.6	3.1	2.8	3.5	0
10	6.8	11	52	0	1.5	8.1	15	10	3.0	3.9	7.4	0
11	6.8	10	85	0	1.7	6.9	14	6.5	1.9	1.0	7.2	0
12	6.8	10	88	16	1.8	8.8	13	1.2	2.3	.76	2.1	0
13	10	10	68	13	1.7	13	15	4.5	1.9	1.8	.47	0
14	10	10	40	11	1.7	21	15	4.5	2.2	1.4	.45	0
15	10	10	27	10	1.7	14	15	4.6	2.1	1.1	4.5	0
16	10	9.0	27	4.9	1.6	15	16	2.5	2.3	1.1	.74	0
17	10	9.0	75	.40	21	15	16	3.1	1.8	.96	1.7	0
18	10	9.0	80	29	19	11	8.8	5.0	1.4	1.3	2.6	0
19	10	9.0	68	11	2.8	8.7	7.7	5.9	1.1	.82	1.1	0
20	10	9.0	12	.40	3.5	5.6	5.4	3.3	1.0	1.0	.58	0
21	10	8.5	3.0	.40	1.7	4.2	4.6	7.8	1.2	1.0	.28	0
22	10	8.5	12	.40	1.2	3.2	5.6	4.4	1.6	.79	.99	0
23	10	8.5	25	.40	1.4	2.8	6.1	5.9	4.2	.71	.65	0
24	10	8.6	10	.40	1.2	7.9	5.6	5.7	3.3	1.1	.39	0
25	10	20	8.0	.50	.89	9.9	2.6	5.6	1.6	1.6	.44	0
26	10	8.0	7.0	.98	.65	8.9	2.1	5.2	1.6	1.6	.42	0
27	10	8.0	0	1.2	1.5	8.0	1.7	4.7	2.0	1.7	.24	0
28	10	50	0	1.8	10	5.8	15	4.5	1.8	3.1	.15	0
29	10	7.0	0	1.5	-----	5.1	29	4.0	1.6	1.4	.08	0
30	10	7.0	0	1.4	-----	4.4	24	2.9	1.6	.92	.10	0
31	10	-----	0	1.5	-----	1.8	-----	3.9	-----	1.6	7.9	-----
TOTAL	271.6	347.1	849.0	106.18	92.04	295.08	279.1	158.9	65.5	53.46	56.57	18.6
MEAN	8.76	11.6	27.4	3.43	3.29	9.52	9.30	5.13	2.18	1.72	1.82	.62
MAX	10	50	88	29	21	50	29	10	4.2	4.2	7.9	13
MIN	6.8	7.0	0	0	.65	.34	1.7	1.2	1.0	.71	.08	0

CAL YR 1969 TOTAL 64,897.40 MEAN 178 MAX 13,300 MIN 0 AC-FT 128,700
 WTR YR 1970 TOTAL 2,593.13 MEAN 7.10 MAX 88 MIN 0 AC-FT 5,140

NOTE.--No gage-height record Oct. 1 to Nov. 4, Nov. 10 to Dec. 26.

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 --21 years, 11.6 cfs (8,400 acre-ft per year); median of yearly mean discharges, 1.6 cfs (1,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,040 cfs Mar. 1 (gage height, 5.67 ft); minimum daily, 0.64 cfs Sept. 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 each year.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	3.9	4.2	4.2	3.6	318	7.3	4.2	2.8	1.7	1.3	.89
2	5.0	3.9	4.6	4.2	3.6	131	7.3	3.6	3.0	1.3	1.3	1.0
3	5.0	3.9	4.6	3.9	3.9	34	6.5	3.6	3.0	1.5	1.3	1.0
4	4.6	3.6	3.9	3.9	3.9	152	6.5	3.9	3.3	1.7	1.3	1.2
5	4.6	3.9	4.2	4.2	4.2	84	5.7	3.9	3.3	1.7	1.5	1.2
6	4.2	3.8	3.9	4.2	4.2	31	5.7	3.9	3.0	1.9	1.3	1.0
7	4.2	1.2	4.2	4.2	4.2	20	6.1	3.9	3.0	1.9	1.5	1.0
8	4.6	6.9	4.2	4.6	4.2	17	6.1	3.9	3.6	1.9	1.3	1.0
9	4.6	6.1	4.2	2.8	1.7	15	5.7	3.9	3.3	2.1	1.2	1.0
10	4.2	5.7	4.2	3.9	4.3	13	5.7	3.9	3.0	2.3	1.3	.89
11	4.2	5.3	4.2	1.0	2.0	1.2	5.7	3.9	2.8	1.9	1.5	.89
12	4.2	5.0	3.9	7.8	9.3	1.2	5.3	3.9	2.8	2.3	1.3	.89
13	4.2	4.6	3.9	6.1	7.3	1.1	5.7	3.6	2.6	1.9	1.3	1.0
14	4.2	4.2	3.9	6.1	6.5	1.0	5.7	3.3	2.6	1.9	1.3	1.0
15	4.2	4.2	3.9	5.7	5.7	9.8	5.7	3.0	2.8	1.9	1.2	1.0
16	4.2	4.2	3.9	3.5	5.7	9.3	5.7	3.0	3.0	1.7	1.0	1.0
17	4.2	4.2	3.9	8.8	5.3	9.3	5.7	2.8	2.8	1.7	1.0	1.0
18	4.2	4.2	3.9	6.1	4.6	8.8	5.7	3.0	2.6	1.5	1.2	1.2
19	4.2	4.2	3.9	5.7	4.2	8.8	5.7	3.0	2.3	1.5	1.3	1.2
20	3.9	4.2	3.9	5.7	3.9	8.8	5.3	3.3	2.3	1.7	1.5	1.5
21	4.2	4.2	3.9	5.7	3.9	8.8	5.0	3.3	2.3	1.5	1.7	1.2
22	3.9	4.2	3.9	5.3	4.2	8.3	5.3	3.3	2.3	1.5	1.5	1.2
23	4.2	4.2	3.9	5.0	3.9	8.3	5.0	3.3	2.3	1.7	1.5	.89
24	4.2	4.2	3.9	5.0	4.2	8.3	5.0	3.9	2.1	2.1	1.3	1.0
25	4.6	4.2	3.9	5.0	4.6	8.3	5.0	3.9	1.9	1.9	1.2	1.0
26	4.6	4.2	4.2	5.0	5.0	8.8	5.0	4.2	2.1	1.7	1.0	.76
27	5.0	3.9	4.2	4.6	5.3	8.3	5.0	4.2	2.3	1.5	1.2	.76
28	5.0	4.2	4.2	4.6	2.33	7.8	5.0	4.2	2.3	1.7	1.2	.76
29	4.6	4.2	4.2	4.2	-----	7.8	5.0	3.6	2.1	1.5	1.2	.76
30	4.6	3.9	4.2	4.2	-----	7.8	5.0	3.0	1.9	1.5	1.2	.64
31	3.9	-----	4.2	3.9	-----	7.8	-----	2.8	-----	1.5	1.0	-----
TOTAL	136.1	173.6	126.2	249.9	428.4	1,005.1	169.1	111.2	79.5	54.1	39.9	29.83
MEAN	4.39	5.79	4.07	8.06	15.3	32.4	5.64	3.59	2.65	1.75	1.29	.99
MAX	5.0	3.8	4.6	3.9	2.33	31.8	7.3	4.2	3.6	2.3	1.7	1.5
MIN	3.9	3.6	3.9	3.9	3.6	7.8	5.0	2.8	1.9	1.3	1.0	.64
AC-FT	270	344	250	496	850	1,990	335	221	158	107	79	59

CAL YR 1969 TOTAL 39,946.33 MEAN 109 MAX 10,400 MIN .64 ACFT 79,230
 WAT YR 1970 TOTAL 2,602.93 MEAN 7.13 MAX 318 MIN .64 ACFT 5,160

PEAK DISCHARGE (BASE, 200 CFS).--Mar. 1 (1000) 1,040 cfs (5.67 ft); Mar. 4 (2000) 996 cfs (5.40 ft).

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.--12 years, 6.73 cfs (4,880 acre-ft per year); median of yearly mean discharges, 1.9 cfs (1,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 713 cfs Mar. 1 (gage height, 8.30 ft); minimum daily, 0.20 cfs Sept. 26-28.

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.

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	1.2	1.1	1.1	.88	1.2	153	1.9	1.3	.92	.50	.37	.24
2	1.2	1.0	1.1	.88	1.2	48	1.9	1.2	.92	.49	.34	.25
3	1.2	1.0	1.1	.88	1.2	14	1.8	1.3	.86	.52	.34	.24
4	1.1	1.0	1.1	.88	1.2	45	1.7	1.2	.87	.52	.34	.22
5	1.1	1.1	1.1	.88	1.2	31	1.7	1.2	.86	.50	.34	.23
6	1.1	2.4	1.1	.88	1.1	12	1.7	1.2	.85	.50	.34	.22
7	1.1	1.9	1.1	.88	1.1	9.7	1.7	1.2	.79	.49	.31	.22
8	1.1	1.5	1.1	.88	1.1	8.2	1.6	1.3	.81	.49	.31	.23
9	1.1	1.3	1.1	1.1	1.4	7.3	1.6	1.2	.80	.48	.30	.23
10	1.1	1.3	1.0	2.5	2.6	6.5	1.6	1.2	.79	.48	.30	.22
11	1.1	1.2	1.0	1.6	2.4	5.8	1.6	1.2	.74	.47	.30	.22
12	1.1	1.2	1.0	1.6	1.8	5.3	1.5	1.2	.75	.47	.28	.23
13	1.1	1.2	1.0	1.4	2.0	4.9	1.5	1.1	.75	.46	.28	.24
14	1.1	1.2	1.0	1.4	1.7	4.5	1.5	1.1	.74	.46	.28	.24
15	1.1	1.2	1.0	1.3	1.4	3.9	1.5	1.1	.70	.45	.27	.24
16	1.2	1.2	.94	2.5	1.3	3.7	1.5	1.1	.72	.45	.26	.23
17	1.1	1.2	.94	2.0	1.3	3.5	1.5	1.1	.71	.45	.26	.23
18	1.1	1.1	.94	1.6	1.3	3.3	1.5	1.1	.70	.44	.26	.22
19	1.1	1.1	.94	1.5	1.2	3.1	1.4	1.1	.65	.44	.26	.23
20	1.1	1.1	.94	1.4	1.2	2.9	1.4	1.1	.65	.44	.25	.23
21	1.1	1.1	.94	1.4	1.1	2.7	1.4	1.1	.65	.43	.25	.24
22	1.1	1.1	.94	1.3	1.1	2.6	1.4	1.1	.65	.43	.23	.22
23	1.1	1.1	.94	1.3	1.1	2.5	1.4	1.1	.61	.43	.23	.21
24	1.1	1.1	.94	1.3	1.1	2.3	1.4	1.1	.60	.42	.23	.21
25	1.1	1.1	.94	1.3	1.1	2.2	1.3	1.1	.59	.42	.23	.21
26	1.1	1.1	.94	1.3	1.1	2.2	1.3	1.1	.59	.41	.24	.20
27	1.1	1.1	.94	1.3	1.1	2.1	1.3	1.1	.55	.41	.24	.20
28	1.1	1.0	.94	1.2	.94	2.0	1.3	1.1	.55	.40	.25	.20
29	1.1	1.0	.94	1.2	-----	2.0	1.3	1.1	.55	.39	.25	.21
30	1.1	1.0	.94	1.2	-----	2.0	1.3	.97	.54	.38	.24	.21
31	1.1	-----	.94	1.2	-----	2.0	-----	.96	-----	.38	.24	-----
TOTAL	34.5	36.0	30.94	40.94	130.6	400.2	45.5	35.33	21.46	14.00	8.62	6.72
MEAN	1.11	1.20	1.00	1.32	4.66	12.9	1.52	1.14	.72	.45	.28	.22
MAX	1.2	2.4	1.1	2.5	.94	153	1.9	1.3	.92	.52	.37	.25
MIN	1.1	1.0	.94	.88	1.1	2.0	1.3	.96	.54	.38	.23	.20

CAL YR 1969 TOTAL 14,405.82 MEAN 39.5 MAX 2,500 MIN .45 AC-FT 28,570
 WTR YR 1970 TOTAL 804.81 MEAN 2.21 MAX 153 MIN .20 AC-FT 1,600

PEAK DISCHARGE (BASE, 150 CFS).--Mar. 1 (0245) 713 cfs (8.30 ft); Mar. 4 (1945) 279 cfs (7.52 ft).

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. Prior to Aug. 17, 1970, on downstream end of right abutment.

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.--12 years, 5.67 cfs (4,110 acre-ft per year); median of yearly mean discharges, 1.4 cfs (1,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 370 cfs Mar. 1 (gage height, 7.12 ft); no flow July 3 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.

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	.10	.40	.60	.70	1.5	154	1.1	.72	.24	.05	0	0
2	.10	.40	.60	.60	1.4	49	1.1	.72	.20	.02	0	0
3	.10	.40	.60	.60	1.4	11	1.1	.70	.20	0	0	0
4	.10	.40	.60	.60	1.4	43	1.1	.68	.20	0	0	0
5	.10	.40	.60	.60	1.2	33	1.1	.66	.14	0	0	0
6	.10	3.3	.60	.60	1.2	11	1.0	.64	.11	0	0	0
7	.10	1.8	.60	.60	1.1	11	.92	.62	.11	0	0	0
8	.10	1.0	.60	.60	1.1	11	.92	.60	.11	0	0	0
9	.10	.80	.60	2.1	1.6	11	.92	.57	.11	0	0	0
10	.10	.70	.60	3.8	4.0	11	.92	.54	.11	0	0	0
11	.10	.60	.60	1.8	3.8	10	.82	.51	.08	0	0	0
12	.10	.60	.60	1.6	2.0	10	.82	.48	.08	0	0	0
13	.10	.60	.60	1.5	1.6	10	.82	.45	.08	0	0	0
14	.10	.60	.60	1.6	1.4	10	.82	.42	.08	0	0	0
15	.20	.60	.60	1.8	1.5	7.7	.82	.39	.08	0	0	0
16	.20	.60	.60	4.0	1.6	5.1	.82	.36	.08	0	0	0
17	.20	.60	.60	3.5	1.6	4.5	.82	.34	.08	0	0	0
18	.20	.60	.60	2.5	1.4	4.0	.82	.32	.08	0	0	0
19	.20	.60	.60	2.1	1.1	3.6	.82	.30	.08	0	0	0
20	.40	.60	.60	2.0	.80	3.1	.73	.28	.08	0	0	0
21	.40	.60	.60	1.8	.65	2.7	.73	.26	.08	0	0	0
22	.40	.60	.60	1.8	.65	2.2	.73	.24	.08	0	0	0
23	.40	.60	.60	1.6	.65	1.8	.73	.22	.08	0	0	0
24	.50	.60	.60	1.6	.65	1.6	.73	.20	.08	0	0	0
25	.50	.60	.60	1.6	.65	1.4	.73	.19	.08	0	0	0
26	.50	.60	.60	1.5	.65	1.2	.73	.18	.08	0	0	0
27	.50	.60	.60	1.5	.57	1.2	.76	.17	.07	0	0	0
28	.50	.60	.60	1.5	56	1.2	.76	.14	.07	0	0	0
29	.40	.60	.60	1.5	-----	1.2	.74	.14	.07	0	0	0
30	.40	.60	.60	1.5	-----	1.2	.74	.14	.05	0	0	0
31	.40	-----	.70	1.6	-----	1.1	-----	.24	-----	0	-----	0
TOTAL	7.70	21.60	18.70	50.70	93.17	429.8	25.67	12.42	3.07	0.07	0	0
MEAN	.25	.72	.60	1.64	3.33	13.9	.86	.40	.10	.002	0	0
MAX	.50	3.3	.70	4.0	56	154	1.1	.72	.24	.05	0	0
MIN	.10	.40	.60	.60	.57	1.1	.73	.14	.05	0	0	0

CAL YR 1969 TOTAL 10,929.70 MEAN 29.9 MAX 1,900 MIN .10 AC-FT 21,680
 WTR YR 1970 TOTAL 662.90 MEAN 1.82 MAX 154 MIN 0 AC-FT 1,310

PEAK DISCHARGE (BASE, 150 CFS).--Mar. 1 (0445) 370 cfs (7.12 ft); Mar. 4 (1915) 242 cfs (6.69 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, 56 cfs Mar. 4 (gage height, 6.85 ft); no flow Sept. 23-30.

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 fair. Flow mostly regulated since October 1959 by Casitas Reservoir (capacity, 267,000 acre-ft).

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	.14	.14	.18	.20	.16	9.3	.45	.36	.11	.09	.04	.03
2	.14	.14	.18	.21	.16	7.0	.44	.35	.10	.09	.04	.03
3	.14	.14	.18	.21	.16	3.3	.43	.29	.10	.10	.04	.04
4	.14	.14	.18	.23	.16	12	.41	.17	.09	.09	.04	.05
5	.14	.18	.18	.23	.16	5.2	.41	.16	.09	.09	.04	.06
6	.14	.48	.18	.23	.16	2.9	.42	.14	.09	.08	.04	.05
7	.14	.70	.18	.27	.16	2.4	.43	.14	.09	.08	.04	.02
8	.14	.66	.18	.27	.16	2.2	.43	.15	.09	.08	.03	.02
9	.14	.60	.18	.34	.17	2.1	.42	.16	.09	.09	.03	.05
10	.14	.50	.18	.30	.20	2.6	.42	.18	.09	.10	.03	.05
11	.14	.48	.18	.25	.05	3.0	.39	.04	.09	.09	.03	.06
12	.14	.41	.18	.20	.05	2.7	.39	.05	.09	.09	.03	.06
13	.14	.38	.18	.21	.05	2.4	.37	.06	.09	.48	.03	.07
14	.14	.35	.18	.21	.05	2.1	.37	.06	.09	.52	.03	.06
15	.14	.33	.18	.21	.05	1.9	.39	.06	.09	.05	.03	.06
16	.14	.31	.16	.29	.05	1.8	.41	.06	.09	.05	.03	.06
17	.14	.27	.16	.07	.05	1.6	.41	.08	.09	.06	.03	.04
18	.14	.25	.16	.01	.05	1.5	.40	.10	.09	.07	.03	.05
19	.14	.23	.16	.13	.06	1.5	.39	.11	.09	.09	.03	.05
20	.14	.21	.16	.23	.07	.95	.40	.17	.09	.12	.03	.05
21	.14	.20	.16	.23	.07	.78	.39	.20	.09	.11	.03	.04
22	.14	.20	.16	.21	.08	.72	.40	.23	.09	.07	.03	.03
23	.14	.20	.16	.20	.09	.66	.40	.22	.09	.07	.03	0
24	.14	.20	.16	.20	.10	.57	.39	.21	.09	.06	.03	0
25	.14	.20	.16	.20	.10	.55	.39	.20	.09	.07	.03	0
26	.14	.20	.16	.23	.15	.57	.38	.21	.09	.07	.03	0
27	.14	.20	.16	.16	.56	.51	.40	.19	.09	.07	.03	0
28	.14	.20	.16	.16	5.8	.52	.37	.21	.09	.08	.03	0
29	.14	.20	.16	.16	-----	.53	.34	.22	.09	.06	.02	0
30	.14	.20	.16	.16	-----	.53	.37	.17	.09	.05	.02	0
31	.14	-----	.16	.16	-----	.47	-----	.12	-----	.04	.02	-----
TOTAL	4.34	8.90	5.26	6.37	9.13	74.86	12.01	5.07	2.74	3.26	0.97	1.03
MEAN	.14	.30	.17	.21	.33	2.41	.40	.16	.091	.11	.031	.034
MAX	.14	.70	.18	.34	5.8	12	.45	.36	.11	.52	.04	.07
MIN	.14	.14	.16	.01	.05	.47	.34	.04	.09	.04	.02	0
AC-FT	8.6	18	10	13	18	148	24	10	5.4	6.5	1.9	2.0
CAL YR 1969	TOTAL	-	MEAN	-	MAX	-	MIN	-	AC-FT	-		
WTR YR 1970	TOTAL	133.94	MEAN	.37	MAX	12	MIN	0	AC-FT	266		

NOTE.--No gage-height record Oct. 1 to Nov. 6.

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).--43 years (1911-13, 1929-70), 58.5 cfs (42,380 acre-ft per year); median of yearly mean discharges, 22 cfs (15,900 acre-ft per year).

(Combined river and diversion).--38 years, 68.4 cfs (49,560 acre-ft per year); median of yearly mean discharges, 25 cfs (18,100 acre-ft per year).

EXTREMES (River only).--Current year: Maximum discharge, 1,930 cfs Mar. 4 (gage height, 8.45 ft); minimum daily, 0.02 cfs Sept. 16-30.

Period of record: Maximum discharge, 58,000 cfs Jan. 25, 1969 (gage height, 24.3 ft, 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, 1,940 cfs Mar. 4; minimum daily, 5.5 cfs Aug. 31.

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 suspended-sediment loads for the water year 1970 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.

COOPERATION.--Three discharge measurements furnished by Ventura County Flood Control District.

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	3.1	6.0	10	1.9	9.8	681	17	17	3.9	.63	.03	.03
2	3.1	5.0	10	1.9	9.7	314	16	14	3.8	7.0	.24	.03
3	3.2	4.2	11	2.2	9.9	40	14	13	4.7	4.0	.20	.03
4	2.9	.83	11	2.4	9.9	399	18	6.8	5.5	3.0	.14	.03
5	2.7	1.3	12	2.6	10	173	19	2.5	6.8	2.0	.42	.03
6	3.4	47	12	3.0	13	39	19	2.7	7.8	1.2	.78	.03
7	3.7	28	12	2.9	18	26	19	5.2	8.9	5.1	.86	.03
8	4.2	7.7	13	2.5	17	21	15	5.9	9.5	2.0	.90	.03
9	4.5	7.2	13	12	24	21	7.6	6.2	9.7	1.5	.91	.03
10	4.4	6.7	13	72	36	24	2.3	8.3	8.7	1.0	.82	.03
11	3.9	5.3	13	23	25	21	5.3	7.5	7.4	4.5	.97	.03
12	4.6	2.9	12	15	14	20	10	6.5	1.1	7.1	1.1	.03
13	5.5	1.3	12	7.4	13	19	6.4	7.7	2.5	5.0	1.2	.03
14	6.8	3.1	11	8.3	9.4	21	1.5	7.5	9.8	2.9	1.2	.03
15	7.7	4.4	11	8.6	7.4	18	1.6	7.8	13	4.2	5.8	.03
16	8.6	5.2	14	27	10	16	10	8.1	8.8	4.2	6.3	.02
17	4.6	4.1	30	16	11	17	16	9.2	3.7	3.5	6.4	.02
18	1.1	3.0	56	14	11	18	13	8.2	5.9	2.5	6.3	.02
19	1.9	1.5	52	15	11	19	11	7.7	2.5	3.2	5.3	.02
20	2.1	2.8	26	14	11	20	12	9.2	4.5	2.5	2.4	.02
21	2.5	4.7	13	14	10	21	12	9.2	7.7	2.0	1.1	.02
22	3.1	6.0	11	11	8.7	21	11	8.7	7.0	1.8	.84	.02
23	3.7	7.1	18	8.6	13	22	11	8.4	3.8	1.6	.19	.02
24	4.2	7.0	13	8.8	12	21	10	9.4	2.2	1.5	.23	.02
25	4.4	6.2	11	8.8	9.1	16	11	10	1.6	1.4	.89	.02
26	4.2	4.9	10	9.0	7.0	18	11	9.4	3.8	1.4	2.0	.02
27	4.4	6.9	10	9.3	6.3	16	13	8.9	6.9	1.4	.03	.02
28	4.4	8.6	9.5	9.5	436	18	12	8.9	4.4	1.2	.03	.02
29	4.6	9.9	9.1	9.5	-----	21	19	11	2.0	.74	.03	.02
30	5.0	9.9	9.0	9.4	-----	20	19	20	.36	.69	.03	.02
31	7.2	-----	5.2	9.6	-----	17	-----	14	-----	.19	.03	-----
TOTAL	129.7	218.73	472.8	359.2	782.2	2,138	362.7	278.9	168.26	80.95	47.57	0.75
MEAN	4.18	7.29	15.3	11.6	27.9	69.0	12.1	9.00	5.61	2.61	1.53	.025
MAX	8.6	47	56	72	436	681	19	20	13	7.1	6.4	.03
MIN	1.1	.83	5.2	1.9	6.3	16	1.5	2.5	.36	.19	.03	.02

CAL YR 1969 TOTAL 126,908.23 MEAN 348 MAX 20,000 MIN .83 AC-FT 251,700

WTR YR 1970 TOTAL 5,039.76 MEAN 13.8 MAX 681 MIN .02 AC-FT 10,000

PEAK DISCHARGE (BASE, 500 CFS).--Mar. 1 (1100) 1,570 cfs (8.04 ft); Mar. 4 (2000) 1,930 cfs (8.45 ft).

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	13	16	23	18	682	24	25	16	11	10	7.2
2	14	12	16	22	18	316	23	21	15	17	11	11
3	14	11	16	21	18	43	22	18	16	17	11	9.3
4	14	7.4	16	21	18	404	24	16	16	15	11	7.1
5	14	7.9	17	21	18	180	23	16	18	15	11	7.2
6	14	54	17	20	18	46	22	16	18	12	12	9.1
7	14	35	17	20	19	30	23	16	18	13	12	11
8	14	14	18	20	18	28	21	16	19	13	12	9.6
9	14	14	18	25	29	32	19	16	19	16	12	8.3
10	14	13	18	75	43	34	20	17	18	13	12	8.4
11	14	12	19	26	28	30	18	17	17	12	12	8.4
12	14	9.7	18	26	15	28	24	16	13	14	12	8.8
13	14	7.9	18	22	14	27	27	17	14	14	12	9.0
14	15	9.7	18	21	13	28	26	17	17	13	13	8.8
15	15	11	18	21	14	26	26	16	18	15	20	8.8
16	15	12	22	42	15	25	22	17	16	15	18	9.2
17	11	11	38	28	16	25	29	17	13	16	17	11
18	7.7	9.6	66	23	15	26	25	17	15	14	17	9.8
19	8.5	8.7	62	22	15	27	22	19	12	14	15	6.7
20	8.7	10	36	20	15	27	22	18	13	14	11	8.1
21	9.1	12	22	20	15	28	22	18	14	12	8.5	9.7
22	9.7	14	20	19	14	28	20	17	14	12	9.9	11
23	10	15	28	20	16	28	20	17	13	11	13	10
24	11	15	23	20	16	28	19	18	12	14	12	10
25	11	18	21	20	14	25	20	19	11	11	7.5	9.9
26	11	15	20	19	13	28	20	18	12	11	12	9.6
27	11	19	19	19	13	25	21	18	12	11	12	9.3
28	11	16	19	19	439	26	21	18	11	11	10	9.0
29	11	16	19	19	-----	27	28	20	12	11	8.6	8.8
30	12	15	19	19	-----	26	28	27	11	15	7.5	8.6
31	14	-----	21	19	-----	24	-----	23	-----	10	5.5	-----
TOTAL	383.7	437.9	715	732	917	2,357	681	561	443	412	367.5	272.7
MEAN	12.4	14.6	23.1	23.6	32.8	76.0	22.7	18.1	14.8	13.3	11.9	9.09
MAX	15	54	66	75	439	682	29	27	19	17	20	11
MIN	7.7	7.4	16	19	13	24	18	16	11	10	5.5	6.7
AC-FT	761	869	1,420	1,450	1,820	4,680	1,350	1,110	879	817	729	541

CAL YR 1969 TOTAL 129,451.7 MEAN 355 MAX 20,000 MIN 4.1 ACFT 256,800
WAT YR 1970 TOTAL 8,279.8 MEAN 22.7 MAX 682 MIN 5.5 ACFT 16,420

PEAK DISCHARGE (BASE, 500 CFS).--Mar. 1 (1100) 1,570 cfs; Mar. 4 (2000) 1,940 cfs.

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. Prior to Aug. 27, 1970, at site 35 ft upstream.

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.--29 years, 2.93 cfs (2,120 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 700 cfs Mar. 1 (gage height, 5.07 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 fair. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	.33	.15	.42	.55	117	.01	0	0	0	0	0
2	.55	.36	.33	.47	.48	15	.05	0	0	0	0	0
3	.54	.38	.23	.49	.52	9.0	.08	0	0	0	0	0
4	.53	.34	.27	.45	.57	28	0	0	0	0	0	0
5	.52	.42	.33	.45	.53	18	.03	0	0	0	0	0
6	.51	8.6	.34	.45	.58	9.5	0	0	0	0	0	0
7	.50	3.5	.36	.47	.44	8.5	0	0	0	0	0	0
8	.49	1.6	.50	4.4	.39	6.9	.19	0	0	0	0	0
9	.48	1.1	.64	.89	2.6	6.0	.08	0	0	0	0	0
10	.47	.96	.47	.95	2.5	5.1	0	0	0	0	0	0
11	.46	.78	.43	.85	1.7	3.3	0	0	0	0	0	0
12	.45	.64	.40	.71	.92	2.2	0	0	0	0	0	0
13	.43	.71	.38	.74	.89	1.1	0	0	0	0	0	0
14	.41	.70	.36	2.5	.79	.40	.01	0	0	0	0	0
15	.40	.74	.37	7.0	.67	.19	0	0	0	0	0	0
16	.42	.74	.41	4.3	.62	.19	0	0	0	0	0	0
17	.44	.63	.43	3.6	.90	.13	.04	0	0	0	0	0
18	.46	.44	.45	3.3	3.3	.13	0	0	0	0	0	0
19	.48	.42	.45	3.1	4.0	.11	0	0	0	0	0	0
20	.50	.42	.46	2.4	4.2	.11	0	0	0	0	0	0
21	.52	.41	.46	.48	.37	.09	0	0	0	0	0	0
22	.55	.42	.45	.75	.68	.09	0	0	0	0	0	0
23	.58	.39	.45	.60	.78	.07	0	0	0	0	0	0
24	.60	.34	.45	.61	.32	.07	0	0	0	0	0	0
25	.62	.31	.46	.50	.18	.05	0	.49	0	0	0	0
26	.59	.26	.43	.40	.35	.34	0	1.4	0	0	0	0
27	.58	.21	.46	.39	.48	.38	0	.60	0	0	0	0
28	.59	.20	.43	.38	45	.09	0	0	0	0	0	0
29	.54	.21	.42	.35	-----	.19	0	0	0	0	0	0
30	.42	.18	.42	.42	-----	.42	0	0	0	0	0	0
31	.35	-----	.44	.61	-----	.17	-----	0	-----	0	-----	-----
TOTAL	15.98	26.74	12.63	43.43	75.31	232.82	0.49	2.49	0	0	0	0
MEAN	.50	.89	.41	1.40	2.69	7.51	.016	.080	0	0	0	0
MAX	.62	8.6	.64	7.0	.45	117	.19	1.4	0	0	0	0
MIN	.35	.18	.15	.35	.18	.05	0	0	0	0	0	0
AC-FT	31	53	25	86	149	462	1.0	4.9	0	0	0	0

CAL YR 1969 TOTAL 12,293.45 MEAN 33.7 MAX 2,270 MIN 0 AC-FT 24,380
 1970 TOTAL 409.49 MEAN 1.12 MAX 117 MIN 0 AC-FT 812

PEAK DISCHARGE (BASE, 25 CFS).--Mar. 1 (0115) 700 cfs (5.07 ft); Mar. 4 (1800) 155 cfs (3.37 ft).

ATASCADERO CREEK BASIN

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.--18.8 sq mi.

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.--29 years, 3.93 cfs (2,850 acre-ft per year); median of yearly mean discharges, 1.4 cfs (1,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 956 cfs Mar. 4 (gage height, 9.39 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 fair. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.09	.06	.03	.12	258	.12	0	.09	.02	.04	.01
2	.03	.16	.06	.03	.12	35	.77	0	.26	.02	.04	0
3	.03	.06	.03	.03	.12	6.6	.20	0	.09	.02	.07	0
4	.01	.05	.03	.03	.12	141	.23	.01	.06	.02	.12	0
5	0	.09	.03	.03	.12	35	.13	0	.02	.02	.17	.02
6	0	64	.03	.03	.12	6.5	.10	.01	.02	.02	.10	.02
7	0	5.9	.03	.03	.12	1.5	.16	.01	.02	.02	.05	.02
8	0	1.0	.20	.03	.12	.35	.20	0	.02	.02	0	.02
9	0	.39	.60	43	14	.15	.12	0	.02	.02	0	.03
10	.01	.16	.16	13	12	.04	.08	0	.02	.01	.02	.07
11	.01	.09	.09	3.4	10	.02	.04	0	.02	.02	.08	.06
12	0	.06	.06	2.8	1.2	0	.04	0	.02	.03	.05	.03
13	0	.06	.03	.30	.80	0	.02	0	.02	.13	.08	.04
14	0	.06	.03	.20	.80	0	.03	0	.02	.14	.11	.04
15	0	.06	.03	1.9	.30	0	.07	0	.02	0	.10	.04
16	.06	.06	.03	36	.20	0	.03	0	.02	0	.04	.03
17	.28	.03	.03	2.8	.20	0	.03	0	.02	0	.06	.02
18	.12	.03	.03	.45	.20	0	.04	0	.02	0	.09	.02
19	.09	.01	.03	.12	.12	0	.01	.05	.02	0	.23	.02
20	.03	.01	.06	.12	.12	.02	.01	0	.02	0	.32	.01
21	.01	.01	.06	.12	.12	0	0	0	.02	0	.01	.01
22	.01	.01	.06	.12	.12	0	.03	0	.02	0	.01	.02
23	.12	.01	.06	.12	.12	.11	.01	0	.02	0	.01	.02
24	.03	.01	.06	.33	.12	.11	.07	.01	.02	0	.01	.02
25	.03	.03	.06	.24	.20	.11	.03	.03	.02	0	.07	.04
26	.06	.06	.03	.12	.20	.18	.01	.05	.02	0	.05	.14
27	.06	.06	.03	.09	.20	.29	0	.09	.02	0	.04	.06
28	.06	.06	.03	.06	134	.25	.01	.07	.02	0	.04	.05
29	.06	.06	.03	.06	-----	.16	0	.10	.02	.01	.03	.05
30	.03	.06	.03	.12	-----	.14	.01	.10	.02	.03	.02	.07
31	.03	-----	.03	.20	-----	.13	-----	.11	-----	.07	.01	-----
TOTAL	1.18	72.75	2.13	105.91	175.98	485.66	2.10	0.64	1.02	0.62	2.07	0.98
MEAN	.038	2.43	.069	3.42	6.29	15.7	.070	.021	.034	.020	.067	.033
MAX	.28	64	.60	43	134	258	.27	.11	.26	.14	.32	.14
MIN	0	.01	.03	.03	.12	0	0	0	.02	0	0	0
AC-FT	2.3	144	4.2	210	349	963	4.2	1.3	2.0	1.2	4.1	1.9

CAL YR 1969	TOTAL	10,632.39	MEAN	29.1	MAX	2,410	MIN	0	AC-FT	21,090
WTR YR 1970	TOTAL	851.04	MEAN	2.33	MAX	258	MIN	0	AC-FT	1,690

PEAK DISCHARGE (BASE, 70 CFS)						
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.
11- 6	0130	6.65	150	3- 1	0830	9.05
1- 9	2200	6.78	171	3- 4	1715	9.39

NOTE.--No gage height record June 3 to July 7.

DISCHARGE	820	956
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SAN JOSE CREEK BASIN

257

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.--29 years, 1.86 cfs (1,350 acre-ft per year); median of yearly mean discharges, 0.8 cfs (580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 340 cfs Feb. 28 (gage height, 4.12 ft); no flow Aug. 3, 4, 13-19. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.29	.45	.90	.55	106	.54	.16	.25	.17	.02	.07
2	.32	.29	.43	.90	.58	38	.54	.16	.25	.17	.01	.07
3	.23	.30	.38	.90	.68	10	.54	.13	.25	.17	0	.06
4	.21	.35	.34	.90	.73	25	.54	.20	.24	.17	0	.06
5	.18	.39	.47	.98	.73	14	.48	.20	.24	.17	.03	.05
6	.19	4.5	.48	1.0	.73	3.9	.48	.12	.23	.17	.06	.05
7	.15	1.5	.42	1.0	.75	3.2	.48	.12	.23	.17	.05	.05
8	.09	.71	.58	1.0	.73	2.2	.48	.20	.23	.15	.01	.05
9	.09	.64	.56	6.8	1.9	1.7	.48	.22	.22	.17	.02	.05
10	.08	.57	.54	11	3.0	1.4	.45	.18	.22	.19	.02	.05
11	.10	.45	.48	2.4	3.3	1.3	.37	.19	.22	.19	.01	.05
12	.08	.44	.48	1.8	2.2	1.2	.35	.16	.22	.21	.01	.05
13	.09	.42	.48	1.2	2.0	.95	.32	.17	.21	.20	0	.05
14	.13	.42	.48	.80	1.5	.81	.18	.17	.21	.20	0	.05
15	.14	.46	.48	.82	1.3	.77	.14	.12	.21	.21	0	.05
16	.16	.50	.42	5.3	1.3	.73	.40	.04	.20	.17	0	.05
17	.15	.40	.42	3.2	1.3	.73	.41	.02	.20	.14	0	.05
18	.14	.42	.41	1.3	1.3	.73	.35	.08	.20	.06	0	.05
19	.14	.42	.37	.83	1.3	.66	.33	.09	.19	.06	0	.05
20	.16	.42	.34	.63	1.3	.66	.34	.06	.19	.05	.04	.05
21	.19	.42	.40	.55	1.4	.66	.35	.09	.19	.06	.04	.05
22	.19	.42	.42	.54	1.4	.66	.17	.11	.19	.08	.06	.05
23	.27	.44	.42	.60	1.4	.66	.32	.17	.19	.06	.09	.03
24	.28	.42	.48	.57	1.5	.65	.29	.24	.18	.06	.07	.02
25	.32	.42	.67	.54	1.6	.60	.22	.27	.18	.06	.06	.02
26	.32	.42	.73	.54	1.9	.63	.21	.29	.18	.06	.04	.02
27	.32	.42	.73	.54	2.1	.63	.26	.28	.18	.05	.05	.02
28	.34	.37	.80	.54	85	.60	.23	.28	.18	.06	.06	.02
29	.37	.37	.81	.54	-----	.60	.17	.27	.18	.06	.06	.01
30	.35	.40	.86	.50	-----	.54	.17	.26	.18	.04	.06	.01
31	.30	-----	.90	.48	-----	.54	-----	.26	-----	.04	.08	-----
TOTAL	6.38	17.99	16.23	49.60	123.48	220.71	10.59	5.31	6.24	3.82	0.95	1.31
MEAN	.21	.60	.52	1.60	4.41	7.12	.35	.17	.21	.12	.031	.044
MAX	.37	4.5	.90	11	85	106	.54	.29	.25	.21	.09	.07
MIN	.08	.29	.34	.48	.55	.54	.14	.02	.18	.04	0	.01
AC-FT.	13	36	32	98	245	438	21	11	12	7.6	1.9	2.6

CAL YR 1969 TOTAL 2,311.87 MEAN 6.33 MAX 400 MIN .08 AC-FT 4,590
 WTR YR 1970 TOTAL 462.61 MEAN 1.27 MAX 106 MIN 0 AC-FT 918

PEAK DISCHARGE (BASE, 100 CFS).--Feb. 28 (1245) 340 cfs (4.12 ft); Mar. 4 (1900) 219 cfs (3.57 ft).

NOTE.--No gage-height record May 27 to July 6.

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).

EXTREMES.--Current year: Maximum discharge, 161 cfs Mar. 4 (gage height, 3.68 ft); minimum daily, 0.02 cfs Sept. 26-30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	.53	.54	.62	.84	6.2	1.0	.64	.39	.16	.07	.05
2	.74	.49	.47	.61	.84	5.3	.97	.59	.36	.17	.06	.05
3	.75	.57	.44	.64	.85	1.9	1.0	.55	.32	.13	.06	.06
4	.72	.60	.42	.65	.90	23	.94	.59	.35	.11	.05	.07
5	.59	.46	.49	.65	.95	6.3	.90	.61	.37	.11	.05	.06
6	.57	3.2	.49	.65	.94	2.3	.91	.60	.36	.10	.05	.04
7	.56	.51	.50	.65	.96	1.7	.92	.59	.33	.11	.04	.04
8	.63	.57	.72	.67	.96	1.6	.90	.58	.33	.11	.04	.05
9	.73	.58	.67	12	1.4	1.5	.87	.58	.36	.12	.05	.07
10	.74	.57	.57	2.9	3.1	1.5	.85	.55	.32	.11	.05	.06
11	.83	.53	.57	1.6	2.4	1.3	.71	.46	.30	.11	.04	.05
12	.71	.49	.57	1.6	1.3	1.3	.70	.47	.30	.11	.05	.06
13	.75	.50	.57	1.5	1.6	1.2	.71	.46	.31	.11	.05	.07
14	.79	.56	.58	1.4	1.3	1.2	.75	.44	.30	.09	.05	.05
15	.77	.57	.61	1.6	1.2	1.3	.75	.40	.28	.08	.05	.05
16	.96	.56	.57	5.4	1.1	1.2	.75	.36	.28	.05	.04	.04
17	.91	.53	.57	1.8	1.1	1.2	.75	.36	.29	.05	.05	.04
18	.75	.49	.57	1.3	1.1	1.1	.73	.38	.29	.05	.04	.05
19	.74	.51	.60	1.1	1.1	1.1	.73	.38	.27	.05	.05	.05
20	.70	.54	.65	1.1	1.1	1.1	.71	.38	.26	.06	.05	.04
21	.65	.52	.69	1.1	1.1	1.1	.74	.39	.23	.04	.05	.04
22	.70	.57	.62	1.1	1.1	1.1	.72	.39	.27	.04	.05	.03
23	.77	.55	.57	.87	1.1	1.1	.69	.42	.29	.04	.06	.03
24	.85	.53	.57	1.2	1.1	1.2	.67	.46	.28	.09	.05	.03
25	.74	.52	.62	.91	1.2	1.2	.65	.47	.23	.12	.04	.04
26	.71	.50	.57	.85	1.2	1.2	.65	.49	.22	.14	.04	.03
27	.66	.50	.58	.85	1.2	1.2	.66	.49	.21	.10	.05	.02
28	.59	.49	.57	.85	14	1.1	.65	.43	.19	.08	.06	.02
29	.62	.49	.57	.85	-----	1.1	.64	.39	.18	.08	.07	.02
30	.57	.49	.57	.85	-----	1.1	.67	.38	.16	.06	.06	.02
31	.54	-----	.57	.85	-----	1.1	-----	.40	-----	.05	.04	-----
TOTAL	22.06	18.52	17.67	48.72	47.04	75.8	23.29	14.68	8.63	2.83	1.56	1.33
MEAN	.71	.62	.57	1.57	1.68	2.45	.78	.47	.29	.091	.050	.044
MAX	.96	3.2	.72	12	14	23	1.0	.64	.39	.17	.07	.07
MIN	.54	.46	.42	.61	.84	1.1	.64	.36	.16	.04	.04	.02
AC-FT	44	37	35	97	93	150	46	29	17	5.6	3.1	2.6

CAL YR 1969 TOTAL 5,400.30 MEAN 14.8 MAX 889 MIN .20 AC-FT 10,710
 WTR YR 1970 TOTAL 282.13 MEAN .77 MAX 23 MIN .02 AC-FT 560

PEAK DISCHARGE (BASE, 100 CFS).--Mar. 4 (1745) 161 cfs (3.68 ft).

JALAMA CREEK BASIN

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.--5 years, 3.43 cfs (2,490 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 184 cfs Mar. 4 (gage height, 4.55 ft); no flow many days.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.26	.18	.37	.64	11	.60	.26	.16	.01	0	0
2	.03	.26	.18	.37	.60	6.4	.60	.28	.11	0	0	0
3	.05	.37	.20	.37	.60	2.3	.58	.25	.08	0	0	0
4	.08	.44	.26	.37	.65	22	.56	.21	.08	0	0	0
5	.06	.78	.31	.37	.63	12	.51	.21	.07	0	0	0
6	.04	2.0	.31	.37	.64	3.2	.50	.21	.10	0	0	0
7	.05	1.1	.26	.37	.63	2.0	.47	.21	.11	0	0	0
8	.05	.97	.37	.37	.61	1.7	.50	.26	.09	0	0	0
9	.15	.82	.52	7.4	.59	1.4	.52	.33	.11	0	0	0
10	.16	.68	.37	5.0	.75	1.3	.50	.31	.14	.01	0	0
11	.16	.57	.31	1.2	1.4	1.2	.44	.34	.23	.03	0	0
12	.12	.52	.37	1.0	.82	1.1	.46	.33	.09	.04	0	0
13	.15	.52	.44	.88	.82	1.1	.39	.42	.09	.06	0	0
14	.21	.52	.44	.78	.79	.98	.43	.21	.10	.08	0	0
15	.39	.60	.44	.88	.62	.95	.47	.09	.14	.08	0	0
16	.49	.60	.37	2.2	.60	.94	.52	.06	.20	.05	0	0
17	.26	.57	.37	1.0	.59	.90	.50	.03	.25	0	0	0
18	.21	.52	.44	.88	.52	.82	.45	.04	.25	0	0	0
19	.21	.52	.52	.78	.50	.82	.44	.04	.19	0	0	0
20	.17	.59	.68	.78	.51	.86	.42	.05	.22	0	0	0
21	.17	.52	.68	.68	.52	.71	.43	.06	.17	0	0	0
22	.17	.50	.60	.60	.52	.69	.43	.07	.22	0	0	0
23	.21	.50	.44	.60	.50	.75	.39	.09	.16	0	0	0
24	.26	.44	.44	.78	.46	.75	.35	.12	.01	.01	0	0
25	.31	.40	.60	.68	.44	.80	.29	.22	.01	.08	0	0
26	.37	.35	.60	.60	.44	.84	.29	.25	.01	.13	0	0
27	.31	.35	.44	.60	.51	.83	.30	.25	.02	.15	0	0
28	.31	.34	.44	.56	13	.73	.35	.21	.05	.14	0	0
29	.31	.29	.37	.52	-----	.76	.34	.18	.04	.15	0	0
30	.26	.23	.37	.57	-----	.75	.28	.15	.04	.15	0	0
31	.26	-----	.37	.60	-----	.66	-----	.15	-----	.05	0	-----
TOTAL	6.02	17.13	12.69	32.53	29.90	81.24	13.31	5.89	3.54	1.22	0	0
MEAN	.19	.57	.41	1.05	1.07	2.62	.44	.19	.12	.039	0	0
MAX	.49	2.0	.68	7.4	13	22	.60	.42	.25	.15	0	0
MIN	.03	.23	.18	.37	.44	.66	.28	.03	.01	0	0	0
AC-FT	12	34	25	65	59	161	26	12	7.0	2.4	0	0

CAL-YR 1969 TOTAL 3,033.57 MEAN 8.31 MAX 395 MIN .02 AC-FT 6,020
 WTR YR 1970 TOTAL 203.47 MEAN .56 MAX 22 MIN 0 AC-FT 404

PEAK DISCHARGE (BASE, 150 CFS).--Mar. 4 (1815) 184 cfs (4.55 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 $\frac{1}{4}$ 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.--13.8 sq mi (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.--39 years (1931-70), 6.46 cfs (4,680 acre-ft per year); median of yearly mean discharges, 2.1 cfs (1,500 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 1969 TO SEPTEMBER 1970

Date	Gage height (feet) ^a	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.....	2,218.10	5,806	-	-	-	-	-	-	-
Oct. 31.....	2,216.21	5,560	-246	245	0	25	24	0	24
Nov. 30.....	2,215.59	5,480	-80	152	0	10	82	31	51
Dec. 31.....	2,214.60	5,355	-125	177	0	6	58	2	56
CAL YR 1969.....	-	-	+1,248	2,500	30,424	364	34,536	937	33,599
Jan. 31.....	2,214.87	5,389	+34	108	0	6	148	42	106
Feb. 28.....	2,216.40	5,584	+195	136	0	12	343	39	304
Mar. 31.....	2,223.93	6,611	+1,027	100	46	27	1,200	79	1,121
Apr. 30.....	2,222.82	6,452	-159	230	73	42	186	0	186
May 31.....	2,220.65	6,149	-303	317	0	52	66	0	66
June 30.....	2,218.45	5,853	-296	264	0	56	24	0	24
July 31.....	2,215.62	5,484	-369	289	0	67	-13	0	-13
Aug. 31.....	2,212.65	5,125	-359	281	0	66	-12	0	-12
Sept. 30.....	2,209.83	4,772	-353	284	0	46	-23	0	-23
WTR YR 1970.....	-	-	-1,034	2,583	119	415	2,083	193	1,890

^a 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 (unnotched 12-inch flashboards placed on spillway April 3). 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 1969 TO SEPTEMBER 1970

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (acre- feet)	Draft (acre- feet)	Spill and release (acre- feet)	Evapora- tion (acre- feet)	Total inflow (acre- feet)	Rain on reservoir (acre- feet)	Net inflow (acre- feet)
Gibraltar Reservoir									
Sept. 30.....	1,397.56	8,981	-	-	-	-	-	-	-
Oct. 31.....	1,395.84	8,483	-498	613	0	70	185	0	185
Nov. 30.....	1,395.74	8,455	-28	539	0	31	542	59	483
Dec. 31.....	1,395.46	8,377	-78	521	0	14	457	8	449
CAL YR 1969.....	-	-	-153	5,731	316,606	1,124	323,308	1,899	321,409
Jan. 31.....	1,399.19	9,465	+1,088	421	4	11	1,524	101	1,423
Feb. 28.....	1,400.35	9,814	+349	489	2,010	37	2,885	97	2,788
Mar. 31.....	1,399.48	9,552	-262	609	8,150	64	8,561	177	8,384
Apr. 30.....	1,400.03	9,717	+165	740	324	103	1,332	0	1,332
May 31.....	1,390.03	7,015	-2,702	799	2,550	122	769	0	769
June 30.....	1,385.94	6,105	-910	974	143	97	304	0	304
July 31.....	1,379.63	4,819	-1,286	1,010	434	104	262	0	262
Aug. 31.....	1,378.26	4,556	-263	182	0	92	11	0	11
Sept. 30.....	1,377.39	4,393	-163	81	0	81	-1	0	-1
WTR YR 1970.....	-	-	-4,588	6,978	13,615	826	16,831	442	16,389

a Elevation at 1800.

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.

STATEMENT.--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 seals could be replaced on Gibraltar Dam spillway gates. Releases from Gibraltar Reservoir were made May 18-21 (see station 11123000) and arrived at Lake Cachuma May 18-24 (see station 11123500). Repay water from Lake Cachuma was delivered via Tecolote Tunnel to city of Santa Barbara as follows: June, 116 acre-ft; July, 338 acre-ft; August, 1,005 acre-ft; September, 935 acre-ft. Total water released from Gibraltar Reservoir was 2,527 acre-ft; repay water was 2,394 acre-ft. The difference represents loss in transportation between Gibraltar and Cachuma, 94 acre-ft; and loss from evaporation while water was stored in Lake Cachuma, 39 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 NW¼SW¼SW¼ 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, 4,320 cfs Feb. 28 (gage height, 13.18 ft); no flow most of year. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		0	.02	795	41	2.4	0	9.5		
2		0		0	.01	346	34	1.8	0	9.5		
3		0		0	0	186	19	1.1	0	9.5		
4		0		0	0	288	.16	.90	0	9.5		
5		0		0	0	356	.08	.71	0	9.5		
6		.05		0	0	205	.06	.50	0	9.5		
7		.02		0	0	161	.04	.46	0	9.5		
8		0		0	0	135	.06	.42	0	9.3		
9		0		.18	.77	127	.08	.27	0	9.2		
10		0		.20	28	97	.12	.19	0	9.2		
11		0		.03	51	102	.34	.15	0	9.2		
12		0		.01	44	101	1.0	.12	0	9.2		
13		0		0	42	98	1.3	.10	0	9.2		
14		0		0	36	94	1.6	.09	0	9.2		
15		0		0	24	88	2.1	.07	0	9.2		
16		0		.18	16	88	2.8	.04	0	9.2		
17		0		.11	11	79	3.0	.03	0	9.2		
18		0		.09	17	75	3.6	315	0	9.2		
19		0		.10	14	65	4.4	434	0	9.2		
20		0		.13	7.9	61	4.0	386	0	9.2		
21		0		.21	3.5	57	5.6	139	0	9.2		
22		0		.24	2.6	54	5.1	.18	2.0	9.2		
23		0		.10	1.2	62	4.0	.09	5.9	9.2		
24		0		.08	.96	57	4.5	.05	7.8	4.6		
25		0		.10	5.2	53	4.7	.01	8.7	.14		
26		0		.12	6.6	55	4.9	0	9.5	.05		
27		0		.09	5.6	54	4.7	0	9.5	0		
28		0		.06	696	42	5.1	0	9.5	0		
29		0		.05	-----	39	3.3	0	9.5	0		
30		0		.05	-----	41	2.6	0	9.5	0		
31		-----		.03	-----	48	-----	0	-----	0		-----
TOTAL	0	.07	0	2.16	1,013.36	4,109	163.24	1,283.68	71.9	218.59	0	0
MEAN	0	.002	0	.070	36.2	133	5.44	41.4	2.40	7.05	0	0
MAX	0	.05	0	.24	696	795	41	434	9.5	9.5	0	0
MIN	0	0	0	0	0	39	.04	0	0	0	0	0
AC-FT	0	.1	0	4.3	2,010	8,150	324	2,550	143	434	0	0
CAL YR 1969	TOTAL	159,504.40	MEAN	437	MAX	26,600	MIN	0	ACFT	316,400		
WAT YR 1970	TOTAL	6,862.00	MEAN	18.8	MAX	795	MIN	0	ACFT	13,610		

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, 4,020 cfs Mar. 1 (gage height, 7.84 ft); no flow June 18-21, June 24 to July 2, Aug. 1 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.8	3.4	4.1	7.3	2,110	35	5.3	1.4	0		
2	.95	1.8	3.4	4.1	6.8	824	32	5.3	1.1	0		
3	.91	1.8	3.4	4.1	6.8	378	30	4.9	.95	.22		
4	.97	1.8	3.4	4.1	6.8	508	23	3.4	.60	1.8		
5	2.0	2.0	3.4	4.1	6.8	636	17	2.8	.15	2.3		
6	1.0	6.8	3.4	4.1	6.3	349	12	2.8	1.0	2.0		
7	1.1	12	3.4	4.1	5.8	246	11	2.6	1.6	2.0		
8	1.8	7.9	3.7	4.1	5.3	212	11	2.6	1.1	2.3		
9	2.0	6.3	4.9	14	6.8	180	10	2.6	.95	2.8		
10	2.0	6.3	4.5	25	12	162	9.6	2.6	.67	3.1		
11	2.0	5.3	4.5	14	33	116	9.0	2.6	.59	3.4		
12	2.0	4.9	4.1	14	48	105	7.9	3.4	.53	3.4		
13	2.0	4.9	4.1	12	44	105	7.9	3.4	1.2	3.4		
14	1.1	4.9	4.1	11	44	91	7.9	2.6	.40	3.4		
15	.49	4.9	4.1	11	37	88	7.9	3.1	.16	3.4		
16	.58	4.5	4.1	21	28	80	7.9	2.8	.16	3.4		
17	.94	4.5	4.1	28	22	80	7.9	2.8	.01	3.4		
18	2.0	5.3	4.1	20	19	69	7.3	129	0	3.4		
19	2.0	4.5	4.1	16	19	64	7.3	402	0	3.4		
20	2.0	4.5	4.1	13	19	55	7.3	394	0	3.4		
21	2.0	4.1	4.1	12	15	55	7.3	270	0	3.1		
22	2.0	3.7	4.1	11	12	48	7.3	32	.13	3.1		
23	2.0	3.7	4.1	11	11	46	6.3	12	.36	2.8		
24	1.2	3.7	4.1	10	9.6	51	6.3	8.5	0	3.1		
25	1.0	3.4	4.1	10	8.5	44	5.8	5.8	0	3.4		
26	2.3	3.4	4.1	9.6	7.9	44	4.9	4.1	0	3.1		
27	2.3	3.4	4.1	9.6	9.6	44	4.9	3.4	0	2.6		
28	2.3	3.4	4.1	9.0	818	40	4.9	3.4	0	2.0		
29	2.0	3.4	4.1	8.5	-----	35	5.3	2.8	0	.84		
30	1.8	3.4	4.1	7.9	-----	32	5.3	2.6	0	.19		
31	2.0	-----	4.1	7.9	-----	32	-----	2.0	-----	.02		-----
TOTAL	50.74	132.3	123.4	338.3	1,275.3	6,929	327.2	1,327.2	13.06	74.77	0	0
MEAN	1.64	4.41	3.98	10.9	45.5	224	10.9	42.8	.44	2.41	0	0
MAX	2.3	12	4.9	28	818	2,110	35	402	1.6	3.4	0	0
MIN	.49	1.8	3.4	4.1	5.3	32	4.9	2.0	0	0	0	0
AC-FT	101	262	245	671	2,530	13,740	649	2,630	26	148	0	0
CAL YR 1969	TOTAL	202,539.24	MEAN	555	MAX	33,700	MIN	0	ACFT	401,700		
WAT YR 1970	TOTAL	10,591.27	MEAN	29.0	MAX	2,110	MIN	0	ACFT	21,010		

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.--73.9 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 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.--29 years, 17.5 cfs (12,680 acre-ft per year); median of yearly mean discharges, 7.0 cfs (5,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 910 cfs Mar. 1 (gage height, 10.32 ft); no flow July 31 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.0	3.6	6.4	6.4	292	16	8.0	2.9	.47	0	0
2	1.9	2.9	3.6	5.9	6.2	181	16	7.6	2.6	.47	0	0
3	2.1	2.8	3.6	5.9	6.2	78	15	7.2	2.5	.40	0	0
4	1.9	2.8	3.6	5.9	6.2	107	15	7.0	2.4	.40	0	0
5	2.1	3.2	3.6	5.9	6.0	94	14	6.7	2.3	.39	0	0
6	2.1	10	4.0	5.9	5.8	68	14	6.6	2.0	.35	0	0
7	2.1	14	4.0	5.4	5.6	58	14	6.7	2.0	.33	0	0
8	2.1	8.1	4.9	5.4	5.3	49	14	6.6	2.0	.33	0	0
9	2.1	7.2	6.4	9.7	7.9	43	14	6.2	2.1	.33	0	0
10	2.1	6.3	6.4	26	20	39	14	6.0	1.9	.33	0	0
11	2.1	5.8	5.9	13	16	35	13	5.9	1.9	.31	0	0
12	2.1	5.1	5.9	13	12	31	13	5.7	1.8	.33	0	0
13	2.1	4.9	5.4	8.3	12	28	12	5.5	1.8	.31	0	0
14	2.0	5.1	4.9	6.4	12	27	13	5.1	1.6	.31	0	0
15	2.1	5.3	4.9	10	9.4	26	13	4.6	1.6	.31	0	0
16	2.7	5.4	4.9	114	8.5	25	13	4.3	1.6	.30	0	0
17	3.7	4.9	4.4	61	8.0	23	13	4.0	1.6	.30	0	0
18	3.6	4.7	4.4	18	7.3	22	13	3.9	1.3	.29	0	0
19	3.7	4.7	5.4	11	7.1	21	11	4.0	1.2	.29	0	0
20	3.5	4.7	5.9	9.7	6.9	20	11	4.1	1.1	.25	0	0
21	3.3	4.2	5.9	8.3	6.6	21	11	4.1	1.0	.24	0	0
22	3.1	4.2	6.4	8.3	6.5	21	11	4.0	.82	.23	0	0
23	3.2	4.2	5.9	8.3	6.3	20	11	3.7	.77	.20	0	0
24	3.6	4.1	5.9	8.3	6.1	19	10	3.7	.73	.19	0	0
25	3.8	4.1	6.4	7.6	5.9	19	9.4	3.7	.69	.17	0	0
26	3.8	4.0	7.0	7.0	5.9	18	9.2	4.1	.59	.15	0	0
27	3.8	3.6	6.4	7.0	6.0	18	9.4	4.3	.58	.10	0	0
28	3.7	3.6	6.4	7.0	50	17	9.7	4.0	.58	.05	0	0
29	3.2	3.6	7.0	7.0	-----	17	9.5	3.8	.59	.04	0	0
30	2.9	3.6	6.4	7.0	-----	16	9.4	3.6	.47	.01	0	0
31	3.1	-----	6.4	6.8	-----	17	-----	3.3	-----	0	0	-----
TOTAL	85.5	150.1	165.8	429.4	268.1	1,470	370.6	158.0	45.02	8.18	0	0
MEAN	2.76	5.00	5.35	13.9	9.58	47.4	12.4	5.10	1.50	.26	0	0
MAX	3.8	14	7.0	114	50	292	16	8.0	2.9	.47	0	0
MIN	1.9	2.8	3.6	5.4	5.3	16	9.2	3.3	.47	0	0	0
AC-FT	170	298	329	852	532	2,920	735	313	89	16	0	0

CAL YR 1969 TOTAL 49,485.49 MEAN 136 MAX 5,000 MIN 0 AC-FT 98,150
 WTR YR 1970 TOTAL 3,150.70 MEAN 8.63 MAX 292 MIN 0 AC-FT 6,250

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	1630	8.11	334	3- 4	1930	9.61	346
3- 1	1030	10.32	910				

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, 204,800 acre-ft Mar. 31, Apr. 2, 3 (elevation, 749.96 ft); minimum, 176,400 acre-ft Sept. 30 (elevation, 740.36 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 1969 TO SEPTEMBER 1970

Date	Elevation (feet) ^a	Contents (acre-feet)	Change in contents (acre-feet)	Total diversions (acre-feet)
Sept. 30.....	745.12	190,200	-	-
Oct. 31.....	744.04	187,000	-3,200	1,990
Nov. 30.....	743.57	185,700	-1,300	936
Dec. 31.....	743.28	184,800	-900	736
CAL YR 1969.....	-	-	+28,700	18,940
Jan. 31.....	743.54	185,600	+800	851
Feb. 28.....	744.70	189,000	+3,400	445
Mar. 31.....	749.96	204,800	+15,800	793
Apr. 30.....	748.89	201,500	-3,300	2,000
May 31.....	747.91	198,500	-3,000	3,370
June 30.....	746.35	193,800	-4,700	2,870
July 31.....	744.39	188,100	-5,700	3,840
Aug. 31.....	742.26	181,900	-6,200	4,190
Sept. 30.....	740.36	176,400	-5,500	3,880
WTR YR 1970.....	-	-	-13,800	25,900

^a 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. Prior to Sept. 16, 1969, at site 0.4 mile downstream.

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 (revised) 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, 272 cfs Mar. 20 (gage height, 4.01 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	1.7	12	0	0	14	2.2	16	7.4	.29	5.3	0
2	0	1.7	6.8	0	0	4.7	2.2	16	6.5	.25	5.6	0
3	0	2.4	6.6	0	0	1.7	2.2	16	5.8	.22	2.7	0
4	.03	5.0	6.5	0	0	7.5	2.2	16	5.8	.18	.45	0
5	.33	5.5	6.5	0	0	5.4	7.0	16	5.8	.06	.14	0
6	1.1	6.5	6.4	0	0	2.6	13	18	5.7	3.5	.01	0
7	2.7	6.0	6.2	0	0	2.2	25	22	6.2	9.9	0	0
8	3.3	5.8	6.2	0	.71	2.2	25	23	9.0	10	0	0
9	3.4	5.9	5.5	0	1.4	2.1	27	23	13	11	0	0
10	3.5	6.6	1.2	0	.50	2.0	61	22	13	11	0	0
11	3.8	8.6	.32	.01	.20	2.0	65	16	12	11	.87	0
12	3.7	9.2	.19	.18	.08	2.1	55	11	12	11	1.8	0
13	3.1	9.3	.11	2.9	.04	2.0	25	10	13	7.0	2.0	0
14	1.1	9.3	.06	3.1	.03	2.2	22	9.7	14	1.5	2.4	0
15	.59	9.4	.03	3.0	.01	2.3	20	9.7	11	1.2	2.4	.01
16	.39	9.5	.01	3.5	0	2.5	10	5.4	1.5	1.1	2.4	.71
17	.24	10	0	3.1	0	2.5	5.0	13	.51	1.1	2.4	1.3
18	.19	12	0	1.9	0	2.7	4.0	29	.22	1.1	2.6	1.5
19	.14	13	0	.53	0	2.5	3.0	29	.08	1.1	2.8	1.6
20	.05	13	0	.28	0	66	2.8	30	.01	.86	2.8	1.7
21	0	13	0	.18	0	3.7	2.8	30	0	.30	3.4	1.5
22	0	13	0	.11	.01	3.2	2.8	30	.27	.10	4.2	.31
23	0	13	0	.04	2.3	3.2	5.0	29	5.3	.01	3.8	.04
24	0	13	0	.02	3.1	3.1	8.0	27	6.0	0	3.0	0
25	0	13	0	.03	3.2	2.9	10	24	5.9	0	.60	0
26	0	13	0	.03	3.2	3.0	12	24	5.9	0	.20	0
27	0	13	0	.01	3.3	2.9	13	23	6.0	1.4	.06	0
28	.29	14	0	.01	7.8	2.5	14	22	6.1	4.7	0	0
29	1.6	14	0	0	-----	2.3	15	22	4.8	4.8	0	.70
30	2.1	14	0	0	-----	2.2	16	22	.77	4.9	0	2.1
31	2.0	-----	0	0	-----	2.2	-----	19	-----	5.2	0	-----
TOTAL	33.65	283.4	64.62	18.93	25.88	162.4	477.2	622.8	183.56	104.77	51.93	11.47
MEAN	1.09	9.45	2.08	.61	.92	5.24	15.9	20.1	6.12	3.38	1.68	.38
MAX	3.8	14	12	3.5	7.8	66	65	30	14	11	5.6	2.1
MIN	0	1.7	0	0	0	1.7	2.2	5.4	0	0	0	0
AC-FT	67	562	128	38	51	322	947	1,240	364	208	103	23
CAL YR 1969	TOTAL	243,611.43	MEAN	667	MAX	38,900	MIN	0	AC-FT	483,200		
WTR YR 1970	TOTAL	2,040.61	MEAN	5.59	MAX	66	MIN	0	AC-FT	4,050		

SANTA YNEZ RIVER BASIN

267

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 current year. 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.--30 years, 3.82 cfs (2,770 acre-ft per year); median of yearly mean discharges, 0.6 cfs (430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 705 cfs Mar. 1 (gage height, 3.50 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 fair. Flow partly regulated by several detention dams. Diversions for irrigation above station.

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					0	162						
2					0	.65						
3					0	.10						
4					0	19						
5					0	15						
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	0						
22					0	0						
23					0	0						
24					0	0						
25					0	0						
26					0	0						
27					0	0						
28					27	0						
29					-----	0						
30					-----	0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	27	196.75	0	0	0	0	0	0
MEAN	0	0	0	0	.96	6.35	0	0	0	0	0	0
MAX	0	0	0	0	27	162	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	54	390	0	0	0	0	0	0

CAL YR 1969 TOTAL 9,378.31 MEAN 25.7 MAX 1,760 MIN 0 ACFT 18,600
WAT YR 1970 TOTAL 223.75 MEAN .61 MAX 162 MIN 0 ACFT 444

PEAK DISCHARGE (BASE, 50 CFS).--Mar. 1 (1030) 705 cfs (3.50 ft); Mar. 4 (2030) 169 cfs (2.91 ft).

SANTA YNEZ RIVER BASIN

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.--12.2 sq mi.

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, 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, 199 cfs Mar. 4 (gage height, 2.90 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. No regulation or diversion above station. At times waste irrigation water pumped from Santa Ynez River causes minor 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						6.5						
2						9.8						
3						1.1						
4						36						
5						18						
6						5.0						
7						3.1						
8						2.7						
9						2.4						
10						1.9						
11						1.6						
12						1.6						
13						1.4						
14						1.2						
15						1.2						
16						1.1						
17						1.1						
18						1.0						
19						.88						
20						.55						
21						.45						
22						.35						
23						.26						
24						.26						
25						.18						
26						.18						
27						.05						
28						.05						
29						.05						
30					-----	0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	0	99.96	0	0	0	0	0	0
MEAN	0	0	0	0	0	3.22	0	0	0	0	0	0
MAX	0	0	0	0	0	36	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	198	0	0	0	0	0	0

CAL YR 1969 TOTAL 10,475.84 MEAN 28.7 MAX 2,040 MIN 0 ACFT 20,780
WAT YR 1970 TOTAL 99.96 MEAN .27 MAX 36 MIN 0 ACFT 198

PEAK DISCHARGE (BASE, 100 CFS).--Mar. 4 (1730) 199 cfs (2.90 ft).

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, 740 cfs Mar. 1 (gage height, 3.91 ft); no flow July 7 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	1.0	3.5	3.9	7.0	277	7.8	2.6	10	.50	0	0
2	.64	.87	3.7	3.7	7.0	155	7.7	2.3	9.7	.50	0	0
3	.64	.70	3.7	3.6	6.7	64	7.1	2.6	6.9	.38	0	0
4	.64	.85	3.4	3.5	6.9	70	6.8	3.6	6.5	.28	0	0
5	.64	1.1	3.6	3.4	6.4	75	6.4	4.5	6.0	.14	0	0
6	.64	1.6	3.7	3.3	6.5	39	6.7	5.0	5.0	.03	0	0
7	.77	1.7	3.9	3.6	6.2	31	6.4	5.7	4.0	0	0	0
8	.84	1.8	4.1	4.1	6.3	25	6.0	6.4	3.0	0	0	0
9	.84	2.0	4.4	5.5	7.0	22	7.3	8.3	2.0	0	0	0
10	.91	2.3	4.3	6.2	7.7	20	24	9.0	1.5	0	0	0
11	1.2	2.2	4.4	5.9	7.6	18	28	9.6	1.3	0	0	0
12	1.2	2.4	4.2	5.4	7.3	15	29	8.6	1.2	0	0	0
13	1.2	2.5	4.4	5.5	7.3	15	23	7.0	1.2	0	0	0
14	1.2	2.3	4.5	6.2	5.9	14	17	5.7	1.2	0	0	0
15	1.2	2.7	4.2	7.9	5.6	14	13	6.4	1.2	0	0	0
16	1.2	2.6	4.1	7.5	5.7	13	9.7	5.4	1.2	0	0	0
17	1.4	2.5	4.2	7.2	5.6	13	8.0	4.7	1.1	0	0	0
18	1.4	2.5	4.6	6.1	5.7	12	6.0	4.5	1.0	0	0	0
19	1.2	2.4	4.8	5.9	5.5	11	5.1	4.4	1.0	0	0	0
20	1.2	2.4	5.0	6.1	5.5	23	4.8	6.2	1.0	0	0	0
21	1.2	2.5	4.9	6.3	5.1	22	4.2	7.6	1.0	0	0	0
22	1.2	2.6	4.9	6.3	5.0	14	3.9	9.0	.94	0	0	0
23	1.2	2.5	4.9	6.6	4.9	12	3.3	10	.87	0	0	0
24	1.2	2.4	4.8	6.8	4.9	11	2.8	12	.70	0	0	0
25	1.4	2.6	4.8	7.0	4.9	10	2.7	12	.70	0	0	0
26	1.4	2.7	4.6	7.4	4.7	9.9	2.4	12	.60	0	0	0
27	1.2	2.8	4.6	7.7	4.8	9.2	2.8	12	.60	0	0	0
28	1.2	2.8	4.4	7.7	29	9.1	2.6	12	.60	0	0	0
29	1.2	2.9	4.2	7.3	-----	8.7	2.4	12	.60	0	0	0
30	1.1	3.2	4.2	7.3	-----	8.5	2.4	12	.60	0	0	0
31	1.2	-----	4.0	7.3	-----	8.4	-----	11	-----	0	0	-----
TOTAL	33.10	65.42	133.0	182.2	192.7	1,048.8	259.3	234.1	73.21	1.83	0	0
MEAN	1.07	2.18	4.29	5.88	6.88	33.8	8.64	7.55	2.44	.059	0	0
MAX	1.4	3.2	5.0	7.9	29	277	29	12	10	.50	0	0
MIN	.64	.70	3.4	3.3	4.7	8.4	2.4	2.3	.60	0	0	0
AC-FT	66	130	264	361	382	2,080	514	464	145	3.6	0	0

CAL YR 1969 TOTAL 276,907.79 MEAN 759 MAX 40,000 MIN 0 AC-FT 549,200
 WTR YR 1970 TOTAL 2,223.66 MEAN 6.09 MAX 277 MIN 0 AC-FT 4,410

SANTA YNEZ RIVER BASIN

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.--7 years, 1.48 cfs (1,070 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8.9 cfs Mar. 4 (gage height, 2.36 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	1.6						
2				0	0	.32						
3				0	0	0						
4				0	0	2.1						
5				0	0	.41						
6				0	0	.04						
7				0	0	.04						
8				0	0	.03						
9				.45	0	.02						
10				.05	0	.01						
11				0	0	.01						
12				0	0	0						
13				0	0	0						
14				0	0	0						
15				0	0	0						
16				2.3	0	0						
17				.16	0	0						
18				0	0	0						
19				0	0	0						
20				0	0	0						
21				0	0	0						
22				0	0	0						
23				0	0	0						
24				0	0	0						
25				0	0	0						
26				0	0	0						
27				0	0	0						
28				0	1.9	0						
29				0	-----	0						
30				0	-----	0						
31		-----		0	-----	0	-----		-----			-----
TOTAL	0	0	0	2.96	1.9	4.58	0	0	0	0	0	0
MEAN	0	0	0	.096	.068	.15	0	0	0	0	0	0
MAX	0	0	0	2.3	1.9	2.1	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	5.9	3.8	9.1	0	0	0	0	0	0

CAL YR 1969 TOTAL 3,369.10 MEAN 9.23 MAX 450 MIN 0 ACFT 6,680
WAT YR 1970 TOTAL 9.44 MEAN .02 MAX 2 MIN 0 ACFT 19

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	8.5	19	9.7	13	202	11	5.0	1.7	.24	0	0
2	8.2	8.7	16	9.6	12	128	9.9	4.7	1.7	.14	0	0
3	7.9	8.9	15	9.7	13	62	9.5	4.7	1.7	.06	0	0
4	7.7	9.1	14	9.4	13	63	8.6	4.8	1.7	.03	0	0
5	7.5	9.3	15	9.3	13	153	8.0	4.4	1.7	.01	0	0
6	7.9	10	15	9.2	13	67	7.8	4.2	1.6	0	0	0
7	7.9	10	16	9.7	14	47	7.1	4.3	1.6	0	0	0
8	8.6	11	17	10	13	38	6.8	4.3	1.6	0	0	0
9	9.1	10	17	13	14	34	6.6	4.1	1.6	0	0	0
10	9.1	9.7	12	13	15	29	8.1	3.9	1.5	0	0	0
11	8.8	9.5	10	13	16	27	28	3.8	1.4	0	0	0
12	8.3	9.2	10	12	15	24	38	3.5	1.4	0	0	0
13	8.5	9.5	11	11	16	22	37	3.1	1.2	0	0	0
14	8.6	11	11	11	16	20	27	2.7	1.2	0	0	0
15	8.9	11	12	12	16	20	20	2.6	1.2	0	0	0
16	8.9	10	12	15	16	18	14	2.5	1.1	0	0	0
17	9.2	10	12	16	16	18	13	2.2	1.1	0	0	0
18	9.2	11	13	15	15	18	11	2.3	1.1	0	0	0
19	8.9	14	13	14	15	17	9.4	2.2	1.2	0	0	0
20	9.1	13	14	14	15	16	9.1	2.2	1.3	0	0	0
21	8.9	12	14	13	15	45	8.2	2.1	1.2	0	0	0
22	9.2	12	13	13	15	23	7.7	2.1	1.3	0	0	0
23	8.6	12	13	14	16	19	7.1	2.1	1.2	0	0	0
24	8.3	12	12	13	16	16	7.0	1.9	1.0	0	0	0
25	8.2	12	12	13	16	15	6.5	2.0	.92	0	0	0
26	8.2	12	12	13	17	14	5.8	2.0	.92	0	0	0
27	8.3	12	11	13	17	13	5.8	1.9	.85	0	0	0
28	8.4	12	11	13	25	13	5.4	1.8	.70	0	0	0
29	8.0	13	10	13	-----	13	5.3	1.8	.60	0	0	0
30	8.0	13	10	13	-----	12	5.0	1.8	.44	0	0	0
31	8.2	-----	9.9	13	-----	12	-----	1.8	-----	0	0	-----
TOTAL	263.1	325.4	401.9	379.6	426	1,218	353.7	92.8	37.73	0.48	0	0
MEAN	8.49	10.8	13.0	12.2	15.2	39.3	11.8	2.99	1.26	.016	0	0
MAX	9.2	14	19	16	25	202	38	5.0	1.7	.24	0	0
MIN	7.5	8.5	9.9	9.2	12	12	5.0	1.8	.44	0	0	0
AC-FT	522	645	797	753	845	2,420	702	184	75	1.0	0	0
CAL YR 1969	TOTAL	291,521.4	MEAN	799	MAX	42,000	MIN	3.1	AC-FT	578,200		
WTR YR 1970	TOTAL	3,498.71	MEAN	9.59	MAX	202	MIN	0	AC-FT	6,940		

SANTA YNEZ RIVER BASIN

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. Prior to Sept. 18, 1969, at site 100 ft downstream.

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, 566 cfs Mar. 1 (gage height, 4.00 ft); no flow Aug. 29-31, Sept. 6-9.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	8.0	13	11	16	118	12	3.8	.30	.17	.07	.01
2	7.6	7.6	19	10	16	285	11	3.5	.32	.15	.06	.01
3	8.0	7.1	16	10	15	121	11	3.5	.32	.15	.06	.01
4	7.4	6.6	15	11	19	87	11	3.2	.33	.12	.07	.01
5	7.1	7.1	15	10	17	216	10	3.1	.36	.12	.08	.01
6	7.0	11	15	10	17	119	9.4	3.0	.39	.13	.07	0
7	6.9	11	15	11	17	74	8.8	3.1	.30	.13	.08	0
8	7.2	9.8	15	12	16	55	8.2	2.7	.31	.12	.06	0
9	7.8	9.8	15	18	18	44	7.8	2.7	.31	.12	.06	0
10	8.0	9.8	15	22	21	36	7.5	2.5	.31	.11	.06	.01
11	8.3	9.8	14	18	21	31	13	2.0	.31	.09	.06	.01
12	8.4	10	14	17	18	27	40	1.7	.31	.09	.04	.02
13	8.2	11	14	15	19	24	58	1.6	.30	.09	.05	.02
14	9.0	12	13	15	20	22	52	1.3	.32	.08	.04	.02
15	8.9	14	14	15	18	21	39	1.1	.34	.08	.04	.03
16	9.3	13	13	23	18	19	29	.86	.35	.08	.03	.03
17	9.9	12	13	24	18	17	22	.77	.34	.07	.03	.03
18	10	12	12	22	17	16	19	.72	.35	.07	.03	.03
19	10	15	12	21	17	16	16	.56	.38	.06	.03	.04
20	9.9	15	13	20	16	15	13	.58	.41	.06	.03	.04
21	9.8	15	11	19	15	33	11	.55	.42	.06	.02	.04
22	9.5	15	11	18	15	32	10	.47	.43	.07	.02	.04
23	9.3	15	11	18	15	24	8.9	.45	.37	.06	.02	.05
24	9.8	15	11	19	15	20	8.4	.39	.34	.07	.02	.05
25	9.8	15	12	17	15	18	7.8	.38	.35	.06	.01	.05
26	9.3	14	11	17	15	17	6.7	.39	.33	.06	.01	.05
27	9.3	14	11	17	16	15	6.0	.34	.32	.06	.01	.05
28	8.9	13	10	16	29	13	5.1	.36	.34	.06	.01	.05
29	9.6	14	11	16	-----	14	4.7	.40	.33	.07	0	.05
30	8.7	13	11	17	-----	13	4.3	.33	.24	.06	0	.06
31	8.0	-----	11	16	-----	12	-----	.35	-----	.07	0	-----
TOTAL	268.1	354.6	406	505	489	1,574	470.6	46.70	10.13	2.79	1.17	0.82
MEAN	8.65	11.8	13.1	16.3	17.5	50.8	15.7	1.51	.34	.090	.038	.027
MAX	10	15	19	24	29	285	58	3.8	.43	.17	.08	.06
MIN	6.9	6.6	10	10	15	12	4.3	.33	.24	.06	0	0
AC-FT	532	703	805	1,000	970	3,120	933	93	20	5.5	2.3	1.6
CAL YR 1969	TOTAL	294,587.42	MEAN	807	MAX	38,000	MIN	.08	AC-FT	584,300		
WTR YR 1970	TOTAL	4,128.91	MEAN	11.3	MAX	285	MIN	0	AC-FT	8,190		

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.--29 years, 8.55 cfs (6,190 acre-ft per year); median of yearly mean discharges, 3.3 cfs (2,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 905 cfs Mar. 4 (gage height, 4.77 ft); minimum daily, 0.06 cfs Aug. 24 to Sept. 15.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.1	2.1	2.1	2.7	40	2.7	1.6	1.0	.48	.25	.06
2	1.0	2.4	2.1	2.1	3.0	23	2.7	1.7	1.0	.45	.25	.06
3	1.2	2.7	2.1	2.1	3.0	9.0	3.0	1.5	1.0	.45	.25	.06
4	1.2	2.7	2.1	2.2	3.0	118	3.0	1.7	1.0	.45	.25	.06
5	1.3	3.0	2.1	2.4	3.3	43	3.0	2.3	1.0	.45	.23	.06
6	1.4	4.0	2.1	2.2	3.4	15	2.5	2.0	.90	.45	.23	.06
7	1.3	2.7	2.1	2.4	3.4	12	2.4	2.0	.90	.45	.23	.06
8	1.4	2.4	2.1	2.4	3.4	5.0	2.1	2.1	.90	.40	.20	.06
9	1.4	2.1	2.1	13	3.8	5.8	2.1	2.4	.90	.40	.20	.06
10	1.4	2.1	2.1	11	5.1	5.8	2.0	2.1	.90	.40	.20	.06
11	1.4	2.1	1.9	3.0	6.8	4.9	1.6	1.9	.80	.40	.20	.06
12	1.4	1.8	2.2	2.6	3.9	4.1	1.4	1.6	.80	.40	.15	.06
13	1.4	1.8	2.2	2.2	3.8	3.9	1.4	1.7	.80	.35	.15	.06
14	1.6	1.6	2.1	2.1	3.8	3.7	1.3	1.9	.80	.35	.15	.06
15	2.4	1.6	2.1	2.3	2.9	3.6	1.4	1.7	.80	.35	.15	.06
16	3.4	1.6	2.4	6.9	2.7	3.4	1.4	1.3	.70	.35	.15	.08
17	3.7	1.6	2.4	4.8	2.5	3.4	1.2	1.1	.70	.35	.15	.08
18	3.4	1.6	2.6	2.9	2.4	3.0	1.2	1.1	.70	.35	.10	.08
19	3.4	1.6	2.5	2.6	2.3	3.0	1.3	1.1	.70	.35	.10	.08
20	3.0	1.6	3.0	2.5	2.2	2.9	1.2	1.1	.70	.35	.10	.08
21	3.0	1.6	3.3	2.4	2.1	3.0	1.2	1.3	.60	.30	.10	.10
22	3.0	1.8	3.4	2.4	2.0	3.0	1.7	1.1	.60	.30	.10	.10
23	3.4	1.8	3.4	2.7	1.7	3.0	1.6	1.1	.60	.30	.10	.12
24	3.4	2.1	2.5	3.5	1.6	2.9	1.8	1.1	.60	.30	.06	.12
25	3.4	2.1	2.0	3.1	1.7	3.0	1.3	1.2	.60	.30	.06	.13
26	3.4	2.1	2.1	2.7	1.8	3.0	1.6	1.2	.50	.30	.06	.13
27	3.4	1.8	2.1	2.7	1.7	3.0	1.4	1.2	.50	.30	.06	.13
28	3.0	1.6	2.1	2.7	38	3.0	1.4	1.2	.50	.30	.06	.13
29	2.7	1.6	1.9	2.7	-----	3.0	1.3	1.2	.48	.25	.06	.13
30	2.4	1.8	1.9	2.7	-----	3.0	1.5	1.2	.48	.25	.06	.13
31	2.4	-----	1.9	2.7	-----	2.7	-----	1.2	-----	.25	.06	-----
TOTAL	71.3	60.4	71.0	104.1	118.2	348.1	54.2	46.9	27.46	11.13	4.47	2.52
MEAN	2.30	2.01	2.29	3.36	4.22	11.2	1.81	1.51	.75	.36	.14	.084
MAX	3.7	3.0	3.4	13	38	118	3.0	2.4	1.0	.48	.25	.13
MIN	1.0	1.6	1.9	2.1	1.6	2.7	1.2	1.1	.48	.25	.06	.06
AC-FT	141	120	141	206	234	690	108	93	45	22	8.9	5.0

CAL YR 1969 TOTAL 10,535.67 MEAN 28.9 MAX 1,650 MIN .09 AC-FT 20,900
WTR YR 1970 TOTAL 914.78 MEAN 2.51 MAX 118 MIN .06 AC-FT 1,810

PEAK DISCHARGE (BASE, 100 CFS).--Mar. 4 (1745) 905 cfs (4.77 ft).

SANTA YNEZ RIVER BASIN

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. Prior to June 18, 1969, at site 0.1 mile downstream.

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, 608 cfs Mar. 4 (gage height, 6.50 ft, from supplementary gage); no flow June 7 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	14	16	13	17	74	15	3.6	.13	0	0	0
2	4.3	15	17	13	16	113	14	3.1	.09	0	0	0
3	4.4	16	17	13	16	71	14	2.8	.08	0	0	0
4	4.5	16	17	14	15	126	13	2.9	.08	0	0	0
5	4.6	17	16	13	15	230	12	2.6	.10	0	0	0
6	4.7	25	16	13	15	132	12	2.2	.07	0	0	0
7	5.1	24	16	13	15	86	11	1.8	0	0	0	0
8	5.6	21	17	13	15	75	10	1.9	0	0	0	0
9	5.7	21	17	19	15	65	9.8	1.8	0	0	0	0
10	5.9	20	16	28	18	60	9.3	1.7	0	0	0	0
11	6.6	19	15	20	19	52	9.1	1.6	0	0	0	0
12	6.2	18	15	18	16	46	15	1.3	0	0	0	0
13	6.0	18	15	17	16	43	19	1.1	0	0	0	0
14	6.7	19	14	16	16	40	20	1.1	0	0	0	0
15	7.0	20	15	17	16	38	18	.82	0	0	0	0
16	8.0	20	15	24	17	35	15	.65	0	0	0	0
17	8.1	18	14	24	19	34	12	.53	0	0	0	0
18	8.0	17	14	22	21	32	9.9	.39	0	0	0	0
19	8.1	17	14	21	19	29	9.8	.41	0	0	0	0
20	7.9	19	14	21	17	29	10	.40	0	0	0	0
21	7.9	19	15	18	16	29	8.6	.35	0	0	0	0
22	8.1	18	14	17	16	35	7.6	.35	0	0	0	0
23	8.1	18	14	17	14	29	7.3	.30	0	0	0	0
24	9.1	18	14	18	14	26	7.9	.15	0	0	0	0
25	10	18	15	18	14	24	6.2	.19	0	0	0	0
26	10	17	15	19	14	22	5.9	.29	0	0	0	0
27	11	17	15	19	17	19	5.2	.30	0	0	0	0
28	12	17	14	19	30	18	5.5	.28	0	0	0	0
29	12	15	13	18	-----	17	5.4	.22	0	0	0	0
30	13	16	13	18	-----	16	3.8	.20	0	0	0	0
31	13	-----	13	17	-----	15	-----	.15	-----	0	-----	-----
TOTAL	235.8	547	465	550	468	1,660	321.3	35.48	0.55	0	0	0
MEAN	7.61	18.2	15.0	17.7	16.7	53.5	10.7	1.14	.018	0	0	0
MAX	13	25	17	28	30	230	20	3.6	.13	0	0	0
MIN	4.2	14	13	13	14	15	3.8	.15	0	0	0	0
AC-FT	468	1,080	922	1,090	928	3,290	637	70	1.1	0	0	0

CAL YR 1969 TOTAL 312,678.00 MEAN 857 MAX 38,000 MIN 0 AC-FT 620,200

WTR YR 1970 TOTAL 4,283.13 MEAN 11.7 MAX 230 MIN 0 AC-FT 8,500

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, 273 cfs Mar. 4 (gage height, 6.97 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.87	6.7	155	5.4	0	0	0	0	0
2	0	0	0	.75	6.4	203	5.0	0	0	0	0	0
3	0	0	0	.57	6.5	147	4.2	0	0	0	0	0
4	0	0	0	.63	6.8	141	2.4	0	0	0	0	0
5	0	0	0	.87	6.7	201	1.1	0	0	0	0	0
6	0	0	0	.31	6.6	150	.81	0	0	0	0	0
7	0	0	0	7.5	6.8	96	0	0	0	0	0	0
8	0	0	0	12	6.4	73	0	0	0	0	0	0
9	0	0	0	16	7.2	56	0	0	0	0	0	0
10	0	0	0	25	8.9	50	0	0	0	0	0	0
11	0	0	0	18	11	43	0	0	0	0	0	0
12	0	0	0	16	11	37	.75	0	0	0	0	0
13	0	0	0	14	11	34	14	0	0	0	0	0
14	0	0	0	13	11	31	20	0	0	0	0	0
15	0	0	0	14	10	28	20	0	0	0	0	0
16	0	0	0	23	9.3	26	18	0	0	0	0	0
17	0	0	0	21	8.4	23	14	0	0	0	0	0
18	0	0	0	19	7.5	21	11	0	0	0	0	0
19	0	0	0	17	7.0	18	10	0	0	0	0	0
20	0	0	0	15	6.7	17	9.8	0	0	0	0	0
21	0	0	0	14	6.1	16	7.1	0	0	0	0	0
22	0	0	.45	12	5.4	22	.27	0	0	0	0	0
23	0	0	.63	11	4.8	18	0	0	0	0	0	0
24	0	0	.57	10	4.3	15	0	0	0	0	0	0
25	0	0	.97	9.7	3.5	13	0	0	0	0	0	0
26	0	0	1.1	9.6	3.7	12	0	0	0	0	0	0
27	0	0	.99	9.6	3.5	10	0	0	0	0	0	0
28	0	0	.81	8.4	11	8.5	0	0	0	0	0	0
29	0	0	.42	7.9	-----	8.2	0	0	0	0	0	0
30	0	0	.13	8.0	-----	7.8	0	0	0	0	0	0
31	0	-----	0	7.4	-----	6.9	-----	0	-----	0	-----	-----
TOTAL	0	0	6.07	342.10	204.2	1,687.4	143.83	0	0	0	0	0
MEAN	0	0	.20	11.0	7.29	54.4	4.79	0	0	0	0	0
MAX	0	0	1.1	25	11	203	20	0	0	0	0	0
MIN	0	0	0	.31	3.5	6.9	0	0	0	0	0	0
AC-FT	0	0	12	679	405	3,350	285	0	0	0	0	0
CAL YR 1969	TOTAL	311,045.37	MEAN	852	MAX	38,000	MIN	0	AC-FT	617,000		
WTR YR 1970	TOTAL	2,383.60	MEAN	6.53	MAX	203	MIN	0	AC-FT	4,730		

SANTA YNEZ RIVER BASIN

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.--832 sq mi.

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, 272 cfs Mar. 5 (gage height, 5.47 ft); no flow Nov. 29, 30. 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, 1112000, 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.7	4.7	1.8	11	160	6.6	2.0	1.4	.90	.88	1.3
2	1.7	2.8	4.9	1.8	10	210	6.3	1.8	1.5	.90	.88	1.0
3	1.7	3.5	2.5	1.8	9.6	150	5.6	1.7	1.5	.90	.88	1.7
4	1.7	3.7	2.2	1.6	10	150	4.4	1.6	1.5	.90	.88	2.4
5	1.7	5.0	2.6	1.6	11	200	3.1	1.5	1.5	.90	.88	2.1
6	1.7	10	2.7	2.7	11	150	2.7	1.4	1.6	.90	.84	2.1
7	1.7	6.5	2.5	4.0	11	100	2.7	1.4	1.6	.90	.80	2.1
8	1.8	5.3	2.8	3.9	10	80	2.6	1.5	1.6	.90	.78	2.4
9	1.8	4.7	2.8	20	12	49	2.6	1.5	1.6	.90	.76	2.1
10	1.8	4.7	2.8	30	14	43	2.6	1.6	1.6	.90	.74	2.2
11	1.6	4.6	2.6	25	15	38	2.4	1.7	1.6	.90	.72	1.7
12	1.6	4.1	2.6	20	14	34	2.3	1.7	1.6	.90	.70	1.7
13	1.9	4.4	2.6	15	13	31	6.5	1.8	1.7	.90	.68	1.6
14	1.7	3.9	2.4	14	12	28	15	1.8	1.7	.84	.66	1.9
15	1.7	3.7	2.4	15	12	26	15	1.9	1.7	.82	.66	1.8
16	2.0	3.7	2.4	30	10	24	13	1.9	1.7	.82	.66	1.6
17	1.9	4.1	2.4	25	10	21	9.2	1.8	1.7	.80	1.0	1.6
18	1.8	3.5	2.4	20	8.3	20	6.5	1.8	1.7	.80	1.3	1.8
19	1.7	3.6	2.2	18	7.9	19	5.1	1.7	1.7	.78	1.4	1.3
20	1.9	3.8	2.2	16	7.7	19	4.8	1.7	1.6	.78	1.4	1.5
21	1.8	4.3	2.0	15	6.4	18	4.0	1.6	1.5	.76	1.4	1.9
22	1.9	4.1	2.0	15	5.5	29	3.7	1.6	1.4	.74	1.5	1.9
23	1.9	3.9	2.0	15	5.6	26	3.5	1.6	1.3	.72	1.5	1.9
24	2.0	4.4	2.0	16	6.1	21	3.3	1.6	1.2	.72	1.3	1.9
25	1.9	4.1	2.0	14	5.6	19	3.1	1.6	1.1	.72	1.3	2.0
26	1.6	1.6	2.0	12	5.4	17	2.9	1.6	1.0	.72	1.3	1.8
27	2.1	.03	2.0	12	5.7	14	2.7	1.5	.90	.74	1.3	1.8
28	1.9	.13	2.0	11	87	11	2.5	1.5	.90	.76	1.5	1.8
29	2.8	0	2.0	11	-----	10	2.3	1.5	.90	.78	1.5	1.7
30	2.4	0	2.0	11	-----	9.6	2.2	1.5	.90	.82	1.3	1.8
31	2.5	-----	2.0	11	-----	7.9	-----	1.5	-----	.86	1.3	-----
TOTAL	59.1	110.86	76.7	410.2	346.8	1,734.5	149.2	50.9	43.20	25.68	32.70	54.4
MEAN	1.87	3.70	2.47	13.2	12.4	56.0	4.97	1.64	1.44	.83	1.05	1.81
MAX	2.8	10	4.9	30	87	210	15	2.0	1.7	.90	1.5	2.4
MIN	1.6	0	2.0	1.6	5.4	7.9	2.2	1.4	.90	.72	.66	1.0
AC-FT	115	220	152	814	688	3,440	296	101	86	51	65	108

CAL YR 1969 TOTAL 313,529.59 MEAN 859 MAX 38,400 MIN 0 AC-FT 621,900
 WTR YR 1970 TOTAL 3,093.24 MEAN 8.47 MAX 210 MIN 0 AC-FT 6,140

NOTE.--No gage-height record Apr. 22 to Aug. 20.

11136100 SAN ANTONIO CREEK NEAR CASMALIA, CALIF.

LOCATION.--Lat 34°46'56", long 120°31'47", in Jesus Maria Grant, Santa Barbara County, on Camp Cook Military Reservation on downstream side of left center pile bent of San Antonio Road bridge, 0.7 mile east of junction of San Antonio Road with 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.--15 years, 5.93 cfs (4,300 acre-ft per year); median of yearly mean discharges, 2.9 cfs (2,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 131 cfs Feb. 28 (gage height, 5.24 ft); minimum daily, 0.42 cfs July 21.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	.82	1.3	1.6	2.4	5.6	2.3	1.4	.79	.61	.46	.49
2	.90	.81	1.3	1.6	2.4	1.6	2.2	1.3	.78	.53	.46	.50
3	.90	.83	1.3	1.7	2.3	6.9	2.3	1.2	.77	.52	.45	.49
4	.90	.79	1.3	1.8	2.3	39	2.2	1.3	.79	.50	.47	.50
5	.90	.81	1.3	2.0	2.3	22	2.1	1.3	.79	.50	.46	.51
6	.90	2.3	1.3	1.9	2.3	7.7	2.1	1.2	.83	.53	.46	.50
7	.90	2.9	1.4	1.8	2.3	5.4	2.1	1.2	.78	.57	.46	.48
8	1.0	2.0	1.5	1.8	2.3	4.4	2.0	1.2	.78	.53	.46	.48
9	1.0	1.4	1.6	1.9	2.3	3.7	1.9	1.2	.78	.52	.48	.50
10	1.0	1.4	1.5	6.0	4.5	3.6	1.9	1.2	.74	.54	.46	.49
11	1.0	1.3	1.5	5.0	3.5	3.5	1.8	1.2	.73	.51	.46	.49
12	1.0	1.3	1.5	4.4	3.3	3.5	1.7	1.1	.72	.52	.50	.50
13	1.0	1.2	1.5	4.0	3.2	3.5	1.6	1.2	.72	.53	.50	.51
14	1.0	1.2	1.4	3.6	3.1	3.6	1.6	1.1	.71	.53	.50	.50
15	1.0	1.3	1.6	3.4	3.0	3.5	1.6	1.0	.70	.54	.50	.50
16	1.0	1.2	1.6	3.2	3.0	3.3	1.7	.91	.76	.52	.48	.50
17	1.0	1.2	1.6	3.1	2.9	3.2	1.7	.88	.76	.51	.49	.50
18	.93	1.1	1.6	2.9	2.9	3.1	1.7	.92	.75	.46	.49	.49
19	.92	1.1	1.6	2.8	2.8	2.9	1.6	.96	.69	.44	.50	.48
20	.80	1.2	1.6	2.8	2.9	2.8	1.6	.92	.69	.45	.51	.49
21	.99	1.4	1.6	2.7	2.8	2.8	1.5	.90	.74	.42	.51	.48
22	.92	1.1	1.6	2.7	2.8	2.7	1.5	.87	.73	.46	.51	.48
23	.88	1.1	1.6	2.7	2.8	2.9	1.4	.96	.70	.45	.52	.47
24	.86	1.1	1.6	2.6	2.8	2.8	1.4	.98	.70	.48	.52	.48
25	.80	1.1	1.6	2.6	2.6	2.8	1.4	1.0	.68	.47	.54	.49
26	.78	1.1	1.6	2.6	2.6	2.9	1.5	1.1	.72	.47	.49	.49
27	.79	1.1	1.6	2.6	2.6	2.9	1.5	1.0	.72	.50	.48	.46
28	.75	1.1	1.6	2.5	60	2.6	1.3	.91	.64	.49	.48	.46
29	.79	1.1	1.6	2.5	-----	2.5	1.4	.85	.65	.47	.48	.47
30	.87	1.2	1.6	2.5	-----	2.5	1.5	1.1	.60	.45	.48	.47
31	.78	-----	1.6	2.5	-----	2.4	-----	.81	-----	.45	.48	-----
TOTAL	28.06	37.56	46.9	65.8	135.0	227.4	52.1	33.17	21.94	15.47	15.04	14.65
MEAN	.91	1.25	1.51	2.77	4.82	7.34	1.74	1.07	.73	.50	.49	.49
MAX	1.0	2.9	1.6	6.0	60	56	2.3	1.4	.83	.61	.54	.51
MIN	.75	.79	1.3	1.6	2.3	2.4	1.3	.81	.60	.42	.45	.46
AC-FT	56	75	93	170	268	451	103	66	44	31	30	29

CAL YR 1969 TOTAL 7,239.71 MEAN 19.8 MAX 1,220 MIN .72 AC-FT 14,360
 WTR YR 1970 TOTAL 713.09 MEAN 1.95 MAX 60 MIN .42 AC-FT 1,410

PEAK DISCHARGE (BASE, 50 CFS).--Feb. 28 (0815) 131 cfs (5.24 ft).

NOTE.--No gage-height record Dec. 16 to Feb. 18.

SAN ANTONIO CREEK BASIN

11136150 SAN ANTONIO CREEK TRIBUTARY NEAR CASMALIA, CALIF.

LOCATION.--Lat 34°48'45", long 120°31'30", in Todos Santos Y San Antonio Grant, Santa Barbara County, on right bank at culvert under Lompoc-Casmalia Road, 1.8 miles south of Casmalia.

DRAINAGE AREA.--0.28 sq mi.

PERIOD OF RECORD.--Water years 1960-64 (annual maximum), August 1964 to current year.

GAGE.--Flood-hydrograph recorder and crest-stage gage. Altitude of gage is 480 ft (from topographic map). Sept. 18, 1959, to Aug. 20, 1964, crest-stage gage only at same site and datum.

AVERAGE DISCHARGE.--7 years, 0.0008 cfs (0.6 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1.0 cfs Feb. 28 (gage height, 4.87 ft); no flow most of year. Period of record: Maximum discharge, 8.4 cfs Feb. 10, 1962 (gage height, 5.51 ft, from crest-stage gage), by computation of maximum flow through culvert; no flow most of each year.

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

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					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					.04							
29					-----							
30					-----							
31		-----			-----		-----		-----			-----
TOTAL	0	0	0	0	.04	0	0	0	0	0	0	0
MEAN	0	0	0	0	.001	0	0	0	0	0	0	0
MAX	0	0	0	0	.04	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	.08	0	0	0	0	0	0	0
CAL YR 1969	TOTAL	0.28	MEAN	.0008	MAX	.20	MIN	0	ACFT	.6		
WAT YR 1970	TOTAL	0.04	MEAN	.0001	MAX	.04	MIN	0	ACFT	.08		

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.--7 years, 0.322 cfs (233 acre-ft per year).

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

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.--No flow since May 17, 1969. No regulation or diversion above station. Monthly precipitation, in inches, is as follows: November, 0.4; January, 1.0; February, 1.0; March, 0.5; April, 0.1; the water year, 3.0.

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.--884 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, non-recording gage at different site and datum.

AVERAGE DISCHARGE.--13 years, 27.1 cfs (19,630 acre-ft per year); median of yearly mean discharges, 5.0 cfs (3,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 370 cfs Mar. 1 (gage height, 4.82 ft); minimum daily, 0.31 cfs Sept. 28.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	3.3	3.1	4.1	4.6	168	4.8	3.7	2.3	1.1	.80	.57
2	2.7	3.3	3.1	4.1	4.6	157	4.7	3.5	1.8	1.1	.74	.56
3	2.7	3.3	3.1	4.3	4.6	31	4.5	3.4	1.8	1.1	.76	.56
4	2.7	3.3	3.1	4.3	4.9	51	4.3	3.3	1.8	.81	.78	.56
5	2.7	3.3	3.1	4.3	4.9	72	4.3	3.3	1.8	.95	.77	.52
6	2.7	6.9	3.1	4.3	4.9	33	4.3	3.3	1.9	.99	.71	.49
7	2.5	6.9	3.3	4.3	4.6	23	4.3	3.1	1.8	1.1	.68	.49
8	2.5	5.5	3.8	4.3	4.6	18	4.4	3.1	1.8	1.0	.70	.48
9	2.5	4.9	4.1	5.2	5.2	15	4.2	3.1	1.9	1.0	.70	.42
10	2.5	4.3	4.1	9.8	7.3	14	3.9	3.1	1.9	1.1	.72	.42
11	2.5	4.1	3.8	9.3	8.9	13	3.9	3.1	1.6	1.1	.69	.43
12	2.5	3.6	3.8	8.9	23	13	3.9	3.0	1.7	1.1	.69	.45
13	2.7	3.6	3.8	7.3	16	11	4.0	2.8	1.7	1.1	.69	.45
14	2.7	3.8	3.6	7.3	15	9.8	4.1	2.7	1.7	1.1	.70	.46
15	2.7	3.8	3.6	7.7	12	9.7	4.3	2.6	1.3	1.1	.71	.43
16	3.6	3.8	3.8	20	9.8	8.8	4.5	2.6	1.4	1.3	.69	.43
17	4.3	3.3	3.8	22	9.8	8.6	4.4	2.6	1.4	.80	.60	.42
18	4.1	3.1	3.8	16	8.9	8.4	4.4	2.8	1.4	1.0	.61	.38
19	3.8	2.9	4.1	13	8.5	8.0	4.3	2.5	1.2	1.0	.62	.39
20	3.6	2.7	4.3	11	8.5	7.7	4.2	2.5	1.2	.99	.63	.36
21	3.3	2.9	4.3	9.8	8.1	7.3	4.1	2.6	1.2	.95	.66	.37
22	3.3	3.1	4.6	8.9	7.7	7.2	4.1	2.5	1.2	.98	.66	.37
23	3.3	3.1	4.3	8.1	7.7	7.2	3.8	2.6	1.1	1.0	.66	.38
24	3.6	3.1	4.1	8.1	7.7	6.6	3.8	2.6	1.1	.97	.64	.38
25	3.8	3.1	4.6	6.9	7.3	6.4	3.7	2.5	1.2	.97	.64	.38
26	4.1	3.1	5.2	5.8	7.3	6.3	3.8	2.5	1.2	.94	.65	.32
27	3.8	3.1	4.6	5.8	7.3	5.7	3.9	2.6	1.2	.88	.67	.33
28	3.6	3.1	4.3	5.2	13	5.6	3.9	2.5	1.2	.86	.67	.31
29	3.6	3.1	4.1	4.9	-----	5.3	4.0	2.5	1.1	.84	.65	.33
30	3.6	3.1	4.1	4.9	-----	5.3	3.9	2.2	1.1	.80	.64	.33
31	3.3	-----	3.8	4.9	-----	5.3	-----	2.2	-----	.81	.63	-----
TOTAL	98.0	110.5	120.3	244.8	236.7	748.2	124.7	87.4	45.0	30.84	21.16	12.77
MEAN	3.16	3.68	3.88	7.90	8.45	24.1	4.16	2.82	1.50	.99	.68	.43
MAX	4.3	6.9	5.2	22	23	168	4.8	3.7	2.3	1.3	.80	.57
MIN	2.5	2.7	3.1	4.1	4.6	5.3	3.7	2.2	1.1	.80	.60	.31
AC-FT	194	219	239	486	469	1,480	247	173	89	61	42	25

CAL YR 1969 TOTAL 51,942.40 MEAN 142 MAX 9,390 MIN 0 AC-FT 103,000
 WTR YR 1970 TOTAL 1,880.37 MEAN 5.15 MAX 168 MIN .31 AC-FT 3,730

PEAK DISCHARGE (BASE, 200 CFS).--Mar. 1 (1130) 370 cfs (4.82 ft).

SANTA MARIA RIVER BASIN

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.--11 years, 10.2 cfs (7,390 acre-ft per year); median of yearly mean discharges, zero.

EXTREMES.--Current year: Maximum discharge, 27 cfs Mar. 5 (gage height, 2.50 ft); no flow all year except Mar. 5.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0						
2						0						
3						0						
4						0						
5						8.7						
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						0						
30						0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	0	8.7	0	0	0	0	0	0
MEAN	0	0	0	0	0	.28	0	0	0	0	0	0
MAX	0	0	0	0	0	8.7	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	17	0	0	0	0	0	0
CAL YR 1969	TOTAL	23,448.9	MEAN	64.2	MAX	2,980	MIN	0	ACFT	46,510		
WAT YR 1970	TOTAL	8.7	MEAN	.024	MAX	8.7	MIN	0	ACFT	17		

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

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.--104 sq mi.

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

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

AVERAGE DISCHARGE.--11 years, 23.0 cfs (16,660 acre-ft per year); median of yearly mean discharges, 3.9 cfs (2,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 788 cfs Mar. 1 (gage height, 5.22 ft); minimum daily, 0.09 cfs Sept. 10-12.

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. No regulation above station. Some diversions by pumping for irrigation above station.

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	.87	.71	.96	.79	1.2	272	4.8	2.0	1.2	.79	.45	.28
2	.87	.71	.96	.79	1.2	226	4.6	2.0	1.2	.79	.45	.28
3	.87	.71	.96	.79	1.2	61	4.4	1.9	1.2	.79	.45	.28
4	.87	.71	.96	.79	1.2	113	4.4	1.9	1.2	.79	.39	.28
5	.71	.79	.96	.79	1.2	157	4.2	1.8	1.2	.71	.39	.20
6	.71	1.1	.96	.87	1.3	45	4.0	1.6	1.2	.71	.39	.20
7	.79	.87	1.1	.79	1.3	28	3.8	1.5	1.2	.71	.39	.20
8	.79	.79	1.1	.79	1.3	24	3.6	1.5	1.2	.71	.33	.12
9	.87	.71	1.1	1.0	1.3	21	3.4	1.5	1.4	.71	.28	.12
10	.87	.71	1.0	.96	1.4	19	3.2	1.5	1.3	.71	.28	.09
11	.96	.71	.87	.96	1.4	17	3.1	1.5	1.0	.64	.28	.09
12	.96	.71	.79	.87	1.4	17	3.0	1.5	.79	.64	.28	.09
13	.87	.71	.79	.79	1.6	15	2.8	1.5	.79	.64	.28	.12
14	.87	.79	.79	.96	2.4	14	2.8	1.5	.79	.64	.28	.12
15	.87	.79	.79	.96	1.8	12	2.6	1.5	.79	.64	.28	.16
16	.96	.79	.79	24	1.6	10	2.5	1.5	.79	.64	.28	.20
17	1.0	.79	.79	8.0	1.6	9.6	2.5	1.5	.79	.64	.28	.24
18	1.1	.79	.79	1.5	1.9	8.4	2.4	1.5	.64	.64	.28	.16
19	1.1	.79	.79	1.5	1.9	7.5	2.2	1.4	.64	.64	.28	.20
20	1.1	.79	.79	1.4	2.0	7.2	2.2	1.3	.71	.57	.28	.20
21	1.0	.79	.87	1.4	1.9	7.0	2.2	1.3	.71	.57	.28	.24
22	.87	.79	.79	1.3	1.9	7.0	2.2	1.3	.71	.57	.28	.24
23	.87	.79	.79	1.3	1.6	6.5	2.2	1.3	.71	.57	.28	.28
24	.87	.79	.79	1.3	1.4	6.5	2.1	1.3	.79	.51	.28	.33
25	.87	.79	.96	1.2	1.4	6.5	2.0	1.3	.79	.51	.28	.28
26	.87	.79	.79	1.2	1.6	6.0	2.0	1.3	.87	.51	.28	.24
27	.87	.87	.79	1.2	2.0	5.8	2.0	1.2	.79	.51	.28	.24
28	.87	.87	.79	1.2	12	5.8	2.0	1.2	.79	.51	.28	.24
29	.87	.96	.71	1.2	-----	5.6	2.0	1.2	.79	.51	.28	.20
30	.79	.96	.71	1.2	-----	5.4	2.0	1.2	.79	.51	.28	.20
31	.71	-----	.71	1.2	-----	5.2	-----	1.2	-----	.45	.28	-----
TOTAL	27.47	23.87	26.74	63.00	54.0	1,151.0	87.2	45.7	27.77	19.48	9.68	6.12
MEAN	.89	.80	.86	2.03	1.93	37.1	2.91	1.47	.93	.63	.31	.20
MAX	1.1	1.1	1.1	24	12	272	4.8	2.0	1.4	.79	.45	.33
MIN	.71	.71	.71	.79	1.2	5.2	2.0	1.2	.64	.45	.28	.09
AC-FT	54	47	53	125	107	2,280	173	91	55	39	19	12

CAL YR 1969 TOTAL 49,336.88 MEAN 135 MAX 7,790 MIN .30 ACFT 97,860
 NAT YR 1970 TOTAL 1,542.03 MEAN 4.22 MAX 272 MIN .09 ACFT 3,060

PEAK DISCHARGE (BASE, 40 CFS).--Jan. 16 (1830) 74 cfs (4.66 ft); Mar. 1 (2200) 788 cfs (5.22 ft).

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.--1,133 sq mi.

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, 316 cfs Nov. 5 (gage height, 3.45 ft); minimum daily, 0.20 cfs Sept. 26-30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	287	262	220	160	23	187	227	207	128	2.2	.35
2	287	290	261	220	160	13	191	227	204	71	1.8	.35
3	286	289	261	220	160	10	205	227	202	34	2.0	.35
4	284	289	260	220	160	11	201	224	202	20	1.6	.35
5	287	290	260	219	161	11	201	224	201	13	1.4	.35
6	290	271	260	217	161	8.1	202	226	200	9.9	1.2	.35
7	290	193	260	217	161	7.2	202	226	200	8.3	.91	.35
8	290	192	260	217	160	6.6	202	225	198	6.7	.96	.35
9	289	190	253	214	161	6.2	202	224	198	121	.61	.35
10	289	193	256	115	162	6.0	202	223	195	164	.63	.35
11	290	212	256	109	160	5.6	201	223	195	25	.69	.35
12	288	267	256	107	161	23	201	223	192	7.6	.65	.30
13	292	266	256	107	162	101	202	223	189	8.9	.70	.30
14	293	272	255	107	160	105	199	218	189	14	.71	.30
15	292	272	252	108	160	105	199	217	190	6.5	.67	.30
16	296	271	252	100	160	106	199	217	190	5.4	.65	.30
17	293	268	252	18	161	144	199	217	189	4.6	.60	.30
18	292	272	252	9.9	160	147	199	218	189	4.1	.60	.30
19	290	271	253	28	160	179	199	217	188	3.9	.55	.30
20	294	270	252	123	160	181	196	217	187	3.9	.55	.30
21	292	267	253	133	163	180	197	216	183	3.5	.50	.25
22	292	266	246	136	163	178	198	217	183	3.1	.50	.25
23	292	263	244	136	163	175	198	217	185	3.0	.48	.25
24	292	262	244	138	165	175	199	214	198	3.4	.45	.25
25	290	250	246	144	164	178	199	214	198	3.1	.41	.25
26	290	259	243	160	165	190	196	214	196	2.9	.41	.20
27	288	262	242	160	165	190	197	214	191	2.6	.41	.20
28	291	260	241	163	139	188	199	213	189	2.4	.41	.20
29	283	260	240	163	-----	187	226	213	186	2.4	.41	.20
30	288	260	235	160	-----	187	228	210	181	2.2	.41	.20
31	287	-----	220	160	-----	187	-----	209	-----	1.9	.41	-----
TOTAL	8,990	7,744	7,788	4,553.9	4,497	3,213.7	6,026	6,794	5,795	690.3	24.48	8.80
MEAN	290	258	251	147	161	104	201	219	193	22.3	.79	.29
MAX	296	290	262	220	165	190	228	227	207	164	2.2	.35
MIN	284	190	220	9.9	139	5.6	187	209	181	1.9	.41	.20
AC-FT	17,830	15,360	15,450	9,030	8,920	6,370	11,950	13,480	11,490	1,370	49	17

CAL YR 1969 TOTAL 99,722.52 MEAN 273 MAX 4,130 MIN 0 AC-FT 197,800
 NTR YR 1970 TOTAL 56,125.18 MEAN 154 MAX 296 MIN .20 AC-FT 111,300

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.--27 years, 43.2 cfs (31,300 acre-ft per year); median of yearly mean discharges, 16 cfs (11,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,570 cfs Mar. 1 (gage height, 4.44 ft); minimum daily, 0.90 cfs Sept. 28-30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	7.2	11	13	20	1,090	32	17	6.6	3.4	2.4	2.1
2	6.6	7.7	11	12	20	644	30	17	6.4	3.4	2.4	2.0
3	6.6	7.3	11	12	19	384	29	16	6.2	3.3	2.3	2.0
4	6.4	7.5	11	12	19	320	27	16	6.1	3.3	2.3	1.9
5	6.6	7.5	12	12	19	435	26	15	6.0	3.2	2.3	1.8
6	6.6	16	12	13	19	198	25	15	6.0	3.2	2.3	1.8
7	6.6	13	12	12	18	161	25	14	5.8	3.1	2.3	1.7
8	6.6	13	13	12	19	140	25	14	5.4	3.1	2.3	1.7
9	6.4	13	13	15	19	122	23	13	5.2	3.1	2.2	1.6
10	6.1	12	13	22	33	110	21	13	5.2	3.0	2.2	1.6
11	6.3	9.6	13	26	33	95	20	13	5.1	3.0	2.2	1.6
12	6.0	7.5	12	22	31	77	19	12	5.0	3.0	2.2	1.5
13	6.4	7.5	11	20	28	62	19	12	4.9	2.9	2.2	1.5
14	6.7	7.5	12	20	27	58	21	11	4.8	2.9	2.2	1.4
15	6.7	7.5	12	21	24	59	22	11	4.7	2.9	2.2	1.4
16	7.6	8.1	12	140	22	57	21	10	4.6	2.9	2.2	1.4
17	7.5	8.5	11	180	22	53	20	10	4.5	2.8	2.2	1.3
18	7.7	7.9	11	66	20	50	20	9.8	4.4	2.8	2.2	1.3
19	8.0	8.2	11	47	20	46	19	9.8	4.3	2.8	2.2	1.3
20	7.5	7.5	11	39	20	44	18	9.6	4.2	2.7	2.2	1.2
21	7.5	7.5	12	33	20	42	18	9.3	4.1	2.7	2.2	1.2
22	7.5	9.2	13	29	19	41	19	9.0	4.0	2.7	2.2	1.2
23	7.5	7.6	12	27	19	39	18	8.7	3.9	2.6	2.2	1.1
24	8.1	7.5	11	26	18	36	17	8.4	3.8	2.6	2.2	1.1
25	8.3	7.5	12	25	18	36	16	8.0	3.7	2.6	2.2	1.0
26	8.2	7.5	13	24	18	34	15	7.7	3.7	2.5	2.2	1.0
27	8.4	7.5	14	23	18	34	15	7.4	3.6	2.5	2.3	1.0
28	8.0	7.6	14	23	226	33	16	7.1	3.6	2.5	2.3	.90
29	7.5	11	14	22	-----	32	18	7.0	3.5	2.4	2.2	.90
30	7.3	11	13	22	-----	33	18	6.9	3.4	2.4	2.2	.90
31	7.2	-----	12	21	-----	32	-----	6.8	-----	2.4	2.1	-----
TOTAL	221.0	267.4	375	991	807	4,597	632	344.5	142.7	88.7	69.3	42.40
MEAN	7.13	8.91	12.1	32.0	28.8	148	21.1	11.1	4.76	2.86	2.24	1.41
MAX	8.4	16	14	180	226	1,090	32	17	6.6	3.4	2.4	2.1
MIN	6.0	7.2	11	12	18	32	15	6.8	3.4	2.4	2.1	.90
AC-FT	438	530	744	1,970	1,600	9,120	1,250	683	283	176	137	84
CAL YR 1969	TOTAL	132,359.5	MEAN	363	MAX	14,800	MIN	2.9	AC-FT	262,500		
WTR YR 1970	TOTAL	8,578.00	MEAN	23.5	MAX	1,090	MIN	.90	AC-FT	17,010		

PEAK DISCHARGE (BASE, 100 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	1700	3.73	758	3- 4	2330	3.92	1,120
3- 1	1445	4.44	1,570				

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.--93.5 sq mi.

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

GAGE.--Water-stage recorder. Altitude of gage is 550 ft (from topographic map)

AVERAGE DISCHARGE.--27 years, 7.28 cfs (5,270 acre-ft per year); median of yearly mean discharges, 0.8 cfs (580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 94 cfs Mar. 2 (gage height, 1.56 ft), on basis of slope-conveyance measurement of peak flow; no flow many days.

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 fair. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	34	1.4					
2				0	0	74	1.4					
3				0	0	35	1.4					
4				0	0	27	1.2					
5				0	0	74	.97					
6				0	0	38	.80					
7				0	0	25	.80					
8				0	0	18	.80					
9				0	.18	13	.80					
10				0	.80	12	.64					
11				0	.97	9.5	.39					
12				0	.80	7.6	.30					
13				0	1.2	5.9	.21					
14				0	1.6	5.4	.30					
15				0	1.2	4.0	.30					
16				3.2	1.2	3.2	.21					
17				8.8	1.2	2.5	.21					
18				.30	.80	2.2	.13					
19				.04	.64	1.9	.05					
20				0	.51	1.6	.02					
21				0	.39	1.6	.01					
22				0	.39	1.4	0					
23				0	.39	1.4	0					
24				0	.30	1.4	0					
25				0	.21	1.4	0					
26				0	.21	1.4	0					
27				0	.39	1.4	0					
28				0	4.0	1.4	0					
29				0	-----	1.4	0					
30				0	-----	1.4	0					
31		-----		0	-----	1.4	-----		-----			-----
TOTAL	0	0	0	12.34	17.38	409.4	12.34	0	0	0	0	0
MEAN	0	0	0	.40	.62	13.2	.41	0	0	0	0	0
MAX	0	0	0	8.8	4.0	74	1.4	0	0	0	0	0
MIN	0	0	0	0	0	1.4	0	0	0	0	0	0
AC-FT	0	0	0	24	34	812	24	0	0	0	0	0

CAL YR 1969	TOTAL	24,510.39	MEAN	67.2	MAX	2,950	MIN	0	ACFT	48,620
WAT YR 1970	TOTAL	451.46	MEAN	1.24	MAX	74	MIN	0	ACFT	895

PEAK DISCHARGE (BASE, 30 CFS).--Mar. 2 (0500) 94 cfs (1.56 ft); Mar. 5 (0500) 93 cfs (1.55 ft).

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.--5 years, 0.61 cfs (442 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2.8 cfs Feb. 28 (gage height, 1.27 ft); minimum daily, 0.21 cfs Sept. 28, 29.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	.47	.59	.49	.65	1.1	.52	.55	.35	.39	.32	.40
2	.55	.48	.59	.48	.65	.66	.52	.53	.33	.40	.34	.39
3	.54	.48	.54	.48	.65	.58	.53	.53	.32	.40	.34	.38
4	.48	.49	.56	.48	.65	.99	.53	.54	.32	.34	.30	.34
5	.47	.53	.57	.48	.65	.75	.55	.54	.33	.31	.31	.32
6	.49	.72	.57	.39	.65	.56	.55	.54	.32	.31	.29	.28
7	.45	.49	.52	.47	.57	.56	.54	.55	.33	.33	.28	.27
8	.45	.48	.53	.49	.56	.56	.54	.54	.34	.33	.28	.27
9	.45	.48	.54	.66	.62	.56	.53	.53	.34	.32	.26	.28
10	.47	.49	.52	.49	.60	.56	.52	.53	.32	.32	.24	.27
11	.49	.47	.52	.47	.56	.56	.52	.53	.33	.32	.34	.29
12	.50	.49	.55	.42	.56	.56	.52	.59	.27	.35	.34	.31
13	.50	.49	.55	.40	.63	.58	.52	.62	.27	.37	.40	.33
14	.52	.53	.56	.50	.63	.58	.54	.60	.28	.37	.40	.32
15	.52	.56	.55	.50	.60	.61	.52	.56	.28	.37	.40	.32
16	.58	.53	.56	1.1	.62	.65	.55	.55	.28	.36	.40	.30
17	.48	.51	.55	.54	.65	.65	.53	.57	.29	.34	.40	.29
18	.48	.50	.55	.48	.65	.65	.51	.61	.30	.34	.40	.29
19	.50	.53	.56	.50	.65	.70	.52	.62	.30	.31	.40	.31
20	.48	.53	.56	.53	.57	.63	.51	.61	.31	.25	.40	.34
21	.46	.55	.56	.50	.57	.61	.51	.60	.31	.24	.40	.33
22	.52	.56	.56	.53	.58	.61	.56	.58	.33	.26	.40	.30
23	.54	.55	.56	.54	.59	.60	.56	.58	.35	.28	.40	.28
24	.56	.56	.54	.65	.56	.60	.57	.56	.35	.28	.40	.27
25	.54	.57	.58	.65	.58	.59	.59	.46	.37	.28	.40	.26
26	.54	.58	.56	.65	.56	.54	.57	.40	.36	.28	.40	.24
27	.53	.59	.56	.65	.56	.49	.58	.40	.38	.27	.40	.23
28	.53	.58	.56	.65	1.1	.50	.56	.41	.38	.26	.40	.21
29	.51	.59	.48	.66	-----	.52	.59	.42	.38	.27	.35	.21
30	.50	.57	.48	.67	-----	.54	.57	.37	.40	.29	.38	.23
31	.49	-----	.48	.65	-----	.52	-----	.37	-----	.31	.39	-----
TOTAL	15.64	15.95	16.96	17.15	17.47	19.17	16.23	16.39	9.82	9.85	11.16	8.86
MEAN	.50	.53	.55	.55	.62	.62	.54	.53	.33	.32	.36	.30
MAX	.58	.72	.59	1.1	1.1	1.1	.59	.62	.40	.40	.40	.40
MIN	.45	.47	.48	.39	.56	.49	.51	.37	.27	.24	.24	.21
AC-FT	31	32	34	34	35	38	32	33	19	20	22	18

CAL YR 1969 TOTAL 76.59 MEAN .21 MAX .72 MIN 0 AC-FT 152
 WTR YR 1970 TOTAL 174.65 MEAN .48 MAX 1.1 MIN .21 AC-FT 347

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

11139500 TEPUSQUET CREEK NEAR SISQUOC, CALIF.

LOCATION.--Lat 34°52'21", long 120°14'37", in NE¼ 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.--27 years, 1.16 cfs (1,130 acre-ft per year); median of yearly mean discharges, 0.4 cfs (290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 61 cfs Mar. 1 (gage height, 2.64 ft); minimum daily, 0.11 cfs Sept. 28-30.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	.52	.63	.68	1.3	37	1.8	1.1	.75	.53	.34	.29
2	.80	.54	.63	.68	1.3	15	1.8	1.0	.75	.53	.34	.30
3	.83	.56	.64	.72	1.3	3.2	1.7	.96	.74	.48	.34	.30
4	.76	.56	.65	.72	1.3	12	1.6	.98	.75	.49	.32	.30
5	.70	.58	.68	.72	1.4	22	1.6	.97	.75	.50	.31	.28
6	.72	.58	.68	.72	1.4	4.5	1.7	1.0	.74	.51	.31	.22
7	.71	.57	.69	.72	1.4	2.9	1.6	1.1	.74	.49	.29	.22
8	.73	.58	.70	.73	1.4	2.8	1.6	1.1	.70	.49	.28	.26
9	.72	.58	.72	.84	1.4	2.8	1.6	1.1	.72	.48	.30	.25
10	.74	.57	.71	.85	1.5	2.8	1.5	.99	.69	.49	.31	.18
11	.72	.60	.70	.86	1.4	2.8	1.6	1.0	.70	.50	.30	.20
12	.65	.60	.70	.86	1.4	2.8	1.5	.99	.71	.48	.29	.25
13	.70	.64	.67	.84	1.4	2.8	1.5	.95	.69	.48	.30	.23
14	.66	.65	.68	.84	1.4	2.8	1.6	.92	.71	.48	.30	.21
15	.63	.64	.67	1.0	1.3	2.8	1.6	.96	.67	.46	.30	.18
16	.73	.63	.68	15	1.3	2.9	1.5	.94	.67	.46	.29	.18
17	.66	.60	.70	2.7	1.3	2.8	1.4	.98	.67	.44	.27	.16
18	.64	.60	.68	1.5	1.3	2.6	1.5	.95	.65	.43	.28	.17
19	.65	.60	.68	1.3	1.3	2.6	1.4	.95	.64	.43	.29	.18
20	.65	.60	.68	1.3	1.3	2.6	1.4	.95	.64	.44	.31	.18
21	.59	.59	.70	1.2	1.3	2.7	1.3	.96	.63	.40	.33	.19
22	.63	.58	.68	1.2	1.2	2.5	1.2	.98	.60	.40	.30	.18
23	.61	.58	.70	1.2	1.3	2.4	1.1	.93	.60	.40	.30	.15
24	.60	.58	.70	1.2	1.3	2.3	1.2	.91	.59	.39	.30	.18
25	.60	.58	.73	1.3	1.3	2.3	1.1	.85	.61	.37	.31	.16
26	.59	.58	.70	1.3	1.2	2.4	1.1	.87	.60	.35	.31	.14
27	.58	.57	.70	1.3	1.2	2.2	1.1	.90	.59	.35	.30	.12
28	.57	.57	.68	1.3	1.7	2.1	1.0	.86	.54	.35	.32	.11
29	.51	.57	.68	1.3	-----	2.0	1.1	.80	.55	.35	.31	.11
30	.52	.58	.69	1.3	-----	2.0	1.1	.79	.54	.37	.32	.11
31	.52	-----	.68	1.3	-----	2.0	-----	.79	-----	.34	.29	-----
TOTAL	20.56	17.58	21.21	47.48	37.6	157.4	42.8	29.53	19.93	13.66	9.46	5.99
MEAN	.66	.59	.68	1.53	1.34	5.08	1.43	.95	.66	.44	.31	.20
MAX	.83	.65	.73	15	1.7	37	1.8	1.1	.75	.53	.34	.30
MIN	.51	.52	.63	.68	1.2	2.0	1.0	.79	.54	.34	.27	.11
AC-FT	41	35	42	94	75	312	85	59	40	27	19	12

CAL YR 1969 TOTAL 4,114.16 MEAN 11.3 MAX 501 MIN .10 AC-FT 8,160
 WTR YR 1970 TOTAL 423.20 MEAN 1.16 MAX 37 MIN .11 AC-FT 839

PEAK DISCHARGE (BASE, 150 CFS).--No peak above base.

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.--30 years, 43.6 cfs (31,590 acre-ft per year); median of yearly mean discharges, 7.1 cfs (5,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,000 cfs Mar. 1 (gage height, 8.95 ft); maximum gage height, 9.45 ft Mar. 1 (backwater from debris); 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						601						
2						378						
3						200						
4						150						
5						374						
6						280						
7						170						
8						110						
9						70						
10						50						
11						42						
12						33						
13						20						
14						18						
15						18						
16						17						
17						16						
18						14						
19						14						
20						11						
21						9.0						
22						7.0						
23						5.0						
24						3.0						
25						1.0						
26						0						
27						0						
28						0						
29					-----	0						
30					-----	0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	0	2,611.0	0	0	0	0	0	0
MEAN	0	0	0	0	0	84.2	0	0	0	0	0	0
MAX	0	0	0	0	0	601	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	5,180	0	0	0	0	0	0
CAL YR 1969	TOTAL	145,077.5	MEAN	397	MAX	13,200	MIN	0	ACFT	287,800		
WAT YR 1970	TOTAL	2,611.0	MEAN	7.1	MAX	601	MIN	0	ACFT	5,180		

PEAK DISCHARGE (BASE, 100 CFS).--Mar. 1 (0600) 1,000 cfs (8.95 ft); Mar. 5 (0730) 444 cfs (5.98 ft).

NOTE.--No gage-height record Mar. 3, 4, 6-9, 21-25.

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.--30 years, 35.6 cfs (25,790 acre-ft per year); median of yearly mean discharges, 1.4 cfs (1,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 48 cfs Mar. 2 (gage height, 5.83 ft); no flow most of 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.--Records fair. Flow of 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, 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						0						
2						16						
3						0						
4						4.5						
5						28						
6						12						
7						4.0						
8						1.7						
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						0						
30						0						
31		-----			-----	0	-----		-----			-----
TOTAL	0	0	0	0	0	66.2	0	0	0	0	0	0
MEAN	0	0	0	0	0	2.14	0	0	0	0	0	0
MAX	0	0	0	0	0	28	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	131	0	0	0	0	0	0
CAL YR 1969	TOTAL	90,580.9	MEAN	248	MAX	11,700	MIN	0	ACFT	179,700		
WAT YR 1970	TOTAL	66.2	MEAN	.18	MAX	28	MIN	0	ACFT	131		

ARROYO GRANDE BASIN

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 (revised).

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, 32 cfs Jan. 16 (gage height, unknown); minimum daily, 0.50 cfs Sept. 20-23, 25, 26.

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, 0.43 cfs July 7, 1968.

REMARKS.--Records poor. No regulation or diversion above station. Records of water temperatures and total sediment loads for the water year 1970 are published in Part 2 of this report.

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	1.2	1.5	2.4	3.1	1.7	5.5	2.8	2.2	2.2	.74	1.3	1.3
2	1.0	1.5	2.2	3.1	1.7	3.7	2.8	2.2	2.4	.74	1.3	1.3
3	.87	1.5	2.2	2.6	2.0	2.7	2.6	2.2	2.6	.87	1.3	1.3
4	.87	1.7	2.2	2.6	2.0	2.4	2.6	2.2	2.8	1.0	1.3	1.3
5	.87	1.9	2.2	2.6	2.0	3.7	2.4	2.2	3.1	1.3	1.3	1.3
6	.87	2.1	2.2	2.8	2.0	3.1	2.4	2.2	3.1	2.2	1.3	1.2
7	1.0	1.7	2.2	2.8	2.2	2.7	2.4	2.2	3.1	1.7	1.2	1.0
8	1.3	1.6	2.4	3.7	2.2	2.8	2.4	2.4	3.3	1.5	1.0	1.0
9	1.3	1.6	2.4	4.2	2.4	2.8	2.4	2.4	3.5	1.2	1.2	1.0
10	1.5	1.6	2.4	3.3	2.4	2.8	2.4	2.2	3.3	1.3	1.3	1.0
11	1.5	1.6	2.4	3.3	2.6	2.8	2.4	2.2	2.4	1.2	1.3	1.0
12	1.5	1.6	2.4	3.3	2.8	2.8	2.4	2.0	2.0	1.2	1.2	1.2
13	1.3	1.6	2.4	3.3	3.7	2.8	2.4	2.0	1.7	1.0	1.6	1.2
14	1.6	1.6	2.4	5.5	2.6	2.8	2.4	2.0	1.7	1.0	1.5	1.2
15	1.8	1.6	2.2	7.0	2.4	2.8	2.4	2.0	1.7	1.2	1.7	1.2
16	2.0	1.7	2.2	11	2.4	2.8	2.4	2.0	1.7	1.3	1.7	.87
17	1.6	2.2	2.2	4.2	2.4	2.8	2.6	2.0	1.7	1.3	1.5	.87
18	1.5	2.9	2.2	3.1	2.4	2.8	2.6	2.0	1.7	1.5	1.5	.87
19	1.5	2.2	2.4	3.1	2.4	2.8	2.6	2.0	1.7	1.7	1.7	.87
20	1.5	2.2	2.4	3.1	2.4	2.8	2.6	2.0	1.7	1.7	1.5	.50
21	1.5	2.2	2.6	2.4	2.4	2.8	2.6	1.7	1.7	2.0	1.5	.50
22	1.5	2.2	2.4	2.0	2.4	2.8	2.4	1.7	1.7	2.0	1.2	.50
23	1.5	2.2	2.2	2.0	2.4	2.8	2.4	2.0	1.7	1.5	.87	.50
24	1.5	2.4	2.2	2.6	2.4	2.8	2.4	1.7	1.5	1.2	.87	.61
25	1.5	2.4	2.6	2.0	2.4	2.8	2.4	2.0	1.0	1.2	.87	.50
26	1.5	2.4	2.6	2.2	2.8	2.8	2.2	2.0	1.0	1.2	.87	.50
27	1.5	2.4	2.6	2.4	2.3	2.8	2.2	2.0	1.0	2.0	1.5	1.0
28	1.5	2.4	2.8	2.6	5.1	2.8	2.2	2.2	1.2	1.3	2.0	1.3
29	1.5	2.4	2.8	2.0	-----	2.8	2.2	2.2	1.0	1.2	1.3	.87
30	1.5	2.4	2.8	2.0	-----	2.8	2.2	2.2	.74	1.3	1.2	.74
31	1.5	-----	2.8	2.0	-----	2.8	-----	2.2	-----	1.3	1.3	-----
TOTAL	43.08	59.3	74.4	101.3	68.9	91.0	73.2	64.5	59.24	41.85	41.18	28.50
MEAN	1.39	1.98	2.40	3.27	2.46	2.94	2.44	2.08	2.00	1.35	1.33	.95
MAX	2.0	2.9	2.8	11	5.1	5.5	2.8	2.4	3.5	2.2	2.0	1.3
MIN	.87	1.5	2.2	2.0	1.7	2.4	2.2	1.7	.74	.74	.87	.50
AC-FT	85	118	148	201	137	180	145	128	119	93	82	57

CAL YR 1969 TOTAL 4,009.96 MEAN 11.0 MAX 391 MIN .80 AC-FT 7,950
 WTR YR 1970 TOTAL 747.15 MEAN 2.05 MAX 11 MIN .50 AC-FT 1,480

PEAK DISCHARGE (BASE, 20 CFS).--Jan. 16 (0400) 32 cfs.

NOTE.--No gage-height record Dec. 25 to Jan. 16, Feb. 28 to Apr. 8.

11141160 WITTENBERG CREEK NEAR ARROYO GRANDE, CALIF.

LOCATION.--Lat 35°12'54", long 120°27'21", on north boundary of Arroyo Grande Grant, San Luis Obispo County, on right bank 0.2 mile upstream from Huffs Hole Creek, and 9.1 miles northeast of Arroyo Grande.

DRAINAGE AREA.--3.28 sq mi (revised).

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

GAGE.--Water-stage recorder. Altitude of gage is 550 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 36 cfs Mar. 1 (gage height, 3.90 ft); no flow many days.

Period of record: Maximum discharge, 840 cfs Jan. 19, 1969 (gage height, 7.9 ft, from outside gage); no flow many days in each year.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No regulation; small diversions above station for domestic use. Backwater from Lopez Reservoir affects record at times.

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	.09	.09	.08	.08	.43	17	.38	.35	.02	0	0	0
2	.09	.09	.08	.08	.42	15	.45	.35	.02	0	0	0
3	.09	.09	.08	.08	.42	7.6	.36	.42	.02	0	0	0
4	.09	.09	.08	.08	.39	8.1	.32	.49	.02	0	0	0
5	.09	.10	.08	.08	.39	16	.34	.51	.02	0	0	0
6	.09	.11	.08	.08	.39	7.6	.36	.57	.02	0	0	0
7	.09	.10	.08	.08	.39	5.4	.26	.49	.02	0	0	0
8	.09	.09	.09	.08	.39	4.3	.26	.42	.04	0	0	0
9	.09	.08	.09	.09	.39	3.4	.22	.49	.02	0	0	0
10	.09	.08	.09	.11	.39	2.9	.20	.42	.02	0	0	0
11	.09	.08	.09	.14	.39	2.4	.17	.39	.01	0	0	0
12	.09	.08	.09	.13	.39	2.0	.17	.29	.01	0	0	0
13	.09	.08	.09	.11	.42	1.6	.22	.29	.01	0	0	0
14	.09	.08	.09	.11	.41	1.5	.22	.24	.01	0	0	0
15	.10	.08	.09	.25	.39	1.4	.20	.19	.01	0	0	0
16	.11	.09	.08	7.5	.37	1.2	.19	.15	.01	0	0	0
17	.14	.10	.08	2.5	.38	.99	.21	.12	.01	0	0	0
18	.12	.48	.08	1.0	.38	.90	.21	.15	0	0	0	0
19	.11	.13	.09	.62	.34	.87	.24	.12	0	0	0	0
20	.10	.10	.09	.55	.34	.78	.27	.12	0	0	0	0
21	.10	.08	.10	.52	.34	.78	.31	.12	0	0	0	0
22	.10	.08	.11	.50	.34	.71	.26	.12	0	0	0	0
23	.10	.08	.09	.54	.34	.67	.25	.12	0	0	0	0
24	.10	.08	.09	.60	.34	.71	.24	.12	0	0	0	0
25	.10	.08	.09	.54	.34	.65	.24	.09	0	0	0	0
26	.09	.08	.11	.49	.35	.57	.29	.09	0	0	0	0
27	.09	.08	.10	.47	.32	.51	.39	.09	0	0	0	0
28	.10	.08	.10	.45	2.8	.47	.31	.05	0	0	0	0
29	.09	.08	.09	.43	-----	.53	.38	.04	0	0	0	0
30	.09	.08	.09	.43	-----	.46	.35	.04	0	0	0	0
31	.09	-----	.08	.43	-----	.42	-----	.04	-----	0	0	-----
TOTAL	2.99	3.02	2.75	19.15	12.98	107.42	8.27	7.49	0.29	0	0	0
MEAN	.097	.10	.089	.62	.46	3.47	.28	.24	.010	0	0	0
MAX	.14	.48	.11	7.5	2.8	17	.45	.57	.04	0	0	0
MIN	.09	.08	.08	.08	.32	.42	.17	.04	0	0	0	0
AC-FT	5.9	6.0	5.5	38	26	213	16	15	.6	0	0	0

CAL YR 1969 TOTAL 1,586.22 MEAN 4.35 MAX 182 MIN 0 AC-FT 3,150

WTR YR 1970 TOTAL 164.36 MEAN .45 MAX 17 MIN 0 AC-FT 326

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

NOTE.--No gage-height record Oct. 1 to Feb. 26.

ARROYO GRANDE BASIN

11141280 LOPEZ CREEK NEAR ARROYO GRANDE, CALIF.

LOCATION.--Lat 35°13'48", long 120°28'22", in SE¼NE¼ sec.16, T.31 S., R.14 E., San Luis Obispo County, on right bank 0.7 mile upstream from unnamed tributary, 3.2 miles upstream from mouth, and 9.2 miles northeast of Arroyo Grande.

DRAINAGE AREA.--21.6 sq mi (revised).

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, 198 cfs Jan. 16 (gage height, 4.10 ft); minimum daily, 1.7 cfs Sept. 27, 28.

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, 1.2 cfs Sept. 24-27, 1968.

REMARKS.--Records fair. Small diversions above station for domestic use. Records of water temperatures and total sediment loads for the water year 1970 are published in Part 2 of this report.

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	5.1	5.8	5.8	6.5	7.2	75	8.0	4.3	3.1	3.1	1.8	2.8
2	5.1	5.6	5.8	6.5	7.2	52	8.0	4.3	3.1	2.8	1.8	2.8
3	5.0	5.6	5.8	6.4	7.2	32	8.0	4.4	3.1	2.8	1.8	3.1
4	3.5	5.6	5.8	6.5	6.5	64	8.0	4.5	3.1	2.8	2.0	3.1
5	5.1	6.3	5.8	6.5	6.5	63	8.0	4.6	3.1	2.8	2.4	2.8
6	5.0	8.0	5.8	6.5	6.5	37	8.0	4.5	3.1	2.8	2.4	2.8
7	5.0	5.8	5.8	6.5	6.5	29	8.0	4.3	3.1	2.8	2.0	2.8
8	5.0	5.8	6.2	6.5	6.5	23	6.5	4.3	3.1	2.8	2.0	2.8
9	5.0	5.8	6.5	8.0	6.5	20	5.8	3.9	3.1	2.8	2.0	3.1
10	5.1	5.4	6.5	11	6.5	18	5.8	3.9	3.1	2.8	2.4	2.8
11	4.9	5.4	6.5	9.4	6.5	15	5.8	4.1	3.1	2.8	2.4	2.8
12	4.8	5.4	6.5	9.4	6.5	13	5.7	4.3	3.1	2.8	2.4	2.8
13	5.1	5.4	6.5	8.7	7.2	12	5.8	4.3	3.1	2.8	2.4	2.8
14	5.3	5.8	6.6	10	6.5	12	5.4	4.3	2.8	2.4	2.4	2.8
15	5.4	5.8	7.0	12	6.5	10	5.4	4.3	2.8	2.4	2.4	2.8
16	8.7	5.8	6.2	86	5.8	10	5.4	4.3	2.8	2.4	3.5	2.0
17	6.8	5.8	5.8	33	6.5	10	5.4	3.9	2.8	2.4	3.5	2.0
18	6.5	5.8	5.8	12	5.8	10	5.3	3.9	2.8	2.0	3.5	2.0
19	5.8	5.6	6.8	9.4	5.8	8.7	5.4	3.9	2.8	2.0	2.8	2.4
20	5.8	5.4	7.5	9.4	5.8	8.7	5.4	3.7	3.1	2.0	2.8	2.4
21	5.8	5.4	8.2	8.0	5.8	8.7	5.4	3.4	2.8	2.0	3.1	2.4
22	5.8	5.4	7.8	7.2	5.8	8.7	5.0	3.4	2.8	2.0	3.1	2.4
23	5.8	5.4	6.8	6.7	5.8	8.7	4.9	3.3	2.8	2.0	3.1	1.8
24	5.8	5.4	6.5	9.4	5.8	8.7	4.9	3.5	2.8	2.0	2.8	1.8
25	5.8	5.6	9.4	8.0	5.7	8.7	5.0	3.5	3.1	2.0	2.8	1.8
26	5.8	5.8	8.4	8.0	5.6	8.7	5.0	3.5	3.1	2.0	3.1	1.8
27	6.5	5.7	7.6	8.0	5.4	8.0	5.0	3.5	3.1	2.0	3.1	1.7
28	5.8	5.8	7.3	7.2	15	8.7	5.0	3.5	3.1	1.8	3.1	1.7
29	5.8	5.8	7.2	7.2	-----	8.7	4.9	3.5	3.1	1.8	3.1	1.8
30	5.8	5.9	6.8	7.2	-----	8.7	4.5	3.5	3.1	1.8	3.1	1.8
31	5.8	-----	6.5	7.2	-----	8.0	-----	3.5	-----	1.8	3.1	-----
TOTAL	172.5	172.1	207.5	354.3	184.9	616.7	178.7	122.1	90.0	73.5	82.2	72.7
MEAN	5.56	5.74	6.69	11.4	6.60	19.9	5.96	3.94	3.00	2.37	2.65	2.42
MAX	8.7	8.0	9.4	86	15	75	8.0	4.6	3.1	3.1	3.5	3.1
MIN	3.5	5.4	5.8	6.4	5.4	8.0	4.5	3.3	2.8	1.8	1.8	1.7
AC-FT	342	341	412	703	367	1,220	354	242	179	146	163	144

CAL YR 1969	TOTAL	12,895.4	MEAN	35.3	MAX	1,360	MIN	3.5	AC-FT	25,580
WTR YR 1970	TOTAL	2,327.2	MEAN	6.38	MAX	86	MIN	1.7	AC-FT	4,620

PEAK DISCHARGE (BASE, 20 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	1100	4.10	198	3- 4	1745	4.06	189
3- 1	1515	3.70	131				

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, 226 cfs Mar. 4 (gage height, 6.54 ft); minimum daily, 0.07 cfs Apr. 3, Aug. 29.

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 good except those for period of no gage-height record, which are poor. No regulation; some diversion above station for irrigation.

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	.56	.64	.90	2.0	.93	16	.79	.58	.30	.14	.11	.53
2	1.0	.79	.83	2.0	.93	8.3	.42	.57	.29	.14	.11	.14
3	1.0	.64	.88	2.1	1.1	2.5	.07	.56	.29	.14	.11	.19
4	1.3	.53	.80	2.3	1.1	28	.19	.55	.28	.13	.11	.42
5	1.3	.79	.72	2.2	1.1	18	.25	.54	.27	.13	.11	.25
6	.96	1.5	.74	2.3	.93	6.7	.53	.53	.27	.13	.11	.32
7	1.1	.96	.80	2.2	1.1	4.2	.79	.52	.26	.13	.11	.42
8	1.2	.88	.90	2.3	1.1	2.9	.64	.51	.25	.12	.11	.19
9	1.1	1.3	1.0	2.6	1.1	2.5	.86	.50	.25	.12	.11	.53
10	1.4	1.6	1.1	3.1	1.3	2.2	.83	.49	.24	.12	.11	.19
11	1.4	1.5	1.0	2.8	1.3	2.2	.82	.48	.23	.12	.11	.14
12	1.3	1.3	1.1	2.9	1.5	2.0	.81	.48	.23	.12	.11	.64
13	1.3	1.3	1.0	2.8	1.6	1.6	.79	.47	.22	.12	.11	.53
14	1.5	1.3	1.0	2.9	1.6	1.8	.78	.46	.22	.12	.11	.53
15	1.6	1.3	.96	3.1	1.3	1.8	.76	.45	.21	.12	.11	.64
16	1.6	1.3	.97	4.9	1.5	1.6	.75	.44	.21	.12	.10	1.1
17	1.5	1.3	1.0	3.5	1.6	1.6	.73	.43	.20	.12	.10	.64
18	1.5	1.3	1.1	2.3	1.3	1.5	.72	.43	.20	.12	.11	1.6
19	1.5	1.3	1.3	1.9	1.3	1.3	.71	.42	.19	.12	.14	1.5
20	1.5	1.3	1.6	1.7	.79	1.3	.70	.42	.19	.12	.19	.79
21	1.2	1.1	1.8	1.5	.79	1.3	.68	.40	.18	.11	.32	.53
22	1.3	1.1	2.0	1.4	.53	1.1	.67	.39	.18	.11	.14	.64
23	1.0	1.1	1.8	1.3	.53	1.3	.66	.38	.17	.11	.25	.53
24	1.3	.97	1.9	1.4	.93	1.3	.65	.37	.17	.11	.32	.64
25	1.6	.84	2.1	1.3	1.1	1.3	.64	.36	.17	.11	.52	.93
26	1.5	.70	2.2	1.3	1.3	1.3	.63	.35	.16	.11	.32	.53
27	1.3	.66	2.2	1.5	1.1	1.1	.62	.34	.16	.11	.14	.32
28	1.1	.80	2.2	1.3	6.3	.93	.61	.33	.15	.11	.10	.53
29	.79	.75	2.2	1.3	-----	1.1	.60	.33	.15	.11	.07	.32
30	.42	.88	2.1	1.3	-----	1.1	.59	.32	.15	.11	.10	.42
31	.79	-----	2.0	1.3	-----	1.3	-----	.31	-----	.11	.42	-----
TOTAL	37.92	31.73	42.20	66.8	37.06	121.13	19.29	13.71	6.44	3.71	4.99	16.68
MEAN	1.22	1.06	1.36	2.15	1.32	3.91	.64	.44	.21	.12	.16	.56
MAX	1.6	1.6	2.2	4.9	6.3	28	.86	.58	.30	.14	.52	1.6
MIN	.42	.53	.72	1.3	.53	.93	.07	.31	.15	.11	.07	.14
AC-FT	75	63	84	132	74	240	38	27	13	7.4	9.9	33
(a)	.5	.7	1.0	3.9	2.0	1.7	0	0	0	0	0	0

CAL YR 1969 TOTAL 5,239.61 MEAN 14.4 MAX 700 MIN .10 AC-FT 10,390
WTR YR 1970 TOTAL 401.66 MEAN 1.10 MAX 28 MIN .07 AC-FT 797

PEAK DISCHARGE (BASE, 20 CFS).--Mar. 1 (1545) 49 cfs (4.33 ft); Mar. 4 (1645) 226 cfs (6.54 ft).

a Precipitation, in inches.

NOTE.- No gage-height record Apr. 9 to Aug. 20.

ARROYO GRANDE BASIN

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, 414 cfs Mar. 4 (gage height, 3.88 ft); minimum daily, 1.8 cfs June 2, July 22.
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 fair. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	9.2	4.6	5.6	13	58	4.8	7.0	3.0	2.3	2.8	8.9
2	17	9.6	4.1	6.1	13	69	6.1	8.8	1.8	2.0	5.4	7.1
3	14	9.7	4.4	5.6	12	45	6.3	7.7	2.4	2.5	7.4	8.1
4	14	9.9	4.0	5.6	8.5	78	9.1	7.7	2.2	3.8	8.8	8.4
5	15	10	3.6	5.6	7.0	100	7.9	7.0	2.6	4.4	11	7.1
6	14	13	3.7	5.8	6.5	69	7.4	7.2	2.9	3.7	11	6.6
7	12	8.1	4.1	5.2	11	50	6.8	5.6	2.6	2.4	9.9	6.4
8	13	7.0	4.5	5.4	22	37	6.3	5.0	3.0	2.7	9.4	7.9
9	12	6.9	5.0	6.3	20	32	8.2	5.6	3.9	3.4	8.5	6.5
10	9.4	6.8	5.5	7.2	9.6	29	5.0	5.0	4.2	2.5	8.8	7.2
11	9.0	6.6	5.2	7.0	6.1	26	12	5.8	3.9	3.4	10	7.0
12	9.3	7.1	5.5	7.0	7.0	23	11	3.2	3.8	3.9	12	8.0
13	10	7.6	5.2	6.5	14	22	9.4	3.3	3.8	3.1	13	8.5
14	10	6.8	5.1	7.0	17	20	9.6	3.3	4.8	2.8	11	7.3
15	10	6.7	4.7	7.2	18	22	7.9	2.1	2.9	2.3	10	5.6
16	13	6.8	4.9	20	14	18	9.4	2.1	2.9	2.4	13	5.7
17	13	6.3	4.9	16	15	17	8.8	2.8	2.4	2.5	11	5.6
18	12	6.2	5.2	11	16	14	9.9	3.1	3.3	2.1	9.0	5.4
19	12	5.9	5.8	12	22	12	10	2.8	4.6	3.0	9.0	5.7
20	12	5.7	5.8	12	10	10	9.1	3.1	5.0	2.2	11	5.9
21	13	5.4	5.8	11	6.1	10	9.9	3.3	5.0	2.0	10	5.3
22	13	5.3	5.6	20	6.1	11	9.9	3.0	4.8	1.8	6.2	4.7
23	12	5.4	5.6	16	6.5	10	9.9	3.6	4.8	2.5	8.3	3.9
24	12	4.7	5.6	22	5.2	9.1	7.4	4.6	4.1	2.4	9.5	4.7
25	12	4.0	6.1	24	4.4	7.7	7.7	4.1	4.1	1.9	9.2	2.9
26	13	3.4	5.6	22	6.5	9.4	9.4	3.3	4.2	2.6	7.3	3.6
27	11	3.3	5.6	17	3.6	8.8	9.9	3.0	3.4	4.4	7.5	3.6
28	11	4.1	5.6	23	28	9.4	7.4	3.2	4.2	5.2	5.8	3.8
29	10	3.7	5.6	19	-----	7.7	7.2	2.1	4.1	2.8	5.3	2.9
30	10	4.4	5.6	15	-----	6.5	7.0	3.5	2.8	3.9	7.0	4.2
31	9.2	-----	5.4	14	-----	6.5	-----	2.6	-----	3.6	8.5	-----
TOTAL	371.9	199.6	157.9	367.1	328.1	847.1	250.7	134.5	107.5	90.5	276.6	178.5
MEAN	12.0	6.65	5.09	11.8	11.7	27.3	8.36	4.34	3.58	2.92	8.92	5.95
MAX	17	13	6.1	24	28	100	12	8.8	5.0	5.2	13	8.9
MIN	9.0	3.3	3.6	5.2	3.6	6.5	4.8	2.1	1.8	1.8	2.8	2.9
AC-FT	738	396	313	728	651	1,680	497	267	213	180	549	354

CAL YR 1969 TOTAL 12,575.6

MEAN 34.5

MAX 1,110

MIN 1.3

AC-FT 24,940

WTR YR 1970 TOTAL 3,310.0

MEAN 9.07

MAX 100

MIN 1.8

AC-FT 6,570

ARROYO GRANDE BASIN

295

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, 39 cfs Mar. 4 (gage height, 2.13 ft); minimum daily, 0.05 cfs Sept. 30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.43	.34	.67	.74	14	1.3	.48	.17	.31	.19	.10
2	.12	.43	.34	.67	.71	15	1.4	.48	.16	.29	.19	.08
3	.12	.43	.34	.67	.76	6.2	1.3	.48	.15	.33	.17	.08
4	.10	.43	.34	.67	.74	11	1.1	.48	.13	.36	.18	.08
5	.10	.46	.34	.67	.81	16	.98	.43	.16	.45	.19	.08
6	.10	.62	.34	.67	.81	9.2	.98	.48	.15	.38	.19	.07
7	.39	.48	.38	.67	.81	6.5	.89	.48	.14	.33	.19	.08
8	.98	.48	.38	.67	.87	5.3	.89	.45	.16	.33	.17	.07
9	.93	.48	.38	.43	.79	4.1	.78	.38	.20	.28	.18	.08
10	.40	.48	.38	.49	.74	3.2	.81	.38	.20	.23	.15	.08
11	.38	.48	.38	.61	.74	2.8	.74	.38	.20	.26	.17	.08
12	.36	.55	.38	.60	.74	2.2	.74	.38	.20	.25	.13	.08
13	.34	.60	.46	.60	.81	1.7	.74	.38	.19	.26	.14	.08
14	.34	.60	.48	.60	.85	1.5	.74	.34	.19	.25	.14	.08
15	.34	.60	.48	.60	.89	1.4	.74	.26	.24	.26	.13	.08
16	.41	.60	.48	1.7	.89	1.6	.74	.23	.26	.23	.12	.07
17	.38	.60	.48	2.0	.89	1.4	.74	.23	.24	.23	.13	.07
18	.38	.60	.50	1.6	.89	1.4	.67	.20	.24	.23	.12	.06
19	.38	.65	.49	1.4	.86	1.5	.67	.12	.25	.22	.10	.07
20	.34	.44	.48	1.3	.86	1.3	.67	.11	.25	.21	.10	.06
21	.33	.32	.48	1.1	.89	.74	.74	.09	.24	.20	.12	.06
22	.34	.38	.48	.95	.98	1.1	.60	.08	.28	.20	.10	.07
23	.34	.38	.48	.82	.98	1.1	.60	.09	.28	.20	.10	.07
24	.34	.38	.48	1.0	.98	.98	.54	.10	.27	.20	.10	.07
25	.34	.38	.62	.89	.98	1.3	.60	.10	.31	.20	.10	.07
26	.34	.38	.67	.78	.84	1.4	.60	.12	.33	.17	.10	.07
27	.34	.35	.67	.82	.74	1.3	.60	.14	.35	.17	.10	.07
28	.42	.33	.67	.84	4.8	1.4	.67	.14	.32	.17	.08	.06
29	.43	.34	.67	.77	-----	1.4	.67	.13	.32	.22	.10	.06
30	.43	.34	.67	.79	-----	1.5	.54	.14	.31	.22	.10	.05
31	.43	-----	.68	.76	-----	1.4	-----	.17	-----	.20	.10	-----
TOTAL	11.10	14.02	14.74	26.81	27.39	120.92	23.78	8.45	6.89	7.84	4.18	2.18
MEAN	.36	.47	.48	.86	.98	3.90	.79	.27	.23	.25	.13	.073
MAX	.98	.65	.68	2.0	4.8	16	1.4	.48	.35	.45	.19	.10
MIN	.10	.32	.34	.43	.71	.74	.54	.08	.13	.17	.08	.05
AC-FT	22	28	29	53	54	240	47	17	14	16	8.3	4.3

CAL YR 1969 TOTAL 2,546.78 MEAN 6.98 MAX 311 MIN .08 AC-FT 5,050

WTR YR 1970 TOTAL 268.30 MEAN .74 MAX 16 MIN .05 AC-FT 532

PEAK DISCHARGE (BASE, 7.0 CFS).--Mar. 2 (0015) 21 cfs (1.93 ft); Mar. 4 (2315) 39 cfs (2.13 ft).

NOTE.--No gage-height record Mar. 6 to Apr. 9.

SANTA ROSA CREEK BASIN

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.--13 years, 10.7 cfs (7,750 acre-ft per year); median of yearly mean discharges, 8.8 cfs (6,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,790 cfs Jan. 16 (gage height, 8.88 ft); no flow Sept. 22-30. 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 fair. No regulation; small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1715: 1958.

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	.34	.18	.32	4.5	16	111	6.6	2.3	1.4	.73	.06	.03
2	.32	.18	.32	3.8	15	54	6.1	2.2	1.4	.70	.06	.04
3	.31	.26	.32	3.5	13	35	5.7	2.2	1.3	.65	.06	.04
4	.32	.22	.26	3.5	13	102	5.7	2.2	1.3	.60	.06	.04
5	.26	.35	.32	3.2	13	57	5.7	2.1	1.3	.60	.06	.03
6	.29	1.2	.35	3.2	12	41	5.2	2.1	1.4	.60	.06	.02
7	.26	.74	.35	3.2	10	34	5.2	2.0	1.4	.60	.06	.02
8	.26	.55	.41	3.2	9.8	29	5.1	2.0	1.4	.60	.06	.03
9	.32	.45	.55	16	9.1	27	5.1	2.0	1.6	.60	.06	.02
10	.32	.45	.55	28	8.5	26	4.6	2.0	1.6	.60	.06	.02
11	.32	.41	.55	34	8.5	24	4.1	1.9	1.4	.60	.06	.02
12	.36	.41	.49	59	9.8	22	3.8	1.9	1.3	.60	.06	.02
13	.35	.35	.45	30	30	20	3.8	1.9	1.3	.60	.06	.02
14	.35	.35	.45	84	16	18	4.0	1.8	1.4	.58	.06	.02
15	.41	.45	.45	59	13	16	4.1	1.8	1.4	.55	.05	.02
16	3.5	.45	.45	625	9.8	16	4.8	1.8	1.4	.55	.05	.01
17	1.4	.45	.41	98	12	14	4.5	1.8	1.4	.29	.05	.01
18	.70	.45	.41	53	10	13	4.2	1.8	1.3	.19	.05	.01
19	.60	.32	8.0	39	8.5	13	4.2	1.9	1.3	.14	.05	.01
20	.55	.32	16	37	7.5	12	3.8	1.9	1.2	.10	.05	.01
21	.41	.32	29	29	7.1	11	3.5	1.9	1.1	.08	.05	.01
22	.41	.35	8.5	24	6.6	11	3.5	1.7	1.1	.08	.05	0
23	.41	.41	.94	23	6.6	10	3.0	1.6	1.1	.07	.05	0
24	.35	.41	.74	95	7.1	9.1	3.0	1.6	1.1	.07	.04	0
25	.41	.35	121	38	7.1	8.5	2.7	1.7	1.1	.07	.04	0
26	.35	.32	27	30	6.9	8.0	2.7	1.7	1.2	.06	.04	0
27	.35	.32	14	32	6.7	7.5	2.7	1.7	1.2	.06	.04	0
28	.35	.26	9.1	25	60	7.5	2.5	1.7	1.0	.06	.04	0
29	.32	.26	7.1	22	-----	7.1	2.5	1.7	.94	.06	.04	0
30	.26	.32	5.7	20	-----	7.1	2.4	1.7	.90	.06	.04	0
31	.26	-----	4.8	17	-----	6.6	-----	1.4	-----	.06	.04	-----
TOTAL	15.42	11.86	259.29	1,545.1	352.6	777.4	124.8	58.0	38.24	11.21	1.61	0.45
MEAN	.50	.40	8.36	49.8	12.6	25.1	4.16	1.87	1.27	.36	.052	.015
MAX	3.5	1.2	121	625	60	111	6.6	2.3	1.6	.73	.06	.04
MIN	.26	.18	.26	3.2	6.6	6.6	2.4	1.4	.90	.06	.04	0
AC-FT	31	24	514	3,060	699	1,540	248	115	76	22	3.2	.9

CAL YR 1969 TOTAL 11,183.04 MEAN 30.6 MAX 1,270 MIN .18 AC-FT 22,180
 WTR YR 1970 TOTAL 3,195.98 MEAN 8.76 MAX 625 MIN 0 AC-FT 6,340

PEAK DISCHARGE (BASE, 450 CFS).--Jan. 16 (0845) 1,790 cfs (8.88 ft); Mar. 4 (1515) 482 cfs (5.69 ft).

NOTE.--No gage-height record Apr. 10 to May 20.

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.--20 years, 56.4 cfs (40,860 acre-ft per year); median of yearly mean discharges, 43 cfs (31,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,200 cfs Jan. 16 (gage height, 10.98 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. WSP 1929: Drainage area.

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	0	0	0	1.0	50	344	15	4.9	.28	0	0	0
2	0	0	0	.76	46	180	15	4.3	.27	0	0	0
3	0	0	0	.60	42	100	15	3.9	.27	0	0	0
4	0	0	0	.44	38	449	14	3.2	.24	0	0	0
5	0	0	0	.40	35	257	13	3.0	.21	0	0	0
6	0	0	0	.24	34	143	14	3.0	.20	0	0	0
7	0	0	0	.28	32	110	13	2.7	.16	0	0	0
8	0	0	0	.24	30	92	13	2.6	.15	0	0	0
9	0	0	0	143	30	77	12	2.5	.15	0	0	0
10	0	0	0	128	29	71	11	2.3	.14	0	0	0
11	0	0	0	94	27	61	11	2.0	.09	0	0	0
12	0	0	0	218	34	54	9.7	1.6	.02	0	0	0
13	0	0	0	73	56	47	9.7	1.6	0	0	0	0
14	0	0	0	600	48	43	9.3	1.4	0	0	0	0
15	0	0	0	236	34	38	9.2	1.2	0	0	0	0
16	0	0	0	4,300	30	35	8.5	.94	0	0	0	0
17	0	0	0	600	44	32	8.3	.79	0	0	0	0
18	0	0	0	296	33	31	7.5	.62	0	0	0	0
19	0	0	209	200	30	27	6.8	.55	0	0	0	0
20	0	0	314	195	27	27	6.6	.51	0	0	0	0
21	0	0	341	146	25	25	6.2	.55	0	0	0	0
22	0	0	87	122	25	25	6.0	.55	0	0	0	0
23	0	0	25	106	22	23	5.6	.49	0	0	0	0
24	0	0	23	610	21	21	5.3	.50	0	0	0	0
25	0	0	570	162	21	21	4.7	.50	0	0	0	0
26	0	0	71	116	21	21	4.1	.46	0	0	0	0
27	0	0	17	114	21	19	3.9	.45	0	0	0	0
28	0	0	6.6	88	157	18	5.2	.44	0	0	0	0
29	0	0	3.1	73	-----	18	5.9	.43	0	0	0	0
30	0	0	1.8	63	-----	17	5.3	.37	0	0	0	0
31	0	-----	1.2	56	-----	16	-----	.31	-----	0	0	-----
TOTAL	0	0	1,669.7	8,742.96	1,042	2,442	273.8	48.66	2.18	0	0	0
MEAN	0	0	53.9	282	37.2	78.8	9.13	1.57	.073	0	0	0
MAX	0	0	570	4,300	157	449	15	4.9	.28	0	0	0
MIN	0	0	0	.24	21	16	3.9	.31	0	0	0	0
AC-FT	0	0	3,310	17,340	2,070	4,840	543	97	4.3	0	0	0

CAL YR 1969 TOTAL 58,200.54 MEAN 159 MAX 10,500 MIN 0 AC-FT 115,400
 WTR YR 1970 TOTAL 14,221.30 MEAN 39.0 MAX 4,300 MIN 0 AC-FT 28,210

PEAK DISCHARGE (BASE, 2,500 CFS).--Jan. 16 (0930) 12,200 cfs (10.98 ft); Jan. 24 (0400) 2,930 cfs (6.89 ft).

BIG SUR RIVER BASIN

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.--20 years, 94.6 cfs (68,540 acre-ft per year); median of yearly mean discharges, 82 cfs (59,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,790 cfs Jan. 26 (gage height, 9.50 ft); minimum daily, 12 cfs for several days.

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 water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	18	15	59	200	737	100	62	36	24	17	12
2	14	18	15	54	183	583	98	60	35	23	16	12
3	14	18	15	50	171	414	97	58	34	23	16	12
4	14	18	15	47	163	539	95	57	33	23	16	12
5	15	38	16	45	153	534	92	57	33	22	16	13
6	15	45	16	42	145	442	89	57	34	21	15	12
7	15	27	16	41	139	381	89	57	34	21	15	12
8	16	24	17	54	133	337	88	56	33	21	15	12
9	17	19	19	223	129	304	86	55	43	21	15	12
10	17	17	18	299	127	277	84	53	37	21	15	15
11	17	17	21	281	120	250	82	53	34	21	15	15
12	17	17	22	286	139	230	80	52	33	21	14	14
13	16	17	23	218	202	210	81	52	33	20	13	15
14	17	17	21	641	183	195	83	50	34	19	12	16
15	21	17	20	636	163	183	80	48	34	19	12	16
16	51	17	19	2,330	155	175	78	47	32	20	12	15
17	31	16	18	1,220	169	165	77	46	32	20	12	15
18	22	15	18	754	151	161	74	45	32	20	12	15
19	20	15	213	558	145	153	73	45	30	20	13	15
20	20	15	257	452	139	145	72	45	29	19	13	15
21	19	15	411	397	133	139	73	45	28	18	13	14
22	19	15	192	337	129	133	74	43	27	18	12	14
23	19	15	103	306	122	127	70	42	27	19	12	14
24	19	15	99	660	117	123	68	41	27	19	12	14
25	19	15	597	472	115	120	67	42	27	19	12	14
26	19	15	248	394	111	116	66	42	25	18	13	14
27	19	15	147	373	111	115	67	42	25	18	15	13
28	19	15	107	303	220	110	67	42	25	17	15	13
29	18	15	86	265	-----	108	64	41	25	17	14	14
30	18	15	74	237	-----	106	63	39	25	17	12	14
31	18	-----	65	218	-----	103	-----	37	-----	17	12	-----
TOTAL	589	555	2,923	12,252	4,167	7,715	2,377	1,511	936	616	426	413
MFAN	19.0	18.5	94.3	395	149	249	79.2	48.7	31.2	19.9	13.7	13.8
MAX	51	45	597	2,330	220	737	100	62	43	24	17	16
MIN	14	15	15	41	111	103	63	37	25	17	12	12
AC-FT	1,170	1,100	5,800	24,300	8,270	15,300	4,710	3,000	1,860	1,220	845	819
CAL YR 1969	TOTAL 71,045		MEAN 195	MAX 2,950	MIN 12	AC-FT 140,900						
WTR YR 1970	TOTAL 34,480		MEAN 94.5	MAX 2,330	MIN 12	AC-FT 68,390						

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1415	5.53	805	1-24	0300	5.89	1,010
12-25	0730	6.31	1,270	3- 1	1230	5.75	930
1-16	0800	9.50	3,790	3- 4	1515	5.62	852

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.--13 years, 76.9 cfs (55,710 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,120 cfs Jan. 16 (gage height, 8.45 ft); no flow many days.
 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 except those for period of no gage-height record, which are poor. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.28	.89	62	126	1,020	69	49	9.7	.84	.12	0
2	0	.25	1.3	54	116	785	66	47	7.9	.74	.11	0
3	0	.28	1.3	49	109	615	64	37	7.0	.65	.11	0
4	0	.34	1.2	50	103	711	63	32	7.5	.60	.11	0
5	0	.57	1.5	49	96	635	60	38	6.8	.54	.10	0
6	0	1.4	1.3	59	91	508	59	40	6.8	.49	.10	0
7	0	1.1	.98	46	88	430	56	41	6.6	.44	.09	0
8	0	1.1	1.6	56	84	380	54	38	6.5	.38	.05	0
9	0	1.3	1.7	151	83	335	46	35	6.9	.34	.02	0
10	0	1.6	1.4	482	80	305	51	33	9.6	.30	0	0
11	0	1.1	1.3	246	78	266	49	32	11	.28	0	0
12	0	.49	1.1	191	83	233	48	31	11	.26	0	0
13	0	.49	1.1	150	168	202	48	30	8.7	.24	0	0
14	0	.62	1.1	318	205	180	48	23	7.1	.23	0	0
15	0	.65	1.1	473	143	154	45	22	6.6	.23	0	0
16	0	.71	1.2	1,810	126	139	46	26	6.4	.22	0	0
17	0	.64	1.2	1,190	137	126	43	20	6.0	.21	0	0
18	0	.56	1.4	612	122	114	41	18	5.3	.19	0	0
19	0	.57	2.4	408	112	111	41	17	4.5	.18	0	0
20	0	.75	2.7	335	107	107	41	16	3.8	.18	0	0
21	0	.59	11	284	101	101	50	18	3.4	.17	0	0
22	0	.57	30	245	94	94	37	20	2.8	.16	0	0
23	0	.58	19	212	89	93	36	18	2.5	.16	0	0
24	0	.52	16	472	86	88	34	16	2.1	.15	0	0
25	0	.49	66	370	78	88	33	15	1.8	.15	0	0
26	0	.51	62	302	69	93	33	14	1.6	.14	0	0
27	0	.47	66	284	67	84	32	16	1.5	.14	0	0
28	.25	.45	94	233	144	80	31	17	1.3	.13	0	0
29	.34	.47	80	192	-----	76	30	16	1.1	.13	0	0
30	.31	.59	75	161	-----	75	40	14	.98	.12	0	0
31	.28	-----	66	141	-----	73	-----	12	-----	.12	0	-----
TOTAL	1.18	20.04	612.77	9,687	2,985	8,301	1,394	801	164.78	9.11	0.81	0
MEAN	.038	.67	19.8	312	107	268	46.5	25.8	5.49	.29	.026	0
MAX	.34	1.6	94	1,810	205	1,020	69	49	11	.84	.12	0
MIN	0	.25	.89	46	67	73	30	12	.98	.12	0	0
AC-FT	2.3	40	1,220	19,210	5,920	16,470	2,760	1,590	327	18	1.6	0
CAL YR 1969	TOTAL	86,531.74	MEAN	237	MAX	3,690	MIN	0	AC-FT	171,600		
WTR YR 1970	TOTAL	23,976.69	MEAN	65.7	MAX	1,810	MIN	0	AC-FT	47,560		

DATE	TIME	PEAK DISCHARGE (BASE, 1,000 CFS)		DATE	TIME	NOTE.--No gage-height record June 17 to Aug. 10.	
		G.H.	DISCHARGE			G.H.	DISCHARGE
1-16	1145	8.45	3,120	3- 4	1745	6.36	1,060
3- 1	1345	6.97	1,520				

CARMEL RIVER BASIN

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.--8 years, 104 cfs (75,350 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,500 cfs Jan. 16 (gage height, 10.47 ft); no flow many days. Period of record: Maximum discharge, 8,620 cfs Jan. 28, 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.44	.64	20	209	940	83	21	3.6	.01	.27	0
2	.16	.46	.49	17	194	749	81	24	2.5	0	.07	.01
3	.16	.53	.46	16	178	501	78	24	1.6	0	0	.01
4	.14	.56	.46	17	172	669	70	24	1.3	0	0	.01
5	.14	.97	.46	16	160	668	70	24	1.5	0	0	.07
6	.13	.93	.44	19	154	512	65	24	1.5	0	0	.01
7	.13	2.1	.43	19	147	442	61	23	1.3	0	0	.01
8	.13	1.6	.93	18	138	396	61	21	.87	.01	0	0
9	.13	2.1	.71	26	130	351	52	20	1.0	0	0	0
10	.14	2.6	.58	407	130	325	49	19	.87	.01	0	0
11	.14	3.1	.58	285	126	300	50	20	.87	.01	0	.01
12	.11	2.7	.61	236	128	272	51	18	.87	.07	0	.01
13	.12	.78	.72	181	201	248	50	16	.87	.01	0	0
14	.11	.78	.75	243	262	229	60	12	.87	0	0	0
15	.18	1.5	.77	513	209	217	59	10	.75	0	0	0
16	.24	1.3	.75	1,990	188	205	57	8.6	.63	0	0	0
17	.35	1.5	.75	1,100	186	192	58	11	.63	0	0	0
18	.71	1.9	.75	592	178	178	56	12	.53	0	0	0
19	.43	1.8	1.3	423	169	169	55	12	.53	0	0	0
20	.76	1.6	1.0	357	159	157	63	12	.53	0	.01	0
21	1.2	1.2	5.0	310	149	146	78	9.6	.34	0	0	0
22	1.4	1.2	1.7	278	136	136	44	10	.34	0	0	.01
23	1.5	1.1	1.4	252	133	136	27	10	.34	0	0	.01
24	1.3	1.1	1.2	446	126	132	23	8.2	.27	0	0	.07
25	1.4	.88	3.6	393	121	125	19	7.0	.15	0	0	0
26	1.0	.75	1.5	332	115	114	18	6.3	.21	0	0	0
27	.88	.79	1.5	325	109	108	16	5.6	.21	0	0	0
28	.70	.74	1.4	298	157	104	18	5.6	.15	0	0	0
29	.49	.81	13	260	-----	96	16	5.6	.11	0	0	0
30	.43	.68	21	237	-----	92	16	4.9	.07	0	0	0
31	.50	-----	19	223	-----	91	-----	4.0	-----	0	0	-----
TOTAL	15.39	38.50	83.88	9,849	4,464	9,000	1,504	432.4	25.31	0.12	0.35	0.23
MEAN	.50	1.28	2.71	318	159	290	50.1	13.9	.84	.004	.011	.008
MAX	1.5	3.1	21	1,990	262	940	83	24	3.6	.07	.27	.07
MIN	.11	.44	.43	16	109	91	16	4.0	.07	0	0	0
AC-FT	31	76	166	19,540	8,850	17,850	2,980	858	50	.2	.7	.5

CAL YR 1969 TOTAL 114,250.66 MEAN 313 MAX 6,750 MIN 0 AC-FT 226,600
 WTR YR 1970 TOTAL 25,413.18 MEAN 69.6 MAX 1,990 MIN 0 AC-FT 50,410

PEAK DISCHARGE (BASE, 1,200 CFS).--Jan. 16 (1345) 3,500 cfs (10.47 ft); Mar. 1 (1415) 1,590 cfs (8.22 ft).

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).

EXTREMES.--Current year: Maximum discharge, 40 cfs Mar. 4 (gage height, 2.87 ft); minimum daily, 0.03 cfs May 14-20, 22-24.

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 (WATER YEARS).--WRD Calif. 1968: 1967.

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	.10	.10	.09	.09	.11	12	.26	.10	.04	.07	.05	.05
2	.10	.10	.09	.09	.10	5.1	.26	.10	.04	.06	.05	.05
3	.10	.10	.09	.09	.10	1.3	.26	.20	.04	.06	.05	.05
4	.10	.10	.09	.09	.10	13	.26	.10	.05	.06	.05	.05
5	.10	.26	.09	.09	.10	10	.20	.10	.05	.06	.05	.05
6	.10	.17	.09	.09	.10	4.6	.26	.10	.05	.06	.05	.04
7	.10	.13	.09	.09	.10	3.9	.20	.08	.05	.06	.05	.04
8	.10	.11	.16	.14	.10	3.0	.20	.08	.05	.06	.05	.04
9	.10	.11	.11	.19	.10	2.3	.20	.07	.05	.06	.05	.05
10	.10	.10	.09	.20	.10	2.5	.20	.06	.05	.06	.05	.04
11	.10	.10	.09	1.7	.10	1.8	.20	.05	.05	.06	.05	.04
12	.10	.10	.09	.70	.13	1.2	.20	.04	.05	.06	.05	.05
13	.10	.10	.09	.36	1.4	.86	.26	.04	.05	.06	.05	.05
14	.10	.10	.09	.71	.24	.61	.20	.03	.05	.06	.05	.05
15	.13	.11	.09	.81	.13	.55	.20	.03	.05	.06	.05	.05
16	.16	.11	.09	2.0	.15	.34	.20	.03	.05	.06	.05	.05
17	.13	.10	.09	.28	.16	.34	.20	.03	.05	.06	.05	.05
18	.12	.10	.09	.15	.12	.26	.20	.03	.05	.06	.05	.05
19	.24	.10	.19	.17	.12	.20	.20	.03	.05	.06	.05	.05
20	.15	.10	.15	.20	.11	.20	.20	.03	.05	.06	.05	.05
21	.12	.10	.76	.32	.11	.20	.16	.04	.05	.05	.05	.04
22	.11	.10	.17	.30	.11	.20	.16	.03	.05	.05	.05	.04
23	.11	.10	.10	.19	.12	.20	.16	.03	.05	.05	.05	.04
24	.11	.10	.09	.36	.12	.20	.16	.03	.05	.05	.05	.04
25	.11	.10	1.0	.14	.11	.20	.16	.04	.05	.05	.05	.04
26	.11	.10	.14	.13	.11	.20	.20	.04	.06	.05	.05	.04
27	.11	.10	.10	.22	.32	.16	.16	.04	.06	.05	.05	.04
28	.11	.10	.09	.16	2.2	.20	.10	.04	.06	.05	.05	.04
29	.11	.09	.09	.13	-----	.26	.10	.04	.06	.05	.05	.04
30	.11	.09	.09	.14	-----	.26	.10	.04	.06	.05	.05	.04
31	.10	-----	.09	.11	-----	.26	-----	.04	-----	.05	.05	-----
TOTAL	3.54	3.28	4.77	10.44	6.87	66.40	5.82	1.74	1.52	1.76	1.55	1.35
MEAN	.11	.11	.15	.34	.25	2.14	.19	.056	.051	.057	.050	.045
MAX	.24	.26	1.0	2.0	2.2	13	.26	.20	.06	.07	.05	.05
MIN	.10	.09	.09	.09	.10	.16	.10	.03	.04	.05	.05	.04
AC-FT	7.0	6.5	9.5	21	14	132	12	3.5	3.0	3.5	3.1	2.7
CAL YR 1969	TOTAL	838.49	MEAN	2.30	MAX	44	MIN	.04	AC-FT	1,660		
WTR YR 1970	TOTAL	109.04	MEAN	.30	MAX	13	MIN	.03	AC-FT	216		

PEAK DISCHARGE (BASE, 5.0 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0545	2.05	5.0	3- 4	1515	2.87	40
2-13	0830	2.48	12				

SALINAS RIVER BASIN

11143500 SALINAS RIVER NEAR POZO, CALIF.

LOCATION.--Lat 35°17'55", long 120°24'10", in NE $\frac{1}{4}$ 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.--28 years, 18.0 cfs (13,040 acre-ft per year); median of yearly mean discharges, 7.1 cfs (5,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 800 cfs Mar. 1 (gage height, unknown); no flow Sept. 1-3. Period of record: Maximum discharge, 18,600 cfs Jan. 25, 1969 (gage height, 13.90 ft in gage well, 15.5 ft, 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.4	2.4	3.1	3.5	360	5.4	16	2.0	1.4	.62	0
2	1.1	1.4	2.4	3.3	3.2	70	5.0	14	2.0	1.3	.46	0
3	1.1	1.4	2.4	3.6	3.2	27	4.8	13	2.0	1.5	.39	0
4	1.1	1.4	2.6	3.3	3.3	213	4.5	12	2.0	1.6	.27	.28
5	1.0	1.4	2.6	3.6	3.0	203	4.2	11	2.0	1.4	.15	.43
6	1.0	1.4	2.6	3.6	2.1	59	4.0	11	2.1	1.1	.04	.35
7	1.0	1.4	2.4	3.8	1.7	39	3.8	9.5	2.1	1.1	.13	.35
8	1.0	1.4	2.4	3.6	1.5	33	3.8	8.9	2.1	1.1	.17	.35
9	1.0	1.5	2.4	3.6	1.3	27	3.3	8.4	2.2	1.1	.16	.35
10	1.0	1.6	2.4	7.2	1.1	23	3.1	7.7	2.3	1.1	.16	.35
11	1.0	1.6	2.2	10	1.8	21	2.9	7.1	2.3	1.1	.15	.35
12	1.0	1.7	2.4	19	3.5	20	2.9	6.7	2.2	.96	.18	.28
13	1.0	1.7	2.4	9.0	11	19	2.9	5.8	2.2	.74	.24	.52
14	1.0	1.7	2.4	17	7.0	18	2.9	5.2	2.4	.71	.17	.83
15	1.0	1.7	2.4	45	5.5	18	3.1	4.8	2.4	.75	.19	.83
16	4.8	1.7	2.4	12	4.0	17	2.9	4.0	2.5	.76	.14	.83
17	1.5	1.5	2.4	8.0	5.2	15	3.1	3.7	2.6	.73	.16	.62
18	.43	1.5	2.6	6.2	4.0	15	3.1	3.2	2.5	.65	.02	.52
19	.43	1.4	2.9	5.6	3.1	14	3.1	2.7	2.4	.48	.02	.72
20	.43	1.5	2.9	5.4	2.6	12	3.5	2.6	2.1	.43	.04	.83
21	.35	1.5	2.9	5.1	2.4	11	75	2.4	2.0	.40	.04	.96
22	.21	1.7	3.1	4.8	2.1	11	45	2.0	2.0	.39	.16	.83
23	.21	1.9	3.1	4.2	1.9	10	27	2.1	2.0	.35	.21	.62
24	.62	1.9	2.9	4.0	1.7	9.4	23	2.2	2.1	.47	.21	.52
25	1.5	1.7	2.9	4.0	1.6	8.9	22	2.0	2.2	.34	.21	.72
26	1.4	1.7	2.9	3.9	1.5	8.1	21	2.3	2.2	.24	.35	.62
27	1.4	1.7	3.1	3.9	1.5	7.6	20	2.1	2.2	.30	.43	.28
28	1.4	1.7	3.1	3.8	20	7.0	19	2.1	1.9	.48	.35	.28
29	1.4	1.5	3.1	3.6	-----	6.6	18	2.2	1.6	.50	.35	.28
30	1.4	1.9	3.1	3.7	-----	6.2	17	2.2	1.5	.57	.11	.35
31	1.4	-----	3.1	3.7	-----	5.8	-----	2.1	-----	.60	.07	-----
TOTAL	34.28	47.5	82.9	220.6	104.3	1,314.6	359.3	181.0	64.1	24.65	6.35	14.25
MEAN	1.11	1.58	2.67	7.12	3.73	42.4	12.0	5.84	2.14	.80	.20	.48
MAX	4.8	1.9	3.1	45	20	360	75	16	2.6	1.6	.62	.96
MIN	.21	1.4	2.2	3.1	1.1	5.8	2.9	2.0	1.5	.24	.02	0
AC-FT	68	94	164	438	207	2,610	713	359	127	49	13	28

CAL YR 1969 TOTAL 44,704.44 MEAN 122 MAX 7,150 MIN .21 AC-FT 88,670
WTR YR 1970 TOTAL 2,453.83 MEAN 6.72 MAX 360 MIN 0 AC-FT 4,870

PEAK DISCHARGE (BASE, 300 CFS).--Mar. 1 (time unknown) 800 cfs; Mar. 4 (1900) 652 cfs (11.29 ft).

NOTE.--No gage-height record Feb. 7 to Mar. 2.

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.--Maximum discharge during period, 118 cfs Mar. 4 (gage height, 2.73 ft), from rating curve extended above 37 cfs; no flow for long periods.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. No regulation or diversion above station.

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				0	.08	49	.03	.01	.01	.01		
2				0	.08	14	.03	.01	.01	.01		
3				0	.06	3.8	.03	.01	.01	.01		
4				0	.06	27	.02	.01	.01	.01		
5				0	.05	11	.02	.01	.01	.01		
6				0	.05	3.9	.02	.01	.01	.01		
7				0	.05	2.3	.02	.01	.01	.01		
8				0	.05	1.6	.02	.01	.01	.01		
9				6.0	.05	1.1	.02	.01	.01	.01		
10				2.0	.05	.92	.02	.01	.01	0		
11				.80	.05	.71	.02	.01	.01	0		
12				.30	.06	.51	.02	.01	.01	0		
13				.20	.06	.47	.02	.01	.01	0		
14				.50	.05	.37	.02	.01	.01	0		
15				.20	.05	.36	.02	.01	.01	0		
16				37	.05	.31	.02	.01	.01	0		
17				12	.05	.19	.02	.01	.01	0		
18				4.0	.05	.16	.02	.01	.01	0		
19				3.0	.05	.13	.02	.01	.01	0		
20				.80	.05	.10	.02	.01	.01	0		
21				.15	.05	.08	.02	.01	.01	0		
22				.12	.05	.08	.02	.01	.01	0		
23				.10	.04	.08	.02	.01	.01	0		
24				1.1	.05	.06	.01	.01	.01	0		
25				.51	.05	.06	.01	.01	.01	0		
26				.29	.05	.05	.01	.01	.01	0		
27				.23	.05	.04	.01	.01	.01	0		
28				.16	17	.04	.01	.01	.01	0		
29				.11	-----	.04	.01	.01	.01	0		
30				.09	-----	.03	.01	.01	.01	0		
31		-----		.08	-----	.03	-----	.01	-----	0		-----
TOTAL	0	0	0	69.74	18.44	118.52	.56	.31	.30	.09	0	0
MEAN	0	0	0	2.25	.66	3.82	.019	.010	.010	.003	0	0
MAX	0	0	0	37	17	49	.03	.01	.01	.01	0	0
MIN	0	0	0	0	.04	.03	.01	.01	.01	0	0	0
AC-FT	0	0	0	138	37	235	1.1	.6	.6	.2	0	0

WAT YR 1970 TOTAL 207.96 MEAN .57 MAX 49 MIN 0 AC-FT 412

DATE	TIME	G.H.	PEAK DISCHARGE (BASE, 25 CFS)			
			DISCHARGE	DATE	TIME	G.H.
1- 9	unknown	2.19	75	3- 1	1330	2.39
1-16	unknown	2.30	84	3- 4	1530	2.73

NOTE.--No gage-height record Apr. 10 to July 9, July 11 to Aug. 10.

SALINAS RIVER BASIN

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, 24,800 acre-ft Mar. 16-28; maximum elevation, 1,299.40 ft Mar. 23; minimum contents, 19,500 acre-ft Sept. 28-30.
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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22,400	21,700	21,500	21,400	22,000	22,900	24,700	24,300	23,600	22,800	21,600	20,500
2	22,400	21,700	21,500	21,400	22,000	23,300	24,700	24,300	23,600	22,800	21,600	20,400
3	22,400	21,600	21,500	21,400	22,000	23,400	24,700	24,300	23,600	22,800	21,500	20,400
4	22,400	21,600	21,400	21,400	22,000	23,900	24,700	24,300	23,600	22,700	21,500	20,400
5	22,300	21,600	21,400	21,400	22,000	24,300	24,700	24,200	23,500	22,700	21,500	20,300
6	22,300	21,700	21,400	21,400	22,000	24,400	24,700	24,200	23,500	22,600	21,400	20,300
7	22,200	21,700	21,400	21,400	22,000	24,500	24,700	24,200	23,500	22,600	21,400	20,300
8	22,200	21,700	21,400	21,400	22,000	24,600	24,600	24,200	23,400	22,600	21,400	20,200
9	22,200	21,700	21,400	21,500	22,100	24,600	24,600	24,200	23,400	22,500	21,300	20,200
10	22,200	21,700	21,400	21,500	22,100	24,700	24,600	24,200	23,400	22,500	21,300	20,200
11	22,100	21,700	21,400	21,600	22,100	24,700	24,600	24,100	23,400	22,400	21,200	20,100
12	22,100	21,600	21,400	21,600	22,100	24,700	24,600	24,100	23,400	22,400	21,200	20,100
13	22,100	21,600	21,400	21,600	22,100	24,700	24,600	24,100	23,300	22,400	21,200	20,100
14	22,000	21,600	21,400	21,700	22,100	24,700	24,600	24,100	23,300	22,300	21,100	20,000
15	22,000	21,600	21,400	21,700	22,100	24,700	24,600	24,100	23,300	22,300	21,100	20,000
16	22,000	21,600	21,400	21,900	22,100	24,800	24,500	24,000	23,300	22,200	21,000	20,000
17	22,000	21,600	21,400	21,900	22,100	24,800	24,500	24,000	23,200	22,200	21,000	19,900
18	22,000	21,600	21,400	21,900	22,100	24,800	24,500	24,000	23,200	22,200	21,000	19,900
19	22,000	21,600	21,400	22,000	22,100	24,800	24,500	23,900	23,200	22,100	20,900	19,900
20	21,900	21,600	21,400	22,000	22,100	24,800	24,500	23,900	23,200	22,100	20,900	19,800
21	21,900	21,600	21,400	22,000	22,100	24,800	24,500	23,900	23,100	22,100	20,900	19,800
22	21,900	21,600	21,400	22,000	22,100	24,800	24,500	23,900	23,100	22,000	20,800	19,800
23	21,900	21,600	21,400	22,000	22,100	24,800	24,400	23,900	23,100	22,000	20,800	19,700
24	21,800	21,500	21,400	22,000	22,100	24,800	24,400	23,800	23,000	21,900	20,800	19,700
25	21,800	21,500	21,400	22,000	22,100	24,800	24,400	23,800	23,000	21,900	20,700	19,600
26	21,800	21,500	21,400	22,000	22,100	24,800	24,400	23,800	23,000	21,800	20,700	19,600
27	21,800	21,500	21,400	22,000	22,100	24,800	24,400	23,800	23,000	21,800	20,600	19,600
28	21,800	21,500	21,400	22,000	22,300	24,800	24,400	23,700	22,900	21,800	20,600	19,500
29	21,700	21,500	21,400	22,000	-----	24,700	24,300	23,700	22,900	21,700	20,600	19,500
30	21,700	21,500	21,400	22,000	-----	24,700	24,300	23,700	22,900	21,700	20,500	19,500
31	21,700	-----	21,400	22,000	-----	24,700	-----	23,700	-----	21,600	20,500	-----
MAX	22,400	21,700	21,500	22,000	22,300	24,800	24,700	24,300	23,600	22,800	21,600	20,500
MIN	21,700	21,500	21,400	21,400	22,000	22,900	24,300	23,700	22,900	21,600	20,500	19,500
(a)	1,295.00	1,294.69	1,294.61	1,295.47	1,295.90	1,299.32	1,298.77	1,297.83	1,296.66	1,294.92	1,293.29	1,291.79
(b)	-800	-200	-100	+600	+300	+2,400	-400	-600	-800	-1,300	-1,100	-1,000
(c)	416	323	280	266	258	326	424	522	478	563	541	515

CAL YR 1969 b +5,200 c 3,430
WTR YR 1970 b -3,000 c 4,910

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.

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 down-stream 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.--28 years, 19.3 cfs (13,980 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12 cfs Mar. 4 (gage height, 0.90 ft); maximum gage height, 1.14 ft Sept. 28 (backwater from beaver dams); 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 fair. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.6	.07	.03	.17	2.9	.09		0	1.0	.95	.95
2	1.7	.60	.07	.02	.17	1.3	.12		0	1.0	.95	.95
3	2.2	.10	.07	.01	.17	.69	.10		0	1.0	.95	.95
4	3.1	.07	.07	0	.16	3.7	.05		0	1.0	.95	.95
5	3.3	.07	.07	0	.12	1.8	.05		0	1.0	.95	.95
6	3.3	.07	.07	0	.11	.82	.12			.45	1.0	.95
7	3.3	.07	.04	0	.09	.62	.07			1.8	1.0	.95
8	3.4	.07	.04	0	.08	.49	.07			1.9	1.0	.95
9	3.3	.07	.04	1.0	.07	.45	.06			1.8	1.0	.95
10	3.4	.07	.04	.60	.07	.36	.09			1.8	1.0	.95
11	3.8	.07	.03	.40	.06	.31	.13			1.0	1.0	.95
12	3.4	.07	.02	.60	.10	.26	.17			1.0	1.0	.95
13	3.4	.07	.02	.40	.30	.27	.17			1.0	.95	.95
14	3.4	.07	.02	.80	.20	.18	.21			1.0	.95	.95
15	3.4	.07	.01	.50	.15	.18	.23			1.0	.95	.95
16	3.9	.07	.01	3.0	.14	.13	.20			1.0	.95	.95
17	3.4	.07	.01	1.5	.17	.12	.17			1.0	.95	.95
18	3.5	.07	.01	.80	.14	.12	.14			1.0	.95	.95
19	3.4	.07	.03	.50	.12	.19	.11			1.0	.95	.95
20	3.3	.07	.04	.40	.10	.22	.10			1.0	.95	.95
21	3.4	.07	.04	.30	.09	.23	.14			1.0	.95	.95
22	3.4	.07	.04	.29	.08	.18	.11			1.0	.95	.95
23	3.4	.07	.04	.28	.07	.19	.10			1.0	.95	.95
24	3.6	.07	.07	.41	.06	.17	.05			1.0	.95	.95
25	3.4	.07	.16	.37	.06	.19	.03			1.0	.95	.95
26	3.1	.07	.15	.31	.06	.17	.01			1.0	.95	.95
27	3.2	.07	.12	.29	.10	.16	0			1.0	.95	.95
28	3.0	.07	.12	.26	1.5	.14	0			1.0	.95	.95
29	3.0	.07	.09	.23	-----	.12	0			1.0	.95	.95
30	3.0	.07	.07	.23	-----	.07	0			1.0	.95	.95
31	3.0	-----	.05	.17	-----	.09	-----			1.0	.95	-----
TOTAL	99.2	5.19	1.73	13.70	4.71	16.82	2.89	0	0	28.75	30.05	28.50
MEAN	3.20	.17	.056	.44	.17	.54	.096	0	0	.93	.97	.95
MAX	3.9	2.6	.16	3.0	1.5	3.7	.23	0	0	1.9	1.0	.95
MIN	1.7	.07	.01	0	.06	.07	0	0	0	0	.95	.95
AC-FT	197	10	3.4	27	9.3	33	5.7	0	0	57	60	57
CAL YR 1969	TOTAL	63,185.91	MEAN	173	MAX	10,200	MIN	0	AC-FT	125,300		
WAT YR 1970	TOTAL	231.54	MEAN	.63	MAX	3.9	MIN	0	AC-FT	459		

SALINAS RIVER BASIN

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.--21 years, 14.7 cfs (10,650 acre-ft per year); median of yearly mean discharges, 8.0 cfs (5,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,310 cfs Jan. 16 (gage height, 7.44 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 fair. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.02	.13	8.4	168	3.4	1.8	.93	.80	.09	0
2	0	0	.02	.12	7.5	90	3.3	1.7	.86	.80	.07	0
3	0	0	.02	.12	6.6	31	3.2	1.5	.80	.69	.05	0
4	0	0	.03	.12	6.4	149	3.0	1.2	.80	.69	.03	0
5	0	0	.03	.12	5.6	108	2.9	1.4	.93	.64	.02	0
6	0	0	.04	.12	5.1	50	2.9	1.4	.93	.65	.01	0
7	0	0	.04	.12	4.9	33	2.6	1.4	1.0	.64	0	0
8	0	0	.05	.12	4.5	25	2.5	1.3	1.0	.60	0	0
9	0	0	.05	1.9	4.3	20	2.5	1.2	1.0	.59	0	0
10	0	0	.06	16	4.2	18	2.4	1.2	1.1	.57	0	0
11	0	0	.07	20	3.8	15	2.4	1.0	1.0	.58	0	0
12	0	0	.07	24	4.5	14	2.3	1.0	1.0	.54	0	0
13	0	0	.07	16	25	12	2.3	1.0	1.1	.49	0	0
14	0	0	.08	50	17	11	2.3	1.0	1.2	.46	0	0
15	0	0	.08	27	11	9.8	2.3	.93	1.2	.46	0	0
16	0	0	.08	742	8.8	8.8	2.3	.86	1.2	.44	0	0
17	0	0	.08	142	9.8	8.2	2.3	.80	1.3	.40	0	0
18	0	0	.08	55	8.2	7.7	2.3	.74	1.2	.34	0	0
19	0	0	.31	30	7.3	7.1	2.2	.74	1.1	.32	0	0
20	0	0	.29	26	6.4	6.6	2.2	.82	1.0	.27	0	0
21	0	0	.29	19	5.9	6.4	2.3	.86	1.0	.25	0	0
22	0	0	.22	14	5.2	6.0	2.2	.80	1.0	.25	0	0
23	0	0	.18	12	5.1	5.8	2.2	.80	1.0	.26	0	0
24	0	0	.18	95	4.8	5.6	2.0	.86	1.0	.28	0	0
25	0	0	4.5	35	4.3	5.2	2.0	.93	1.0	.27	0	0
26	0	0	1.3	24	4.1	5.1	2.0	1.0	1.0	.25	0	0
27	0	0	.22	21	4.0	4.7	2.0	1.0	1.0	.20	0	0
28	0	0	.14	17	51	4.3	2.0	1.0	.93	.17	0	0
29	0	.01	.14	13	-----	4.3	2.0	1.0	.86	.15	0	0
30	0	.02	.14	12	-----	4.2	2.0	.93	.86	.13	0	0
31	0	-----	.13	10	-----	3.8	-----	1.0	-----	.11	0	-----
TOTAL	0	0.03	9.01	1,422.87	243.7	847.6	72.3	33.17	30.30	13.29	0.27	0
MEAN	0	.001	.29	45.9	8.70	27.3	2.41	1.07	1.01	.43	.009	0
MAX	0	.02	4.5	742	51	168	3.4	1.8	1.3	.80	.09	0
MIN	0	0	.02	.12	3.8	3.8	2.0	.74	.80	.11	0	0
AC-FT	0	.06	18	2,820	483	1,680	143	66	60	26	.5	0

CAL YR 1969 TOTAL 18,676.94 MEAN 51.2 MAX 2,610 MIN 0 AC-FT 37,050
 WTR YR 1970 TOTAL 2,672.54 MEAN 7.32 MAX 742 MIN 0 AC-FT 5,300

PEAK DISCHARGE (BASE, 600 CFS).--Jan. 16 (0930) 2,310 cfs (7.44 ft); Mar. 4 (1630) 605 cfs (4.98 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 unnamed 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, 886 cfs Jan. 16 (gage height, 8.73 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 poor. No regulation; small diversions above station for irrigation. Records of water temperatures and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

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			0	0	3.5	62	.82	.23				
2			0	0	3.2	26	.82	.17				
3			0	0	2.9	13	.65	.17				
4			0	0	2.6	63	.52	.12				
5			0	0	2.4	31	.65	.12				
6			0	0	2.1	17	.65	.09				
7			0	0	2.1	11	.65	.09				
8			0	0	1.9	7.5	.65	.09				
9			0	10	1.9	5.8	.65	.06				
10			0	.76	1.7	4.8	.52	.06				
11			0	9.0	1.7	4.1	.52	.04				
12			0	8.3	2.6	3.5	.52	.04				
13			0	.17	23	3.2	.52	.06				
14			0	33	5.8	2.9	.39	.06				
15			0	6.1	4.1	2.6	.52	.04				
16			0	363	3.5	2.4	.52	.02				
17			0	73	4.8	2.1	.39	.01				
18			0	23	3.5	1.9	.30	0				
19			0	13	3.2	1.9	.30	0				
20			0	11	2.9	1.7	.30	0				
21			0	6.6	2.6	1.7	.30	0				
22			0	4.4	2.4	1.7	.30	0				
23			0	3.5	2.1	1.5	.30	0				
24			0	56	2.1	1.5	.30	0				
25			18	15	1.9	1.3	.30	0				
26			0	10	1.7	1.3	.23	0				
27			0	9.5	1.7	1.1	.23	0				
28			0	6.6	26	1.1	.23	0				
29			0	5.4	-----	1.1	.23	0				
30			0	4.4	-----	1.1	.23	0				
31		-----	0	4.1	-----	.82	-----	0	-----			-----
TOTAL	0	0	18	675.83	119.9	281.62	13.51	1.47	0	0	0	0
MEAN	0	0	.58	21.8	4.28	9.08	.45	.047	0	0	0	0
MAX	0	0	18	363	26	63	.82	.23	0	0	0	0
MIN	0	0	0	0	1.7	.82	.23	0	0	0	0	0
AC-FT	0	0	36	1,340	238	559	27	2.9	0	0	0	0

CAL YR 1969	TOTAL 3,603.47	MEAN 9.87	MAX 496	MIN 0	AC-FT 7,150
WAT YR 1970	TOTAL 1,110.33	MEAN 3.04	MAX 363	MIN 0	AC-FT 2,200

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	0745	4.45	118	2-13	1300	4.37	106
1-16	0830	8.73	886	3- 1	1800	4.42	113
1-24	0215	5.09	225	3- 4	1500	5.71	341

SALINAS RIVER BASIN

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.--9 years, 15.6 cfs (11,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,770 cfs Jan. 16 (gage height, 8.41 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 loads for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.48	18	163	2.7	1.3	.25	0	0	0
2	0	0	0	.41	15	112	2.4	1.3	.24	0	0	0
3	0	0	0	.39	14	63	2.4	1.1	.22	0	0	0
4	0	0	0	.35	13	172	2.4	.96	.20	0	0	0
5	0	0	0	.33	10	134	2.1	.99	.18	0	0	0
6	0	0	0	.37	9.0	75	2.1	.96	.18	0	0	0
7	0	0	0	.47	8.3	53	2.1	.89	.18	0	0	0
8	0	0	0	.47	7.7	42	1.8	.56	.19	0	0	0
9	0	0	0	1.2	7.1	33	1.8	.45	.20	0	0	0
10	0	0	.01	24	6.6	30	1.7	.43	.20	0	0	0
11	0	0	.07	32	5.8	25	1.5	.43	.20	0	0	0
12	0	0	.09	66	7.3	22	1.4	.43	.18	0	0	0
13	0	0	.11	30	36	19	1.4	.43	.18	0	0	0
14	0	0	.12	82	25	17	1.4	.43	.16	0	0	0
15	0	0	.12	73	16	16	1.5	.40	.15	0	0	0
16	0	0	.12	763	13	14	1.8	.37	.14	0	0	0
17	0	0	.12	227	17	13	2.0	.36	.13	0	0	0
18	0	0	.13	140	12	11	1.9	.36	.11	0	0	0
19	0	0	.80	80	10	10	1.7	.41	.08	0	0	0
20	0	0	2.1	43	9.2	8.8	1.5	.42	.07	0	0	0
21	0	0	1.6	25	8.0	7.7	1.5	.41	.06	0	0	0
22	0	0	1.2	19	7.1	7.1	1.6	.37	.07	0	0	0
23	0	0	.51	15	6.5	7.1	1.5	.34	.05	0	0	0
24	0	0	.36	130	6.1	6.5	1.5	.35	.05	0	0	0
25	0	0	32	60	5.2	5.5	1.6	.41	.04	0	0	0
26	0	0	9.4	44	5.0	6.0	1.5	.42	.02	0	0	0
27	0	0	2.6	41	5.0	5.5	1.5	.43	0	0	0	0
28	0	0	1.3	32	50	5.0	1.5	.41	0	0	0	0
29	0	0	.85	27	-----	3.8	1.2	.38	0	0	0	0
30	0	0	.66	23	-----	3.0	1.2	.34	0	0	0	0
31	0	-----	.55	20	-----	2.7	-----	.29	-----	0	0	-----
TOTAL	0	0	54.82	2,000.47	352.9	1,093.7	52.2	17.13	3.73	0	0	0
MEAN	0	0	1.77	64.5	12.6	35.3	1.74	.55	.12	0	0	0
MAX	0	0	32	763	50	172	2.7	1.3	.25	0	0	0
MIN	0	0	0	.33	5.0	2.7	1.2	.29	0	0	0	0
AC-FT	0	0	109	3,970	700	2,170	104	34	7.4	0	0	0
(a)	.4	.9	2.7	-	-	-	0	0	0	0	0	0
(b)	3.4	1.3	-	-	4.0	3.1	0	0	0	0	0	0

CAL YR 1969 TOTAL 13,300.72 MEAN 36.4 MAX 1,740 MIN 0 AC-FT 26,380
 WTR YR 1970 TOTAL 3,574.95 MEAN 9.79 MAX 763 MIN 0 AC-FT 7,090

PEAK DISCHARGE (BASE, 600 CFS).--Jan. 16 (1115) 1,770 cfs (8.41 ft); Mar. 4 (1700) 626 cfs (6.46 ft).

a Precipitation, in inches.

b Precipitation, in inches, at auxiliary gage.

11147500 SALINAS RIVER AT PASO ROBLES, CALIF.

LOCATION.--Lat 35°37'43", long 120°41'00", in Paso 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, non-recording gage, and June 14, 1951, to Sept. 30, 1965, water-stage recorder at same site and datum.

AVERAGE DISCHARGE.--27 years, 87.5 cfs (63,390 acre-ft per year); median of yearly mean discharges, 38 cfs (27,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,270 cfs Jan. 16 (gage height, 10.58 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 each year.

Flood of Jan. 25, 1969, reached a stage of 23.8 ft, from floodmarks (discharge, 28,000 cfs).

REMARKS.--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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	54	687	26	.04	0	0	0	0
2	0	0	0	0	47	948	21	0	0	0	0	0
3	0	0	0	0	45	425	21	0	0	0	0	0
4	0	0	0	0	45	558	18	0	0	0	0	0
5	0	0	0	0	41	1,180	19	0	0	0	0	0
6	0	0	0	0	38	490	19	0	0	0	0	0
7	0	0	0	0	38	335	16	0	0	0	0	0
8	0	0	0	0	37	260	12	0	0	0	0	0
9	0	0	0	0	37	184	9.2	0	0	0	0	0
10	0	0	0	0	33	162	4.5	0	0	0	0	0
11	0	0	0	0	31	148	2.4	0	0	0	0	0
12	0	0	0	0	31	134	2.5	0	0	0	0	0
13	0	0	0	0	37	109	1.9	0	0	0	0	0
14	0	0	0	0	69	87	1.3	0	0	0	0	0
15	0	0	0	0	44	80	1.4	0	0	0	0	0
16	0	0	0	2,020	36	72	1.4	0	0	0	0	0
17	0	0	0	948	33	72	1.2	0	0	0	0	0
18	0	0	0	365	33	58	.90	0	0	0	0	0
19	0	0	0	246	29	47	1.1	0	0	0	0	0
20	0	0	0	205	27	59	1.5	0	0	0	0	0
21	0	0	0	142	24	49	1.6	0	0	0	0	0
22	0	0	0	102	22	41	1.4	0	0	0	0	0
23	0	0	0	87	23	29	2.0	0	0	0	0	0
24	0	0	0	226	23	34	1.3	0	0	0	0	0
25	0	0	0	195	24	23	.85	0	0	0	0	0
26	0	0	0	151	37	24	.51	0	0	0	0	0
27	0	0	0	122	33	24	1.3	0	0	0	0	0
28	0	0	0	104	58	25	1.5	0	0	0	0	0
29	0	0	0	79	-----	30	.34	0	0	0	0	0
30	0	0	0	70	-----	30	.39	0	0	0	0	0
31	0	-----	0	60	-----	31	-----	0	-----	0	-----	-----
TOTAL	0	0	0	5,122	1,029	6,435	192.49	0.04	0	0	0	0
MEAN	0	0	0	165	36.8	208	6.42	.001	0	0	0	0
MAX	0	0	0	2,020	69	1,180	26	.04	0	0	0	0
MIN	0	0	0	0	22	23	.34	0	0	0	0	0
AC-FT	0	0	0	10,160	2,040	12,760	382	.08	0	0	0	0

WTR YR 1970 TOTAL 12,778.53 MEAN 35.0 MAX 2,020 MIN 0 AC-FT 25,350

PEAK DISCHARGE (BASE, 1,100 CFS).--Jan. 16 (1445) 4,270 cfs (10.58 ft); Mar. 4 (2300) 2,170 cfs (9.04 ft).

SALINAS RIVER BASIN

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. Prior to Oct. 1, 1969, at site 0.2 mile downstream.

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.--12 years, 6.83 cfs (4,950 acre-ft per year); median of yearly mean discharges, 0.09 cfs (65 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 0.41 cfs Apr. 4 (gage height, 5.93 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 fair. No regulation; small diversions above station for irrigation.

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	0	0	0	.14	.14	.17	.22	.12	0	0	0	0
2	0	0	0	.14	.14	.14	.24	.09	0	0	0	0
3	0	0	0	.14	.14	.22	.24	.11	0	0	0	0
4	0	0	0	.14	.14	.17	.29	.09	0	0	0	0
5	0	0	0	.12	.12	.17	.19	.11	0	0	0	0
6	0	0	0	.12	.12	.17	.14	.11	0	0	0	0
7	0	0	0	.14	.14	.17	.12	.09	0	0	0	0
8	0	0	0	.14	.14	.14	.11	.09	0	0	0	0
9	0	0	0	.22	.22	.14	.11	.11	0	0	0	0
10	0	0	0	.19	.19	.14	.11	.12	0	0	0	0
11	0	0	0	.17	.17	.14	.09	.11	0	0	0	0
12	0	0	0	.12	.12	.14	.09	.24	0	0	0	0
13	0	0	0	.12	.12	.14	.11	.14	0	0	0	0
14	0	0	0	.12	.12	.19	.17	.14	0	0	0	0
15	0	0	0	.12	.12	.24	.22	.11	0	0	0	0
16	0	0	.06	.19	.12	.22	.12	.14	0	0	0	0
17	0	0	.06	.14	.12	.17	.09	0	0	0	0	0
18	0	0	.06	.12	.14	.14	.09	0	0	0	0	0
19	0	0	.06	.11	.14	.14	.12	0	0	0	0	0
20	0	0	.06	.12	.14	.14	.12	0	0	0	0	0
21	0	0	.24	.11	.14	.19	.17	0	0	0	0	0
22	0	0	.24	.11	.14	.19	.14	0	0	0	0	0
23	0	0	.24	.11	.14	.19	.11	0	0	0	0	0
24	0	0	.24	.14	.12	.19	.11	0	0	0	0	0
25	0	0	.22	.14	.12	.14	.11	0	0	0	0	0
26	0	0	.17	.14	.14	.12	.12	0	0	0	0	0
27	0	0	.17	.14	.14	.19	.14	0	0	0	0	0
28	0	0	.17	.14	.26	.24	.19	0	0	0	0	0
29	0	0	.17	.14	-----	.22	.12	0	0	0	0	0
30	0	0	.14	.14	-----	.17	.12	0	0	0	0	0
31	0	-----	.14	.14	-----	.22	-----	0	-----	0	0	-----
TOTAL	0	0	2.44	4.27	4.00	5.35	4.32	1.92	0	0	0	0
MEAN	0	0	.079	.14	.14	.17	.14	.062	0	0	0	0
MAX	0	0	.24	.22	.26	.24	.29	.24	0	0	0	0
MIN	0	0	0	.11	.12	.12	.09	0	0	0	0	0
AC-FT	0	0	4.8	8.5	7.9	11	8.6	3.8	0	0	0	0

CAL YR 1969 TOTAL 24,687.48 MEAN 67.6 MAX 5,000 MIN 0 AC-FT 48,970
 WTR YR 1970 TOTAL 22.30 MEAN .061 MAX .29 MIN 0 AC-FT 44

PEAK DISCHARGE (BASE, 40 CFS).--No peak above base.

NOTE.--No gage-height record Oct. 1 to Dec. 22.

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 north-east 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.--12 years, 6.74 cfs (4,880 acre-ft per year); median of yearly mean discharges, 0.60 cfs (430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 178 cfs Mar. 5 (gage height, 2.07 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 good. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.07	27						
2				0	.08	37						
3				0	.07	6.1						
4				0	.06	6.3						
5				0	.10	62						
6				0	.11	7.6						
7				0	.08	4.5						
8				0	.07	2.8						
9				0	1.3	2.2						
10				0	4.2	2.0						
11				0	4.2	1.8						
12				.20	2.5	1.5						
13				1.3	2.5	1.3						
14				.56	2.2	1.3						
15				.98	2.2	1.3						
16				4.2	1.2	.98						
17				8.9	.82	.98						
18				2.2	.56	.82						
19				.68	.36	.56						
20				.68	.14	.28						
21				.82	.04	.05						
22				.46	.10	0						
23				.41	.08	0						
24				.46	0	0						
25				.28	0	0						
26				.11	0	0						
27				.09	0	0						
28				.10	4.1	0						
29				.10	-----	0						
30				.05	-----	0						
31		-----		.04	-----	0	-----		-----			-----
TOTAL	0	0	0	22.62	27.14	168.37	0	0	0	0	0	0
MEAN	0	0	0	.73	.97	5.43	0	0	0	0	0	0
MAX	0	0	0	8.9	4.2	62	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	45	54	334	0	0	0	0	0	0
CAL YR 1969	TOTAL	21,727.30	MEAN	59.5	MAX	3,320	MIN	0	ACFT	43,100		
WAT YR 1970	TOTAL	218.13	MEAN	.60	MAX	62	MIN	0	ACFT	433		

PEAK DISCHARGE (BASE, 100 CFS).--Mar. 5 (0130) 178 cfs (2.07 ft).

SALINAS RIVER BASIN

11148500 ESTRELLA RIVER NEAR ESTRELLA, CALIF.

LOCATION.--Lat 35°43'02" (revised), long 120°38'21", in NW $\frac{1}{4}$ 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 Rancho 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 1962, 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.--16 years, 27.9 cfs (20,210 acre-ft per year); median of yearly mean discharges, 3.6 cfs (2,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 183 cfs Mar. 5 (gage height, 2.82 ft, from floodmarks); 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 good except those for period of no gage-height record, which are poor. No regulation; pumpage from wells along river for irrigation above station.

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		0	1.3	1.9	3.8	19	3.3	.50				
2		0	1.6	1.9	3.8	16	3.3	.40				
3		0	1.6	1.9	3.8	33	2.8	.50				
4		0	1.9	1.9	5.1	35	2.8	.40				
5		0	3.8	1.6	4.4	52	2.3	.10				
6		0	1.9	1.6	4.4	52	1.9	0				
7		0	1.6	1.6	4.4	28	1.9	0				
8		0	1.6	1.6	4.4	21	1.9	0				
9		0	1.9	2.8	4.4	17	1.9	.35				
10		.70	2.8	3.8	5.1	14	1.6	0				
11		2.6	1.9	5.8	5.8	13	1.6	0				
12		2.6	1.9	8.4	6.6	13	1.3	0				
13		2.6	4.4	7.5	6.6	12	1.1	0				
14		2.5	3.8	5.8	5.8	10	1.1	0				
15		2.4	2.8	5.8	5.8	10	1.6	0				
16		2.4	2.8	7.5	5.8	9.3	1.9	0				
17		2.3	2.8	8.4	5.1	9.3	1.9	0				
18		2.2	3.8	7.5	5.1	7.5	1.3	0				
19		2.1	1.9	4.4	5.1	7.5	1.6	0				
20		2.0	2.8	4.4	5.8	7.5	1.9	0				
21		2.0	3.8	4.4	5.1	6.6	1.9	0				
22		1.9	3.8	4.4	5.1	5.8	1.9	0				
23		1.6	3.8	4.4	5.1	5.8	1.6	0				
24		1.6	2.8	4.4	5.1	5.8	1.3	0				
25		1.6	2.8	3.8	4.4	5.8	1.1	0				
26		1.6	2.8	3.3	4.4	4.4	1.1	0				
27		1.9	3.8	3.8	3.8	4.4	1.1	0				
28		1.9	3.8	3.3	9.3	4.4	1.3	0				
29		1.9	2.8	3.3	-----	3.8	1.6	0				
30		1.6	1.9	3.3	-----	3.3	1.1	0				
31		-----	1.9	3.3	-----	3.3	-----	0	-----			-----
TOTAL	0	42.00	82.9	127.8	143.4	439.5	53.0	2.25	0	0	0	0
MEAN	0	1.40	2.67	4.12	5.12	14.2	1.77	.073	0	0	0	0
MAX	0	2.6	4.4	8.4	9.3	52	3.3	.50	0	0	0	0
MIN	0	0	1.3	1.6	3.8	3.3	1.1	0	0	0	0	0
AC-FT	0	83	164	253	284	872	105	4.5	0	0	0	0
CAL YR 1969	TOTAL	93,516.26	MEAN	256	MAX	14,300	MIN	0	ACFT	185,500		
WAT YR 1970	TOTAL	890.85	MEAN	2.44	MAX	52	MIN	0	ACFT	1,770		

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

NOTE.--No gage-height record Mar. 3-5.

11148800 NACIMIENTO RIVER NEAR BRYSON, 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 current year. 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.--15 years, 172 cfs (124,600 acre-ft per year); median of yearly mean discharges, 140 cfs (101,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,000 cfs Jan. 16 (gage height, 17.81 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 loads for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	2.0	54	188	3,940	66	34	11	2.4	0	0
2	0	0	1.7	44	167	1,420	63	33	9.2	1.9	0	0
3	0	0	1.7	36	152	730	63	32	8.2	1.4	0	0
4	0	0	1.5	31	140	1,380	58	32	7.1	1.0	0	0
5	0	0	1.6	26	128	1,250	58	30	6.4	.76	0	0
6	0	0	1.5	22	115	700	56	28	6.6	.51	0	0
7	0	0	1.7	20	110	520	55	28	6.8	.31	0	0
8	0	0	1.9	21	101	434	53	28	6.9	.15	0	0
9	0	0	2.0	1,150	98	353	53	28	7.2	.05	0	0
10	0	0	1.9	1,260	95	298	51	26	7.7	0	0	0
11	0	3.7	2.0	953	86	256	50	26	8.6	0	0	0
12	0	4.2	2.0	924	113	225	48	25	8.0	0	0	0
13	0	3.6	2.1	527	170	203	46	25	7.3	0	0	0
14	0	3.2	2.0	1,150	200	182	49	24	7.3	0	0	0
15	0	3.0	2.0	1,330	143	170	48	23	7.8	0	0	0
16	0	2.5	2.0	9,150	125	152	47	21	7.6	0	0	0
17	0	2.4	2.0	2,220	155	146	46	21	7.1	0	0	0
18	0	2.3	1.7	1,060	131	134	45	19	6.8	0	0	0
19	0	2.1	104	682	119	125	43	18	6.2	0	0	0
20	0	2.1	432	655	113	119	42	18	5.3	0	0	0
21	0	2.3	498	490	104	113	41	18	4.6	0	0	0
22	0	2.3	401	397	95	107	41	17	3.6	0	0	0
23	0	2.3	173	329	86	101	40	16	3.1	0	0	0
24	0	2.0	112	1,250	86	95	38	15	3.0	0	0	0
25	0	2.0	984	655	80	92	38	14	2.9	0	0	0
26	0	2.0	486	475	76	89	37	14	3.1	0	0	0
27	0	2.0	252	413	73	83	36	14	3.3	0	0	0
28	0	1.7	170	345	1,260	76	36	14	3.3	0	0	0
29	0	1.7	123	284	-----	76	37	14	3.1	0	0	0
30	0	1.9	90	246	-----	70	35	13	2.8	0	0	0
31	0	-----	68	213	-----	73	-----	11	-----	0	-----	-----
TOTAL	0	49.3	3,926.3	26,412	4,509	13,712	1,419	679	181.9	8.48	0	0
MEAN	0	1.64	127	852	161	442	47.3	21.9	6.06	.27	0	0
MAX	0	4.2	984	9,150	1,260	3,940	66	34	11	2.4	0	0
MIN	0	0	1.5	20	73	70	35	11	2.8	0	0	0
AC-FT	0	98	7,790	52,390	8,940	27,200	2,810	1,350	361	17	0	0

CAL YR 1969 TOTAL 175,501.43 MEAN 481 MAX 19,800 MIN 0 AC-FT 348,100
 WTR YR 1970 TOTAL 50,896.98 MEAN 139 MAX 9,150 MIN 0 AC-FT 101,000

PEAK DISCHARGE (BASE, 4,000 CFS).--Jan. 16 (1015) 20,000 cfs (17.81 ft); Mar. 1 (0130) 7,200 cfs (11.44 ft).

11149400 NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY, CALIF.

LOCATION.--Lat 35°45'41", long 120°51'16", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.14, T.25 S., R.10 E., San Luis Obispo County, Camp Roberts Military Reservation, on left bank 2.2 miles downstream from Nacimiento Dam, and 7.6 miles southwest of Bradley.

DRAINAGE AREA.--322 sq mi.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 597 ft above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE (unadjusted).--13 years, 286 cfs (207,200 acre-ft per year).

EXTREMES.--Water year 1969: Maximum discharge, 7,340 cfs Feb. 25 (gage height, 10.92 ft); minimum daily, 0.66 cfs Dec. 1.

Water year 1970: Maximum discharge, 480 cfs Oct. 5 (gage height, 4.91 ft); minimum daily, 0.41 cfs Dec. 8.

Period of record: Maximum discharge, 7,340 cfs Feb. 25, 1969 (gage height, 10.92 ft); no flow for many days in each year except 1964, 1966-70.

REMARKS.--Records good. Flow regulated by Nacimiento Dam 2.2 miles upstream (see sta 11149300). No diversion above station.

REVISIONS.--Revised figures of discharge for the water year 1969, superseding those published in WRD Calif. 1969, are given herein.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	176	.66	12	2,950	4,840	1,880	40	602	575	565	484
2	289	176	32	12	2,960	4,270	1,760	319	600	575	565	484
3	336	176	108	12	2,940	3,720	1,700	615	598	575	560	484
4	336	176	104	12	2,960	3,400	1,660	615	595	575	560	485
5	336	176	109	12	2,870	3,320	1,650	615	590	575	555	483
6	333	152	109	12	2,420	3,290	1,640	615	590	575	550	483
7	330	118	108	12	2,010	3,270	1,810	615	585	575	550	486
8	330	68	106	12	1,740	3,240	2,110	615	585	575	545	485
9	330	6.0	104	12	1,640	3,230	2,240	610	585	575	545	484
10	330	4.4	106	12	1,520	3,180	2,560	610	580	570	540	484
11	330	4.1	104	12	1,550	3,150	2,560	610	580	570	540	482
12	330	3.9	104	12	1,500	3,120	2,000	610	580	570	535	487
13	336	3.6	104	13	1,360	3,080	1,630	612	575	570	535	485
14	316	3.9	107	13	1,290	3,060	1,560	610	575	570	530	483
15	267	4.1	107	12	1,220	3,010	1,470	609	575	570	525	482
16	267	3.2	107	12	1,190	2,980	1,380	609	575	570	525	479
17	267	3.2	107	12	1,180	2,940	1,320	608	575	570	520	479
18	264	3.2	106	13	1,760	2,920	1,140	610	575	570	515	482
19	261	3.2	106	30	2,290	2,900	890	610	575	570	510	481
20	261	3.4	108	25	2,110	2,850	776	610	575	570	510	480
21	234	3.2	109	27	2,440	2,820	570	610	575	570	505	479
22	178	3.2	109	17	2,210	2,760	164	610	575	570	500	477
23	176	3.2	109	17	2,070	2,710	34	605	575	570	496	479
24	176	3.1	81	19	2,610	2,640	25	605	575	570	492	477
25	176	3.2	15	37	6,150	2,590	24	605	575	570	492	476
26	176	3.2	13	30	6,770	2,540	38	605	575	570	492	475
27	176	2.2	12	1,900	5,730	2,500	38	604	575	570	492	472
28	176	1.5	12	4,020	5,120	2,450	40	604	575	570	488	476
29	176	1.3	12	3,380	-----	2,390	45	603	575	570	488	474
30	176	.85	12	3,100	-----	2,270	42	602	575	570	488	473
31	176	-----	12	2,920	-----	2,070	-----	601	-----	565	488	-----
TOTAL	8,115	1,289.15	2,442.66	15,741	72,560	93,510	34,756	18,021	17,420	17,710	16,201	14,420
MEAN	262	43.0	78.8	508	2,591	3,016	1,159	581	581	571	523	481
MAX	336	176	109	4,020	6,770	4,840	2,560	615	602	575	565	487
MIN	176	.85	.66	12	1,180	2,070	24	40	575	565	488	472
AC-FT	16,100	2,560	4,850	31,220	143,900	185,500	68,940	35,740	34,550	35,130	32,130	28,600
CAL YR 1968	TOTAL	94,438.81	MEAN	258	MAX	540	MIN	.66	ACFT	187,300		
WAT YR 1969	TOTAL	312,185.81	MEAN	855	MAX	6,770	MIN	.66	ACFT	619,200		

11149400 NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY, CALIF.--Continued

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	476	443	.74	1.4	13	20	14	245	396	372	80	79
2	475	441	.66	.95	12	15	14	246	396	372	78	79
3	475	439	.64	.95	12	14	14	335	392	368	78	79
4	473	437	.57	1.1	12	17	14	412	392	368	78	79
5	477	436	.53	.76	12	15	14	412	392	364	78	79
6	476	430	.45	.60	12	14	14	412	388	364	78	79
7	474	427	.42	.66	12	14	14	412	388	368	76	79
8	476	424	.41	.69	12	14	14	412	388	364	77	79
9	474	422	.46	.85	12	13	14	412	388	368	76	78
10	473	420	.49	1.9	12	5.2	14	412	388	360	77	78
11	476	418	.49	1.9	12	13	14	412	388	360	77	78
12	476	416	.49	1.7	12	14	14	412	384	360	77	79
13	476	412	.49	1.2	12	14	14	412	384	360	77	79
14	475	411	.42	1.2	12	14	14	408	384	360	77	78
15	474	407	.49	1.5	12	14	14	408	384	360	77	79
16	472	404	.49	3.6	12	14	14	408	384	360	78	78
17	472	401	.53	3.2	13	14	14	408	380	360	78	161
18	471	396	.57	2.9	12	14	14	408	380	360	78	308
19	469	391	.61	3.3	12	14	14	404	376	360	78	307
20	468	385	.66	3.9	13	14	14	404	376	360	78	307
21	463	377	.74	3.9	14	14	14	404	376	360	78	306
22	460	353	1.1	3.9	14	14	14	404	376	360	78	305
23	460	198	1.3	4.1	14	14	14	400	376	360	78	305
24	457	150	1.3	3.9	14	14	14	400	376	189	78	304
25	456	120	1.4	2.9	14	14	14	400	376	80	78	304
26	455	93	1.4	1.9	14	14	14	400	372	80	78	304
27	454	73	1.3	1.5	14	14	14	400	372	80	78	303
28	452	30	1.2	1.5	17	14	78	396	372	80	78	303
29	450	1.7	1.0	2.8	-----	14	243	396	372	80	78	300
30	448	.91	.85	13	-----	14	244	396	372	80	77	301
31	446	-----	1.4	13	-----	14	-----	396	-----	80	77	-----
TOTAL	14,479	9,756.61	23.60	86.66	358	434.2	943	12,186	11,468	9,097	2,407	5,377
MEAN	467	325	.76	2.80	12.8	14.0	31.4	393	382	293	77.6	179
MAX	477	443	1.4	13	17	20	244	412	396	372	80	308
MIN	446	.91	.41	.60	12	5.2	14	245	372	80	76	78
AC-FT	28,720	19,350	47	172	710	861	1,870	24,170	22,750	18,040	4,770	10,670
CAL YR 1969	TOTAL	324,598.21	MEAN	889	MAX	6,770	MIN	.41	ACFT	643,800		
WAT YR 1970	TOTAL	66,616.07	MEAN	183	MAX	477	MIN	.41	ACFT	132,100		

SALINAS RIVER BASIN

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.--5 years, 114 cfs (82,590 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,960 cfs Jan. 16 (gage height, 5.48 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 loads for the water year 1970 are published in Part 2 of this report.

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	0	0	0	7.0	99	1,620	66	34	8.6	0	0	0
2	0	0	0	6.6	88	1,060	62	37	8.0	0	0	0
3	0	0	0	5.2	73	586	59	41	7.6	0	0	0
4	0	0	0	4.4	73	703	62	34	7.0	0	0	0
5	0	0	0	4.0	73	900	62	32	5.2	0	0	0
6	0	0	0	4.0	66	534	59	30	5.6	0	0	0
7	0	0	0	4.0	66	360	55	28	5.6	0	0	0
8	0	0	0	3.6	68	280	51	29	4.8	0	0	0
9	0	0	0	15	62	240	55	25	4.8	0	0	0
10	0	0	0	356	64	212	51	21	4.0	0	0	0
11	0	0	0	206	62	181	46	20	4.0	0	0	0
12	0	0	0	287	62	163	48	20	3.6	0	0	0
13	0	0	0	117	85	150	46	20	2.7	0	0	0
14	0	0	0	178	158	137	48	22	2.7	0	0	0
15	0	0	0	406	99	129	46	22	3.0	0	0	0
16	0	0	0	2,630	83	121	42	20	2.7	0	0	0
17	0	0	0	1,920	91	113	42	19	2.7	0	0	0
18	0	0	0	1,330	88	102	46	15	2.7	0	0	0
19	0	0	0	920	80	97	44	12	2.7	0	0	0
20	0	0	7.4	790	77	91	41	11	2.2	0	0	0
21	0	0	32	559	75	88	39	12	1.5	0	0	0
22	0	0	68	414	73	85	36	12	.86	0	0	0
23	0	0	32	352	70	85	41	13	.39	0	0	0
24	0	0	19	811	68	85	39	12	.13	0	0	0
25	0	0	36	550	66	85	42	11	0	0	0	0
26	0	0	77	368	64	83	37	10	0	0	0	0
27	0	0	39	301	64	80	36	10	0	0	0	0
28	0	0	23	228	170	77	37	9.8	0	0	0	0
29	0	0	15	163	-----	75	34	9.8	0	0	0	0
30	0	0	11	133	-----	66	36	10	0	0	0	0
31	0	-----	8.6	109	-----	62	-----	9.8	-----	0	0	-----
TOTAL	0	0	368.0	13,181.8	2,267	8,650	1,408	611.4	93.08	0	0	0
MEAN	0	0	11.9	425	81.0	279	46.9	19.7	3.10	0	0	0
MAX	0	0	77	2,630	170	1,620	66	41	8.6	0	0	0
MIN	0	0	0	3.6	62	62	34	9.8	0	0	0	0
AC-FT	0	0	730	26,150	4,500	17,160	2,790	1,210	185	0	0	0
CAL YR 1969	TOTAL	100,463.27	MEAN	275	MAX	8,050	MIN	0	AC-FT	199,300		
WTR YR 1970	TOTAL	26,579.28	MEAN	72.8	MAX	2,630	MIN	0	AC-FT	52,720		

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-10	0330	1.98	622	3- 1	0630	3.25	2,090
1-16	1200	5.48	5,960	3- 4	2100	2.92	1,650
1-24	0915	2.69	1,370				

RESERVOIRS IN SALINAS RIVER BASIN, CALIF.

11149300 NACIMIENTO RESERVOIR.--Lat 35°45'29", long 120°53'01", in NW¼ 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. 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, 142,700 acre-ft Apr. 28 (elevation, 751.0 ft); minimum observed, 11,060 acre-ft Nov. 28 (elevation, 672.2 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 SW¼ 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. 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, 321,200 acre-ft Oct. 1 (elevation, 774.9 ft); minimum, 254,600 acre-ft Sept. 30 (elevation, 762.0 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. Records of contents furnished by Monterey County Flood Control and Water Conservation District.

Nacimiento Reservoir.--Monthend contents, in acre-feet, at 2400, water years 1957-70

Water year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1957	-	-	-	-	29,820	20,730	18,700	21,430	17,790	17,500	17,240	16,910
1958	16,840	16,780	26,710	44,500	157,900	298,000	352,100	351,000	338,700	300,500	259,900	232,200
1959	213,900	205,500	197,000	199,500	231,600	211,800	208,300	182,600	160,500	130,400	101,400	83,280
1960	68,160	58,310	51,820	61,810	105,000	111,700	108,200	89,680	66,070	40,640	19,610	11,010
1961	10,940	14,000	27,660	34,240	39,710	43,390	44,490	44,520	24,340	16,130	16,000	15,900
1962	15,780	18,440	35,050	51,670	213,100	251,600	248,400	222,500	196,600	165,500	132,800	103,100
1963	92,500	79,680	82,590	110,400	229,500	257,200	300,600	309,800	291,700	263,500	232,200	211,000
1964	194,000	203,400	197,300	209,100	204,300	201,200	192,800	171,900	147,800	116,600	84,900	58,900
1965	42,100	48,840	84,340	162,200	170,200	182,100	212,600	206,400	184,600	154,400	121,800	98,740
1966	83,530	124,700	152,700	182,400	206,300	210,800	200,100	177,400	156,100	123,500	94,430	71,800
1967	57,200	52,680	190,200	253,200	203,800	277,700	343,900	344,900	324,000	292,700	245,100	213,800
1968	202,800	192,100	191,900	194,600	201,800	199,400	187,600	163,700	137,300	105,600	76,140	52,120
1969	37,160	35,150	40,850	294,100	360,900	245,000	202,200	173,900	141,800	108,700	78,650	50,140
1970	26,440	11,090	19,640	83,320	92,320	140,700	141,800	121,400	101,200	84,380	78,650	67,840

San Antonio Reservoir.--Monthend contents, in acre-feet, at 2400, water years 1966-70

Water year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1966	-	-	4,880	12,450	18,960	21,420	22,280	22,240	22,080	20,800	20,240	20,020
1967	20,090	20,140	58,550	78,780	91,270	112,700	136,800	145,400	146,700	144,600	142,100	140,800
1968	139,200	138,800	136,800	137,200	141,500	145,400	146,100	144,600	142,700	140,700	136,000	134,200
1969	133,800	127,900	128,700	233,000	307,500	338,400	347,600	348,800	347,200	343,700	338,600	321,800
1970	307,200	306,200	307,500	301,900	303,700	314,600	311,300	309,700	307,000	296,600	265,800	252,100

SALINAS RIVER BASIN

11150500 SALINAS RIVER NEAR BRADLEY, CALIF

LOCATION (revised).--Lat 35°55'49", long 120°52'04", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ 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).--22 years, 444 cfs (321,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,640 cfs Jan. 17 (gage height, 8.07 ft); minimum daily, 16 cfs for several days.

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. WRD Calif. 1969: Drainage area.

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	798	422	42	17	1,220	174	55	201	368	347	650	382
2	824	405	36	17	1,040	876	53	202	367	353	650	484
3	804	398	31	16	210	700	50	198	359	353	668	430
4	787	398	27	16	161	670	45	302	353	353	680	414
5	734	405	25	16	136	1,180	43	334	353	353	679	414
6	745	422	24	16	117	1,090	39	343	353	354	661	405
7	737	439	24	16	104	828	38	339	353	345	650	398
8	752	508	21	16	94	710	34	345	342	338	650	375
9	750	499	21	16	89	660	32	338	321	332	650	368
10	750	508	21	18	86	630	28	339	317	317	650	368
11	750	482	20	16	81	590	27	348	311	310	650	360
12	750	456	20	18	78	553	23	380	320	317	635	352
13	750	456	20	16	73	526	21	407	334	324	553	364
14	750	456	20	74	73	508	18	384	352	324	553	338
15	750	448	19	265	91	482	17	369	368	324	553	345
16	750	430	20	298	89	473	16	366	368	389	553	374
17	750	422	19	500	84	456	73	352	372	464	553	374
18	470	413	19	1,500	78	265	138	333	370	375	544	304
19	460	390	19	1,850	73	180	156	336	346	338	544	352
20	456	390	19	1,800	73	110	166	345	338	330	544	368
21	441	390	19	1,600	71	92	176	356	331	330	499	368
22	464	390	19	1,360	66	82	175	368	329	330	482	360
23	471	322	19	1,340	64	76	176	368	324	330	422	360
24	473	210	19	1,320	64	70	176	355	328	324	456	360
25	482	161	19	1,520	58	66	163	352	330	202	482	351
26	516	124	19	1,160	55	64	146	338	338	493	499	345
27	526	104	19	215	55	62	157	338	345	600	439	327
28	499	89	18	131	94	60	140	338	347	620	430	297
29	490	71	18	184	-----	58	75	340	345	620	422	300
30	473	53	18	1,100	-----	57	176	349	345	620	398	307
31	439	-----	17	1,220	-----	56	-----	360	-----	640	390	-----
TOTAL	19,591	10,661	671	17,651	4,577	12,404	2,632	10,423	10,327	12,049	17,189	10,944
MEAN	632	355	21.6	569	163	400	87.7	336	344	389	554	365
MAX	824	508	42	1,850	1,220	1,180	176	407	372	640	680	484
MIN	439	53	17	16	55	56	16	198	311	202	390	297
AC-FT	38,860	21,150	1,330	35,010	9,080	24,600	5,220	20,670	20,480	23,900	34,090	21,710
CAL YR 1969	TOTAL 692,441		MEAN 1,897		MAX 60,400	MIN 17		AC-FT 1,373,000				
WTR YR 1970	TOTAL 129,119		MEAN 354		MAX 1,850	MIN 16		AC-FT 256,100				

SALINAS RIVER BASIN

11151300 SAN LORENZO CREEK BELOW BITTERWATER CREEK, NEAR KING CITY, CALIF.

LOCATION.--Lat 36°16'05", long 121°03'55", in NE¹/₄ 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.--12 years, 12.6 cfs (9,130 acre-ft per year); median of yearly mean discharges, 5.7 cfs (4,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 560 cfs Mar. 1 (gage height, 6.06 ft); minimum daily, 0.34 cfs Aug. 25.

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 good except those for periods of no gage-height record, which are poor. No regulation; small diversions above station.

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	1.4	2.1	3.5	4.4	9.0	311	3.6	1.3	.47	.48	.40	.40
2	1.5	2.4	3.5	3.5	8.1	182	3.4	1.3	.46	.45	.40	.46
3	1.4	2.4	3.9	3.5	8.1	42	3.3	1.3	.40	.50	.40	.46
4	1.4	2.4	3.9	3.5	9.0	74	3.0	1.3	.40	.60	.40	.44
5	1.5	3.5	4.4	3.5	8.1	134	2.9	1.3	.43	.52	.40	.46
6	1.4	8.1	4.4	4.4	9.0	78	2.8	1.3	.44	.52	.40	.52
7	1.5	4.9	4.4	4.4	8.1	60	2.7	1.3	.45	.48	.35	.52
8	1.5	3.9	4.9	4.4	8.1	51	2.4	1.3	.51	.49	.35	.52
9	1.4	3.1	3.5	9.0	8.1	42	2.4	1.3	.85	.52	.35	.47
10	1.2	2.7	3.4	9.0	10	35	2.4	1.3	.70	.52	.35	.42
11	1.4	2.7	3.1	16	10	30	2.7	1.3	.70	.40	.35	.45
12	1.4	2.1	3.1	16	8.1	25	1.8	1.3	.62	.46	.35	.52
13	1.4	2.5	3.5	12	12	22	1.2	1.2	.51	.52	.35	.52
14	1.4	2.3	3.5	22	12	18	2.1	1.2	.42	.52	.35	.47
15	2.1	2.4	3.5	63	10	16	1.4	1.2	.52	.52	.35	.43
16	2.4	2.5	4.4	99	8.1	14	1.4	1.2	.46	.52	.35	.48
17	1.8	2.2	4.4	65	10	12	1.4	1.2	.52	.52	.35	.52
18	2.1	2.1	3.1	25	10	11	1.4	1.2	.68	.46	.40	.52
19	1.8	2.4	4.4	13	8.1	9.6	1.4	1.2	.68	.46	.40	.49
20	1.8	2.7	6.0	25	6.0	8.6	1.4	1.2	.54	.40	.38	.47
21	1.8	2.7	4.9	14	4.4	7.8	1.4	1.5	.52	.46	.35	.51
22	2.1	2.7	4.9	9.0	4.8	7.1	1.4	1.4	.52	.46	.35	.52
23	2.1	2.7	4.9	6.6	4.9	6.4	1.3	1.2	.46	.46	.40	.46
24	2.4	3.1	4.9	10	4.6	5.7	1.3	1.4	.46	.52	.35	.44
25	2.7	3.1	6.0	12	4.6	5.1	1.3	1.9	.46	.52	.34	.48
26	2.4	3.1	4.9	6.6	5.4	4.4	1.3	2.3	.44	.52	.37	.49
27	2.7	3.1	3.5	6.6	5.4	3.7	1.3	2.7	.46	.52	.40	.51
28	2.4	3.1	3.5	12	26	3.3	1.3	2.4	.46	.52	.40	.60
29	2.4	3.5	3.5	13	-----	3.3	1.3	.40	.52	.52	.40	.55
30	2.4	3.5	3.5	12	-----	3.6	1.3	.42	.52	.46	.38	.62
31	2.4	-----	4.9	10	-----	3.8	-----	.42	-----	.40	.40	-----
TOTAL	57.6	90.0	128.2	517.4	240.0	1,229.4	58.3	41.24	15.58	15.22	11.57	14.72
MEAN	1.86	3.00	4.14	16.7	8.57	39.7	1.94	1.33	.52	.49	.37	.49
MAX	2.7	8.1	6.0	99	26	311	3.6	2.7	.85	.60	.40	.62
MIN	1.2	2.1	3.1	3.5	4.4	3.3	1.2	.40	.40	.40	.34	.40
AC-FT	114	179	254	1,030	476	2,440	116	82	31	30	23	29

CAL YR 1969 TOTAL 29,685.94 MEAN 81.3 MAX 4,490 MIN .29 AC-FT 58,880
 WTR YR 1970 TOTAL 2,419.23 MEAN 6.63 MAX 311 MIN .34 AC-FT 4,800

PEAK DISCHARGE (BASE, 250 CFS).--Mar. 1 (2045) 560 cfs (6.06 ft); Mar. 4 (2400) 550 cfs (6.04 ft).

NOTE.--No gage-height record Mar. 6 to Apr. 7, Apr. 15 to May 19.

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, 1,340 cfs Jan. 18 (gage height, 10.39 ft); minimum daily, 17 cfs Apr. 23.

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, 17 cfs Jan. 12, 1969, Apr. 23, 1970.

REMARKS.--Records good. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	596	360	161	32	874	140	115	19	120	62	172	105
2	580	365	145	32	964	333	120	20	125	79	178	100
3	580	370	135	30	964	492	105	32	125	65	194	100
4	570	380	120	30	644	620	100	40	130	65	200	100
5	570	400	105	28	476	692	90	48	135	68	194	93
6	565	440	96	24	372	901	79	76	135	72	200	96
7	565	476	90	22	312	928	66	93	140	68	205	105
8	565	412	86	20	270	804	55	79	156	82	205	93
9	565	412	79	24	238	724	50	58	150	79	218	86
10	560	436	76	36	205	668	45	68	150	72	218	93
11	560	412	65	45	183	636	40	79	145	82	218	100
12	560	412	65	42	161	604	36	86	135	100	224	96
13	560	412	65	38	161	580	34	86	130	93	224	105
14	560	428	65	40	145	556	34	100	125	72	194	120
15	550	412	62	45	135	540	32	93	135	79	172	125
16	540	412	62	233	125	524	32	90	140	100	166	125
17	520	340	62	299	125	516	28	93	135	93	172	120
18	490	291	58	1,200	120	500	26	110	130	125	161	125
19	460	284	52	1,130	105	468	24	130	125	115	145	90
20	425	284	50	1,040	100	364	22	140	115	82	130	68
21	400	284	48	991	93	305	20	140	115	65	135	93
22	390	284	48	973	90	270	18	150	110	62	130	100
23	380	284	45	955	86	244	17	145	100	58	135	96
24	380	284	40	946	86	224	18	150	93	42	166	105
25	380	238	40	946	82	200	20	161	90	38	161	96
26	385	224	40	1,020	76	183	22	166	86	32	150	96
27	385	205	40	982	68	161	28	161	79	28	140	100
28	380	194	38	644	76	150	28	161	72	25	125	100
29	375	183	38	492	-----	140	28	156	76	50	100	100
30	365	172	36	396	-----	125	26	145	72	100	100	115
31	360	-----	34	676	-----	125	-----	130	-----	156	105	-----
TOTAL	15,121	10,090	2,146	13,411	7,336	13,717	1,358	3,205	3,574	2,309	5,237	3,046
MEAN	488	336	69.2	433	262	442	45.3	103	119	74.5	169	102
MAX	596	476	161	1,200	964	928	120	166	156	156	224	125
MIN	360	172	34	20	68	125	17	19	72	25	100	68
AC-FT	29,990	20,010	4,260	26,600	14,550	27,210	2,690	6,360	7,090	4,580	10,390	6,040
CAL YR 1969	TOTAL 739,736		MEAN 2,027		MAX 68,300	MIN 17		AC-FT 1,467,000				
WTR YR 1970	TOTAL 80,550		MEAN 221		MAX 1,200	MIN 17		AC-FT 159,800				

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.--9 years, 148 cfs (107,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,300 cfs Jan. 16 (gage height, 10.65 ft), from rating curve extended as explained below; minimum daily, 0.90 cfs Sept. 17.
Period of record: Maximum discharge, 21,800 cfs Dec. 6, 1966 (gage height, 12.50 ft), from rating curve extended above 3,100 cfs on basis of slope-area measurement at gage-height 10.65 ft; no flow at times.

REMARKS.--Records good. No regulation; small diversion for fishponds above station by pumping. Records of water temperatures and suspended-sediment loads for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	16	13	53	213	2,320	124	56	34	17	3.7	1.0
2	4.6	15	13	50	192	1,230	119	54	32	15	3.5	1.1
3	4.5	15	13	47	173	790	114	52	30	14	3.3	1.0
4	4.8	15	13	45	160	1,020	109	51	28	12	3.3	1.0
5	5.0	17	14	44	145	896	105	50	27	11	3.2	1.0
6	5.3	32	14	42	134	713	101	50	28	9.9	2.9	1.3
7	5.7	22	14	41	124	605	98	52	28	9.2	2.8	1.5
8	5.9	21	15	53	114	529	95	52	27	8.7	2.7	1.5
9	6.1	19	16	733	110	476	92	52	33	8.5	2.7	1.5
10	6.4	16	16	640	108	441	89	51	33	8.2	2.7	1.2
11	6.6	14	17	625	101	406	86	50	30	8.1	2.4	1.3
12	6.9	13	18	455	165	371	83	50	28	7.7	2.4	1.3
13	7.1	13	19	292	339	342	84	50	27	7.5	2.2	1.2
14	7.8	13	18	916	295	317	88	49	28	7.0	2.1	1.2
15	10	13	17	794	218	292	84	47	28	6.6	2.1	1.2
16	22	13	17	5,330	193	271	80	45	26	6.4	2.1	1.2
17	22	13	16	1,560	241	251	77	42	25	6.1	2.1	.90
18	17	13	16	824	192	238	74	41	24	5.9	2.1	1.0
19	15	13	108	585	174	222	71	42	22	5.7	1.8	1.0
20	15	13	190	512	161	210	70	43	23	5.3	1.8	1.1
21	14	13	313	420	149	199	70	44	21	5.0	1.8	1.3
22	14	13	163	355	139	190	72	42	19	4.7	1.7	1.5
23	14	13	81	307	129	182	68	40	18	4.5	1.7	1.6
24	15	13	70	978	121	171	65	39	17	4.6	1.7	1.7
25	16	13	765	565	113	165	63	39	17	4.7	1.6	1.6
26	17	13	238	449	108	158	62	40	18	4.5	1.4	1.6
27	17	13	129	430	105	150	65	39	18	4.3	1.2	1.5
28	17	13	93	355	641	145	64	39	18	3.9	1.1	1.4
29	16	13	76	307	-----	139	61	38	18	3.7	1.1	1.4
30	16	13	65	271	-----	134	58	37	18	3.6	1.1	1.4
31	15	-----	58	243	-----	131	-----	36	-----	3.7	1.0	-----
TOTAL	353.3	449	2,628	18,321	5,057	13,704	2,491	1,412	743	227.0	67.3	38.50
MEAN	11.4	15.0	84.8	591	181	442	83.0	45.5	24.8	7.32	2.17	1.28
MAX	22	32	765	5,330	641	2,320	124	56	34	17	3.7	1.7
MIN	4.5	13	13	41	101	131	58	36	17	3.6	1.0	.90
AC-FT	701	891	5,210	36,340	10,030	27,180	4,940	2,800	1,470	450	133	76
CAL YR 1969	TOTAL	129,877.1	MEAN	356	MAX	9,520	MIN	3.5	AC-FT	257,600		
WTR YR 1970	TOTAL	45,491.10	MEAN	125	MAX	5,330	MIN	.90	AC-FT	90,230		

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	0815	5.92	2,310	1-24	0230	5.92	2,310
1-9	2015	5.99	2,390	3-1	1145	6.44	2,940
1-16	0830	10.65	13,300	3-4	1515	5.64	2,010

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.--69 years, 163 cfs (118,100 acre-ft per year); median of yearly mean discharges, 130 cfs (94,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,980 cfs Jan. 16 (gage height, 11.19 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	10	16	63	243	2,100	127	68	28	14	1.3	.01
2	.94	10	16	58	215	1,580	123	67	21	12	1.2	.01
3	.83	10	17	54	199	1,110	119	64	22	9.9	1.1	.01
4	.83	10	18	51	189	1,200	113	62	22	9.5	1.1	.01
5	.66	11	18	50	173	1,230	111	60	21	9.0	1.0	.01
6	.66	19	18	48	158	978	107	60	20	8.7	.88	0
7	.66	29	19	47	146	828	104	60	20	8.0	.76	0
8	.76	25	19	50	133	730	102	60	20	7.1	.54	0
9	.93	24	21	443	126	647	97	59	23	6.5	.39	0
10	1.0	21	22	815	126	587	97	56	29	6.1	.18	0
11	1.4	19	22	581	117	523	93	56	27	5.7	.12	0
12	1.5	19	22	514	155	474	91	53	24	5.5	.10	0
13	1.5	18	24	284	295	425	89	53	21	5.4	.07	0
14	1.7	18	25	721	358	390	98	52	23	5.1	.07	0
15	9.1	18	25	803	251	358	94	48	22	5.1	.07	0
16	5.7	18	24	4,190	208	331	93	44	22	4.7	.05	0
17	17	18	24	1,610	251	304	90	41	21	4.4	.04	0
18	18	18	24	996	212	283	87	39	21	4.2	.04	0
19	13	18	24	645	198	263	84	38	20	3.7	.04	0
20	12	18	205	533	182	243	81	38	19	2.2	.03	0
21	11	18	243	367	173	231	82	38	18	2.1	.03	0
22	10	13	225	295	161	215	86	37	16	2.4	.03	0
23	10	18	194	243	152	202	82	35	14	2.2	.03	0
24	10	18	77	874	140	192	77	33	14	2.3	.03	0
25	11	18	591	653	132	185	75	32	14	2.1	.03	0
26	12	18	272	523	123	173	76	32	14	2.3	.02	0
27	13	18	143	452	118	164	79	32	14	2.3	.02	0
28	13	18	106	395	482	158	79	31	13	2.1	.02	0
29	11	18	37	344	-----	143	74	30	14	1.7	.02	0
30	11	15	76	300	-----	140	72	28	15	1.4	.02	0
31	9.9	-----	67	267	-----	136	-----	27	-----	1.4	.02	-----
TOTAL	211.07	531	2,594	17,269	5,421	16,523	2,782	1,433	592	159.1	9.35	.05
MEAN	6.81	17.7	83.7	557	194	533	92.7	46.2	19.7	5.13	.30	.001
MAX	13	29	591	4,190	482	2,100	127	69	29	14	1.3	.01
MIN	.66	10	16	47	117	136	72	27	13	1.4	.02	0
AC-FT	419	1,050	5,150	34,250	10,750	32,770	5,520	2,840	1,170	316	19	.1

CAL YR 1969 TOTAL 153,427.82 MEAN 420 MAX 10,700 MIN .52 ACFT 304,300
 WAT YR 1970 TOTAL 47,524.57 MEAN 130 MAX 4,190 MIN 0 ACFT 94,260

PEAK DISCHARGE (BASE, 2,500 CFS).---Jan. 16 (1000) 9,980 cfs (11.19 ft); Mar. 1 (1415) 2,670 cfs (7.33 ft).

SALINAS RIVER BASIN

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.--41 years (1929-70), 422 cfs (305,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,220 cfs Jan. 17 (gage height, 9.03 ft); minimum daily, 1.3 cfs June 27, June 29 to Aug. 9.
 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. 16, 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 loads for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	476	298	170	52	814	167	91	3.8	33	1.3	1.3	8.0
2	450	298	164	37	1,030	2,100	81	3.7	33	1.3	1.3	8.0
3	440	294	154	35	1,090	1,550	73	3.8	35	1.3	1.3	6.9
4	430	294	151	31	994	1,330	67	3.8	31	1.3	1.3	5.8
5	461	294	125	29	517	1,620	58	3.8	33	1.3	1.3	4.7
6	445	313	97	29	347	1,640	54	4.7	31	1.3	1.3	3.8
7	450	326	90	33	279	1,720	45	6.9	27	1.3	1.3	2.1
8	456	321	87	35	244	1,480	39	4.7	31	1.3	1.3	2.1
9	461	313	84	47	216	1,260	33	3.8	39	1.3	1.3	2.1
10	466	313	67	72	193	1,130	29	3.8	37	1.3	9.3	2.1
11	425	313	77	151	176	1,020	24	3.8	33	1.3	27	2.1
12	420	305	70	268	158	914	18	3.8	33	1.3	31	2.1
13	461	309	60	386	173	834	13	3.8	29	1.3	35	2.1
14	478	309	58	272	148	762	10	3.8	22	1.3	37	2.1
15	488	321	58	239	209	716	12	9.6	18	1.3	24	2.1
16	461	321	49	779	173	664	9.2	19	19	1.3	14	2.1
17	500	321	37	2,910	142	613	10	13	22	1.3	13	2.1
18	535	275	35	1,980	139	565	8.0	14	22	1.3	13	2.1
19	478	283	33	2,090	133	517	9.2	18	19	1.3	12	2.9
20	430	279	56	1,820	116	430	8.0	19	14	1.3	9.2	2.1
21	321	283	47	1,620	105	342	8.0	24	12	1.3	6.9	2.9
22	302	283	45	1,440	97	290	8.0	26	12	1.3	5.8	2.9
23	283	279	27	1,350	90	258	5.8	27	10	1.3	6.9	2.1
24	286	279	31	1,320	82	230	5.8	27	8.0	1.3	8.0	2.1
25	290	275	22	1,880	72	206	5.8	29	5.8	1.3	10	2.1
26	294	272	18	1,560	62	183	6.9	33	2.9	1.3	19	2.1
27	302	220	180	1,570	58	161	6.9	35	1.3	1.3	19	2.1
28	298	216	95	1,300	62	142	5.8	35	2.1	1.3	21	2.1
29	298	224	70	774	-----	125	4.7	35	1.3	1.3	22	2.1
30	294	180	56	553	-----	113	3.8	35	1.3	1.3	14	2.1
31	298	-----	52	425	-----	103	-----	35	-----	1.3	10	-----
TOTAL	12,477	8,611	2,365	25,087	7,919	23,185	752.9	491.6	617.7	40.3	378.8	90.0
MEAN	402	287	76.3	809	283	748	25.1	15.9	20.6	1.30	12.2	3.00
MAX	535	326	180	2,910	1,090	2,100	91	35	39	1.3	37	8.0
MIN	283	180	18	29	58	103	3.8	3.7	1.3	1.3	1.3	2.1
AC-FT	24,750	17,080	4,690	49,760	15,710	45,990	1,490	975	1,230	80	751	179
CAL YR 1969	TOTAL	767,628.8	MEAN	2,103	MAX	64,800	MIN	1.0	AC-FT	1,523,000		
WTR YR 1970	TOTAL	82,015.3	MEAN	225	MAX	2,910	MIN	1.3	AC-FT	162,700		

SALINAS RIVER BASIN

11152540 EL TORO CREEK NEAR SPRECKELS, CALIF.

LOCATION.--Lat 36°35'00", long 121°42'50", in El Toro Grant, Monterey County, on right bank 0.3 mile downstream from San Benancio Gulch and 4.7 miles southwest of Spreckels.

DRAINAGE AREA.--31.9 sq mi.

PERIOD OF RECORD.--October 1961 to current year. Prior to October 1962, published as Toro Creek near Spreckels.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 210 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 1.50 cfs (1,090 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 235 cfs Mar. 4 (gage height, 4.88 ft), from rating curve extended as explained below; minimum daily, 0.02 cfs for several days.

Period of record: Maximum discharge, 626 cfs Jan. 26, 1969 (gage height, 5.99 ft), from rating curve extended above 82 cfs on basis of slope-area measurement of maximum flow; no flow for many days in most years.

REMARKS.--Records good above 10 cfs and fair below. No regulation or diversion above station except for minor stock ponds.

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	.14	.07	.07	.14	.28	43	.59	.03	.03	.14	.02	.14
2	.14	.07	.07	.14	.14	11	.59	.42	.03	.26	.02	.04
3	.13	.07	.07	.14	.28	5.7	.59	.92	.03	.03	.02	.04
4	.12	.07	.07	.14	.28	58	.42	.92	.03	.02	.03	.14
5	.10	.59	.07	.14	.14	30	.42	.92	.03	.03	.02	.04
6	.10	.26	.07	.14	.14	15	.42	.92	.03	.04	.04	.04
7	.10	.14	.14	.14	.14	10	.42	.76	.03	.04	.04	.14
8	.11	.14	.26	.59	.14	8.6	.42	.76	.04	.03	.07	.03
9	.11	.14	.26	1.4	.14	6.8	.42	.76	.07	.04	.07	.02
10	.11	.07	.26	1.1	.14	6.1	.42	.59	.14	.04	.07	.02
11	.13	.07	.26	4.5	.14	4.5	.42	.42	.92	.04	.07	.02
12	.10	.07	.14	.42	.14	3.0	.42	.42	.76	.04	.14	.03
13	.11	.07	.14	.14	3.1	2.2	.76	.42	.42	.03	.14	.03
14	.11	.14	.14	2.0	1.2	2.2	.42	.42	.26	.03	.14	.03
15	.16	.14	.14	2.2	.42	2.0	.04	.14	.07	.02	.04	.03
16	.18	.14	.14	9.8	.42	1.7	.03	.03	.42	.02	.07	.03
17	.16	.14	.14	1.7	.76	1.7	.04	.03	.14	.02	.04	.02
18	.14	.14	.14	.92	.42	1.7	.03	.03	.14	.02	.14	.02
19	.13	.26	.59	1.7	.14	1.7	.04	.03	.14	.02	.14	.03
20	.12	.14	.42	1.2	.14	1.7	.03	.03	.07	.03	.07	.03
21	.10	.14	1.7	2.0	.14	1.7	.03	.03	.14	.03	.07	.03
22	.11	.14	.42	.92	.04	1.7	.03	.02	.14	.02	.07	.03
23	.11	.14	.26	.76	.04	.92	.03	.02	.07	.03	.07	.02
24	.11	.14	.26	1.7	.04	.76	.03	.03	.07	.03	.04	.03
25	.11	.14	2.5	.59	.04	.92	.03	.03	.07	.03	.07	.02
26	.11	.14	.59	.59	.04	.59	.03	.03	.07	.03	.07	.02
27	.15	.14	.26	1.4	.42	.92	.03	.03	.07	.03	.07	.02
28	.14	.07	.26	.42	2.6	.76	.03	.03	.14	.03	.07	.02
29	.14	.07	.26	.42	-----	.42	.03	.03	.14	.04	.07	.02
30	.07	.07	.20	.42	-----	.14	.03	.02	.14	.03	.07	.02
31	.07	-----	.14	.42	-----	.42	-----	.02	-----	.03	.14	-----
TOTAL	3.72	4.12	10.44	38.29	12.06	225.85	7.24	9.26	4.85	1.27	2.20	1.15
MEAN	.12	.14	.34	1.24	.43	7.29	.24	.30	.16	.041	.071	.038
MAX	.18	.59	2.5	9.8	3.1	58	.76	.92	.92	.26	.14	.14
MIN	.07	.07	.07	.14	.04	.14	.03	.02	.03	.02	.02	.02
AC-FT	7.4	8.2	21	76	24	448	14	18	9.6	2.5	4.4	2.3
CAL YR 1969	TOTAL	3,641.26	MEAN	9.98	MAX	284	MIN	.05	AC-FT	7,220		
WTR YR 1970	TOTAL	320.45	MEAN	.88	MAX	58	MIN	.02	AC-FT	636		

PEAK DISCHARGE (BASE, 10 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-11	0915	3.80	28	3- 1	0800	4.53	147
1-16	0030	3.80	28	3- 4	1530	4.88	235
2-13	0630	3.56	11				

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.--9 years, 4.90 cfs (3,550 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,080 cfs Jan. 16 (gage height, 4.66 ft); no flow 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	.03	.40	3.7	123	1.3	.38	.05	.01	0	0
2	.01	.03	.03	.35	3.1	45	1.3	.37	.05	.01	0	0
3	.01	.03	.03	.34	2.8	23	1.1	.35	.04	.01	0	0
4	0	.03	.03	.34	2.5	70	1.1	.34	.04	.01	0	0
5	0	.11	.03	.30	2.3	45	1.1	.33	.04	.01	0	0
6	0	.07	.03	.28	2.0	25	1.1	.32	.04	0	0	0
7	0	.05	.03	.28	1.9	16	.97	.31	.04	0	0	0
8	0	.05	.05	.31	1.8	11	.93	.30	.04	.01	0	0
9	0	.04	.05	.52	1.7	8.5	.90	.28	.07	0	0	0
10	0	.04	.05	10	1.9	7.2	.86	.27	.05	.01	0	0
11	.01	.04	.05	23	1.6	5.6	.83	.26	.05	.01	0	0
12	0	.03	.05	10	1.8	4.7	.80	.25	.04	.01	0	0
13	0	.02	.05	4.1	3.8	4.2	.84	.24	.05	.01	0	0
14	0	.03	.05	54	4.1	3.7	.90	.24	.04	.01	0	0
15	.02	.03	.05	58	2.7	3.3	.80	.23	.03	.02	0	0
16	.11	.03	.05	349	3.5	3.0	.72	.22	.03	.02	0	0
17	.04	.03	.05	168	26	2.7	.67	.21	.03	.02	0	0
18	.02	.03	.05	32	11	2.4	.64	.21	.02	.02	0	0
19	.02	.03	.12	11	6.8	2.2	.66	.20	.02	.01	0	0
20	.01	.03	.14	6.5	5.1	2.0	.63	.20	.02	.01	0	0
21	.01	.03	.25	187	4.0	2.0	.58	.19	.02	0	0	0
22	.01	.03	.12	52	3.3	2.0	.55	.16	.02	0	0	0
23	.01	.03	.10	25	2.9	1.9	.52	.15	.02	0	0	0
24	.01	.03	.17	64	2.6	1.9	.50	.13	.01	0	0	0
25	.01	.03	7.1	29	2.3	1.8	.48	.13	.01	.01	0	0
26	.01	.03	2.3	15	2.1	1.7	.46	.13	.01	.01	0	0
27	.01	.03	.86	14	2.0	1.6	.44	.11	.01	0	0	0
28	.01	.03	.64	9.2	17	1.4	.43	.11	.01	0	0	0
29	.01	.03	.54	6.5	-----	1.4	.41	.08	.01	0	0	0
30	.01	.03	.46	5.3	-----	1.4	.40	.08	.01	0	0	0
31	.02	-----	.41	4.2	-----	1.4	-----	.07	-----	0	0	-----
TOTAL	0.38	1.07	13.97	1,139.92	126.3	426.0	22.92	6.85	0.92	0.23	0	0
MEAN	.012	.036	.45	36.8	4.51	13.7	.76	.22	.031	.007	0	0
MAX	.11	.11	7.1	349	26	123	1.3	.38	.07	.02	0	0
MIN	0	.02	.03	.28	1.6	1.4	.40	.07	.01	0	0	0
AC-FT	.8	2.1	28	2,260	251	845	45	14	1.8	.5	0	0

CAL YR 1969 TOTAL 4,927.56 MEAN 13.5 MAX 718 MIN 0 AC-FT 9,770
WTR YR 1970 TOTAL 1,738.56 MEAN 4.76 MAX 349 MIN 0 AC-FT 3,450

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0745	4.66	1,080	3- 1	0745	3.01	250
1-21	0630	3.23	334	3- 4	1445	3.04	260
1-24	0145	2.70	158				

NOTE.--No gage-height record Apr. 6 to May 18.

PAJARO RIVER BASIN

11153000 PACHECO CREEK NEAR DUNNEVILLE, CALIF.

LOCATION.--Lat 36°58'48", long 121°22'45", in Ausaymas y San Felipe Grant, Santa Clara County, on right bank 450 ft downstream from private road bridge and 3.3 miles northeast of Dunneville.

DRAINAGE AREA.--146 sq mi.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only prior to January 1940, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 230.70 ft above mean sea level. Prior to Nov. 17, 1950, nonrecording gage at site 350 ft upstream at datum 6.00 ft higher. Nov. 17, 1950, to Aug. 18, 1960, nonrecording gage at site 350 ft upstream at datum 4.00 ft higher.

AVERAGE DISCHARGE.--31 years, 34.8 cfs (25,210 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,720 cfs Jan. 16 (gage height, 12.90 ft); no flow many days. Period of record: Maximum discharge, 12,600 cfs Dec. 23, 1955 (gage height, 21.0 ft, present site and datum, from floodmarks), from rating curve extended above 5,400 cfs on basis of slope-area measurement of maximum flow; no flow at times.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	2.2	1.0	0	41	706	6.2	.70	0	13	5.5	7.0
2	4.7	4.7	1.0	0	34	415	5.9	.70	0	13	5.3	6.9
3	5.0	4.7	1.8	0	30	172	5.3	1.4	0	12	5.2	6.8
4	4.7	4.7	1.4	0	28	407	4.7	1.4	0	11	5.7	6.2
5	4.4	6.8	1.4	0	23	454	4.4	1.4	0	9.7	5.5	6.4
6	4.7	7.1	1.4	0	20	233	4.1	1.0	0	9.7	4.9	5.6
7	5.0	7.8	1.4	0	18	164	3.5	1.4	0	9.5	4.0	4.0
8	5.3	7.8	1.8	0	16	125	3.2	1.4	0	9.5	4.3	4.0
9	5.3	5.6	1.4	0	15	98	3.2	1.0	0	9.1	4.9	4.2
10	5.6	4.4	1.4	0	14	85	3.2	1.0	0	8.6	5.3	4.8
11	6.2	2.8	1.4	0	14	67	2.8	1.4	0	7.8	5.7	5.0
12	5.6	1.8	1.0	0	12	56	2.8	1.0	0	6.5	6.4	4.9
13	5.6	1.8	1.0	.07	17	49	2.8	.70	0	5.9	6.9	5.3
14	5.9	1.8	1.0	154	26	42	2.8	.50	0	5.7	7.6	4.8
15	7.8	1.8	.83	190	22	37	2.8	.30	0	5.4	7.7	4.9
16	9.2	1.4	.70	1,880	19	31	2.8	.20	0	5.4	7.7	4.7
17	9.2	1.8	.50	779	136	29	2.5	.50	0	5.2	7.7	4.7
18	6.8	1.4	.30	272	91	24	2.5	.07	3.3	4.7	7.7	4.8
19	4.4	1.4	.50	131	63	21	2.8	0	18	4.9	7.9	4.9
20	3.2	1.4	.20	90	45	18	2.8	0	23	4.8	8.4	5.0
21	2.8	1.4	.50	1,000	33	16	2.8	0	25	4.8	8.5	5.1
22	2.5	1.4	.02	616	27	16	2.5	0	24	5.5	8.1	5.1
23	2.2	1.4	0	291	23	15	2.5	0	23	5.7	8.0	5.1
24	1.8	1.4	0	753	20	13	2.5	0	12	6.0	8.0	5.2
25	1.8	1.4	.30	391	16	12	2.5	0	9.9	5.9	9.1	4.9
26	1.8	1.4	0	218	15	12	2.2	0	9.6	5.8	10	4.6
27	1.8	1.4	0	178	16	12	1.8	0	9.6	6.1	11	4.6
28	1.8	1.4	0	125	26	9.6	1.4	0	9.6	5.7	8.5	4.5
29	1.4	1.4	0	85	-----	8.8	1.4	0	12	5.1	7.4	4.3
30	1.4	1.4	0	68	-----	8.5	1.0	0	13	5.2	7.3	4.2
31	1.4	-----	0	52	-----	7.4	-----	0	-----	5.4	6.8	-----
TOTAL	134.3	87.2	22.25	7,273.07	860	3,363.3	91.7	16.07	192.0	222.6	217.0	152.5
MEAN	4.33	2.91	.72	235	30.7	108	3.06	.52	6.40	7.18	7.00	5.08
MAX	9.2	7.8	1.8	1,880	136	706	6.2	1.4	25	13	11	7.0
MIN	1.4	1.4	0	0	12	7.4	1.0	0	0	4.7	4.0	4.0
AC-FT	266	173	44	14,430	1,710	6,670	182	32	381	442	430	302
CAL YR 1969	TOTAL 42,396.48	MEAN 116	MAX 6,310	MIN 0	AC-FT 84,090							
WTR YR 1970	TOTAL 12,631.99	MEAN 34.6	MAX 1,880	MIN 0	AC-FT 25,060							

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 current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 445 ft (from topographic map).

AVERAGE DISCHARGE.--19 years, 15.9 cfs (11,520 acre-ft per year); median of yearly mean discharges, 14 cfs (10,100 acre-ft per year).

EXTREMES.--Current year; Maximum discharge, 140 cfs Dec. 29 (gage height, 2.41 ft); minimum daily, 2.6 cfs Dec. 28.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	8.1	8.1	4.9	38	14	5.6	3.0	3.3	19	11	11
2	14	8.1	8.1	4.9	39	19	3.0	3.0	3.2	19	11	11
3	14	7.7	8.1	4.9	39	18	2.9	3.0	3.1	19	11	11
4	15	8.1	8.1	4.9	39	24	2.9	3.0	3.1	19	11	11
5	15	8.1	8.1	4.9	39	91	2.9	3.1	3.1	19	11	11
6	15	8.1	8.1	4.9	39	80	2.8	3.2	6.1	19	11	11
7	15	8.1	8.1	4.9	39	75	2.8	3.2	8.3	19	11	11
8	15	8.1	8.1	4.7	38	60	2.8	3.1	8.1	19	11	11
9	19	8.6	8.1	4.9	38	49	2.8	3.1	8.2	19	11	11
10	16	8.6	8.1	4.9	38	44	2.8	3.3	8.1	19	11	11
11	13	8.6	8.1	5.0	38	37	2.9	3.0	8.1	15	11	11
12	11	8.1	7.7	4.9	38	34	2.9	3.0	8.1	11	11	14
13	11	8.1	5.2	4.7	38	30	3.0	3.3	15	11	11	17
14	11	8.1	3.3	6.2	38	32	2.9	3.1	20	11	11	17
15	11	8.1	3.3	5.4	38	33	3.0	3.0	19	11	11	17
16	10	8.1	3.3	6.9	38	32	2.9	3.0	19	11	11	19
17	10	8.1	3.1	6.2	38	32	3.0	3.2	19	11	11	21
18	10	8.1	3.1	5.6	38	31	2.9	3.2	19	11	11	21
19	10	8.1	3.1	5.2	38	31	3.3	3.3	19	11	11	21
20	10	8.1	3.1	5.2	31	31	2.9	3.3	19	11	11	21
21	10	8.1	3.3	5.4	20	31	2.9	3.3	19	11	11	21
22	9.6	8.1	3.1	5.2	17	31	3.0	3.3	19	11	11	21
23	9.1	8.1	3.1	5.6	9.1	18	3.1	3.3	19	11	11	21
24	8.3	8.6	3.1	6.0	7.4	9.6	2.9	3.3	19	11	11	21
25	8.1	8.6	2.9	10	7.4	9.1	3.0	3.3	19	11	11	21
26	8.1	8.1	2.9	15	6.5	8.1	3.0	3.3	19	11	11	21
27	8.1	8.1	2.9	15	6.3	7.4	3.0	3.3	19	11	11	19
28	8.1	8.1	2.6	15	6.6	7.4	3.0	3.3	19	11	11	18
29	8.1	8.1	9.1	15	-----	7.7	3.0	3.3	19	11	11	18
30	8.1	8.1	4.9	15	-----	7.4	3.0	3.2	19	11	11	18
31	8.1	-----	4.9	27	-----	7.0	-----	3.2	-----	11	11	-----
TOTAL	353.7	245.1	167.1	238.3	839.3	940.7	90.9	98.5	409.8	425	341	488
MEAN	11.4	8.17	5.39	7.69	30.0	30.3	3.03	3.18	13.7	13.7	11.0	16.3
MAX	19	8.6	9.1	27	39	91	5.6	3.3	20	19	11	21
MIN	8.1	7.7	2.6	4.7	6.3	7.0	2.8	3.0	3.1	11	11	11
AC-FT	702	486	331	473	1,660	1,870	180	195	813	843	676	968
CAL YR 1969	TOTAL	12,356.5	MEAN	33.9	MAX	756	MIN	1.1	AC-FT	24,510		
WTR YR 1970	TOTAL	4,637.4	MEAN	12.7	MAX	91	MIN	2.6	AC-FT	9,200		

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.--11 years, 60.2 cfs (43,610 acre-ft per year); median of yearly mean discharges, 22 cfs (15,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,900 cfs Jan. 16 (gage height, 8.89 ft); minimum daily, 0.66 cfs Oct. 13.

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 good. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	8.4	7.6	10	152	745	28	18	13	4.9	3.6	6.8
2	2.0	8.5	7.9	10	125	816	30	18	13	4.5	3.2	6.7
3	1.6	9.1	8.5	10	103	630	47	19	13	4.0	2.0	6.5
4	1.8	9.9	8.9	10	90	965	47	19	13	4.5	3.5	6.2
5	2.8	13	8.8	9.7	79	1,250	47	17	13	4.8	3.7	6.3
6	1.5	14	8.7	9.6	72	935	26	18	13	4.6	3.9	5.3
7	1.4	12	8.5	9.9	68	729	24	18	12	5.1	3.7	5.9
8	1.5	13	8.7	10	64	567	21	19	11	5.2	5.2	6.2
9	1.2	15	8.3	12	60	424	22	18	11	4.1	5.4	5.1
10	.80	8.0	7.9	20	59	331	20	18	9.9	4.2	3.8	5.0
11	1.2	8.2	7.8	31	55	264	19	17	9.7	4.6	4.2	6.5
12	.94	9.2	7.6	31	55	210	19	15	9.5	4.9	5.8	5.8
13	.66	11	7.6	18	71	168	20	16	9.8	3.6	6.5	7.4
14	1.1	12	7.6	196	68	138	21	15	9.4	6.0	7.7	7.3
15	1.8	13	7.6	230	68	125	20	16	9.6	7.5	8.5	8.8
16	3.6	12	8.1	1,820	71	114	19	15	9.3	7.5	8.5	6.7
17	4.0	9.5	8.5	2,250	110	102	19	13	9.7	7.6	6.2	5.5
18	3.3	9.3	8.5	1,440	160	94	19	13	10	4.0	5.7	6.9
19	3.6	9.5	7.9	975	172	85	19	14	9.7	2.5	6.2	7.4
20	4.6	9.4	10	665	154	81	18	13	9.5	3.6	7.0	5.9
21	5.7	9.3	25	1,290	117	77	20	13	8.9	2.6	9.9	4.5
22	6.2	9.1	18	998	89	76	19	13	8.2	4.0	8.6	6.1
23	6.3	8.9	9.6	609	76	74	19	13	8.3	3.5	7.7	6.2
24	6.8	8.9	12	1,520	66	48	19	13	9.4	3.7	6.5	6.6
25	7.1	8.6	34	1,090	55	40	19	12	9.5	4.7	8.2	5.8
26	7.2	8.9	17	826	49	37	18	12	8.5	3.6	8.7	5.3
27	7.4	9.0	13	640	43	34	21	14	6.6	3.3	7.3	7.6
28	7.7	8.8	12	481	70	32	18	13	4.5	3.6	7.7	5.3
29	7.8	8.4	11	344	-----	32	18	12	4.5	3.8	6.5	5.1
30	8.2	7.7	10	252	-----	30	17	11	5.5	4.2	6.3	4.0
31	8.4	-----	10	184	-----	29	-----	12	-----	5.3	5.7	-----
TOTAL	119.60	301.6	336.6	16,001.2	2,421	9,282	693	467	292.0	140.0	187.4	184.7
MEAN	3.86	10.1	10.9	516	86.5	299	23.1	15.1	9.73	4.52	6.05	6.16
MAX	8.4	15	34	2,250	172	1,250	47	19	13	7.6	9.9	8.8
MIN	.66	7.7	7.6	9.6	43	29	17	11	4.5	2.5	2.0	4.0
AC-FT	237	598	668	31,740	4,800	18,410	1,370	926	579	.278	372	366

CAL YR 1969 TOTAL 99,130.35 MEAN 272 MAX 11,700 MIN .66 AC-FT 196,600
 WTR YR 1970 TOTAL 30,426.10 MEAN 83.4 MAX 2,250 MIN .66 AC-FT 60,350

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	1430	8.89	2,900	3- 1	1715	6.78	1,280
1-21	2000	7.61	1,800	3- 4	2030	7.89	2,010
1-24	0645	7.90	2,020				

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.--9 years, 29.8 cfs (21,590 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,340 cfs Jan. 16 (gage height, 8.56 ft); minimum daily, 0.06 cfs Oct. 7.

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 loads for the water year 1970 are published in Part 2 of this report.

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	1.8	1.1	18	52	610	17	8.2	2.6	1.5	.70	.40
2	.07	1.4	.78	16	50	133	17	7.6	2.2	1.4	.64	.51
3	.13	1.0	.59	15	46	84	17	7.3	2.2	1.4	.90	.12
4	.10	.97	.71	14	43	177	16	6.8	2.3	1.2	.88	.26
5	.14	2.9	.77	12	42	115	16	6.9	2.4	1.5	.84	.29
6	.25	3.7	.98	11	40	100	15	6.7	2.9	1.6	.50	.26
7	.06	2.3	1.2	11	39	84	14	6.7	2.8	1.0	.64	.47
8	.10	2.2	1.3	11	36	75	14	6.7	2.8	1.6	.55	.16
9	.09	1.9	1.4	185	34	66	14	7.0	4.1	1.0	.55	.37
10	.12	1.8	2.2	112	33	59	13	6.5	3.1	1.5	.63	.13
11	.22	1.6	2.9	106	31	53	13	6.1	3.0	1.5	.32	.23
12	.29	1.6	3.0	80	35	48	13	6.2	2.6	1.4	.13	.21
13	.19	1.6	3.0	74	54	44	13	6.0	2.6	1.4	.27	.38
14	.18	1.3	2.1	601	40	41	14	5.5	3.3	1.0	.42	.53
15	2.1	1.4	1.8	253	34	39	13	5.1	2.5	1.4	.32	.15
16	7.9	1.3	1.6	973	43	36	13	4.9	2.6	1.1	.57	.18
17	2.3	1.4	1.5	556	52	34	13	4.9	2.8	1.3	.54	.10
18	1.6	1.2	1.4	232	37	31	12	4.8	2.7	1.1	.32	.16
19	1.4	1.1	52	158	33	30	13	5.0	2.2	1.0	.56	.21
20	1.2	1.1	232	133	31	28	12	4.7	2.1	1.1	.36	.47
21	1.2	1.1	241	453	29	27	11	4.5	2.1	.97	.37	.46
22	1.3	1.2	68	278	27	26	11	4.4	1.8	.76	.25	.49
23	1.3	1.2	28	206	26	25	11	4.5	2.3	.83	.37	.30
24	1.4	1.2	102	333	25	24	11	4.3	2.1	.97	.62	.19
25	1.5	1.2	250	191	24	22	10	4.1	2.0	1.0	.33	.23
26	1.5	1.1	88	124	23	21	11	3.7	2.2	.76	.44	.13
27	1.5	1.1	53	128	23	20	10	3.9	1.8	1.0	.18	.18
28	1.4	1.2	37	97	38	20	9.8	4.0	2.3	.70	.46	.20
29	1.1	1.3	28	82	-----	20	9.1	3.9	2.0	.64	.38	.14
30	1.3	1.1	24	69	-----	19	8.9	3.8	1.7	.49	.63	.30
31	1.9	-----	21	61	-----	18	-----	3.3	-----	.83	.64	-----
TOTAL	34.04	45.27	1,252.33	5,593	1,020	2,129	384.8	168.0	74.1	34.95	15.31	8.21
MEAN	1.10	1.51	40.4	180	36.4	68.7	12.8	5.42	2.47	1.13	.49	.27
MAX	7.9	3.7	250	973	54	610	17	8.2	4.1	1.6	.90	.53
MIN	.06	.97	.59	11	23	18	8.9	3.3	1.7	.49	.13	.10
AC-FT	68	90	2,480	11,090	2,020	4,220	763	333	147	69	30	16
CAL YR 1969	TOTAL	20,263.91	MEAN	55.5	MAX	1,700	MIN	.06	AC-FT	40,190		
WTR YR 1970	TOTAL	10,759.01	MEAN	29.5	MAX	973	MIN	.06	AC-FT	21,340		

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1- 9	1715	6.23	822	3- 1	0515	7.27	1,440
1-16	0730	8.56	2,340				

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, 19.4 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, 7,630 acre-ft Mar. 5 (elevation, 525.6 ft); minimum observed, 2,590 acre-ft Dec. 17 (elevation, 499.9 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, 10,530 acre-ft Jan. 16, Mar. 1 (elevation, 488.98 ft); minimum observed, 2,670 acre-ft Dec. 16 (elevation, 450.5 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.

Month-end contents, in acre-feet (including momentary storage above spillway crest), water year October 1969 to September 1970

Date	Chesbro Reservoir	Uvas Reservoir
Sept. 30, 1969.....	4,150	3,800
Oct. 31.....	3,500	3,050
Nov. 30.....	2,890	2,770
Dec. 31.....	3,000	5,390
Jan. 31, 1970.....	7,040	10,110
Feb. 28.....	6,780	10,530
Mar. 31.....	7,430	9,890
Apr. 30.....	7,520	9,200
May 31.....	7,430	8,060
June 30.....	6,620	6,850
July 31.....	5,680	5,560
Aug. 31.....	5,020	4,180
Sept. 30.....	3,920	2,980

NOTE.--Contents at 0800 on first day of following month.

11154100 BODFISH CREEK NEAR GILROY, CALIF

LOCATION.--Lat 37°00'15", long 121°39'58" (revised), 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.--11 years, 3.87 cfs (2,800 acre-ft per year); median of yearly mean discharges, 2.3 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 630 cfs Jan. 16 (gage height, 7.08 ft); minimum daily, 0.05 cfs Oct. 1, 12, Sept. 23, 25.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.40	.23	1.1	15	69	3.4	1.5	.73	.43	.13	.09
2	.06	.38	.24	.93	13	32	3.2	1.4	.67	.39	.13	.10
3	.08	.36	.24	.93	12	19	3.2	1.3	.66	.37	.13	.12
4	.07	.39	.18	.81	11	53	3.0	1.3	.65	.29	.17	.13
5	.07	1.9	.18	.61	9.6	37	2.6	1.2	.60	.14	.15	.11
6	.09	1.5	.18	.61	8.5	24	2.7	1.1	.56	.11	.14	.07
7	.09	.85	.20	.61	7.6	19	2.6	1.1	.67	.12	.12	.07
8	.07	.68	.38	.81	7.0	17	2.5	.96	.59	.12	.12	.20
9	.07	.52	.35	6.5	6.6	15	2.4	.98	1.0	.12	.10	.42
10	.07	.44	.56	5.4	6.2	14	2.4	.93	.70	.12	.09	.34
11	.06	.42	.49	9.4	6.8	12	2.2	.93	.60	.13	.12	.06
12	.05	.42	.36	6.2	10	10	2.1	.93	.58	.13	.11	.13
13	.06	.44	.30	4.6	9.0	7.4	2.0	.93	.71	.12	.12	.17
14	.14	.49	.26	64	7.4	6.5	2.2	.93	.79	.12	.12	.15
15	.70	.45	.24	29	6.6	6.2	2.0	.89	.77	.13	.11	.11
16	.93	.48	.24	201	8.1	6.0	2.0	.85	.75	.13	.11	.10
17	.52	.44	.21	46	6.4	5.7	1.9	.81	.72	.12	.07	.07
18	.30	.44	.18	20	5.4	5.4	1.8	.84	.66	.11	.07	.07
19	.24	.42	2.8	13	4.8	5.1	1.8	.86	.63	.11	.09	.10
20	.30	.35	6.5	18	5.1	4.8	1.8	.83	.58	.09	.09	.10
21	.52	.35	20	266	5.5	4.8	1.8	.82	.57	.10	.10	.10
22	.44	.35	4.6	75	3.5	4.6	1.8	.78	.57	.12	.09	.07
23	2.2	.36	1.8	38	3.1	4.3	1.8	.77	.57	.14	.07	.05
24	.49	.30	27	51	3.0	3.5	1.7	.81	.57	.09	.08	.07
25	.44	.30	64	32	3.0	3.3	1.7	.81	.57	.09	.09	.05
26	.50	.30	9.4	28	3.0	3.1	1.8	.81	.56	.16	.08	.07
27	.49	.30	4.3	40	2.8	2.9	1.8	.81	.52	.11	.07	.07
28	.47	.30	2.6	29	4.0	2.6	1.5	.81	.50	.12	.07	.14
29	.43	.24	2.0	23	-----	2.6	1.5	.79	.48	.13	.12	.14
30	.41	.24	1.7	19	-----	2.6	1.5	.77	.46	.12	.10	.18
31	.41	-----	1.2	17	-----	3.1	-----	.75	-----	.14	.09	-----
TOTAL	10.82	14.81	152.92	1,047.51	194.0	405.5	64.7	29.30	18.99	4.72	3.25	3.65
MEAN	.35	.49	4.93	33.8	6.93	13.1	2.16	.95	.63	.15	.10	.12
MAX	2.2	1.9	64	266	15	69	3.4	1.5	1.0	.43	.17	.42
MIN	.05	.24	.18	.61	2.8	2.6	1.5	.75	.46	.09	.07	.05
AC-FT	21	29	303	2,080	385	804	128	58	38	9.4	6.4	7.2

CAL YR 1969 TOTAL 2,894.70 MEAN 7.93 MAX 282 MIN .02 AC-FT 5,740
WTR YR 1970 TOTAL 1,950.17 MEAN 5.34 MAX 266 MIN .05 AC-FT 3,870

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	0600	5.10	233	1-21	0815	6.33	456
1-16	0615	7.08	630				

PAJARO RIVER BASIN

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.--11 years, 40.4 cfs (29,270 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,120 cfs Jan. 16 (gage height, 10.92 ft); no flow 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	0	0	6.9	188	946	35	.56	0	.05	4.9	5.3
2	2.0	0	0	4.6	161	605	27	.35	0	.01	4.9	3.2
3	1.7	0	0	3.5	144	349	21	.23	0	.01	5.6	4.6
4	1.7	0	0	2.5	133	612	18	.18	0	0	5.6	4.2
5	1.7	0	0	1.7	120	564	16	.12	0	0	4.9	3.5
6	1.7	0	0	1.7	108	374	14	.10	0	0	3.5	2.8
7	1.9	0	0	1.2	99	302	12	.07	0	.01	3.5	2.1
8	3.2	0	0	1.0	91	258	12	.03	.05	0	3.9	1.9
9	3.5	0	0	2.1	84	220	10	.01	.40	0	3.2	1.7
10	3.9	0	0	51	82	196	10	.01	.87	0	3.2	1.7
11	3.9	0	0	53	77	168	8.3	.01	1.6	.99	1.9	1.4
12	1.7	0	0	56	77	149	8.3	.01	1.5	3.5	1.6	1.4
13	.23	0	0	46	104	133	8.3	.01	1.9	5.3	1.9	2.5
14	.01	0	0	478	115	121	9.6	0	2.0	6.3	2.0	2.5
15	.08	0	0	297	87	110	9.6	0	2.5	8.3	1.7	3.9
16	1.9	0	0	1,770	79	98	9.0	0	2.0	8.3	1.9	5.6
17	.61	0	0	1,590	115	91	7.6	0	1.6	9.0	1.9	6.9
18	.09	0	0	774	98	81	6.9	0	.77	7.6	1.1	6.3
19	0	0	0	493	82	74	6.9	0	.45	6.3	1.5	7.6
20	0	0	0	397	75	71	6.3	.01	.26	6.3	2.8	9.0
21	0	0	45	1,640	68	65	6.3	.03	.23	6.3	2.5	9.0
22	0	0	58	1,020	63	64	5.3	.05	.22	6.9	3.2	9.0
23	0	0	12	633	54	60	3.9	.05	.23	7.6	3.2	8.3
24	0	0	82	934	47	56	3.2	.03	.29	8.3	4.2	8.3
25	0	0	357	574	41	55	2.5	.04	.45	10	4.6	7.6
26	0	0	111	442	38	51	2.1	.02	.40	11	5.3	2.0
27	0	0	56	427	35	46	2.0	.02	.22	13	5.6	.99
28	0	0	37	344	47	41	1.4	.01	.23	9.6	4.9	.61
29	0	0	25	282	-----	43	.82	.01	.29	7.6	6.3	1.7
30	0	0	16	244	-----	41	.71	.01	.13	5.6	6.9	4.2
31	0	-----	10	211	-----	39	-----	.01	-----	4.9	7.6	-----
TOTAL	31.72	0	809	12,781.2	2,512	6,083	284.03	1.98	18.59	152.77	115.8	129.80
MEAN	1.02	0	26.1	412	89.7	196	9.47	.064	.62	4.93	3.74	4.33
MAX	3.9	0	357	1,770	188	946	35	.56	2.5	13	7.6	9.0
MIN	0	0	0	1.0	35	39	.71	0	0	0	1.1	.61
AC-FT	63	0	1,600	25,350	4,980	12,070	563	3.9	37	303	230	257

CAL YR 1969 TOTAL 41,030.14 MEAN 112 MAX 2,740 MIN 0 AC-FT 81,380
 WTR YR 1970 TOTAL 22,919.89 MEAN 62.8 MAX 1,770 MIN 0 AC-FT 45,460

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 927.89 ft 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, at present site and datum.

AVERAGE DISCHARGE.--31 years, 24.3 cfs (17,610 acre-ft per year); median of yearly mean discharges, 13 cfs (9,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 65 cfs Mar. 2 (gage height, 2.18 ft); minimum daily, 0.78 cfs Sept. 30.

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 poor. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	31	5.3	4.8	7.3	22	3.3	16	53	43	1.7	.96
2	30	30	5.2	4.7	6.6	60	3.3	17	51	43	1.7	.96
3	30	29	5.0	5.6	5.9	58	3.4	19	49	43	1.7	.95
4	31	30	4.8	5.8	5.9	34	3.4	22	48	37	1.5	.94
5	32	33	4.7	5.8	5.2	15	3.4	24	47	26	1.5	.93
6	33	46	4.6	5.5	5.2	10	3.3	26	46	26	1.5	.92
7	32	38	4.6	5.4	4.5	7.7	3.4	29	45	29	1.4	.92
8	32	24	4.5	5.3	4.5	6.0	3.3	31	44	30	1.4	.91
9	33	18	4.5	8.5	4.0	5.0	3.1	35	43	31	1.4	.91
10	33	14	4.5	15	4.5	4.6	3.1	36	43	32	1.4	.90
11	34	11	4.4	27	4.0	4.3	2.7	36	43	32	1.2	.89
12	34	9.5	4.4	25	4.0	4.0	2.5	36	44	32	1.2	.88
13	33	8.5	4.4	24	5.9	3.9	2.4	38	43	34	1.2	.88
14	34	8.5	4.4	23	5.2	3.8	2.1	38	43	34	1.2	.87
15	38	8.4	4.3	22	4.0	3.7	2.1	38	42	35	1.1	.87
16	40	8.0	4.3	21	4.0	3.7	2.1	40	42	34	1.1	.86
17	37	8.0	4.3	20	4.5	3.6	2.1	43	42	35	1.1	.86
18	36	7.8	4.3	19	4.0	3.6	1.9	46	41	34	1.1	.85
19	36	7.4	4.3	19	3.4	3.5	1.9	46	40	32	1.1	.85
20	35	7.2	4.6	20	2.9	3.4	1.9	47	40	32	1.0	.84
21	35	7.0	5.8	20	2.9	3.4	1.8	47	40	32	1.0	.84
22	35	6.8	6.6	19	2.4	3.3	1.8	50	39	32	1.0	.83
23	35	6.6	6.6	16	2.4	3.3	1.8	50	38	31	1.0	.83
24	36	6.4	5.4	14	2.4	3.3	1.8	50	38	31	1.0	.82
25	36	6.2	5.9	14	2.4	3.3	1.7	50	39	22	1.0	.81
26	35	6.0	6.5	12	2.1	3.2	3.1	51	41	6.0	1.0	.80
27	34	5.8	6.5	12	2.1	3.2	7.6	53	42	2.8	.99	.80
28	34	5.6	6.5	10	8.9	3.2	11	53	43	2.1	.98	.79
29	33	5.5	5.4	9.5	-----	3.3	13	55	43	1.9	.98	.79
30	33	5.4	5.2	9.0	-----	3.3	15	55	43	1.9	.97	.78
31	33	-----	5.0	8.0	-----	3.3	-----	54	-----	1.7	.96	-----
TOTAL	1,051	438.6	156.8	429.9	121.1	295.9	113.3	1,231	1,295	838.4	37.38	26.04
MEAN	33.9	14.6	5.06	13.9	4.33	9.55	3.78	39.7	43.2	27.0	1.21	.87
MAX	40	46	6.6	27	8.9	60	15	55	53	43	1.7	.96
MIN	29	5.4	4.3	4.7	2.1	3.2	1.7	16	38	1.7	.96	.78
AC-FT	2,080	870	311	853	240	587	225	2,440	2,570	1,660	74	52
CAL YR 1969	TOTAL	32,930.80	MEAN	90.2	MAX	3,170	MIN	.20	AC-FT	65,320		
WTR YR 1970	TOTAL	6,034.42	MEAN	16.5	MAX	60	MIN	.78	AC-FT	11,970		

NOTE.--No gage-height record Nov. 19 to Jan. 18, Mar. 4 to Apr. 6, July 26 to Sept. 30.

PAJARO RIVER BASIN

11156700 PESCADERO CREEK NEAR PAICINES, CALIF.

LOCATION.--Lat 36°41'40", long 121°18'35", in SE¼ sec.21, T.14 S., R.6 E., San Benito County, on left bank just downstream from Cienega Valley Road bridge, 1.5 miles upstream from mouth, and 3 miles southwest of Paicines.

DRAINAGE AREA.--38.3 sq mi.

PERIOD OF RECORD.--July 1959 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Concrete control since Sept. 10, 1963. Datum of gage is 730.4 ft above mean sea level (levels by Topographic Division).

AVERAGE DISCHARGE.--11 years, 1.65 cfs (1,200 acre-ft per year); median of yearly mean discharges, 0.96 cfs (700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 109 cfs Jan. 16 (gage height, 5.86 ft), from rating curve extended as explained below; minimum daily, 0.30 cfs June 5, 6, 13.
 Period of record: Maximum discharge, 341 cfs Feb. 24, 1969 (gage height, 7.00 ft in gage well, 7.3 ft, from floodmarks), from rating curve extended above 14 cfs on basis of slope-area measurement of maximum flow; no flow at times.

REMARKS.--Records poor. No regulation; large ground-water withdrawals above station for irrigation.

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	1.5	1.9	2.0	3.6	2.7	2.1	2.4	2.0	.73	1.2	.51	.89
2	1.5	1.9	2.0	3.6	2.6	2.1	2.7	1.8	.66	.91	.89	1.0
3	1.5	1.9	2.0	3.6	2.5	3.1	2.7	1.5	.73	.72	.94	1.2
4	1.3	1.9	2.0	3.6	2.5	10	2.0	1.6	.66	1.1	.90	1.1
5	1.3	2.4	2.0	3.6	2.4	12	2.1	1.5	.30	1.1	.84	1.6
6	1.3	2.5	2.0	3.6	2.4	4.9	2.3	1.5	.30	1.2	.70	1.5
7	1.3	2.3	2.0	3.6	2.3	4.9	2.1	1.9	.38	1.0	.75	1.3
8	1.4	2.2	2.5	4.5	2.3	4.5	2.0	1.8	.66	.98	.77	1.2
9	1.4	2.2	2.5	7.2	2.3	4.3	1.9	1.6	.38	.84	.76	1.2
10	1.5	2.1	2.4	6.9	2.2	4.5	1.9	1.6	.34	.72	.74	1.2
11	1.5	2.1	2.4	12	2.2	3.8	1.9	1.8	.80	.55	.68	1.3
12	1.4	2.1	2.4	7.2	2.5	3.6	2.0	1.8	.73	.57	.69	1.5
13	1.4	2.2	2.5	6.6	5.2	3.6	1.8	1.6	.30	.60	.71	1.5
14	1.4	2.4	2.5	12	3.6	3.6	2.0	1.4	.88	.60	.71	1.7
15	1.9	2.5	2.5	9.2	3.0	3.6	2.7	1.2	.73	.58	.80	1.6
16	2.0	2.4	2.5	45	2.7	3.6	2.9	1.2	.43	.61	.87	1.5
17	1.8	2.3	2.5	21	2.5	3.6	2.5	1.1	.96	.56	.72	1.4
18	1.8	2.3	2.7	7.8	2.4	3.6	2.4	1.2	1.2	.52	.53	1.4
19	1.8	2.4	3.8	3.7	2.3	3.4	2.5	.96	1.1	.50	.59	1.1
20	1.6	2.4	4.1	3.3	2.3	3.4	2.7	.88	1.2	.43	.61	1.2
21	1.6	2.3	4.1	3.1	2.2	3.1	2.9	.88	1.2	.42	.63	1.2
22	1.8	2.3	3.8	3.0	2.2	3.4	2.7	.80	1.2	.72	.54	1.2
23	1.8	2.2	3.6	2.9	2.2	3.1	2.5	.88	1.2	.86	.63	1.3
24	1.8	2.2	3.6	5.0	2.1	3.1	2.4	.88	1.2	.56	.84	1.3
25	1.8	2.3	4.9	4.0	2.1	3.1	2.0	.66	1.2	.56	.46	1.6
26	1.8	2.2	3.8	3.5	2.1	3.1	2.5	.60	1.2	.49	.47	1.7
27	2.0	2.1	3.8	4.2	2.1	2.9	2.7	.80	1.2	.46	.59	1.6
28	2.0	2.0	3.6	3.5	2.1	2.9	2.4	.88	1.2	.54	.60	1.6
29	1.9	2.1	3.6	3.1	-----	3.1	2.0	.80	1.2	.90	.58	1.8
30	1.9	2.0	3.6	2.8	-----	3.1	2.4	.88	1.2	.72	.68	1.8
31	1.9	-----	3.6	2.7	-----	2.7	-----	.88	-----	.44	.94	-----
TOTAL	50.9	66.1	91.3	209.4	70.0	121.8	70.0	38.88	25.47	21.96	21.67	41.49
MEAN	1.64	2.20	2.95	6.75	2.50	3.93	2.33	1.25	.85	.71	.70	1.38
MAX	2.0	2.5	4.9	45	5.2	12	2.9	2.0	1.2	1.2	.94	1.8
MIN	1.3	1.9	2.0	2.7	2.1	2.1	1.8	.60	.30	.42	.46	.89
AC-FT	101	131	181	415	139	242	139	77	51	44	43	82

CAL YR 1969	TOTAL	2,892.14	MEAN	7.92	MAX	160	MIN	.93	AC-FT	5,740
WTR YR 1970	TOTAL	828.97	MEAN	2.27	MAX	45	MIN	.30	AC-FT	1,640

DATE	TIME	G.H.	PEAK DISCHARGE (BASE, 10 CFS)	DATE	TIME	G.H.	DISCHARGE	NOTE
1-11	1130	5.11	28	3-4	2115	4.90	12	NOTE.--No gage-height record Jan. 20 to Mar. 2.
1-16	1130	5.86	109					

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).--31 years, 13.7 cfs (9,930 acre-ft per year).

EXTREMES --Current year: Maximum discharge, 759 cfs Jan. 16 (gage height, 5.77 ft); minimum daily, 1.6 cfs Mar. 16-21, Apr. 19.
 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 fair. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	7.4	5.0	3.2	3.7	3.7	2.2	4.4	8.9	8.4	4.3	2.4
2	7.4	6.9	4.9	3.2	3.7	20	2.3	5.4	7.9	7.3	4.0	2.4
3	7.0	6.9	4.9	3.2	3.7	4.9	2.4	5.9	7.8	7.5	3.9	2.5
4	7.1	6.9	4.4	3.2	3.7	39	2.4	5.8	7.8	8.5	3.8	2.5
5	7.1	7.0	3.3	3.2	3.4	104	2.6	5.2	8.7	9.1	3.7	2.4
6	7.1	7.0	3.2	3.2	3.4	23	2.8	4.7	9.0	9.9	3.6	2.4
7	7.2	6.9	3.2	3.1	3.4	5.1	2.9	5.0	8.9	9.0	3.6	2.4
8	7.3	6.8	3.4	3.2	3.4	2.4	2.9	5.2	8.5	8.0	3.5	2.4
9	7.5	6.6	3.3	3.2	3.4	2.0	2.9	7.3	7.5	10	3.4	2.2
10	7.5	6.3	3.4	3.2	3.4	1.8	2.9	9.8	6.7	10	3.2	2.2
11	7.5	6.1	3.4	3.6	3.4	1.8	2.8	9.5	6.9	9.7	3.1	2.2
12	7.4	6.0	3.2	3.2	3.4	1.7	2.9	9.6	6.5	9.5	2.9	2.3
13	7.4	6.0	3.2	3.2	3.8	1.7	2.8	9.3	6.6	9.1	2.9	2.4
14	7.3	6.0	3.1	3.5	3.7	1.7	3.0	9.5	6.3	8.9	2.8	2.4
15	7.5	5.9	3.2	5.4	3.7	1.7	2.9	9.0	5.8	8.7	2.8	2.4
16	7.4	5.9	3.2	390	3.7	1.6	3.1	8.8	5.5	8.5	2.7	2.4
17	7.2	5.9	3.2	297	3.7	1.6	3.1	8.8	5.1	8.2	2.8	2.4
18	7.3	5.6	3.2	120	3.6	1.6	3.1	8.0	4.8	8.0	2.9	2.4
19	7.4	5.6	3.5	43	3.7	1.6	1.6	7.9	4.6	7.7	2.8	2.4
20	7.5	5.6	3.5	43	3.7	1.6	2.3	7.9	4.3	6.7	2.8	2.4
21	7.5	5.6	3.5	30	3.7	1.6	2.9	8.3	4.0	5.7	2.8	2.5
22	7.6	5.6	3.4	65	3.7	1.7	2.9	8.2	3.5	5.5	2.7	2.3
23	7.6	5.6	3.3	15	3.7	1.7	3.0	8.1	3.4	5.5	2.7	2.3
24	7.6	5.6	3.2	52	3.7	1.7	3.0	8.2	4.2	6.1	2.6	2.3
25	7.6	5.6	3.3	64	3.7	1.7	3.1	8.2	6.5	6.6	2.6	2.2
26	7.7	5.3	3.2	23	3.6	1.7	3.1	8.3	7.8	6.3	2.5	2.2
27	7.5	5.1	3.4	12	3.6	1.7	3.1	8.3	8.1	6.3	2.5	2.2
28	7.4	5.1	3.3	29	3.7	1.8	3.2	8.3	8.0	6.1	2.5	2.2
29	7.6	5.1	3.2	5.4	-----	2.0	3.2	8.3	8.3	5.7	2.5	2.2
30	7.5	5.1	3.2	3.9	-----	2.0	3.5	8.9	8.6	5.2	2.4	2.2
31	7.5	-----	3.2	3.7	-----	2.0	-----	9.4	-----	4.7	2.4	-----
TOTAL	229.5	181.0	107.9	1,246.8	101.0	242.1	84.9	239.5	200.5	236.4	93.7	70.1
MEAN	7.40	6.03	3.48	40.2	3.61	7.81	2.83	7.73	6.68	7.63	3.02	2.34
MAX	7.7	7.4	5.0	390	3.8	104	3.5	9.8	9.0	10	4.3	2.5
MIN	7.0	5.1	3.1	3.1	3.4	1.6	1.6	4.4	3.4	4.7	2.4	2.2
AC-FT	455	359	214	2,470	200	480	168	475	398	469	186	139

CAL YR 1969 TOTAL 16,311.87 MEAN 44.7 MAX 3,150 MIN .59 AC-FT 32,350
 WTR YR 1970 TOTAL 3,033.4 MEAN 8.31 MAX 390 MIN 1.6 AC-FT 6,020

PEAK DISCHARGE (BASE, 450 CFS).--Jan. 16 (1400) 759 cfs (5.77 ft).

PAJARO RIVER BASIN

11158500 SAN BENITO RIVER NEAR HOLLISTER, CALIF.

LOCATION.--Lat 36°47'17", long 121°22'11", in SW₄ 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.--21 years, 28.7 cfs (20,790 acre-ft per year); median of yearly mean discharges, 9.2 cfs (6,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,110 cfs Jan. 16 (gage height, 7.28 ft); minimum daily, 0.02 cfs Sept. 20-28.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	32	6.3	6.6	13	25	9.4	21	27	24	.55	.04
2	14	32	6.3	8.0	12	27	9.4	22	27	28	1.0	.04
3	14	31	6.3	8.3	12	27	8.9	23	26	28	.63	.04
4	14	30	6.3	8.2	12	28	8.2	25	27	27	.21	.04
5	14	32	6.3	8.2	12	116	6.6	26	27	28	.17	.04
6	14	37	6.1	7.8	11	60	6.0	24	27	27	.08	.04
7	14	42	6.0	7.8	9.8	25	5.7	26	33	26	.08	.04
8	14	39	6.7	7.7	10	18	5.7	29	35	28	.06	.04
9	14	27	7.2	7.5	10	15	5.7	29	38	28	.06	.04
10	14	21	6.7	7.8	11	15	6.0	30	38	27	.05	.04
11	13	17	6.2	11	10	14	5.1	31	35	28	.05	.04
12	15	14	6.0	25	9.8	13	4.9	32	35	29	.05	.03
13	20	12	6.9	20	14	13	4.1	35	38	27	.05	.03
14	21	11	4.4	24	17	12	5.4	35	38	27	.06	.03
15	37	14	5.1	36	13	12	6.3	35	38	29	.06	.03
16	43	14	5.8	527	12	11	6.6	33	35	30	.05	.03
17	38	8.9	5.7	381	12	11	5.4	30	35	30	.05	.03
18	23	8.1	5.7	107	11	12	4.3	25	35	30	.05	.03
19	11	7.8	7.2	40	11	12	4.9	25	34	29	.05	.03
20	12	7.7	9.4	31	12	12	4.2	27	33	28	.05	.02
21	12	7.0	8.6	29	13	12	3.9	28	33	28	.05	.02
22	12	5.4	9.6	39	13	12	2.3	28	32	29	.05	.02
23	12	3.6	8.3	23	13	12	3.1	29	30	30	.05	.02
24	12	5.2	7.5	38	13	11	3.1	30	21	30	.04	.02
25	11	6.0	9.1	46	13	11	3.1	32	16	29	.04	.02
26	15	6.0	9.4	24	13	11	3.2	32	19	21	.04	.02
27	31	6.0	8.0	18	13	10	3.2	32	20	10	.05	.02
28	31	6.2	7.7	21	14	10	11	32	21	3.9	.05	.02
29	31	6.3	7.4	14	-----	10	19	32	21	2.0	.05	.03
30	31	6.3	7.1	13	-----	10	20	30	23	.82	.04	.03
31	31	-----	6.8	13	-----	9.8	-----	30	-----	.28	.04	-----
TOTAL	602	495.5	216.1	1,557.9	339.6	596.8	194.7	898	897	742.00	3.91	0.92
MEAN	19.4	16.5	6.97	50.3	12.1	19.3	6.49	29.0	29.9	23.9	.13	.031
MAX	43	42	9.6	527	17	116	20	35	38	30	1.0	.04
MIN	11	3.6	4.4	6.6	9.8	9.8	2.3	21	16	.28	.04	.02
AC-FT	1,190	983	429	3,090	674	1,180	386	1,780	1,780	1,470	7.8	1.8
CAL YR 1969	TOTAL	46,974.24	MEAN	129	MAX	5,380	MIN	.02	AC-FT	93,170		
WTR YR 1970	TOTAL	6,544.43	MEAN	17.9	MAX	527	MIN	.02	AC-FT	12,980		

PAJARO RIVER BASIN

337

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.--31 years, 152 cfs (110,100 acre-ft per year); median of yearly mean discharges, 82 cfs (59,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,820 cfs Jan. 16 (gage height, 12.58 ft); minimum daily, 1.7 cfs Aug. 4.

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 water year 1970 are published in Part 2 of this report.

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	3.4	12	14	28	445	1,310	79	27	18	5.9	2.3	6.3
2	3.0	12	14	28	383	1,740	76	28	20	4.6	1.9	7.0
3	3.2	12	14	28	335	1,000	80	28	20	3.7	2.2	7.3
4	3.0	11	15	28	305	1,350	79	31	21	4.1	1.7	6.8
5	3.2	20	15	28	278	2,110	77	29	21	4.9	2.2	6.5
6	3.3	34	15	28	252	1,300	69	28	22	5.3	2.8	6.7
7	3.4	31	15	31	238	960	57	28	24	5.0	3.2	5.8
8	3.5	32	15	42	225	761	50	26	22	5.6	3.5	4.9
9	3.4	32	16	66	211	612	48	29	24	7.7	5.9	5.8
10	3.5	30	16	88	204	511	47	29	23	7.4	5.6	6.0
11	3.4	20	16	62	193	424	44	27	21	6.1	4.2	6.2
12	3.4	15	16	66	185	359	44	25	22	6.2	4.7	6.8
13	3.2	14	16	220	244	307	45	20	22	6.9	5.7	7.8
14	3.2	14	16	700	272	272	49	19	21	5.9	8.1	8.4
15	4.0	15	16	2,000	233	250	52	17	22	7.4	9.7	8.9
16	7.6	15	17	5,140	215	231	48	21	20	9.7	13	11
17	10	15	20	4,800	270	209	44	18	19	12	13	10
18	9.2	14	25	3,400	316	188	40	14	17	12	7.9	7.1
19	7.6	15	32	2,400	317	170	41	14	15	8.4	6.4	7.5
20	6.4	15	64	2,000	294	160	41	18	16	4.4	6.7	7.7
21	6.6	15	44	3,750	258	152	39	18	19	2.6	8.1	7.7
22	7.7	15	30	2,890	214	147	38	16	18	2.0	12	5.2
23	8.8	15	50	1,660	184	140	35	14	17	2.3	14	5.1
24	9.6	15	91	2,770	163	119	30	15	16	3.3	14	6.3
25	10	15	48	1,880	144	107	31	15	17	4.8	10	6.5
26	11	15	40	1,370	133	101	33	16	18	4.9	11	6.2
27	11	15	35	1,180	123	96	38	17	12	4.2	11	5.8
28	11	15	32	985	157	90	36	19	8.2	3.9	9.2	7.2
29	12	15	30	775	-----	89	28	18	7.6	3.2	8.9	6.5
30	12	15	29	616	-----	88	28	16	6.4	2.5	7.6	5.2
31	13	-----	28	510	-----	84	-----	15	-----	2.2	6.9	-----
TOTAL	203.6	528	844	39,569	6,791	15,437	1,446	655	549.2	169.1	223.4	206.2
MEAN	6.57	17.6	27.2	1,276	243	498	48.2	21.1	18.3	5.45	7.21	6.87
MAX	13	34	91	5,140	445	2,110	80	31	24	12	14	11
MIN	3.0	11	14	28	123	84	28	14	6.4	2.0	1.7	4.9
AC-FT	404	1,050	1,670	78,490	13,470	30,620	2,870	1,300	1,090	335	443	409

CAL YR 1969 TOTAL 170,382.5 MEAN 467 MAX 14,800 MIN 3.0 AC-FT 338,000
WTR YR 1970 TOTAL 66,621.5 MEAN 183 MAX 5,140 MIN 1.7 AC-FT 132,100

NOTE.--No gage-height record Dec. 16 to Jan. 15.

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.--13 years, 9.40 cfs (6,810 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,000 cfs Jan. 16 (gage height, 6.27 ft), from rating curve extended above 390 cfs; minimum daily, 0.02 cfs Nov. 12, 13.
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. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.22	.38	4.9	31	177	5.8	3.5	1.3	.57	.11	.09
2	.18	.22	.38	4.3	27	69	5.4	3.4	1.3	.60	.10	.11
3	.22	.18	.38	4.0	24	44	5.2	3.3	1.3	.62	.12	.12
4	.27	.18	.38	3.7	21	80	5.2	3.2	1.5	.26	.06	.12
5	.14	5.0	.38	3.7	19	62	5.0	3.4	1.3	.31	.09	.14
6	.14	5.0	.45	3.8	18	47	5.0	3.4	1.2	.48	.07	.16
7	.14	3.6	.45	4.2	16	38	4.9	3.3	1.1	.53	.10	.12
8	.81	2.2	.71	5.0	15	35	4.8	3.2	1.1	.39	.08	.13
9	.18	.62	1.2	37	15	33	4.8	3.2	2.0	.42	.06	.10
10	.18	.08	4.8	32	15	31	4.7	3.3	1.3	.32	.05	.11
11	.18	.03	6.0	26	18	29	4.6	3.2	1.2	.38	.04	.11
12	.14	.02	6.0	32	25	25	4.4	3.1	1.4	.27	.05	.16
13	.18	.02	5.6	34	20	22	4.8	3.2	.96	.38	.08	.20
14	.14	.03	3.1	241	15	19	5.1	3.1	1.0	.39	.08	.14
15	8.8	.06	1.3	105	19	18	4.7	2.6	1.3	.47	.09	.15
16	12	.08	.71	277	16	20	4.8	1.7	.96	.45	.07	.17
17	4.7	.08	.45	183	14	17	4.6	1.4	.95	.52	.09	.22
18	2.2	.08	.32	102	14	15	4.3	1.5	.94	.43	.08	.23
19	.45	.11	.47	81	13	14	4.2	1.6	.92	.31	.08	.23
20	.22	.11	129	94	13	13	4.1	1.5	.85	.27	.10	.23
21	.14	.14	72	373	8.4	13	4.1	1.5	.81	.34	.12	.23
22	.14	.14	33	182	8.0	13	3.9	1.5	.82	.36	.09	.23
23	.14	.18	18	125	7.6	12	3.8	1.3	.82	.25	.10	.23
24	.18	.18	98	100	7.1	10	3.8	1.3	.63	.23	.07	.21
25	.14	.18	156	80	6.8	10	3.8	1.3	.46	.18	.07	.18
26	.18	.22	48	62	6.3	9.0	3.9	1.4	.46	.14	.09	.17
27	.18	.32	27	76	7.2	7.8	4.0	1.4	.33	.15	.11	.18
28	.18	.32	18	54	21	7.2	3.7	1.4	.32	.20	.15	.18
29	.18	.32	13	47	-----	8.3	3.6	1.7	.43	.24	.20	.20
30	.18	.32	11	41	-----	7.1	3.4	1.6	.30	.12	.20	.23
31	.22	-----	8.7	36	-----	6.6	-----	1.4	-----	.18	.14	-----
TOTAL	33.31	20.24	711.69	2,453.6	440.4	912.0	134.4	71.9	29.26	10.76	2.94	5.08
MEAN	1.07	.67	23.0	79.1	15.7	29.4	4.48	2.32	.98	.35	.095	.17
MAX	12	5.0	156	373	31	177	5.8	3.5	2.0	.62	.20	.23
MIN	.14	.02	.32	3.7	6.3	6.6	3.4	1.3	.30	.12	.04	.09
AC-FT	66	40	1,410	4,870	874	1,810	267	143	58	21	5.8	10

CAL YR 1969 TOTAL 6,534.87 MEAN 17.9 MAX 387 MIN .02 AC-FT 12,960
WTR YR 1970 TOTAL 4,825.58 MEAN 13.2 MAX 373 MIN .02 AC-FT 9,570

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	0430	4.14	321	1-21	0430	5.02	526
1-16	0630	6.27	1,000	3- 1	0515	4.33	359

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.--14 years, 14.6 cfs (10,580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,030 cfs Jan. 16 (gage height, 10.44 ft); minimum daily, 0.02 cfs Sept. 25-27, 29, 30.

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. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.79	.41	12	47	309	7.3	1.8	.46	.29	.09	.36
2	.19	.78	.39	11	42	111	6.7	1.5	.47	.27	.08	.34
3	.17	.72	.38	8.7	37	70	7.1	1.1	.47	.27	.10	.32
4	.11	.70	.37	8.2	34	143	6.9	1.1	.34	.29	.13	.29
5	.14	1.4	.36	7.1	31	102	6.8	1.0	.48	.29	.09	.24
6	.15	3.2	.36	6.2	25	77	6.5	1.3	.48	.33	.07	.06
7	.16	1.7	.37	6.2	23	66	5.9	1.6	.48	.28	.07	.44
8	.18	1.6	.45	7.1	21	59	5.4	1.0	.46	.28	.06	.03
9	.21	.99	.75	38	20	53	5.4	1.1	.95	.27	.05	.03
10	.22	.72	1.0	47	20	49	5.0	1.0	.40	.29	.05	.03
11	.23	.64	1.7	41	28	44	4.2	1.1	.38	.29	.06	.03
12	.20	.64	1.4	43	34	39	4.5	.80	.37	.29	.09	.05
13	.22	.72	1.1	50	24	34	5.4	.64	.36	.25	.10	.04
14	.26	.80	.96	44.1	21	32	6.8	.64	.40	.24	.07	.04
15	2.5	.72	.86	154	24	30	5.8	.64	.39	.24	.08	.04
16	14	.72	.72	890	20	27	5.4	.55	.38	.21	.06	.04
17	3.2	.72	.64	344	19	22	4.7	.58	.37	.23	.07	.04
18	1.3	.68	.64	154	18	21	4.1	.61	.32	.24	.06	.03
19	.64	.64	38	111	18	13	4.1	.59	.34	.20	.08	.04
20	.50	.61	170	121	18	17	4.4	.61	.41	.17	.09	.04
21	.60	.60	112	894	11	17	3.8	.58	.38	.22	.07	.03
22	.96	.59	59	349	11	17	3.8	.67	.36	.19	.07	.03
23	.88	.59	32	186	10	16	3.0	.63	.48	.13	.06	.03
24	4.2	.57	130	178	10	14	3.0	.65	.48	.13	.05	.03
25	.92	.54	285	118	9.1	14	2.3	.74	.41	.14	.07	.02
26	.87	.49	75	93	8.4	12	3.0	.75	.41	.13	.07	.02
27	.96	.47	43	129	9.4	11	3.8	.75	.65	.12	.07	.02
28	.96	.45	29	88	23	9.3	3.0	.78	.42	.10	.08	.04
29	.90	.44	21	71	-----	11	2.3	1.6	.34	.11	.09	.02
30	.84	.43	17	60	-----	9.9	2.0	.81	.30	.10	.08	.02
31	.80	-----	14	52	-----	9.0	-----	.41	-----	.10	.14	-----
TOTAL	37.64	24.66	1,037.86	4,718.5	615.9	1,464.2	142.4	27.63	12.94	6.69	2.40	2.79
MEAN	1.21	.82	33.5	152	22.0	47.2	4.75	.89	.43	.22	.077	.093
MAX	14	3.2	285	894	47	309	7.3	1.8	.95	.33	.14	.44
MIN	.11	.43	.36	6.2	8.4	9.0	2.0	.41	.30	.10	.05	.02
AC-FT	75	49	2,060	9,360	1,220	2,900	282	55	26	13	4.8	5.5
CAL YR 1969	TOTAL	11,994.97	MEAN	32.9	MAX	859	MIN	.11	AC-FT	23,790		
WTR YR 1970	TOTAL	8,093.61	MEAN	22.2	MAX	894	MIN	.02	AC-FT	16,050		

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	0615	5.92	676	1-21	0530	8.11	1,330
1-16	0800	10.44	2,030	3- 1	0645	5.86	658

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.--12 years, 8.36 cfs (6,060 acre-ft per year); median of yearly mean discharges, 5.5 cfs (4,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,130 cfs Jan. 16 (gage height, 7.91 ft); minimum daily, 1.1 cfs Oct. 7-12, Sept. 8.
 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 1969 TO SEPTEMBER 1970

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	1.7	3.1	23	185	7.9	4.8	3.3	2.2	1.7	1.3
2	1.3	1.4	1.7	3.6	20	70	7.8	4.6	3.3	2.1	1.7	1.2
3	1.3	1.5	1.8	4.9	18	41	7.6	4.8	3.1	2.1	1.7	1.3
4	1.3	1.5	1.8	4.6	20	68	7.5	4.8	3.0	2.1	1.7	1.3
5	1.3	3.6	1.8	4.6	19	63	7.4	5.1	2.9	2.1	1.7	1.3
6	1.3	3.6	1.8	4.6	16	41	7.4	4.8	2.9	2.1	1.7	1.2
7	1.1	2.4	2.0	4.6	15	34	7.5	4.8	2.9	2.1	1.6	1.2
8	1.1	2.4	2.9	5.7	13	30	7.5	4.8	2.8	2.1	1.5	1.1
9	1.1	2.5	2.5	17	11	27	7.2	4.8	2.8	2.3	1.4	1.2
10	1.1	2.4	5.8	21	10	25	6.9	4.6	2.7	2.1	1.5	1.2
11	1.1	2.3	5.8	17	9.4	23	6.9	4.1	2.7	2.1	1.4	1.3
12	1.1	2.3	8.9	19	11	21	6.9	4.6	2.6	2.3	1.4	1.4
13	1.2	2.3	5.2	23	15	18	6.9	4.6	2.6	2.0	1.4	1.5
14	1.3	2.3	4.1	303	11	17	6.9	4.6	2.5	2.0	1.3	1.5
15	8.2	2.4	3.4	245	9.0	15	6.4	4.1	2.5	1.9	1.3	1.4
16	9.6	2.3	3.1	421	9.0	14	6.1	4.1	2.5	2.0	1.3	1.4
17	3.3	2.0	3.1	150	12	13	6.1	4.1	2.5	2.1	1.3	1.3
18	2.4	2.0	3.1	50	9.5	13	5.9	4.1	2.4	2.3	1.3	1.2
19	1.9	1.8	21	40	8.5	12	5.6	3.9	2.4	2.0	1.3	1.4
20	1.8	1.8	77	80	8.0	11	5.3	3.9	2.4	1.9	1.2	1.6
21	1.8	1.9	33	444	7.5	11	5.1	3.9	2.4	2.0	1.3	1.6
22	1.7	1.9	17	156	7.0	10	5.3	3.7	2.4	1.8	1.4	1.6
23	1.8	1.9	7.6	84	6.7	9.6	5.1	3.7	2.3	1.9	1.3	1.4
24	1.7	1.9	89	76	6.4	9.2	4.7	3.7	2.3	1.9	1.3	1.5
25	1.7	1.9	130	52	6.2	9.0	6.1	3.7	2.3	1.9	1.2	1.4
26	1.7	1.9	28	41	6.0	8.8	5.9	3.7	2.3	1.9	1.2	1.4
27	1.8	1.9	14	61	5.8	8.8	5.9	3.7	2.2	1.9	1.2	1.3
28	2.1	1.7	8.9	42	9.0	8.6	5.6	3.7	2.2	1.9	1.3	1.3
29	1.7	1.7	6.5	34	-----	8.4	4.8	3.7	2.2	1.8	1.4	1.3
30	1.6	1.7	4.9	30	-----	8.2	4.8	3.5	2.2	1.7	1.4	1.3
31	1.5	-----	4.1	25	-----	8.1	-----	3.3	-----	1.7	1.4	-----
TOTAL	63.2	62.7	501.5	2,466.7	322.0	840.7	191.0	130.3	77.6	62.3	43.8	40.4
MEAN	2.04	2.09	16.2	79.6	11.5	27.1	6.37	4.20	2.59	2.01	1.41	1.35
MAX	9.6	3.6	130	444	23	185	7.9	5.1	3.3	2.3	1.7	1.6
MIN	1.1	1.4	1.7	3.1	5.8	8.1	4.7	3.3	2.2	1.7	1.2	1.1
AC-FT	125	124	995	4,890	639	1,670	379	258	154	124	87	80

CAL YR 1969	TOTAL 6,796.2	MEAN 18.6	MAX 410	MIN 1.1	AC-FT 13,480
WTR YR 1970	TOTAL 4,802.2	MEAN 13.2	MAX 444	MIN 1.1	AC-FT 9,530

PEAK DISCHARGE (BASE, 100 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	1515	4.24	123	1-21	0500	7.06	827
12-25	0600	5.06	289	3- 1	1145	5.84	418
1-16	0745	7.91	1,130	3- 4	1500	4.60	138

NOTE.--No gage-height record June 4 to July 6.

SOQUEL CREEK BASIN

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.--12 years, 13.5 cfs (9,780 acre-ft per year); median of yearly mean discharges, 9.9 cfs (7,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,630 cfs Jan. 16 (gage height, 7.19 ft), from rating curve extended as explained below; minimum daily, 0.98 cfs Oct. 3, 5.
 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 SECCND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.3	2.0	9.2	33	286	10	5.5	3.9	2.9	1.5	1.7
2	1.1	2.3	2.0	8.3	30	61	10	5.4	3.7	2.8	1.8	1.7
3	.98	2.3	2.0	7.8	27	37	9.7	5.2	3.8	2.8	1.8	1.7
4	1.1	2.3	2.0	7.5	26	109	9.4	5.3	3.7	2.6	1.8	1.7
5	.98	6.2	2.0	7.1	24	63	9.0	5.2	3.8	2.6	1.8	1.6
6	1.1	7.1	2.0	6.7	22	42	8.8	5.3	3.8	2.7	1.8	1.5
7	1.1	5.1	2.1	6.7	15	34	8.6	5.4	3.8	2.7	1.7	1.5
8	1.1	4.1	3.0	7.6	18	30	8.6	5.2	3.9	2.6	1.6	1.5
9	1.1	3.3	2.7	9.2	17	27	8.3	5.1	4.8	2.7	1.5	1.6
10	1.1	2.7	4.4	4.8	17	26	8.2	4.7	4.0	2.7	1.5	1.5
11	1.3	2.5	6.9	33	16	24	8.1	5.0	4.0	2.7	1.5	1.6
12	1.5	2.4	12	41	24	22	7.9	5.0	3.9	2.5	1.6	1.6
13	1.4	2.3	6.0	44	30	21	8.0	4.9	4.0	2.5	1.7	1.9
14	1.8	2.3	4.2	510	20	20	8.0	5.1	4.2	2.4	1.7	1.7
15	13	2.4	3.6	123	18	19	7.6	4.9	4.2	2.5	1.7	1.6
16	7.8	2.4	3.3	555	18	18	7.6	4.7	4.0	2.2	1.7	1.6
17	4.7	2.3	3.0	197	21	18	7.3	4.5	3.8	2.2	1.7	1.5
18	3.3	2.2	3.4	94	18	17	7.0	4.6	3.7	2.2	1.6	1.5
19	2.7	2.2	71	68	17	17	7.1	4.6	3.7	2.1	1.6	1.8
20	2.6	2.2	188	99	16	16	7.0	4.6	3.4	2.1	1.6	1.7
21	2.5	2.2	85	457	15	15	6.9	4.6	3.5	2.2	1.7	1.7
22	2.5	2.2	27	168	14	15	6.9	4.5	3.4	2.1	1.7	1.6
23	2.4	2.1	14	119	14	14	6.7	4.4	3.3	2.1	1.6	1.5
24	2.4	2.2	132	160	13	13	6.6	4.4	3.1	2.2	1.6	1.5
25	2.3	2.2	130	87	13	13	6.4	4.4	3.0	2.2	1.5	1.5
26	2.2	2.2	36	65	13	12	6.4	4.4	3.0	2.2	1.7	1.4
27	2.2	2.0	21	117	13	11	6.4	4.2	2.8	2.2	1.8	1.5
28	2.4	2.0	16	66	30	11	6.3	4.4	2.7	2.2	1.8	1.3
29	2.3	2.0	14	53	-----	11	6.1	4.3	2.7	2.1	1.5	1.3
30	2.3	2.0	12	46	-----	11	5.7	4.4	2.7	1.9	1.8	1.4
31	2.3	-----	10	39	-----	11	-----	4.0	-----	1.9	1.8	-----
TOTAL	76.66	82.0	822.6	3,341.9	556	1,044	230.6	148.2	108.3	73.8	52.5	47.2
MEAN	2.47	2.73	26.5	108	19.9	33.7	7.69	4.78	3.61	2.38	1.69	1.57
MAX	13	7.1	188	555	33	286	10	5.5	4.8	2.9	1.8	1.9
MIN	.98	2.0	2.0	6.7	12	11	5.7	4.0	2.7	1.9	1.5	1.3
AC-FT	152	163	1,630	6,630	1,100	2,070	457	294	215	146	104	94

CAL YR 1969 TOTAL 10,785.66 MEAN 29.5 MAX 917 MIN .98 AC-FT 21,390
 WTR YR 1970 TOTAL 6,583.76 MEAN 18.0 MAX 555 MIN .98 AC-FT 13,060

PEAK DISCHARGE (BASE, 400 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0800	4.89	420	1-23	2345	4.89	420
1-18	0700	7.19	1,630	3- 1	0500	5.80	870
1-21	0445	5.50	720				

SOQUEL CREEK BASIN

11159940 SOQUEL CREEK NEAR SOQUEL, CALIF.

LOCATION.--Lat 37°02'02", long 121°56'35", in NW¼ 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, 1,520 cfs Jan. 16 (gage height, 5.55 ft); minimum daily, 0.65 cfs Sept. 30.

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.

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	1.8	3.8	3.9	46	110	627	32	15	8.5	5.4	2.6	1.9
2	1.8	3.8	3.9	44	90	150	31	15	8.5	5.4	3.1	2.2
3	1.8	3.8	3.9	42	75	119	30	14	8.3	5.0	2.6	2.0
4	1.8	3.8	3.9	41	68	238	27	14	8.0	4.4	3.1	2.4
5	1.8	8.5	3.9	38	62	152	26	14	8.0	3.6	3.6	2.0
6	1.8	10	4.2	37	60	123	26	14	8.0	4.2	3.2	1.9
7	1.8	9.0	4.2	35	52	110	26	14	8.0	4.4	3.0	1.8
8	2.0	8.0	4.4	38	45	104	26	14	8.0	3.6	2.8	1.8
9	2.0	6.0	5.0	108	40	97	24	13	14	3.1	2.6	1.9
10	2.0	5.0	7.5	110	37	92	24	13	12	2.8	2.4	2.4
11	2.0	4.5	9.4	97	53	85	22	12	8.4	2.8	2.4	2.0
12	2.0	4.3	20	97	65	80	22	12	7.5	3.1	2.6	2.2
13	2.0	4.2	14	104	74	74	22	12	7.0	3.1	2.6	2.8
14	2.3	4.1	9.9	590	62	70	24	10	7.5	3.4	2.8	3.1
15	25	4.1	8.9	334	56	68	26	10	7.5	3.4	2.4	3.6
16	12	4.1	8.4	826	53	64	26	10	6.5	2.4	2.6	3.3
17	6.0	4.0	8.0	532	60	59	24	10	5.6	2.9	2.2	3.1
18	5.0	4.0	8.0	277	53	56	22	10	5.0	2.7	2.2	2.8
19	4.8	3.9	62	219	51	55	20	9.5	4.4	2.6	2.2	2.8
20	4.8	3.9	174	260	46	51	20	9.5	4.2	2.2	2.2	2.4
21	4.6	3.9	142	800	45	49	18	9.5	3.6	3.1	2.4	2.0
22	4.6	3.9	88	486	44	48	18	9.5	3.8	2.8	2.4	1.9
23	4.6	3.9	68	308	43	46	18	9.5	4.4	3.1	2.4	1.8
24	4.4	3.9	138	425	41	46	16	9.0	4.4	2.5	2.4	1.6
25	4.4	3.9	172	224	38	44	16	9.0	4.4	2.9	2.2	1.4
26	4.2	3.9	100	180	38	42	16	9.0	4.4	3.1	2.0	1.3
27	4.2	3.9	82	283	37	41	16	9.0	3.8	2.8	2.2	1.2
28	4.0	3.9	70	186	62	38	16	8.5	4.4	2.8	2.4	.95
29	4.0	3.9	59	152	-----	38	16	8.5	4.8	2.6	2.4	.75
30	4.0	3.9	51	146	-----	36	16	8.5	5.0	2.6	2.2	.65
31	3.8	-----	48	133	-----	34	-----	8.5	-----	2.6	2.0	-----
TOTAL	131.3	141.8	1,385.4	7,198	1,560	2,936	666	343.5	197.9	101.4	78.2	61.95
MEAN	4.24	4.73	44.7	232	55.7	94.7	22.2	11.1	6.60	3.27	2.52	2.07
MAX	25	10	174	826	110	627	32	15	14	5.4	3.6	3.6
MIN	1.8	3.8	3.9	35	37	34	16	8.5	3.6	2.2	2.0	.65
AC-FT	260	281	2,750	14,280	3,090	5,820	1,320	681	393	201	155	123

CAL YR 1969 TOTAL 28,046.70 MEAN 76.8 MAX 1,470 MIN 1.8 ACFT 55,630

WAT YR 1970 TOTAL 14,801.45 MEAN 40.6 MAX 826 MIN .65 ACFT 29,360

		PEAK DISCHARGE (BASE, 750 CFS)					
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0900	5.55	1,520	3- 1	0700	5.35	1,420
1-21	0600	4.40	1,000				

NOTE.--No gage-height record Oct. 1 to Nov. 18, Apr. 19 to June 5.

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.--19 years, 45.0 cfs (32,600 acre-ft per year); median of yearly mean discharges, 31 cfs (22,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,920 cfs Jan. 16 (gage height, 11.74 ft); minimum daily, 1.4 cfs Aug. 18, Sept. 29, 30.

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 water year 1970 are published in Part 2 of this report.

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	3.1	5.5	5.5	31	132	882	33	17	11	5.4	3.2	2.8
2	3.8	6.0	5.5	27	113	255	33	17	10	6.6	2.9	3.3
3	3.4	6.0	5.5	25	91	128	32	16	11	6.4	2.8	3.0
4	2.7	6.0	5.5	23	87	399	32	16	10	5.6	2.7	2.9
5	2.4	20	6.0	21	79	278	32	16	10	4.6	2.8	2.6
6	2.7	27	6.0	19	73	182	32	17	9.4	4.6	2.3	2.3
7	2.7	17	6.0	19	68	140	30	17	9.5	4.9	2.0	2.2
8	3.1	12	10	24	62	128	30	16	10	4.8	1.7	2.2
9	3.1	9.5	8.2	280	57	109	29	16	14	5.2	1.8	2.4
10	3.1	7.6	22	246	52	101	28	15	11	5.3	1.7	2.6
11	6.5	7.0	26	181	46	91	27	16	9.3	5.3	1.6	3.0
12	2.1	6.5	64	188	64	86	26	16	9.1	5.1	1.7	3.3
13	2.4	6.5	30	230	84	83	27	15	9.1	4.9	1.6	3.9
14	3.0	6.5	18	1,170	60	77	28	15	9.3	4.9	1.6	3.7
15	61	6.5	14	403	46	73	27	13	8.9	4.4	1.8	4.5
16	55	6.5	11	1,470	40	70	27	13	8.3	3.8	1.9	4.0
17	19	6.0	9.5	596	50	67	26	12	8.0	3.3	1.6	3.5
18	13	5.5	9.5	332	39	64	24	12	7.2	3.7	1.4	3.1
19	9.5	5.5	350	287	36	61	24	12	6.9	2.9	1.5	3.1
20	7.6	5.5	776	385	33	58	23	12	6.5	2.9	1.5	3.2
21	7.0	5.5	483	1,320	30	54	23	13	6.6	2.6	1.6	3.1
22	7.0	5.5	253	565	28	52	22	13	7.9	2.8	1.5	2.7
23	7.6	6.0	142	374	27	48	21	12	7.5	3.6	2.9	2.6
24	7.0	6.0	588	556	26	44	21	11	7.3	3.4	4.0	2.4
25	7.0	5.5	658	359	25	41	19	13	7.0	2.8	3.6	2.3
26	7.0	5.5	225	293	23	39	14	13	6.9	3.2	3.1	1.8
27	7.0	5.5	119	486	22	36	19	13	6.2	3.5	3.2	1.7
28	6.5	5.5	76	302	50	34	18	13	5.7	3.3	3.4	1.7
29	6.5	5.5	54	231	-----	34	17	12	5.7	2.7	3.3	1.4
30	6.5	5.5	41	194	-----	34	17	12	5.6	2.7	3.3	1.4
31	6.0	-----	35	166	-----	35	-----	10	-----	2.8	3.0	-----
TOTAL	284.3	234.6	4,062.2	10,803	1,543	3,783	761	434	254.9	128.0	73.0	82.7
MEAN	9.17	7.82	131	348	55.1	122	25.4	14.0	8.50	4.13	2.35	2.76
MAX	61	27	776	1,470	132	882	33	17	14	6.6	4.0	4.5
MIN	2.1	5.5	5.5	19	22	34	14	10	5.6	2.6	1.4	1.4
AC-FT	564	465	8,060	21,430	3,060	7,500	1,510	861	506	254	145	164
CAL YR 1969	TOTAL 30,395.4	MEAN 83.3	MAX 1,500	MIN 2.1	AC-FT 60,290							
WAT YR 1970	TOTAL 22,443.7	MEAN 61.5	MAX 1,470	MIN 1.4	AC-FT 44,520							

PEAK DISCHARGE (BASE, 1,000 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	1100	6.85	1,220	1-21	0400	8.39	1,880
12-25	0630	6.70	1,160	3- 1	0745	8.06	1,730
1-16	0815	11.74	3,920				

SAN LORENZO RIVER BASIN

11160020 SAN LORENZO RIVER NEAR BOULDER CREEK, CALIF.

LOCATION.--Lat 37°12'24", long 122°08'38", in NE¼SW¼ 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 (revised).

PERIOD OF RECORD.--July 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 710 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 408 cfs Jan. 16 (gage height, 6.94 ft), from rating curve extended as explained below; minimum daily, 0.50 cfs Sept. 28-30.

Period of record: Maximum discharge, 600 cfs (revised) 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, 0.37 cfs Sept. 17, 1968.

REVISIONS.--The maximum discharge for the water year 1969 has been revised to 600 cfs Jan. 26, 1969 (gage height, 8.48 ft), superseding figure published in WRD Calif. 1969.

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

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	.59	1.0	.92	3.6	21	48	7.1	3.8	2.0	1.7	1.1	.82
2	.58	.92	.85	3.8	19	24	6.4	3.5	1.8	1.7	1.1	.82
3	.58	.92	.84	3.6	18	20	6.4	3.5	1.8	1.7	.93	.82
4	.58	.92	.84	3.6	16	34	5.7	3.5	1.8	1.5	1.1	.82
5	.64	1.7	.84	3.4	15	28	5.3	3.5	2.0	1.5	1.1	.71
6	.64	1.3	.84	3.4	14	23	5.3	3.5	2.0	1.5	.93	1.1
7	.64	1.1	.84	3.4	13	21	5.7	3.5	2.0	1.5	.93	1.2
8	.70	1.1	.92	3.4	12	20	5.7	3.5	1.8	1.3	.93	1.2
9	.70	1.0	.92	26	11	20	5.0	3.5	2.5	1.2	.82	1.2
10	.76	.98	1.0	17	10	19	4.7	3.2	2.3	1.1	.71	1.1
11	.64	.92	1.2	12	10	18	4.7	3.0	2.0	1.2	.71	.93
12	.58	.92	1.9	11	12	16	4.7	3.0	2.0	1.1	.82	.93
13	.64	.92	1.3	11	16	15	4.7	3.0	2.0	.93	.93	1.2
14	.70	.92	1.1	128	13	14	4.7	3.0	2.0	.82	1.1	1.1
15	2.2	.92	1.0	32	11	13	4.4	2.7	2.0	.93	1.2	.93
16	1.4	.95	1.0	168	13	13	4.4	2.7	2.0	.93	1.1	.93
17	1.3	.92	.92	71	19	13	4.4	2.7	2.3	.93	.93	.82
18	1.1	.92	1.0	39	16	13	4.1	2.7	2.3	.93	1.2	.82
19	1.1	.92	6.4	28	14	13	4.4	2.7	2.0	.82	1.2	.93
20	1.0	.92	2.5	28	12	12	4.4	2.7	2.0	.71	1.3	.93
21	1.0	.92	13	122	12	12	4.4	2.7	1.8	.82	1.5	.93
22	1.0	.92	2.7	59	11	11	4.4	2.5	1.8	.82	1.5	.82
23	1.1	.92	2.3	64	11	11	4.1	2.5	1.7	.93	1.3	.71
24	1.1	.92	9.7	91	11	11	4.4	2.3	1.8	.82	1.5	.71
25	1.0	.92	21	49	10	10	4.4	2.5	1.8	.93	1.2	.60
26	1.1	.92	8.9	38	9.7	9.7	4.1	2.5	1.8	.93	.93	.60
27	1.1	.92	5.8	46	9.7	8.8	4.1	2.3	1.8	.93	.93	.60
28	1.0	.90	4.9	36	14	8.3	4.1	2.3	1.8	.93	.93	.50
29	1.0	.89	4.4	31	-----	7.9	3.8	2.3	1.8	.93	.93	.50
30	1.0	.91	3.8	27	-----	7.5	3.8	2.3	1.7	.93	.93	.50
31	1.0	-----	3.6	23	-----	7.5	-----	2.0	-----	1.2	.93	-----
TOTAL	28.47	29.31	107.23	1,185.2	373.4	501.7	143.8	89.4	58.4	34.17	32.72	25.78
MEAN	.92	.98	3.46	38.2	13.3	16.2	4.79	2.88	1.95	1.10	1.06	.86
MAX	2.2	1.7	21	168	21	48	7.1	3.8	2.5	1.7	1.5	1.2
MIN	.58	.89	.84	3.4	9.7	7.5	3.8	2.0	1.7	.71	.71	.50
AC-FT	56	58	213	2,350	741	995	285	177	116	68	65	51
CAL YR 1969	TOTAL 4,771.76		MEAN 13.1	MAX 280		MIN .57		AC-FT 9,460				
WTK YR 1970	TOTAL 2,609.58		MEAN 7.15	MAX 168		MIN .50		AC-FT 5,180				

PEAK DISCHARGE (BASE, 70 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0645	6.94	408	1-27	0415	3.53	73
1-21	0530	4.65	167	3- 1	0830	3.75	90
1-23	2315	5.65	264				

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.--13 years, 12.0 cfs (8,690 acre-ft per year); median of yearly mean discharges, 7.8 cfs (5,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,470 cfs Jan. 16 (gage height, 5.49 ft); minimum daily, 0.71 cfs Sept. 30.

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.

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	1.1	1.0	.97	4.7	27	264	8.0	4.7	2.6	1.7	1.0	1.1
2	1.1	1.1	.97	4.5	23	57	7.7	4.5	2.6	1.6	1.0	1.1
3	1.1	1.1	.97	4.1	21	38	7.4	4.3	2.6	1.5	.97	1.1
4	1.1	1.0	.97	4.0	19	140	7.2	4.3	2.4	1.5	.97	1.1
5	1.1	2.7	.97	3.8	18	73	7.2	4.3	2.5	1.5	1.0	1.1
6	1.1	2.6	1.0	3.6	17	46	6.9	4.3	2.5	1.5	1.0	1.1
7	1.1	1.9	1.2	3.6	16	38	6.9	4.1	2.6	1.5	1.2	1.0
8	1.1	1.6	1.9	4.1	15	32	6.9	4.1	2.6	1.5	1.2	1.0
9	1.1	1.2	1.9	65	15	29	6.6	4.1	2.9	1.5	1.2	1.1
10	1.1	1.0	2.6	35	14	27	6.6	4.1	2.6	1.5	1.2	1.1
11	1.1	.90	4.0	23	13	24	6.6	4.0	2.5	1.4	1.1	1.0
12	1.1	.90	5.8	23	20	23	6.6	4.0	2.4	1.4	1.1	1.0
13	1.2	.90	3.1	27	22	21	6.4	4.0	2.5	1.3	1.1	1.2
14	1.3	.90	2.4	490	17	19	6.6	3.8	2.5	1.3	1.1	1.1
15	4.1	.90	2.0	123	15	19	6.4	3.6	2.4	1.3	1.2	1.1
16	4.6	.97	1.9	570	14	18	6.4	3.4	2.4	1.3	1.2	1.1
17	2.1	.90	1.8	208	20	16	6.1	3.4	2.2	1.3	1.2	1.0
18	1.5	.90	2.0	81	17	16	5.8	3.4	2.1	1.2	1.2	1.0
19	1.3	.90	50	54	14	14	5.8	3.4	2.0	1.3	1.2	1.0
20	1.2	.90	75	70	12	14	5.5	3.3	2.0	1.2	1.2	1.0
21	1.2	.90	60	378	12	13	5.5	3.3	2.0	1.1	1.2	1.0
22	1.2	.90	20	143	11	12	5.2	3.3	1.9	1.1	1.2	1.0
23	1.2	.90	7.7	116	11	12	5.2	3.1	1.9	1.1	1.2	1.0
24	1.2	.90	55	206	10	12	5.2	3.1	1.9	1.1	1.2	.97
25	1.2	.90	65	86	9.8	11	5.2	3.1	1.9	1.1	1.1	.97
26	1.2	.97	40	60	9.8	11	5.2	3.3	1.9	1.1	1.1	.90
27	1.2	.97	20	92	11	9.8	5.2	3.1	1.8	1.1	1.1	.90
28	1.1	.97	7.2	53	34	9.8	5.1	3.0	1.8	1.0	1.1	.80
29	1.1	.97	6.1	41	-----	9.4	4.9	3.0	1.8	.97	1.1	.75
30	1.1	.97	5.2	36	-----	8.9	4.9	2.9	1.7	.97	1.1	.71
31	1.1	-----	5.1	30	-----	8.4	-----	2.8	-----	.97	1.1	-----
TOTAL	43.3	33.62	452.75	3,042.4	457.6	1,045.3	185.2	113.1	67.5	39.91	34.84	30.30
MEAN	1.40	1.12	14.6	98.1	16.3	33.7	6.17	3.65	2.25	1.29	1.12	1.01
MAX	4.6	2.7	75	570	34	264	8.0	4.7	2.9	1.7	1.2	1.2
MIN	1.1	.90	.97	3.6	9.8	8.4	4.9	2.8	1.7	.97	.97	.71
AC-FT	86	67	898	6,030	908	2,070	367	224	134	79	69	60

CAL YR 1969	TOTAL	11,346.57	MEAN	31.1	MAX	1,010	MIN	.90	ACFT	22,510
WAT YR 1970	TOTAL	5,545.82	MEAN	15.2	MAX	570	MIN	.71	ACFT	11,000

PEAK DISCHARGE (BASE, 450 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0600	5.49	1,470	1-23	2400	3.89	466
1-21	0430	4.03	525	3-1	0700	4.40	720

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.--34 years, 138 cfs (99,980 acre-ft per year); median of yearly mean discharges, 110 cfs (79,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,190 cfs Jan. 16 (gage height, 12.73 ft); minimum daily, 17 cfs Sept. 29.
 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 water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	26	27	96	394	1,640	139	79	49	33	24	20
2	21	27	26	89	354	699	136	80	50	31	23	20
3	21	26	26	84	327	475	132	78	48	29	23	20
4	21	26	26	80	307	1,220	129	78	46	28	23	20
5	25	57	26	76	286	885	128	77	45	26	23	20
6	21	61	26	72	268	603	124	78	44	27	22	20
7	21	44	27	71	257	496	121	78	46	27	20	20
8	25	38	34	80	244	443	120	77	46	27	20	19
9	21	34	32	563	234	398	114	76	55	27	18	19
10	21	32	48	464	222	374	109	71	48	27	18	19
11	21	30	69	301	212	330	108	70	46	27	18	23
12	21	30	197	307	304	312	105	72	43	27	19	23
13	22	29	81	339	370	298	105	71	45	26	18	20
14	22	28	54	2,610	290	279	108	70	45	26	18	20
15	121	29	45	1,020	249	268	103	66	44	26	19	19
16	124	29	41	3,740	246	257	103	64	43	25	23	19
17	48	28	39	1,300	339	244	100	62	43	25	31	19
18	35	27	44	771	262	231	98	61	42	24	29	18
19	32	27	543	623	236	219	98	60	41	24	27	18
20	30	27	800	675	224	205	94	61	37	22	27	18
21	30	28	719	2,650	212	197	93	61	38	21	32	18
22	28	28	303	1,290	203	190	91	59	39	22	32	19
23	29	28	160	950	194	184	88	54	45	22	32	22
24	31	28	571	1,950	188	178	88	51	43	22	30	18
25	29	27	699	930	180	174	85	57	40	23	24	18
26	29	27	324	715	174	168	86	53	39	23	24	20
27	29	27	204	955	182	161	86	53	37	23	23	20
28	28	27	157	683	454	156	84	53	35	22	23	18
29	27	27	131	563	-----	154	82	53	36	22	23	17
30	27	27	115	492	-----	150	79	50	35	23	23	18
31	26	-----	103	436	-----	145	-----	50	-----	23	22	-----
TOTAL	1,007	929	5,697	24,975	7,412	11,733	3,136	2,023	1,293	780	731	582
MEAN	32.5	31.0	184	806	265	378	105	65.3	43.1	25.2	23.6	19.4
MAX	124	61	800	3,740	454	1,640	139	80	55	33	32	23
MIN	21	26	26	71	174	145	79	50	35	21	18	17
AC-FT	2,000	1,840	11,300	49,540	14,700	23,270	6,220	4,010	2,560	1,550	1,450	1,150
CAL YR 1969	TOTAL	104,672		MEAN 287		MAX 5,580	MIN 21	AC-FT 207,600				
WTR YR 1970	TOTAL	60,298		MEAN 165		MAX 3,740	MIN 17	AC-FT 119,600				

PEAK DISCHARGE (BASE, 1,400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0830	12.73	8,190	3- 1	0915	7.90	3,150
1-21	0600	8.49	3,630	3- 4	1500	6.92	2,390
1-24	0200	8.75	3,860				

MAJORS CREEK BASIN

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.--Maximum discharge during period, 363 cfs Jan. 21 (gage height, 5.92 ft), from rating curve extended above 160 cfs on basis of slope-area measurement of maximum flow; minimum daily, 1.2 cfs Oct. 16-22.

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 sparring-meter readings furnished by city of Santa Cruz.

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	1.4	1.6	1.5	2.6	9.4	42	4.2	3.4	2.6	1.8	1.8	1.6
2	1.4	1.6	1.5	2.5	8.3	14	4.1	3.3	2.5	1.9	1.8	1.4
3	1.4	1.6	1.5	2.4	7.6	9.0	4.0	3.3	2.5	1.9	1.8	1.5
4	1.4	1.6	1.5	2.3	7.2	46	3.9	3.3	2.1	1.9	1.8	1.5
5	1.4	2.0	1.5	2.4	6.9	23	3.9	3.3	2.1	1.9	1.8	1.5
6	1.4	2.0	1.5	2.4	6.7	14	3.8	3.3	2.1	1.7	1.7	1.5
7	1.4	1.5	1.5	2.4	6.6	11	3.8	3.3	2.2	1.7	1.7	1.5
8	1.4	1.5	1.5	2.3	6.3	9.6	3.8	3.3	2.1	1.7	1.7	1.5
9	1.5	1.5	1.5	17	6.1	8.8	3.7	3.3	3.1	1.9	1.7	1.4
10	1.5	1.5	1.7	8.1	5.9	8.3	3.7	3.3	2.3	2.0	1.7	1.4
11	1.5	1.5	1.9	9.2	5.7	8.0	3.7	3.3	2.3	1.9	1.7	1.4
12	1.5	1.5	5.1	16	7.0	6.6	3.7	3.3	2.2	2.0	1.7	1.4
13	1.5	1.6	4.3	15	6.8	6.3	3.6	3.3	2.2	1.9	1.7	1.4
14	1.5	1.6	3.7	84	6.0	5.9	3.7	3.3	2.3	1.9	1.7	1.4
15	1.6	1.6	2.6	41	5.6	5.7	3.7	3.3	2.2	1.9	1.7	1.4
16	1.2	1.6	1.8	124	5.8	5.6	3.7	3.2	2.2	1.8	1.7	1.4
17	1.2	1.6	1.7	29	6.0	5.1	3.6	3.2	2.2	1.8	1.7	1.4
18	1.2	1.6	1.7	17	5.8	5.0	3.6	3.2	2.1	1.8	1.7	1.4
19	1.2	1.6	9.8	25	5.6	4.9	3.6	3.3	2.1	1.8	1.7	1.4
20	1.2	1.5	21	59	5.1	4.6	3.6	2.8	2.0	1.8	1.5	1.4
21	1.2	1.5	16	148	5.0	4.6	3.6	2.9	2.0	1.8	1.5	1.4
22	1.2	1.5	5.3	44	4.6	4.6	3.5	2.8	2.0	1.8	1.5	1.4
23	1.7	1.5	3.3	31	4.5	4.4	3.5	2.4	1.9	1.7	1.5	1.4
24	1.7	1.5	54	38	4.3	4.3	3.5	2.4	1.9	1.7	1.5	1.3
25	1.7	1.5	46	22	4.2	4.2	3.5	2.4	2.0	1.7	1.5	1.3
26	1.7	1.5	9.8	17	4.1	4.1	3.5	2.4	1.9	1.7	1.5	1.3
27	1.7	1.5	5.4	41	4.2	3.8	3.5	2.4	1.9	1.7	1.6	1.3
28	1.7	1.5	4.0	21	18	3.8	3.5	2.7	1.9	1.7	1.6	1.3
29	1.7	1.5	3.5	16	-----	3.8	3.4	2.8	1.8	1.7	1.6	1.3
30	1.6	1.5	3.1	13	-----	3.8	3.4	2.7	1.8	1.8	1.6	1.3
31	1.6	-----	2.8	10	-----	3.8	-----	2.6	-----	1.8	1.6	-----
TOTAL	45.3	47.1	222.0	864.6	179.3	288.6	110.3	93.8	64.5	56.1	51.3	42.1
MEAN	1.46	1.57	7.16	27.9	6.40	9.31	3.68	3.03	2.15	1.81	1.65	1.40
MAX	1.7	2.0	54	148	18	46	4.2	3.4	3.1	2.0	1.8	1.6
MIN	1.2	1.5	1.5	2.3	4.1	3.8	3.4	2.4	1.8	1.7	1.5	1.3
AC-FT	90	93	440	1,710	356	572	219	186	128	111	102	84

WAT YR 1970 TOTAL 2,065.0 MEAN 5.66 MAX 148 MIN 1.2 AC-FT 4,100

PEAK DISCHARGE (BASE, 80 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-24	1200	5.05	116	1-27	0430	4.97	102
1-16	0630	5.63	261	3- 1	0730	4.86	84
1-21	0430	5.92	363	3- 4	1200	5.11	128

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.--Maximum discharge during period, 264 cfs Jan. 21 (gage height, 3.60 ft), from rating curve extended above 120 cfs; minimum daily, 1.0 cfs Dec. 6, 7.

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

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	1.5	1.4	1.3	4.2	17	42	8.6	6.2	4.6	3.5	2.4	2.0
2	1.5	1.4	1.1	4.0	16	18	8.6	6.2	4.5	3.2	2.4	2.0
3	1.5	1.4	1.1	3.7	15	15	8.3	5.9	4.5	3.2	2.4	1.9
4	1.6	1.3	1.1	3.7	15	32	8.3	5.9	4.4	3.2	2.2	1.9
5	1.6	2.1	1.1	3.5	14	20	8.0	5.9	4.4	3.2	2.2	2.1
6	1.6	2.1	1.0	3.2	14	17	8.0	5.6	4.7	3.1	2.2	2.1
7	1.6	1.9	1.0	3.2	14	15	8.0	5.6	4.7	3.1	2.2	2.1
8	1.6	1.6	1.5	3.2	13	15	7.7	5.6	4.7	3.1	2.2	2.1
9	1.6	1.6	1.3	13	13	14	7.7	5.6	5.1	3.1	2.2	2.1
10	1.6	1.5	1.8	9.0	13	13	7.7	5.6	4.9	3.1	2.2	2.1
11	1.6	1.5	1.8	8.3	12	13	7.7	5.6	4.7	3.1	2.2	2.1
12	1.6	1.4	6.4	13	14	13	7.4	5.6	4.7	2.9	2.1	2.1
13	1.8	1.4	3.1	15	16	12	7.4	5.6	4.4	2.9	2.1	2.1
14	1.8	1.4	2.2	82	13	12	7.7	5.4	4.4	2.9	2.1	2.1
15	3.6	1.4	1.9	32	12	12	7.7	5.4	4.2	2.9	2.1	2.1
16	4.3	1.4	1.8	104	12	11	7.4	5.1	4.0	2.7	2.1	2.1
17	2.5	1.4	1.8	33	13	11	7.4	5.1	4.0	2.7	2.1	2.1
18	2.4	1.4	1.9	21	12	11	7.4	5.1	4.0	2.7	2.1	2.1
19	2.4	1.4	20	22	12	11	7.4	5.1	4.0	2.7	2.1	1.9
20	2.2	1.4	33	37	11	11	7.1	5.1	4.0	2.7	2.1	1.9
21	2.2	1.4	25	131	11	10	7.1	5.1	4.0	2.5	1.9	1.9
22	2.1	1.4	9.0	50	11	10	7.1	5.0	4.0	2.5	2.0	1.9
23	2.1	1.4	5.9	44	10	10	6.8	5.0	4.0	2.5	2.0	1.8
24	1.9	1.4	44	46	10	9.8	6.8	4.9	3.7	2.5	2.0	1.8
25	1.9	1.4	40	30	10	9.8	6.8	4.9	3.7	2.5	2.0	1.6
26	1.8	1.4	13	24	9.8	9.4	6.8	4.8	3.7	2.5	2.0	1.6
27	1.6	1.3	8.0	43	10	9.4	6.8	4.8	3.5	2.4	2.0	1.6
28	1.5	1.3	6.5	26	17	9.0	6.5	4.7	3.5	2.4	2.0	1.6
29	1.5	1.3	5.4	22	-----	9.0	6.5	4.7	3.7	2.4	2.0	1.5
30	1.4	1.3	4.9	20	-----	9.0	6.5	4.7	3.7	2.4	2.0	1.4
31	1.4	-----	4.4	18	-----	8.6	-----	4.6	-----	2.4	2.0	-----
TOTAL	59.3	44.0	252.3	872.0	359.8	422.0	223.2	164.4	126.4	87.0	65.6	57.7
MEAN	1.91	1.47	8.14	28.1	12.9	13.6	7.44	5.30	4.21	2.81	2.12	1.92
MAX	4.3	2.1	44	131	17	42	8.6	6.2	5.1	3.5	2.4	2.1
MIN	1.4	1.3	1.0	3.2	9.8	8.6	6.5	4.6	3.5	2.4	1.9	1.4
AC-FT	118	87	500	1,730	714	837	443	326	251	173	130	114

WAT YR 1970 TOTAL 2,733.7 MEAN 7.49 MAX 131 MIN 1.0 ACFT 5,420

PEAK DISCHARGE (BASE, 110 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0530	3.57	257	1-23	2300	2.90	128
1-21	0430	3.60	264	3- 1	0600	2.97	139

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.--6.08 sq mi.

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.--Maximum discharge during period, 335 cfs Jan. 21 (gage height, 4.90 ft); minimum daily, 1.4 cfs Sept. 28-30.

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

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	1.7	2.1	1.9	7.6	32	61	15	8.8	5.8	4.0	2.5	2.0
2	1.7	2.1	1.9	7.1	30	34	15	8.3	5.6	4.0	2.5	2.0
3	1.7	2.1	1.9	6.4	29	29	14	8.0	5.4	3.9	2.5	2.0
4	1.7	2.0	1.9	6.0	28	45	13	7.8	5.2	3.9	2.4	2.0
5	1.8	4.0	1.9	5.8	27	37	13	7.8	5.4	3.9	2.4	1.8
6	1.8	3.3	2.0	5.6	26	32	13	7.8	5.6	3.9	2.4	1.8
7	1.8	2.9	2.3	5.2	26	30	12	7.8	5.6	3.9	2.4	1.8
8	1.8	2.7	3.0	5.6	24	29	12	7.8	5.8	4.0	2.5	1.8
9	1.9	2.6	2.7	19	24	28	12	7.8	7.1	3.6	2.6	1.6
10	2.0	2.5	3.0	18	24	28	12	7.6	5.8	3.9	2.6	1.6
11	2.1	2.5	3.3	15	23	27	12	7.3	5.6	3.9	2.6	1.6
12	2.1	2.4	11	20	24	26	12	7.3	5.6	3.7	2.6	1.6
13	2.3	2.4	5.2	24	26	26	12	7.3	5.6	3.6	2.6	1.8
14	2.4	2.4	3.7	86	24	25	12	7.1	5.8	3.6	2.6	1.8
15	8.9	2.4	3.1	46	23	24	12	6.8	5.6	3.6	2.7	1.7
16	11	2.4	3.0	130	23	23	11	6.6	5.4	3.4	2.6	1.7
17	3.3	2.4	2.7	52	24	23	11	6.4	5.4	3.4	2.6	1.6
18	2.7	2.3	3.0	37	23	23	11	6.4	5.4	3.3	2.4	1.6
19	2.5	2.3	23	36	22	22	11	6.4	5.0	3.1	2.4	1.6
20	2.4	2.3	40	46	21	21	10	6.4	4.8	3.1	2.4	1.6
21	2.4	2.3	39	194	20	20	10	6.2	4.6	3.0	2.5	1.6
22	2.4	2.3	19	90	19	20	10	6.2	4.6	3.0	2.5	1.6
23	2.4	2.3	11	71	18	19	9.8	6.0	4.5	3.0	2.3	1.6
24	2.4	2.3	47	84	18	18	9.6	6.0	4.5	3.0	2.3	1.6
25	2.4	2.3	54	55	17	18	9.6	6.0	4.5	3.0	2.3	1.5
26	2.4	2.1	26	44	17	17	9.6	6.2	4.3	3.0	2.3	1.5
27	2.4	2.1	19	66	18	17	9.3	6.2	4.3	3.0	2.3	1.5
28	2.3	1.9	14	46	25	16	9.0	6.2	4.2	2.7	2.1	1.4
29	2.3	1.9	11	41	-----	16	8.8	6.0	4.2	2.7	2.1	1.4
30	2.3	1.9	9.8	37	-----	16	8.8	6.2	4.2	2.6	2.1	1.4
31	2.1	-----	8.3	34	-----	15	-----	6.0	-----	2.6	2.1	-----
TOTAL	83.4	71.5	378.6	1,340.3	655	785	339.5	214.7	155.4	105.3	75.2	50.1
MEAN	2.69	2.38	12.2	43.2	23.4	25.3	11.3	6.93	5.18	3.40	2.43	1.67
MAX	11	4.0	54	194	32	61	15	8.8	7.1	4.0	2.7	2.0
MIN	1.7	1.9	1.9	5.2	17	15	8.8	6.0	4.2	2.6	2.1	1.4
AC-FT	165	142	751	2,660	1,300	1,560	673	426	308	209	149	99

WAT YR 1970 TOTAL 4,254.0 MEAN 11.7 MAX 194 MIN 1.4 ACFT 8,440

PEAK DISCHARGE (BASE, 100 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0700	4.73	270	1-27	0530	4.12	105
1-21	0500	4.90	335	3- 1	0730	4.25	130
1-23	2330	4.42	171				

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 (revised).

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

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 30.7 cfs (22,240 acre-ft per year); median of yearly mean discharges, 20 cfs (14,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,420 cfs Jan. 21 (gage height, 5.09 ft); minimum daily, 1.0 cfs Sept. 28-30.

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, 0.3 cfs for several days in 1961.

REMARKS.--Records good except those above 600 cfs and for period of no gage-height record, which are fair. No regulation; small diversions above station for irrigation.

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	1.4	2.3	2.6	38	132	217	38	20	9.8	4.9	2.9	1.7
2	1.4	2.3	2.6	33	120	146	38	19	9.4	4.6	2.8	1.7
3	1.3	2.3	2.5	30	111	116	37	19	9.0	4.3	2.8	1.7
4	1.1	2.3	2.5	28	105	245	35	18	8.6	4.1	2.7	1.7
5	1.1	4.4	2.6	26	98	214	34	18	8.6	3.9	2.7	1.6
6	1.1	4.9	2.5	24	91	154	34	18	8.9	3.8	2.6	1.6
7	1.2	3.7	2.6	22	86	131	33	18	8.8	3.9	2.6	1.6
8	1.3	3.4	3.3	22	81	119	32	17	9.0	3.9	2.5	1.6
9	1.4	3.2	3.5	79	77	110	31	18	13	4.0	2.5	1.5
10	1.7	3.0	4.5	86	73	103	30	17	10	4.0	2.5	1.5
11	1.6	2.9	4.6	67	70	94	30	16	9.2	3.9	2.4	1.5
12	1.3	2.8	17	73	77	88	29	19	8.6	3.9	2.4	1.4
13	1.4	2.8	15	87	85	83	29	20	8.6	3.8	2.3	1.4
14	1.5	2.8	8.8	476	77	78	29	16	9.3	3.8	2.3	1.4
15	6.5	2.9	6.9	237	71	74	28	15	9.1	3.7	2.3	1.3
16	17	2.9	5.9	653	72	70	28	15	8.7	3.7	2.2	1.3
17	6.4	3.4	5.4	280	87	67	27	14	8.6	3.6	2.2	1.3
18	4.0	2.8	5.4	190	75	64	25	14	8.0	3.6	2.2	1.3
19	3.4	2.8	77	170	69	61	26	14	7.5	3.5	2.1	1.2
20	2.9	2.7	194	250	66	58	24	14	7.3	3.5	2.1	1.2
21	2.8	2.6	217	960	62	56	24	13	6.9	3.4	2.1	1.2
22	2.6	2.6	103	493	59	54	24	12	6.8	3.4	2.0	1.2
23	2.8	2.6	59	392	57	52	23	12	6.6	3.3	2.0	1.1
24	2.8	2.8	246	539	55	51	22	11	6.3	3.3	2.0	1.1
25	2.8	2.8	299	291	52	50	22	12	6.1	3.2	1.9	1.1
26	2.6	2.8	127	227	50	47	22	12	5.7	3.2	1.9	1.1
27	2.6	2.6	84	321	52	44	22	12	5.5	3.1	1.9	1.1
28	2.5	2.6	64	231	90	44	21	11	5.5	3.1	1.8	1.0
29	2.4	2.6	57	188	-----	42	20	11	5.4	3.0	1.8	1.0
30	2.4	2.6	49	163	-----	41	20	10	5.2	3.0	1.8	1.0
31	2.4	-----	42	145	-----	40	-----	9.9	-----	2.9	1.8	-----
TOTAL	87.7	87.2	1,716.2	6,821	2,200	2,813	837	464.9	240.0	113.3	70.1	40.4
MEAN	2.83	2.91	55.4	220	78.6	90.7	27.9	15.0	8.00	3.65	2.26	1.35
MAX	17	4.9	299	960	132	245	38	20	13	4.9	2.9	1.7
MIN	1.1	2.3	2.5	22	50	40	20	9.9	5.2	2.9	1.8	1.0
AC-FT	174	173	3,400	13,530	4,360	5,580	1,660	922	476	225	139	80
CAL YR 1969	TOTAL	27,596.4	MEAN	75.6	MAX	848	MIN	1.1	AC-FT	54,740		
WTR YR 1970	TOTAL	15,490.8	MEAN	42.4	MAX	960	MIN	1.0	AC-FT	30,730		

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1300	2.77	402	1-24	0030	3.72	957
12-24	1315	2.98	510	1-27	0615	2.90	480
1-16	0815	4.53	1,250	3- 1	1000	2.61	349
1-21	0530	5.09	1,420	3- 4	1430	2.88	470

NOTE.--No gage-height record July 12 to Sept. 30.

11162500 PESCADERO CREEK NEAR PESCADERO, CALIF.

LOCATION.--Lat 37°15'39", long 122°19'40", in SW¼ 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.--19 years, 42.9 cfs (31,080 acre-ft per year); median of yearly mean discharges, 23 cfs (16,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,300 cfs Jan. 16 (gage height, 10.66 ft); minimum daily, 0.46 cfs Sept. 13, 29, 30.

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 except those for periods of no gage-height record, which are poor. 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 for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.3	3.6	22	118	174	29	15	6.6	4.5	2.7	1.9
2	4.6	3.3	3.5	20	101	129	28	15	6.9	4.5	2.7	1.8
3	4.2	4.2	3.4	19	89	93	27	14	6.3	4.5	2.7	1.8
4	3.5	4.1	3.4	17	81	277	25	15	5.9	4.5	2.5	5.1
5	3.7	8.5	3.7	15	73	276	25	15	2.9	4.5	2.4	2.3
6	3.4	11	3.7	14	66	166	24	15	5.0	4.5	2.4	2.8
7	3.5	7.0	3.5	13	61	130	23	15	6.6	4.5	2.4	2.9
8	4.6	5.9	3.9	25	57	112	23	14	7.5	4.5	2.4	6.4
9	6.3	5.5	4.8	101	53	97	23	14	8.5	4.5	2.4	3.8
10	8.2	5.2	5.2	142	49	91	22	13	8.5	4.5	2.4	1.7
11	8.1	4.7	6.9	91	47	79	23	11	7.0	4.2	2.3	1.4
12	8.4	4.7	11	79	56	72	21	9.4	6.5	4.5	2.1	1.0
13	8.1	4.7	9.4	70	96	66	21	9.0	6.5	5.1	2.1	.46
14	7.5	4.7	5.7	791	95	61	21	8.0	6.5	5.2	2.1	.77
15	11	4.7	4.6	320	72	57	21	6.9	6.5	5.1	2.1	1.6
16	15	4.9	4.1	1,070	69	54	20	5.7	6.5	5.0	2.1	1.7
17	8.0	4.4	3.8	396	201	51	20	5.3	6.5	5.0	2.1	.68
18	7.0	4.0	3.9	232	124	48	19	6.6	6.5	4.0	2.1	.59
19	5.0	3.7	32	163	99	45	21	8.9	6.5	3.9	2.1	.59
20	4.5	3.7	44	153	85	43	20	8.4	6.5	3.9	2.0	.59
21	3.5	3.6	176	967	75	41	19	7.7	6.2	3.6	2.0	.86
22	3.0	4.8	96	476	66	39	19	7.0	6.0	3.4	2.0	.95
23	2.5	4.8	41	314	60	38	18	6.8	6.0	3.3	2.0	.95
24	2.5	4.7	99	686	56	36	17	9.7	6.0	3.2	2.0	.86
25	2.5	4.2	196	347	50	35	17	12	6.0	3.2	2.0	.95
26	2.5	4.2	97	254	47	34	17	14	6.0	3.2	1.9	1.1
27	2.5	4.0	56	363	46	33	17	7.9	6.0	3.1	1.9	1.9
28	3.1	4.0	39	269	79	31	17	5.7	5.8	2.8	1.9	1.9
29	3.7	3.8	31	203	-----	31	16	8.4	5.6	2.8	1.9	.46
30	3.6	3.7	27	165	-----	30	15	9.3	5.2	2.7	1.9	.46
31	3.7	-----	24	138	-----	29	-----	7.7	-----	2.7	1.9	-----
TOTAL	161.0	144.0	1,046.1	7,935	2,171	2,498	628	320.4	189.0	124.9	67.5	50.27
MEAN	5.19	4.80	33.7	256	77.5	80.6	20.9	10.3	6.30	4.03	2.18	1.68
MAX	15	11	196	1,070	201	277	29	15	8.5	5.2	2.7	6.4
MIN	2.5	3.3	3.4	13	46	29	15	5.3	2.9	2.7	1.9	.46
AC-FT	319	286	2,070	15,740	4,310	4,950	1,250	636	375	248	134	100

CAL YR 1969 TOTAL 31,689.0 MEAN 86.8 MAX 1,660 MIN 2.0 AC-FT 62,860
WTR YR 1970 TOTAL 15,335.17 MEAN 42.0 MAX 1,070 MIN .46 AC-FT 30,420

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	1000	10.66	2,300	1-24	0245	7.59	1,210
1-21	0815	8.28	1,420				

NOTE.--No gage-height record June 9 to July 10, July 22 to Sept. 4.

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 below unnamed 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.--8 years, 22.1 cfs (16,010 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 906 cfs Jan. 21 (gage height, 11.97 ft); minimum daily, 0.25 cfs Sept. 30.

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.

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	1.2	2.1	2.1	15	63	60	15	7.0	3.4	2.3	1.2	.83
2	1.2	2.1	2.1	13	55	51	15	6.9	3.5	2.1	1.2	.83
3	1.2	2.1	2.1	12	48	43	15	6.8	3.5	2.1	1.2	.74
4	1.1	2.0	2.1	11	46	141	14	6.8	3.3	2.1	1.3	.69
5	1.1	6.4	2.1	10	42	139	14	6.6	3.4	2.2	1.4	.73
6	1.0	6.7	2.1	9.6	38	90	14	6.6	3.5	2.2	1.1	.82
7	1.0	3.9	2.3	9.2	35	72	13	6.2	3.3	2.4	1.1	.51
8	1.1	3.4	2.7	9.2	33	62	13	6.1	3.2	2.4	1.1	.40
9	1.1	3.0	3.0	35	31	55	12	6.9	4.0	2.2	1.3	.49
10	1.3	2.8	3.6	58	28	50	12	6.4	3.8	2.2	1.4	.55
11	1.5	2.6	4.2	40	27	45	11	6.0	3.5	2.2	1.1	.55
12	1.5	2.4	8.1	36	31	41	11	6.0	3.2	2.4	.89	.55
13	1.4	2.4	9.4	33	50	38	11	5.7	3.2	2.3	.93	.55
14	1.3	2.4	5.6	317	41	35	11	5.3	3.3	2.2	1.0	.55
15	2.5	2.5	4.4	163	35	33	10	5.1	3.3	2.2	1.1	.52
16	14	2.7	3.8	360	36	30	10	5.0	3.2	2.1	1.2	.50
17	4.9	2.6	3.4	176	67	29	10	4.8	3.4	1.6	1.3	.50
18	3.1	2.3	3.4	115	50	27	9.7	4.7	3.3	1.4	1.2	.50
19	2.5	2.2	41	90	44	25	10	4.8	3.2	1.4	.93	.48
20	2.2	2.3	81	93	39	24	9.4	4.9	3.2	1.6	.73	.45
21	2.1	2.2	134	468	35	23	9.2	4.8	3.2	1.5	.82	.45
22	2.0	2.2	68	235	32	22	8.9	4.8	3.1	1.1	.84	.43
23	2.1	2.2	31	168	30	21	8.5	4.6	3.1	1.2	.93	.40
24	2.1	2.1	87	314	28	21	8.5	4.4	2.8	1.1	.93	.40
25	2.3	2.0	149	170	26	20	8.2	4.3	2.9	1.0	.71	.35
26	2.1	2.0	78	128	24	19	8.3	4.3	2.9	1.3	.82	.35
27	2.2	2.0	46	181	25	18	8.4	4.4	2.9	1.4	.69	.33
28	2.2	2.0	32	131	49	18	8.1	4.2	2.9	1.2	.70	.30
29	2.2	2.0	24	103	-----	17	7.9	3.9	2.8	1.2	.93	.28
30	2.1	2.0	20	85	-----	17	7.5	3.7	2.6	1.0	.81	.25
31	2.2	-----	17	72	-----	16	-----	3.8	-----	.91	1.1	-----
TOTAL	69.8	79.6	874.5	3,660.0	1,088	1,302	323.6	165.8	96.9	54.51	31.96	15.28
MEAN	2.25	2.65	28.2	118	38.9	42.0	10.8	5.35	3.23	1.76	1.03	.51
MAX	14	6.7	149	468	67	141	15	7.0	4.0	2.4	1.4	.83
MIN	1.0	2.0	2.1	9.2	24	16	7.5	3.7	2.6	.91	.69	.25
AC-FT	138	158	1,730	7,260	2,160	2,580	642	329	192	108	63	30

CAL YR 1969	TOTAL	14,722.8	MEAN	40.3	MAX	689	MIN	1.0	AC-FT	29,200
WTR YR 1970	TOTAL	7,761.95	MEAN	21.3	MAX	468	MIN	.25	AC-FT	15,400

PEAK DISCHARGE (BASE, 200 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1500	7.34	258	1-27	0800	7.24	244
1-14	1200	11.42	829	3- 4	1530	7.42	269
1-21	1030	11.97	906				

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.--Maximum discharge during period, 3,120 cfs Jan. 21 (gage height, 15.29 ft); minimum daily, 0.35 cfs Sept. 30.

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

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	2.0	3.8	3.1	18	88	129	20	12	6.3	3.6	2.1	1.4
2	2.0	3.4	3.1	15	75	72	19	12	6.3	3.9	2.0	1.4
3	1.5	3.4	3.1	12	67	57	19	11	5.7	3.3	1.9	1.5
4	1.5	3.1	3.1	11	63	493	18	11	5.7	3.1	1.9	1.4
5	1.5	6.8	3.4	10	56	210	17	11	5.8	3.1	2.3	1.4
6	1.5	12	3.8	9.0	53	123	17	9.7	5.8	3.2	2.5	1.2
7	1.5	8.4	3.8	9.0	48	99	16	10	5.1	3.4	2.0	1.3
8	2.0	6.8	5.8	9.0	44	88	16	10	5.2	3.2	1.9	.90
9	2.0	5.8	6.8	51	42	77	16	12	7.9	3.1	1.8	.86
10	2.0	4.9	8.4	65	39	72	16	9.7	6.6	3.1	1.6	.84
11	2.0	4.5	12	74	37	64	14	9.0	5.2	3.2	1.3	.86
12	2.0	3.8	13	54	45	60	14	9.0	4.6	3.1	1.3	.90
13	2.0	3.8	16	42	84	54	14	9.7	4.7	3.0	1.3	1.0
14	2.0	3.8	10	893	72	50	14	9.0	4.6	2.7	1.3	1.0
15	10	3.8	8.4	272	60	46	14	8.4	4.9	3.0	1.6	.89
16	25	4.5	7.8	923	93	43	14	7.9	4.7	2.9	1.3	.86
17	8.0	4.5	6.8	271	198	41	13	7.9	4.5	3.1	.97	.86
18	6.0	4.9	6.3	145	101	38	12	9.0	4.5	3.0	.96	.86
19	5.0	4.1	16	108	79	35	14	9.0	4.4	2.8	.99	.82
20	4.5	4.1	140	207	67	33	13	9.0	4.4	2.2	1.2	.71
21	4.0	4.1	150	1,840	61	32	13	9.0	4.6	2.2	1.2	.80
22	4.0	4.1	70	491	55	31	12	9.7	4.2	2.2	1.4	.80
23	4.0	4.1	20	361	50	30	12	9.0	4.3	2.5	1.4	.57
24	4.0	4.1	150	646	46	29	13	8.4	4.3	2.7	1.4	.64
25	4.1	4.1	200	276	42	27	13	7.9	4.0	2.6	1.4	.56
26	4.1	3.8	120	182	39	25	14	8.4	3.9	2.5	1.3	.64
27	3.8	3.8	80	444	42	24	15	8.4	3.2	2.2	1.3	.52
28	4.1	3.4	50	210	76	23	13	8.4	3.1	2.3	1.4	.43
29	4.1	3.4	35	148	-----	23	13	7.9	3.1	2.1	1.4	.57
30	4.5	3.1	25	121	-----	22	13	7.3	3.2	2.0	1.7	.35
31	4.1	-----	20	101	-----	21	-----	6.8	-----	1.9	1.7	-----
TOTAL	128.8	138.2	1,200.7	8,018.0	1,822	2,171	441	287.5	144.8	87.2	47.82	26.84
MEAN	4.15	4.61	38.7	259	65.1	70.0	14.7	9.27	4.83	2.81	1.54	.89
MAX	25	12	200	1,840	198	493	20	12	7.9	3.9	2.5	1.5
MIN	1.5	3.1	3.1	9.0	37	21	12	6.8	3.1	1.9	.96	.35
AC-FT	255	274	2,380	15,900	3,610	4,310	875	570	287	173	95	53

WAT YR 1970 TOTAL 14,513.86 MEAN 39.8 MAX 1,840 MIN .35 AC-FT 28,790

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	1200	13.71	2,520	1-27	0600	8.84	999
1-21	0700	15.29	3,120	2-16	2330	6.96	531
1-24	0030	10.70	1,540	3- 4	1330	10.35	1,440

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.

EXTREMES.--Current year: Maximum discharge, 1,110 cfs Jan. 21 (gage height, 10.30 ft); no flow for several 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 good. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	3.5	.50	5.4	43	25	7.8	5.4	1.1	.06	.27	.18
2	.08	2.6	.72	4.9	38	21	7.4	4.6	1.1	.01	.06	.15
3	0	2.0	.64	4.5	35	20	7.0	5.4	1.1	.01	.07	.17
4	0	2.1	.86	4.2	34	124	5.8	1.4	1.7	.04	.03	.16
5	0	3.8	1.1	4.0	30	79	4.3	2.2	1.4	.27	.09	.12
6	0	2.9	1.1	4.0	27	50	4.0	2.2	.62	.23	.05	.01
7	0	3.3	.89	4.1	25	40	13	1.7	.76	.25	1.8	.11
8	0	3.5	3.3	4.0	24	37	2.7	3.3	1.5	.23	4.5	.68
9	0	2.8	3.3	6.6	23	30	2.7	5.4	3.6	.10	.81	.57
10	.53	2.0	3.4	6.7	21	27	11	4.0	3.0	.30	1.2	.36
11	.54	2.0	3.1	12	20	25	9.4	4.0	1.7	.35	1.4	.38
12	.27	1.7	3.6	8.3	26	23	2.7	3.3	1.7	.31	.96	.31
13	.82	1.6	3.7	7.9	26	21	5.4	2.7	.72	.27	.93	.61
14	1.7	1.7	3.2	232	24	20	4.3	2.2	1.0	.17	.75	1.4
15	6.2	2.2	3.1	83	21	18	4.6	1.7	1.2	.09	.80	1.6
16	8.0	2.2	3.0	221	32	18	5.0	1.2	.79	.31	.49	2.4
17	5.7	1.7	3.1	94	58	16	4.3	1.7	1.8	.28	.59	1.1
18	4.5	1.4	3.1	48	39	14	5.0	2.2	1.2	.38	.81	.66
19	4.1	2.1	9.8	34	33	13	5.8	1.9	1.6	.34	.69	.08
20	3.8	3.9	13	114	30	12	4.6	1.2	.58	.38	.24	.08
21	3.3	1.7	23	766	27	12	4.0	1.1	.57	.11	.29	.46
22	2.6	2.5	11	261	25	12	2.4	1.2	1.6	.11	.31	3.3
23	2.6	2.0	6.5	183	23	11	2.7	3.6	1.1	.11	.33	.91
24	2.7	1.4	32	266	21	11	8.2	3.3	.81	.20	.77	.72
25	2.6	1.0	25	142	19	9.9	7.0	.62	.85	.15	.22	.05
26	2.6	.93	15	102	19	9.9	1.4	.90	.95	.25	.09	.06
27	2.5	.72	10	162	21	8.2	6.6	1.1	.62	.25	.03	.02
28	2.5	.49	8.0	99	31	8.6	1.7	1.2	.59	.09	.04	.01
29	2.3	.48	6.3	76	-----	7.4	1.9	.90	.59	.26	.05	0
30	2.4	.66	5.7	64	-----	7.8	6.6	3.0	.27	.16	.17	0
31	4.3	-----	5.1	52	-----	7.4	-----	.62	-----	.16	.25	-----
TOTAL	66.83	60.88	212.11	3,075.6	795	738.2	159.3	75.24	36.12	6.23	19.09	16.66
MEAN	2.16	2.03	6.84	99.2	28.4	23.8	5.31	2.43	1.20	.20	.62	.56
MAX	8.0	3.9	32	766	58	124	13	5.4	3.6	.38	4.5	3.3
MIN	0	.48	.50	4.0	19	7.4	1.4	.62	.27	.01	.03	0
AC-FT	133	121	421	6,100	1,580	1,460	316	149	72	12	38	33

CAL YR 1969	TOTAL	8,592.29	MEAN	23.5	MAX	339	MIN	0	AC-FT	17,040
WTR YR 1970	TOTAL	5,261.26	MEAN	14.4	MAX	766	MIN	0	AC-FT	10,440

PEAK DISCHARGE (BASE, 200 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	1000	6.30	489	1-27	0500	5.83	308
1-21	0845	10.30	1,110	3- 4	1245	6.23	368
1-23	2245	7.46	568				

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 (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 12.53 ft above mean sea level. Tipping-bucket rain gage at Coast Guard Radio station 2.9 miles southwest.

AVERAGE DISCHARGE.--7 years, 6.63 cfs (4,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 954 cfs Dec. 20 (gage height, 7.54 ft); minimum daily, 0.43 cfs Jan. 2-4.

Period of record: Maximum discharge, 1,260 cfs Jan. 30, 1968 (gage height, 8.32 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 loads for the water year 1970 are published in Part 2 of this report.

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	2.1	3.2	.80	.60	3.8	2.6	2.5	2.0	2.7	3.6	3.3	1.2
2	1.6	2.1	.80	.43	3.2	3.6	2.4	2.5	2.7	3.5	2.8	1.3
3	1.2	2.1	1.2	.43	3.2	8.1	2.7	2.3	2.5	2.9	2.8	1.2
4	1.6	2.1	1.2	.43	2.6	12.6	3.4	1.9	3.1	2.7	2.9	2.1
5	1.2	2.8	1.2	.60	2.6	12	3.1	2.0	3.0	2.0	2.5	3.2
6	1.6	6.0	1.2	.60	2.6	7.7	2.6	1.2	2.9	2.2	2.4	2.6
7	2.6	4.8	1.2	.60	2.6	6.1	3.2	2.6	3.2	1.8	2.8	2.1
8	3.6	1.6	2.9	5.6	2.6	7.1	2.6	2.7	2.4	1.9	3.0	1.6
9	4.0	1.2	6.4	5.3	5.1	6.6	2.8	3.4	1.5	1.9	2.3	2.1
10	8.9	1.6	1.7	1.3	4.7	5.5	2.6	3.2	3.1	2.6	1.2	1.6
11	1.6	1.2	6.1	3.2	2.2	5.3	3.4	2.7	3.0	2.3	1.2	2.1
12	2.1	1.2	8.5	7.3	2.9	3.9	3.1	3.0	2.5	2.1	1.3	3.2
13	2.1	1.2	1.6	1.0	3.3	2.9	2.3	2.3	3.3	1.7	1.7	3.2
14	3.1	1.2	.80	1.92	3.0	3.4	2.3	2.7	2.2	1.7	1.3	3.2
15	1.49	1.2	.80	80	2.1	2.6	2.6	3.1	2.7	1.5	1.5	1.6
16	3.8	1.2	.60	98	4.3	2.3	2.9	3.1	1.9	1.7	1.0	.80
17	2.6	1.2	.60	12	6.8	2.3	2.7	2.9	2.3	1.6	.99	1.2
18	2.1	1.2	7.6	5.2	2.4	2.5	2.9	3.2	1.9	2.5	1.0	.80
19	2.1	1.2	6.6	6.6	2.3	2.5	3.1	3.2	2.5	2.9	.93	.80
20	2.6	1.2	1.25	1.16	2.3	2.4	2.5	3.2	2.7	2.8	.90	.60
21	2.1	1.2	1.10	2.05	2.3	2.6	2.8	5.8	3.0	2.9	3.6	1.6
22	2.1	.80	3.2	3.2	2.2	2.1	3.1	2.6	2.8	2.1	2.3	2.1
23	2.1	.80	4.8	80	2.2	1.3	3.0	3.1	2.8	1.9	1.4	2.1
24	2.1	.80	6.8	4.9	2.2	1.9	2.8	3.3	3.3	1.9	1.7	1.6
25	1.6	.80	2.6	1.4	2.3	1.7	3.3	3.0	2.7	2.7	1.6	1.6
26	2.1	.80	2.6	1.2	2.2	2.3	5.1	3.0	3.0	2.4	1.6	1.6
27	2.6	.80	1.2	70	2.6	1.5	2.7	2.7	3.4	2.5	1.6	1.6
28	2.1	.80	1.2	7.4	5.5	1.5	2.3	3.2	3.0	3.3	1.6	.80
29	2.1	.80	.60	5.2	-----	1.6	2.3	3.3	3.0	2.7	1.7	.80
30	2.1	.80	.60	4.4	-----	1.6	3.0	3.2	3.7	2.3	2.0	.80
31	2.1	-----	.60	3.8	-----	2.4	-----	3.1	-----	2.7	1.1	-----
TOTAL	222.6	73.10	496.40	1,117.13	253.5	259.3	86.1	89.5	117.9	73.3	58.02	51.10
MEAN	7.18	2.44	16.0	36.0	9.05	8.36	2.87	2.89	3.93	2.36	1.87	1.70
MAX	1.49	.28	1.25	2.05	.55	1.26	5.1	5.8	2.4	3.6	3.6	3.2
MIN	1.2	.80	.60	.43	2.1	1.3	2.3	1.2	1.9	1.5	.90	.60
AC-FT	442	145	985	2,220	503	514	171	178	234	145	115	101
(a)	-	-	4.7	7.8	-	-	0	0	.2	.1	.1	0
CAL YR 1969	TOTAL 3,957.56	MEAN 10.8	MAX 16.2	MIN .21	ACFT 7,850							
WAT YR 1970	TOTAL 2,898.01	MEAN 7.94	MAX 20.5	MIN .43	ACFT 5,750							

PEAK DISCHARGE (BASE, 600 CFS)						a Precipitation, in inches.	
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-15	0730	6.57	647	1-21	0300	6.87	677
12-20	0230	7.54	954	3- 4	1015	6.55	641
1-14	0700	7.43	918				

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 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.--11 years, 1.03 cfs (746 acre-ft per year); median of yearly mean discharges, 0.8 cfs (580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 350 cfs Mar. 4 (gage height, 8.60 ft, backwater from culvert), from rating curve extended as explained below; minimum daily, 0.02 cfs many days.
 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; no flow at times.

REMARKS.--Records good except those for period of backwater, which are poor. Low flow at times affected by return flow from urban irrigation.

REVISIONS.--WSP 1929: Drainage area.

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	.02	.13	.05	.22	1.4	3.4	.26	.15	.13	.04	.02	.02
2	.02	.13	.02	.21	1.3	.96	.30	.14	.11	.02	.02	.02
3	.02	.14	.03	.21	1.1	.74	.30	.13	.13	.02	.02	.02
4	.02	.08	.03	.20	1.1	52	.29	.15	.23	.02	.02	.02
5	.02	.82	.03	.17	1.0	3.7	.16	.16	.09	.02	.04	.02
6	.02	.41	.03	.16	.84	1.5	.16	.08	.07	.02	.14	.02
7	.02	.08	.03	.21	.85	1.1	.16	.10	.08	.02	.02	.02
8	.02	.03	.51	.27	.80	.96	.20	.09	.12	.02	.02	.02
9	.02	.03	.06	6.0	.75	.86	.20	.10	.16	.02	.02	.02
10	.02	.03	.42	2.6	.80	.78	.19	.11	.09	.02	.02	.02
11	.02	.02	.11	9.4	.68	.67	.22	.13	.16	.02	.02	.02
12	.02	.02	.76	1.4	1.8	.60	.22	.12	.13	.02	.02	.02
13	.02	.03	.11	.96	6.9	.57	.28	.14	.07	.02	.02	.02
14	.02	.03	.05	59	1.4	.54	.21	.18	.07	.02	.02	.02
15	.70	.03	.07	8.2	.96	.51	.34	.11	.15	.02	.02	.02
16	.30	.03	.06	45	8.0	.48	.19	.09	.10	.02	.02	.02
17	.02	.03	.05	6.5	3.6	.47	.17	.10	.21	.02	.02	.02
18	.06	.03	.11	2.5	1.5	.52	.14	.11	.13	.02	.03	.03
19	.04	.03	6.1	2.0	1.0	.43	.17	.10	.10	.02	.03	.02
20	.03	.04	3.0	14	.96	.41	.16	.10	.11	.02	.03	.03
21	.04	.03	12	56	.80	.37	.13	.12	.11	.02	.02	.03
22	.03	.04	.75	6.1	.80	.36	.14	.13	.13	.02	.02	.03
23	.04	.04	.57	22	.68	.35	.19	.11	.11	.02	.02	.03
24	.07	.04	8.0	20	.68	.34	.26	.12	.10	.02	.02	.03
25	.09	.04	6.1	4.5	.63	.34	.13	.16	.16	.02	.02	.03
26	.10	.04	.94	2.8	.63	.33	.16	.11	.04	.02	.02	.03
27	.11	.04	.52	19	1.5	.30	.16	.10	.04	.02	.02	.03
28	.10	.05	.38	3.3	3.0	.31	.15	.11	.05	.02	.02	.03
29	.10	.05	.30	2.3	-----	.33	.13	.11	.04	.02	.02	.03
30	.10	.05	.25	1.9	-----	.32	.13	.10	.04	.02	.02	.03
31	.12	-----	.24	1.5	-----	.27	-----	.12	-----	.02	.02	-----
TOTAL	2.33	2.59	41.68	298.61	45.46	74.82	5.90	3.68	3.26	0.64	0.79	0.72
MEAN	.075	.086	1.34	9.63	1.62	2.41	.20	.12	.11	.021	.026	.024
MAX	.70	.82	12	59	8.0	52	.34	.18	.23	.04	.14	.03
MIN	.02	.02	.02	.16	.63	.27	.13	.08	.04	.02	.02	.02
AC-FT	4.6	5.1	83	592	90	148	12	7.3	6.5	1.3	1.6	1.4

CAL YR 1969	TOTAL	846.00	MEAN	2.32	MAX	54	MIN	.01	AC-FT	1,680
WTR YR 1970	TOTAL	480.48	MEAN	1.32	MAX	59	MIN	.02	AC-FT	953

PEAK DISCHARGE (BASE, 70 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0745	3.51	79	1-23	2200	5.74	259
1-14	1115	5.86	271	1-27	0300	4.12	118
1-21	0400	4.52	148	3- 4	1130	8.60	350

NOTE.--Backwater from culvert Mar. 4.

11162940 SAN FRANCISQUITO CREEK BELOW LADERA DAMSITE, NEAR STANFORD UNIVERSITY, CALIF.

LOCATION.--Lat 37°24'24", long 122°12'11", on north boundary of El Corte de Madera Grant, Santa Clara County, 1.2 miles upstream from Los Trancos Creek, 0.5 mile northwest of Ladera School, and 2.3 miles southwest of Stanford University Post Office.

DRAINAGE AREA.--28.5 sq mi.

PERIOD OF RECORD.--October 1961 to September 1970 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 177.47 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 17.2 cfs (12,460 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,200 cfs Jan. 21 (gage height, 12.62 ft); minimum daily, 0.03 cfs July 16, 17, 20, 22.

Period of record: Maximum discharge, 2,890 cfs Jan. 21, 1967 (gage height, 14.81 ft); maximum gage height, 16.04 ft Jan. 31, 1963; no flow at times.

REMARKS.--Records good. Flow regulated by Searsville Lake 3 miles upstream (capacity, 952 acre-ft). Small diversions from Searsville Lake for irrigation on Stanford University campus.

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	.05	.09	.16	2.6	36	66	4.5	1.3	.12	.07	.16	.12
2	.05	.09	.12	2.3	32	30	4.0	.91	.25	.05	.14	.08
3	.09	.09	.13	2.0	25	21	3.9	1.1	.33	.05	.14	.07
4	.10	.12	.14	2.0	24	255	3.8	.66	.26	.18	.12	.08
5	.11	.32	.14	1.9	23	96	3.9	.67	.28	1.7	.12	.08
6	.10	.24	.14	1.6	22	48	3.7	.65	.25	.21	.11	.08
7	.11	.15	.14	1.6	20	37	3.4	.58	.21	.15	.08	.07
8	.10	.14	.29	2.4	20	32	3.0	.61	.24	.13	.18	.20
9	.10	.13	13	17	15	27	2.9	.67	.21	.16	.13	.14
10	.10	.15	1.0	34	12	25	3.3	.52	.16	.13	.09	.10
11	.10	.14	12	57	15	23	3.8	.54	.08	.10	.10	.07
12	.10	.14	1.1	26	20	21	4.3	.51	.07	.10	.11	.07
13	.10	.12	1.0	14	62	19	4.9	.52	.14	.11	.08	.06
14	.07	.12	.60	673	39	17	5.7	.48	.23	.08	.05	.05
15	.36	.14	.43	138	24	15	4.9	.40	.24	.05	.15	.05
16	.33	.12	.40	753	52	11	4.0	.42	.17	.03	.16	.05
17	.22	.12	.37	146	111	4.5	2.7	.52	.08	.03	.15	.05
18	.10	.10	.32	67	52	4.7	3.2	.46	.08	.04	.11	.05
19	.12	.10	12	43	31	3.9	4.4	.37	.08	.04	.07	.04
20	.15	.10	10	99	25	6.0	4.3	.22	.13	.03	.09	.16
21	.15	.10	56	1,290	19	11	3.7	.20	.13	.04	.14	.14
22	.16	.12	7.6	234	17	8.5	3.8	.20	.07	.03	.14	.11
23	.17	.10	1.0	165	16	8.5	2.3	.26	.09	.22	.20	.09
24	.17	.10	109	430	11	8.0	2.2	.37	.07	.30	.19	.07
25	.16	.10	60	125	5.4	7.0	2.0	.79	.09	.17	.17	.06
26	.14	.10	20	75	5.7	7.0	3.5	.50	.12	.12	.14	.06
27	.13	.12	11	240	12	6.5	4.0	.19	.12	.05	.13	.07
28	.11	.12	6.3	120	32	6.0	2.6	.17	.11	.04	.17	.07
29	.10	.12	4.6	65	-----	5.5	1.8	.20	.07	.04	.21	.06
30	.10	.12	3.6	50	-----	5.5	1.5	.19	.07	.10	.19	.05
31	.09	-----	2.9	40	-----	5.0	-----	.17	-----	.14	.16	-----
TOTAL	4.04	3.82	335.48	4,917.4	778.1	840.6	106.0	15.35	4.55	4.69	4.18	2.45
MEAN	.13	.13	10.8	159	27.8	27.1	3.53	.50	.15	.15	.13	.082
MAX	.36	.32	109	1,290	111	255	5.7	1.3	.33	1.7	.21	.20
MIN	.05	.09	.12	1.6	5.4	3.9	1.5	.17	.07	.03	.05	.04
AC-FT	8.0	7.6	665	9,750	1,540	1,670	210	30	9.0	9.3	8.3	4.9

CAL YR 1969	TOTAL	12,425.98	MEAN	34.0	MAX	911	MIN	.02	AC-FT	24,650
WTR YR 1970	TOTAL	7,016.66	MEAN	19.2	MAX	1,290	MIN	.03	AC-FT	13,920

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	1245	11.38	1,820	1-23	2400	8.81	1,100
1-21	0800	12.62	2,200	3- 4	1245	7.25	713

SAN FRANCISQUITO CREEK BASIN

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.--37.5 sq mi.

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.--31 years, 18.3 cfs (13,260 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,110 cfs Jan. 21 (gage height, 7.44 ft); minimum daily, 0.01 cfs July 19-21, 24, Aug. 16.
Period of record: Maximum discharge, 5,560 cfs Dec. 22, 1955 (gage height, 13.60 ft); no flow at times.

REMARKS.--Records good. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.14	.16	.17	45	80	4.1	.14	.05	.03	.02	.12
2	.36	.03	.24	.12	37	40	3.6	.14	.05	.03	.14	.07
3	.58	.11	.24	.11	31	30	3.4	.14	.04	.04	.08	.08
4	.76	.24	.24	.10	30	320	2.8	.24	.04	.02	.16	.23
5	1.1	2.7	.30	.08	29	137	2.6	.23	.04	.51	.04	.27
6	1.3	.75	.33	.08	26	66	2.6	.20	.04	.18	.03	.22
7	1.1	.46	.39	.08	26	49	1.9	.20	.04	.04	.03	.09
8	1.0	.37	.67	.10	24	42	1.6	.21	.04	.04	.04	.14
9	1.0	.36	8.4	12	18	35	1.4	.22	.05	.03	.05	.11
10	1.2	.31	.60	29	14	30	1.4	.25	.03	.03	.04	.11
11	1.1	.28	9.4	55	16	27	1.1	.21	.02	.03	.04	.22
12	.58	.31	.33	23	25	26	1.2	.22	.02	.04	.02	.16
13	.35	.30	.20	6.7	33	24	1.6	.22	.03	.04	.02	.24
14	.50	.43	.31	759	51	23	2.0	.23	.03	.03	.02	.14
15	3.3	.43	.47	168	33	20	1.6	.23	.03	.03	.02	.16
16	1.0	.51	.52	939	60	15	1.3	.21	.03	.03	.01	.21
17	1.7	.51	.60	187	139	6.6	.48	.25	.03	.02	.03	.15
18	.17	.51	.73	80	60	5.7	.37	.30	.03	.02	.03	.19
19	.07	.51	13	47	36	5.2	.98	.39	.02	.01	.03	.30
20	.08	.60	9.6	101	30	7.1	2.1	.58	.03	.01	.03	.47
21	.08	.51	59	1,740	24	13	1.5	.62	.03	.01	.03	.26
22	.09	.51	8.1	303	22	9.5	1.2	.61	.03	.02	.02	.24
23	.17	.51	.27	205	21	10	.44	.53	.02	.02	.02	.28
24	.24	.30	108	533	17	9.8	.43	.33	.02	.01	.02	.16
25	.24	.11	64	168	6.3	8.5	.43	.30	.02	.02	.13	.15
26	.18	.08	22	95	4.9	7.4	.43	.36	.03	.02	.28	.13
27	.18	.11	12	301	14	6.6	.43	.22	.05	.04	.12	.13
28	.13	.11	7.0	125	39	5.7	.24	.16	.06	.04	.09	.20
29	.18	.11	2.8	77	-----	6.3	.24	.14	.03	.03	.06	.29
30	.18	.14	2.0	61	-----	5.7	.18	.10	.03	.04	.08	.44
31	.18	-----	3.0	51	-----	4.9	-----	.06	-----	.04	.13	-----
TOTAL	19.45	12.40	334.95	6,066.54	961.2	1,076.0	43.65	8.24	1.01	1.50	1.86	5.96
MEAN	.63	.41	10.8	196	34.3	34.7	1.46	.27	.034	.048	.060	.20
MAX	3.3	2.7	108	1,740	139	320	4.1	.62	.06	.51	.28	.47
MIN	.07	.03	.16	.09	4.9	4.9	.18	.06	.02	.01	.01	.07
AC-FT	39	25	664	12,030	1,910	2,130	87	16	2.0	3.0	3.7	12

CAL YR 1969 TOTAL 16,360.94 MEAN 44.0 MAX 1,080 MIN .03 AC-FT 31,860
WTR YR 1970 TOTAL 8,532.76 MEAN 23.4 MAX 1,740 MIN .01 AC-FT 16,920

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	1245	6.09	2,160	1-23	2400	5.00	1,400
1-21	0700	7.44	3,110	3- 4	1315	4.32	962

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.--18 years, 1.63 cfs (1,180 acre-ft per year); median of yearly mean discharges, 1.1 cfs (800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 368 cfs Mar. 4 (gage height, 3.10 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 Nov. 27.

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.

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	.12	.14	.08	.08	.85	12	.12	.17	.18	.19	.16	.21
2	.13	.15	.13	.07	.66	1.0	.20	.15	.15	.18	.15	.23
3	.14	.14	.12	.07	.59	.69	.16	.16	.16	.18	.15	.23
4	.12	.17	.12	.07	.57	79	.17	.17	.20	.22	.18	.21
5	.24	5.8	.10	.16	.44	9.3	.14	.16	.21	.17	.18	.18
6	.14	.32	.11	.06	.37	3.3	.14	.16	.17	.19	.18	.18
7	.16	.13	.10	.40	.37	1.5	.17	.18	.18	.19	.27	.20
8	.16	.11	3.8	.07	.31	.80	.14	.17	.17	.18	.26	.18
9	.18	.11	.17	14	2.7	.60	.14	.15	.23	.23	.24	.20
10	.19	.09	1.9	5.0	.74	.40	.16	.17	.16	.22	.21	.20
11	.17	.08	.20	26	.24	.35	.14	.14	.19	.20	.18	.21
12	.17	.09	.10	.71	5.8	.30	.13	.24	.21	.18	.18	.21
13	.15	.08	.10	.20	18	.25	.48	.14	.16	.18	.17	.20
14	.14	.09	.08	82	2.1	.20	.14	.15	.15	.19	.17	.18
15	4.7	.08	.10	15	1.1	.18	.16	.15	.16	.20	.23	.21
16	3.0	.08	.10	71	7.0	.18	.15	.12	.22	.19	.19	.20
17	1.3	.09	.10	26	4.4	.16	.20	.13	.17	.20	.17	.16
18	.11	.13	.14	3.6	1.5	.16	.14	.14	.19	.16	.22	.19
19	.11	.12	7.5	2.0	.89	.16	.14	.14	.21	.17	.23	.17
20	.11	.11	.73	15	.73	.15	.15	.15	.19	.16	.22	.17
21	.11	.10	17	120	.54	.15	.16	.16	.17	.18	.20	.17
22	.10	.10	.20	8.7	.41	.15	.14	.16	.18	.16	.19	.20
23	.12	.11	.08	31	.39	.15	.15	.13	.20	.21	.28	.23
24	.13	.11	5.4	37	.39	.15	.16	.14	.17	.20	.24	.22
25	.13	.13	8.5	5.8	.33	.15	.15	.17	.18	.17	.21	.20
26	.15	.09	.20	2.8	.40	.14	.14	.15	.19	.16	.18	.20
27	.13	.04	.08	29	2.3	.12	.15	.17	.18	.19	.18	.21
28	.15	.06	.08	3.6	7.9	.17	.17	.18	.18	.17	.23	.19
29	.13	.06	.09	1.9	-----	.10	.15	.16	.16	.36	.22	.20
30	.13	.05	.08	1.4	-----	.12	.17	.13	.20	.45	.20	.21
31	.17	-----	.08	1.1	-----	.12	-----	.14	-----	.18	.19	-----
TOTAL	12.99	8.96	47.57	503.79	62.02	112.20	4.91	4.84	5.47	6.21	6.26	5.95
MEAN	.42	.30	1.53	16.3	2.22	3.62	.16	.16	.18	.20	.20	.20
MAX	4.7	5.8	17	120	18	79	.48	.24	.23	.45	.28	.23
MIN	.10	.04	.08	.06	.24	.10	.12	.12	.15	.16	.15	.16
AC-FT	26	18	94	999	123	223	9.7	9.6	11	12	12	12
CAL YR 1969	TOTAL	1,972.75	MEAN	5.40	MAX	159	MIN	.02	AC-FT	3,910		
WTR YR 1970	TOTAL	781.16	MEAN	2.14	MAX	120	MIN	.04	AC-FT	1,550		

PEAK DISCHARGE (BASE, 200 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	0900	2.90	328	1-23	2315	2.80	309
1-21	0700	2.63	277	3- 4	1215	3.10	368

STEVENS CREEK BASIN

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, 3,870 acre-ft Mar. 18 (elevation, 537.17 ft); minimum observed, 391 acre-ft Dec. 8 (elevation, 479.62 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.--Revised figure of contents, in acre-feet, for water year 1969, superseding that published in WRD Calif. 1969, is given herewith:

Sept. 30, 1969 677

Month-end contents, in acre-feet (including momentary storage above spillway crest), water year October 1969 to September 1970

Date	Contents
Sept. 30, 1969.....	677
Oct. 31.....	610
Nov. 30.....	446
Dec. 31.....	855
Jan. 31, 1970.....	3,240
Feb. 28.....	3,840
Mar. 31.....	3,790
Apr. 30.....	3,770
May 31.....	3,540
June 30.....	2,910
July 31.....	2,280
Aug. 31.....	1,350
Sept. 30.....	550

NOTE.--Contents at 0800 on first day of following 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.--12 years, 18.6 cfs (13,480 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 480 cfs Mar. 1 (gage height, 3.29 ft); minimum daily, 1.6 cfs Aug. 24, 25.
 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. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	3.8	5.4	1.7	142	215	14	11	6.0	12	8.2	2.1
2	4.2	4.0	5.4	1.7	79	129	14	11	6.0	12	8.2	6.0
3	4.4	4.2	5.4	1.7	18	114	14	11	8.1	12	7.8	7.8
4	4.4	4.2	5.4	4.0	16	197	13	11	14	12	7.5	8.6
5	4.8	4.8	5.4	7.5	16	138	13	10	15	12	9.4	9.0
6	4.8	4.8	5.4	9.0	15	120	13	9.4	16	12	9.8	9.4
7	4.6	4.8	5.4	9.0	15	114	13	6.6	16	12	9.0	12
8	4.6	4.8	6.0	9.0	15	86	9.8	6.3	18	12	6.0	13
9	4.8	4.8	6.0	26	13	49	9.0	6.0	18	12	6.0	15
10	4.8	4.8	8.6	14	5.4	51	9.0	6.3	16	12	6.3	16
11	4.8	5.1	9.8	15	4.0	49	9.0	6.3	15	13	6.6	16
12	4.8	5.7	5.4	5.7	4.4	42	8.2	5.7	14	13	5.1	17
13	5.1	5.4	4.0	5.1	4.2	36	7.8	6.0	12	13	5.1	18
14	5.1	5.4	3.5	68	3.5	36	7.8	7.2	12	12	5.1	18
15	6.6	5.4	3.3	16	3.5	32	7.8	11	12	13	4.6	18
16	6.6	5.4	3.1	55	4.0	23	7.8	12	12	13	4.6	18
17	6.9	5.7	2.9	23	4.6	20	7.8	13	12	12	4.6	18
18	6.3	5.7	2.9	12	3.8	18	7.8	13	12	10	2.9	18
19	5.7	6.0	3.5	8.2	3.3	17	8.2	13	12	9.8	2.2	18
20	5.4	6.3	3.5	6.6	4.0	18	7.8	13	12	9.4	2.1	18
21	4.8	6.3	5.4	10	5.7	21	8.6	8.6	12	9.0	1.8	18
22	4.6	6.3	2.2	7.2	7.5	22	10	7.5	12	9.0	1.8	18
23	4.6	6.3	2.1	22	12	20	10	7.5	12	8.2	1.7	17
24	4.4	6.3	2.1	117	13	15	9.8	7.5	12	9.0	1.6	17
25	4.4	6.3	2.2	145	14	15	11	7.8	12	8.2	1.6	18
26	4.2	6.3	2.0	169	14	15	11	7.5	12	9.0	1.7	22
27	4.0	6.3	2.0	169	16	15	11	7.2	12	8.6	1.7	24
28	3.8	5.4	2.0	157	17	14	11	6.3	12	8.2	1.7	25
29	3.8	5.4	2.0	154	-----	14	11	6.3	12	7.8	1.7	24
30	3.8	5.4	1.8	151	-----	14	11	5.7	12	7.8	1.7	24
31	3.8	-----	1.7	145	-----	14	-----	5.7	-----	7.8	1.7	-----
TOTAL	148.9	161.4	125.8	1,544.4	472.9	1,683	306.2	266.4	378.1	330.8	139.8	482.9
MEAN	4.80	5.38	4.06	49.8	16.9	54.3	10.2	8.59	12.6	10.7	4.51	16.1
MAX	6.9	6.3	9.8	169	142	215	14	13	18	13	9.8	25
MIN	3.8	3.8	1.7	1.7	3.3	14	7.8	5.7	6.0	7.8	1.6	2.1
AC-FT	295	320	250	3,060	938	3,340	607	528	750	656	277	958

CAL YR 1969 TOTAL 15,178.0 MEAN 41.6 MAX 797 MIN 1.6 ACFT 30,110
 WAT YR 1970 TOTAL 6,040.6 MEAN 16.5 MAX 215 MIN 1.6 ACFT 11,980

GUADALUPE RIVER BASIN

11167660 ROSS CREEK AT SAN JOSE, CALIF.

LOCATION.--Lat 37°14'56", long 121°54'45", in SE $\frac{1}{4}$ sec.12, T.8 S., R.1 W., Santa Clara County, on right bank at south city limits of San Jose, 200 ft upstream from Harwood Avenue, and 600 ft downstream from Lone Hill Creek.

DRAINAGE AREA.--5.72 sq mi.

PERIOD OF RECORD.--October 1961 to September 1970 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 204.4 ft above mean sea level (levels by Santa Clara County Flood Control and Water Conservation District). Prior to Apr. 13, 1965, at site 500 ft upstream at different datum.

EXTREMES.--Current year: Maximum discharge, 365 cfs Mar. 1 (gage height, 5.18 ft), from rating curve extended as explained below; no flow Dec. 13, May 19.
 Period of record: Maximum discharge, 763 cfs Jan. 30, 1968 (gage height, 6.62 ft), from rating curve extended above 150 cfs on basis of slope-area measurement at 6.22 ft; no flow many days in each year.

REMARKS.--Records good. Water imported from South Bay Aqueduct and released into creek 1.5 miles above station totaled 2,620 acre-ft for the water year 1970. During periods of high flows, no water imported.

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	3.0	4.1	4.0	3.5	.30	66	3.7	.03	.03	3.1	5.4	5.3
2	2.9	4.2	4.0	3.3	.20	5.5	3.3	.05	.03	1.6	5.4	5.3
3	2.9	4.2	4.0	3.3	.17	2.7	3.0	.03	.03	6.0	5.3	5.3
4	3.0	4.3	4.0	3.3	14	60	3.1	.02	.02	5.4	5.3	5.1
5	3.0	12	4.0	3.5	.52	8.4	2.9	.02	.03	5.4	5.4	5.1
6	3.0	4.0	4.0	3.3	1.1	4.1	3.0	.02	.03	5.4	5.1	5.0
7	3.0	3.7	4.0	3.5	1.1	2.8	3.0	.02	.03	5.4	5.1	4.9
8	3.0	4.2	5.4	2.1	1.1	2.5	2.8	.02	.26	5.4	5.2	4.8
9	3.0	4.4	3.7	30	1.4	2.1	2.8	.02	4.2	5.3	5.1	4.8
10	3.1	4.0	4.8	1.1	1.0	1.5	2.9	.02	4.2	5.6	5.1	4.8
11	3.0	4.0	4.6	11	1.0	1.7	3.0	.02	4.4	5.7	5.1	4.7
12	3.0	4.0	.02	1.0	12	2.5	2.8	.01	4.4	5.7	5.4	4.8
13	3.0	4.0	0	.15	10	2.3	2.3	.02	4.4	5.7	5.5	4.7
14	3.3	3.7	.20	45	1.8	2.0	4.0	.02	4.4	5.7	3.8	4.7
15	8.0	3.7	4.2	7.5	1.4	1.9	4.5	.02	4.4	5.4	.01	4.8
16	3.0	3.7	4.0	25	5.4	1.9	3.3	.02	4.4	5.4	.01	4.7
17	3.5	3.7	4.0	7.4	2.4	1.9	1.5	.02	4.4	5.5	.02	1.9
18	2.8	3.7	4.4	2.2	1.4	1.9	.02	.01	4.2	5.7	.01	3.8
19	2.8	4.0	13	1.8	1.3	1.8	.02	0	2.4	5.3	.03	3.9
20	2.8	4.0	3.5	5.4	1.4	1.8	.02	.01	1.4	5.1	.02	3.7
21	2.8	3.7	12	9.3	2.1	1.7	.02	1.1	3.7	3.6	.05	3.7
22	2.8	4.0	.09	1.6	2.1	1.3	.08	4.6	3.7	5.2	.06	3.8
23	2.8	4.0	.01	17	2.1	.09	.20	4.6	3.7	5.2	.07	3.8
24	2.8	3.7	1.1	9.9	1.9	.07	.19	4.6	3.7	5.3	.03	4.0
25	2.8	4.0	3.3	2.6	2.1	.17	.11	4.6	3.7	5.4	1.1	4.0
26	2.8	4.0	1.6	1.5	2.1	.26	.03	4.8	3.7	5.7	4.4	4.1
27	2.8	3.7	3.5	7.4	5.7	.26	.02	4.8	3.7	5.4	4.5	4.2
28	2.8	4.0	3.5	1.0	11	.24	.02	4.8	3.7	5.3	4.7	4.1
29	2.8	4.0	3.5	.71	-----	.19	.02	5.0	3.7	5.3	4.8	4.1
30	2.8	4.0	3.3	.52	-----	.36	.03	3.1	3.7	5.1	4.9	4.2
31	3.5	-----	3.3	.38	-----	3.4	-----	.03	-----	5.1	5.1	-----
TOTAL	96.6	126.7	115.02	215.26	88.09	183.34	52.68	42.43	84.66	160.4	102.01	132.1
MEAN	3.12	4.22	3.71	6.94	3.15	5.91	1.76	1.37	2.82	5.17	3.29	4.40
MAX	8.0	12	13	45	14	66	4.5	5.0	4.4	6.0	5.5	5.3
MIN	2.8	3.7	0	.15	.17	.07	.02	0	.02	1.6	.01	1.9
AC-FT	192	251	228	427	175	364	104	84	168	318	202	262

CAL YR 1969	TOTAL 2,900.22	MEAN 7.95	MAX 100	MIN 0	AC-FT 5,750
WTR YR 1970	TOTAL 1,399.29	MEAN 3.83	MAX 66	MIN 0	AC-FT 2,780

PEAK DISCHARGE (BASE, 150 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	0945	4.93	310	3- 4	1145	5.00	325
3- 1	0615	5.18	365				

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, 1,700 acre-ft Jan. 25 (elevation, 605.46 ft); minimum observed, 207 acre-ft Sept. 30 (elevation, 561.45 ft). 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. 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, 10,070 acre-ft Mar. 9 (elevation, 482.87 ft); minimum observed, 5,900 acre-ft Dec. 17 (elevation, 468.62 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, 1963-69. Reservoir is formed by earthfill dam completed to crest elevation 482.55 ft in 1936 and raised to 483.50 ft (revised) in 1962. Capacity, 10,280 acre-ft between elevations 393.7 ft (center of outlet tunnel) and 483.50 ft, revised (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, 3,260 acre-ft Mar. 5 (elevation, 613.74 ft); no contents Oct. 1 to Dec. 29, Aug. 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, 6,330 acre-ft Mar. 13 (elevation, 1,111.79 ft); no contents Nov. 5. 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, 20,380 acre-ft Mar. 19 (elevation, 647.43 ft); minimum observed, 1,590 acre-ft Dec. 10 (elevation, 562.90 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, 1966-69. 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.

Month-end contents, in acre-feet (including momentary storage above spillway crest), water year October 1969 to September 1970

Date	Almaden Reservoir a	Calero Reservoir a	Guadalupe Reservoir a	Lake Elsmann b	Lexington Reservoir a
Sept. 30, 1969.....	801	6,490	0	728	7,450
Oct. 31.....	630	6,170	0	74	3,850
Nov. 30.....	460	5,980	0	58	1,700
Dec. 31.....	1,040	5,960	400	1,430	3,260
Jan. 31, 1970.....	799	9,330	2,520	6,140	14,090
Feb. 28.....	1,560	9,620	2,900	6,200	17,880
Mar. 31.....	1,580	9,980	3,230	6,310	19,720
Apr. 30.....	1,460	9,810	2,810	5,980	18,810
May 31.....	1,300	9,280	2,140	4,800	18,030
June 30.....	1,020	8,500	1,390	3,500	15,930
July 31.....	875	7,550	350	2,330	12,000
Aug. 31.....	655	7,160	0	1,150	7,800
Sept. 30.....	204	6,370	0	384	4,700

a Contents at 0800 on first day of following month.
 b Contents at 0800 on last day of month.

11168000 LOS GATOS CREEK AT LOS GATOS, CALIF.

LOCATION.--Lat 37°12'30", long 121°59'15", in NE $\frac{1}{4}$ 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 current year. 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).--32 years, 48.8 cfs (35,360 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 318 cfs Mar. 5 (gage height, 5.55 ft); minimum daily, 4.7 cfs Nov. 28.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	52	19	14	6.5	30	41	10	19	53	90	58
2	79	52	11	14	8.2	15	44	10	18	57	90	60
3	77	55	5.7	14	9.2	11	36	10	18	61	70	60
4	77	59	5.4	14	10	112	31	10	22	69	51	57
5	77	59	5.1	13	13	232	30	9.8	27	75	45	56
6	69	50	4.9	13	14	75	23	9.7	29	75	56	56
7	62	38	4.8	13	14	74	28	9.7	29	75	61	56
8	62	28	5.0	16	14	102	34	9.7	36	82	77	55
9	74	29	5.1	19	12	122	35	9.7	41	85	81	56
10	89	30	5.3	11	9.0	120	36	9.7	39	68	74	59
11	88	30	6.0	9.6	7.7	118	36	9.7	14	57	73	59
12	88	32	6.4	8.5	11	79	36	9.7	11	56	76	58
13	87	36	5.7	7.5	11	47	36	9.4	11	27	77	57
14	87	44	5.3	27	9.1	47	36	9.4	11	11	76	57
15	86	49	5.3	14	8.0	46	36	10	11	21	76	26
16	86	48	5.3	29	8.9	46	21	11	11	27	75	11
17	61	50	5.4	19	9.3	46	9.7	11	27	38	75	10
18	46	52	5.1	13	8.2	46	9.7	11	46	59	75	43
19	46	52	8.4	9.5	9.3	46	9.7	12	51	65	75	80
20	45	51	8.9	7.0	10	46	9.7	19	53	73	76	80
21	45	69	11	17	10	46	10	23	53	79	76	63
22	61	85	7.4	13	9.0	46	10	23	53	78	75	54
23	73	56	5.2	14	8.5	54	10	23	54	79	75	53
24	57	22	8.2	22	8.4	60	10	23	54	79	35	51
25	53	5.8	9.1	12	8.3	55	10	23	54	78	11	50
26	59	4.9	6.4	8.4	8.2	48	11	23	54	78	11	48
27	59	4.8	6.1	10	9.6	39	11	23	30	51	26	46
28	48	4.7	6.0	6.3	12	39	11	23	17	36	65	46
29	40	11	5.7	5.5	-----	39	10	23	35	43	85	45
30	40	19	9.6	5.4	-----	37	10	19	49	69	60	44
31	46	-----	14	5.5	-----	37	-----	18	-----	90	58	-----
TOTAL	2,046	1,178.2	221.8	404.2	276.4	1,960	680.8	454.5	977	1,894	2,026	1,554
MEAN	66.0	39.3	7.15	13.0	9.87	63.2	22.7	14.7	32.6	61.1	65.4	51.8
MAX	89	85	19	29	14	232	44	23	54	90	90	80
MIN	40	4.7	4.8	5.4	6.5	11	9.7	9.4	11	11	11	10
AC-FT	4,060	2,340	440	802	548	3,890	1,350	902	1,940	3,760	4,020	3,080
(a)	307	56	224	575	1,040	1,750	1,780	2,040	1,730	1,630	1,360	880
CAL YR 1969	TOTAL 30,905.8		MEAN 84.7		MAX 1,080		MIN 4.7		AC-FT 61,300		a 11,820	
WTR YR 1970	TOTAL 13,672.9		MEAN 37.5		MAX 232		MIN 4.7		AC-FT 27,120		a 13,370	

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, 2,010 cfs Jan. 14 (gage height, 4.83 ft); minimum daily, 0.07 cfs June 20.
 Period of record: Maximum discharge, 9,150 cfs Apr. 2, 1958 (gage height, 16.55 ft); no flow many days 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 9,210 acre-ft into Alamitos percolation ponds from Coyote Creek basin during current year.

REVISIONS (WATER YEARS).--WSP 1315-B: 1943(M), 1945(M), 1949(M). WRD Calif. 1968: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.30	.53	.98	93	730	2.9	.30	1.5	3.4	2.0	.24
2	1.8	.30	.54	4.8	76	233	1.2	.39	1.6	2.6	1.5	.34
3	2.0	.52	.50	4.3	21	132	5.6	.48	1.3	1.5	1.2	.37
4	1.8	.40	.56	3.7	15	560	1.5	.47	1.6	1.5	1.2	.30
5	1.2	82	.87	.85	12	532	.92	.52	.43	1.7	1.7	.37
6	1.1	11	1.1	.46	10	272	.78	.53	.56	1.1	1.7	.20
7	2.7	2.7	.89	.81	10	200	3.8	.45	1.2	.78	1.4	.25
8	1.8	1.6	18	.50	5.1	162	5.8	.57	1.5	.64	1.5	.33
9	2.1	1.2	2.8	230	12	130	3.8	.48	1.1	1.5	2.7	.33
10	2.4	.54	5.2	44	13	139	4.0	1.5	1.2	1.5	2.4	.35
11	1.3	2.6	3.2	153	3.1	118	1.9	1.9	1.5	1.5	2.9	.52
12	1.0	1.7	1.3	22	32	89	1.1	2.2	2.4	2.4	2.7	.34
13	1.1	2.2	.48	16	61	45	2.7	1.9	1.9	2.6	2.4	.20
14	.80	1.4	.31	442	20	41	2.9	1.1	1.9	2.9	2.2	.16
15	30	.91	3.9	109	12	38	1.1	.98	1.5	2.9	2.0	.32
16	11	.85	1.8	283	22	24	2.7	1.2	.92	2.7	.52	1.1
17	3.5	.59	1.0	115	48	20	1.1	1.0	.78	4.5	.52	.88
18	1.5	.66	2.7	52	16	15	.52	.37	.52	7.6	.22	.41
19	4.0	.68	55	31	2.9	12	1.1	.29	.22	4.9	.22	.68
20	1.4	.83	16	34	.64	11	1.4	.21	.07	4.3	1.8	.62
21	3.9	.78	110	89	.52	19	.64	.22	.10	3.8	2.0	.86
22	1.4	1.5	14	35	.52	23	.30	.16	.40	4.9	.88	1.2
23	.64	1.1	2.9	59	.52	21	.64	1.2	.40	6.0	.75	1.3
24	.40	.78	1.9	232	.52	13	.92	4.4	.78	4.3	.59	.60
25	.40	2.3	25	127	2.9	11	1.5	3.3	.64	4.2	.45	.51
26	.40	1.6	2.0	132	4.9	9.1	2.7	1.4	1.2	4.3	.25	2.1
27	.40	.92	.80	180	24	7.6	2.6	1.4	1.7	4.3	.24	3.2
28	.40	.64	3.4	130	56	7.0	.92	1.3	2.7	4.3	.18	2.4
29	.64	.57	5.0	117	-----	7.0	.78	1.3	2.9	2.9	.20	2.2
30	.40	.54	1.3	106	-----	6.2	.40	1.2	3.3	2.9	.15	2.3
31	.40	-----	1.1	93	-----	5.3	-----	1.4	-----	2.7	.20	-----
TOTAL	83.58	123.71	284.08	2,847.40	578.62	3,632.2	58.22	34.12	37.82	97.12	39.15	24.98
MEAN	2.70	4.12	9.16	91.9	20.7	117	1.94	1.10	1.26	3.13	1.26	.83
MAX	30	82	110	442	93	730	5.8	4.4	3.3	7.6	2.9	3.2
MIN	.40	.30	.31	.46	.52	5.3	.30	.16	.07	.64	.18	.16
AC-FT	166	245	563	5,650	1,150	7,200	115	68	75	193	78	50

CAL YR 1969 TOTAL 46,259.19 MEAN 127 MAX 2,070 MIN .22 AC-FT 91,760
 WTR YR 1970 TOTAL 7,841.00 MEAN 21.5 MAX 730 MIN .07 AC-FT 15,550

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).--37 years, 9.93 cfs (7,190 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 406 cfs Mar. 4 (gage height, 4.75 ft, from floodmark); minimum daily, 0.14 cfs May 30.

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 except those for periods of no gage-height record, which are fair. Water is diverted for municipal use by San Jose Water Works at diversion dam above station.

COOPERATION.--One discharge measurement furnished by Santa Clara County Flood Control and Water District.

REVISIONS (WATER YEARS).--WSP 1445: 1940, 1952(M). WSP 1929: Drainage area.

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	1.0	1.2	1.5	3.9	26	40	3.7	.74	.56	.33	.42	.87
2	1.4	1.4	1.4	3.6	24	25	2.9	.48	.82	.39	.30	.78
3	1.4	1.3	1.4	2.9	22	12	2.6	.60	.33	.30	.36	.78
4	1.3	1.3	1.4	2.9	20	110	2.4	.48	.30	.24	.30	.78
5	1.3	4.4	1.4	2.8	17	59	2.3	.56	.36	.24	.39	.82
6	1.5	2.5	1.4	2.0	13	58	2.7	.74	.42	.33	.48	.74
7	1.5	2.2	1.5	.69	13	52	2.5	.60	.33	.30	.45	.74
8	1.4	2.1	1.6	.45	13	47	2.4	.56	.33	.36	.45	.74
9	1.3	1.8	1.6	32	12	43	2.3	.48	.36	.21	.36	.78
10	1.5	1.8	2.1	23	11	38	2.2	.48	.39	.18	.74	.74
11	1.5	1.5	3.1	18	12	34	1.9	.39	.24	.21	.48	.74
12	1.9	1.5	4.5	15	12	31	2.1	.42	.27	.24	.60	.69
13	2.4	1.5	3.1	14	20	23	2.3	.39	.24	.30	.82	.74
14	2.5	1.5	2.5	136	12	20	2.3	.42	.45	.27	1.0	.69
15	5.8	1.5	2.4	50	8.5	19	2.1	.48	.42	1.0	1.0	.69
16	4.4	1.5	2.1	153	12	17	1.9	.30	.36	.82	1.0	.69
17	2.2	1.6	2.0	93	30	15	1.8	.33	.30	.33	1.0	.69
18	1.6	1.4	2.1	50	23	13	1.4	.48	.24	.30	1.1	.69
19	1.5	1.4	2.9	47	20	11	1.5	.33	.45	.33	1.0	.69
20	1.3	1.4	2.2	37	16	10	1.3	.52	.33	.24	1.0	.69
21	1.3	1.4	4.4	91	17	9.9	.87	.30	.30	.33	1.1	.78
22	1.2	1.4	1.2	62	17	9.1	.78	.16	.30	.42	1.1	.74
23	1.3	1.4	7.2	78	14	8.3	.96	.24	.68	.45	1.1	.74
24	1.3	1.4	1.6	95	12	7.8	.78	.27	.36	.30	1.0	.74
25	1.4	1.4	2.6	57	12	7.4	.82	1.1	.39	.30	.92	.74
26	1.5	1.4	1.4	42	10	8.1	.87	.39	.36	.24	.96	.74
27	1.5	1.3	9.6	47	9.1	5.6	.74	.45	.21	.24	.96	.69
28	1.4	1.3	7.2	37	20	5.4	.78	.72	.30	.24	.96	.64
29	1.3	1.3	5.4	32	-----	4.9	.74	.21	.61	.18	.96	.64
30	1.3	1.5	4.9	29	-----	4.7	.74	.14	.21	.24	.96	.64
31	1.3	-----	4.2	27	-----	4.0	-----	.21	-----	.30	.96	-----
TOTAL	53.5	48.6	238.6	1,284.24	447.6	752.2	52.68	13.97	11.22	10.16	24.23	21.86
MEAN	1.73	1.62	7.70	41.4	16.0	24.3	1.76	.45	.37	.33	.78	.73
MAX	5.8	4.4	4.4	153	30	110	3.7	1.1	.82	1.0	1.1	.87
MIN	1.0	1.2	1.4	.45	8.5	4.0	.74	.14	.21	.18	.30	.64
AC-FT	106	96	473	2,550	888	1,490	104	28	22	20	48	43
(a)	0	0	0	10	102	212	388	314	227	127	26	0

CAL YR 1969	TOTAL	7,922.92	MEAN	21.7	MAX	363	MIN	.08	ACFT	15,720
WAT YR 1970	TOTAL	2,958.86	MEAN	8.11	MAX	153	MIN	.14	ACFT	5,870

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	a
12-21	0930	4.20	198	1-23	2300	4.58	330	San Jose Water Works.
1-14	0930	4.70	382	3- 4	unknown	4.75	406	NOTE.--No gage-height record Feb. 28 to Mar. 4.
1-16	0730	4.60	338					

COYOTE CREEK BASIN

11169800 COYOTE CREEK NEAR GILROY, CALIF.

LOCATION.--Lat 37°04'40", long 121°29'36", in NE¼SE¼ 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.--10 years, 48.7 cfs (35,280 acre-ft per year); median of yearly mean discharges, 4.4 cfs (31,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,720 cfs Jan. 16 (gage height, 10.08 ft); no flow 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 loads for the water year 1970 are published in Part 2 of this report.

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	0	0	0	4.9	58	1,410	18	8.3	1.9	.70	.03	.02
2	0	0	0	4.3	48	613	18	7.6	1.7	.68	.03	.02
3	0	0	0	3.9	42	325	17	7.4	1.6	.74	.03	.02
4	0	0	0	3.5	39	628	17	7.2	1.5	.72	.06	.02
5	0	0	0	3.2	34	559	16	7.0	1.4	.69	.07	.02
6	0	0	0	2.9	30	328	15	7.0	1.3	.65	.14	.01
7	0	0	0	3.0	28	239	15	7.2	1.3	.59	.13	.01
8	0	0	0	3.4	25	190	14	6.8	1.2	.39	.12	.01
9	0	0	0	3.8	24	152	14	6.7	1.4	.08	.10	0
10	0	0	0	146	26	131	13	6.4	1.4	.03	.13	0
11	0	0	0	210	23	100	13	6.3	1.6	.03	.12	0
12	0	0	0	123	25	85	13	6.2	1.6	.03	.10	0
13	0	0	0	59	44	74	13	6.0	1.4	.03	.13	0
14	0	0	0	569	49	62	16	6.0	1.4	.03	.09	0
15	0	0	0	461	36	55	18	5.7	1.3	.03	.06	0
16	0	0	0	2,360	34	50	15	5.4	1.1	.03	.03	0
17	0	0	0	1,160	224	46	13	5.1	1.0	.03	.04	0
18	0	0	0	332	128	39	12	4.8	1.0	.03	.03	0
19	0	0	0	154	82	36	12	4.3	.99	.03	.03	0
20	0	0	0	111	64	34	12	4.2	.95	.03	.03	0
21	0	0	29	1,650	52	33	11	4.2	.95	.03	.03	0
22	0	0	33	604	44	30	11	3.9	.88	.03	.03	0
23	0	0	12	294	39	29	10	3.6	.85	.03	.03	0
24	0	0	13	724	36	27	9.8	3.2	.79	.03	.03	0
25	0	0	113	375	32	26	9.6	3.1	.78	.03	.03	0
26	0	0	48	227	30	25	9.6	3.0	.78	.03	.03	0
27	0	0	23	196	28	23	10	2.9	.76	.03	.03	0
28	0	0	14	140	143	22	9.5	2.8	.76	.03	.03	0
29	0	0	10	104	-----	21	9.0	2.7	.76	.03	.03	0
30	0	0	7.2	84	-----	20	8.6	2.3	.71	.03	.03	0
31	0	-----	5.8	69	-----	19	-----	2.1	-----	.03	.03	-----
TOTAL	0	0	308.0	10,219.1	1,467	5,431	392.1	159.4	35.06	5.90	1.83	0.13
MEAN	0	0	9.94	330	52.4	175	13.1	5.14	1.17	.19	.059	.004
MAX	0	0	113	2,360	224	1,410	18	8.3	1.9	.74	.14	.02
MIN	0	0	0	2.9	23	19	8.6	2.1	.71	.03	.03	0
AC-FT	0	0	611	20,270	2,910	10,770	778	316	70	12	3.6	.3

CAL YR 1969 TOTAL 47,600.09 MEAN 130 MAX 4,340 MIN 0 AC-FT 94,410
 WTR YR 1970 TOTAL 18,019.52 MEAN 49.4 MAX 2,360 MIN 0 AC-FT 35,740

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0815	10.08	4,720	3- 1	1000	8.52	3,060
1-21	0730	8.20	2,740	3- 4	1600	6.85	1,450

COYOTE CREEK BASIN

RESERVOIRS IN COYOTE CREEK BASIN, CALIF.

11169850 COYOTE LAKE.--Lat 37°07'06", long 121°32'55", in SE $\frac{1}{4}$ 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, 25,210 acre-ft Mar. 1, 2 (elevation, 779.63 ft); minimum observed, 11,440 acre-ft Jan. 6 (elevation, 755.12 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 (revised) 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, 86,890 acre-ft Apr. 6 (elevation, 621.35 ft); minimum observed, 62,000 acre-ft Sept. 30 (elevation, 598.07 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.

Month-end contents, in acre-feet (including momentary storage above spillway crest), water year October 1969 to September 1970

Date	Coyote Lake	Anderson Lake
Sept. 30, 1969.....	15,030	79,180
Oct. 31.....	13,500	74,540
Nov. 30.....	12,220	71,810
Dec. 31.....	11,610	68,400
Jan. 31, 1970.....	23,930	76,330
Feb. 28.....	25,210	78,480
Mar. 31.....	23,730	86,840
Apr. 30.....	23,590	84,700
May 31.....	23,360	79,420
June 30.....	22,770	74,270
July 31.....	21,950	69,500
Aug. 31.....	20,650	64,300
Sept. 30.....	18,200	61,920

NOTE.--Contents at 0800 on first day of following month.

COYOTE CREEK BASIN

369

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.--64 years, 66.1 cfs (47,890 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 346 cfs Mar. 10 (gage height, 3.24 ft); minimum daily, 5.5 cfs Apr. 8.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	65	49	30	131	8.2	7.0	85	78	80	58	89
2	88	50	24	27	116	6.2	7.0	83	72	80	58	89
3	88	50	17	27	93	6.1	8.4	80	72	80	58	89
4	88	50	48	31	80	51	7.7	80	74	83	58	88
5	89	58	48	33	78	152	7.1	77	77	83	58	89
6	92	62	48	30	65	183	7.0	77	77	80	73	77
7	103	62	48	27	59	143	6.0	80	76	77	83	70
8	101	62	48	26	59	234	5.5	80	77	77	83	63
9	102	55	43	22	59	239	12	77	77	80	83	58
10	102	54	44	9.5	34	232	23	72	76	80	83	58
11	102	52	56	10	6.8	152	31	72	77	80	82	58
12	103	52	56	9.9	6.9	111	31	72	77	80	82	60
13	103	38	56	9.9	7.0	94	31	75	78	83	82	60
14	102	59	56	12	6.8	69	31	80	78	80	83	55
15	104	63	56	11	6.8	60	42	80	78	80	83	51
16	100	63	56	12	7.0	60	50	77	78	80	83	50
17	98	63	56	11	7.0	29	50	77	77	80	87	50
18	98	63	56	11	6.7	7.6	44	80	77	80	89	50
19	98	59	56	11	6.5	7.6	42	83	76	83	88	55
20	95	56	59	11	6.2	8.3	42	85	76	77	89	58
21	94	56	59	11	6.3	8.2	40	85	77	70	89	58
22	91	55	56	11	6.2	8.3	44	85	78	63	89	56
23	88	54	85	43	6.2	8.3	54	85	78	59	88	56
24	88	43	99	90	6.2	8.3	61	83	79	54	87	55
25	87	50	99	94	6.2	8.3	67	83	83	56	88	57
26	84	50	99	94	6.2	8.3	70	80	86	56	90	59
27	80	50	99	94	6.2	8.3	70	83	86	59	89	59
28	80	50	99	115	6.9	6.8	70	80	86	59	90	59
29	80	52	132	131	-----	7.5	75	83	86	60	90	59
30	80	52	173	130	-----	7.4	85	75	83	58	89	58
31	80	-----	88	130	-----	8.0	-----	72	-----	59	89	-----
TOTAL	2,871	1,648	2,068	1,314.3	892.1	1,940.7	1,120.7	2,466	2,350	2,256	2,521	1,893
MEAN	92.6	54.9	66.7	42.4	31.9	62.6	37.4	79.5	78.3	72.8	81.3	63.1
MAX	104	65	173	131	131	239	85	85	86	83	90	89
MIN	80	38	17	9.5	6.2	6.1	5.5	72	72	54	58	50
AC-FT	5,690	3,270	4,100	2,610	1,770	3,850	2,220	4,890	4,660	4,470	5,000	3,750
(a)	51	245	311	106	6	314	352	379	331	85	476	333

CAL YR 1969 TOTAL 39,709.0 MEAN 109 MAX 3,200 MIN 3.6 AC-FT 78,760 a 2,700
 WTR YR 1970 TOTAL 23,340.8 MEAN 63.9 MAX 239 MIN 5.5 AC-FT 46,300 a 2,990

a Diversion, in acre-feet, to Main Avenue percolation ponds, furnished by Santa Clara County Flood Control and Water District.

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.--9 years, 4.72 cfs (3,420 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 227 cfs Mar. 1 (gage height, 4.46 ft); minimum daily, 0.05 cfs Sept. 29.

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 most 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.22	.36	.58	5.4	93	1.3	.72	.41	.27	.30	.21
2	.20	.23	.36	.60	4.3	41	1.2	.65	.41	.34	.30	.20
3	.24	.24	.35	.52	3.3	20	1.2	.65	.46	.27	.30	.25
4	.19	.25	.36	.51	3.1	38	1.2	.58	.41	.20	.30	.27
5	.22	.69	.36	.52	2.7	34	1.1	.58	.36	.14	.30	.22
6	.23	.40	.36	.52	2.5	21	1.1	.58	.36	.17	.24	.26
7	.21	.34	.35	.52	2.2	16	1.1	.65	.41	.23	.28	.25
8	.21	.32	.50	.52	2.1	14	.98	.65	.46	.46	.18	.51
9	.30	.31	.36	.97	1.9	11	.98	.65	.62	.53	.22	.17
10	.34	.30	.40	1.1	2.1	12	.98	.72	.52	.52	.21	.24
11	.24	.29	.41	2.0	1.8	8.1	.88	.72	.48	.47	.17	.20
12	.23	.29	.41	1.8	2.1	6.5	.88	.65	.45	.46	.25	.22
13	.28	.29	.41	1.2	3.1	5.7	1.3	.65	.41	.42	.24	.29
14	.32	.30	.43	15	4.0	4.9	1.8	.58	.47	.41	.23	.29
15	.53	.32	.43	8.1	3.1	4.3	1.7	.58	.42	.37	.22	.21
16	.44	.38	.45	45	3.1	3.8	1.3	.65	.40	.36	.29	.21
17	.80	.33	.45	18	8.9	3.5	1.1	.88	.45	.33	.27	.17
18	.39	.36	.45	10	5.7	3.1	.98	.88	.42	.31	.24	.20
19	.38	.34	.59	6.2	4.0	2.5	1.4	.88	.35	.30	.33	.14
20	.34	.37	.63	8.0	3.3	2.5	1.4	.72	.34	.30	.24	.27
21	.35	.36	1.7	103	2.9	2.4	1.2	.72	.43	.30	.25	.24
22	.34	.38	1.1	33	2.7	2.4	1.1	.72	.39	.30	.24	.18
23	.30	.37	.76	17	2.5	2.2	.98	.72	.31	.30	.29	.24
24	.28	.38	.64	22	2.7	2.1	.98	.65	.21	.30	.28	.08
25	.26	.37	1.2	17	2.2	2.1	.80	.58	.16	.30	.23	.06
26	.26	.37	.80	12	2.2	1.9	.88	.65	.23	.30	.27	.16
27	.26	.35	.71	23	2.1	1.7	.98	.58	.35	.30	.27	.08
28	.23	.35	.64	16	3.1	1.5	.98	.58	.39	.30	.24	.09
29	.25	.35	.62	11	-----	1.5	.88	.52	.27	.30	.22	.05
30	.23	.36	.58	7.7	-----	1.4	.80	.52	.31	.30	.30	.08
31	.23	-----	.57	6.0	-----	1.4	-----	.46	-----	.30	.29	-----
TOTAL	9.34	10.21	17.74	389.36	89.1	365.5	33.46	20.32	11.66	10.16	7.99	6.04
MEAN	.30	.34	.57	12.6	3.18	11.8	1.12	.66	.39	.33	.26	.20
MAX	.80	.69	1.7	103	8.9	93	1.8	.88	.62	.53	.33	.51
MIN	.19	.22	.35	.51	1.8	1.4	.80	.46	.16	.14	.17	.05
AC-FT	19	20	35	772	177	725	66	40	23	20	16	12

CAL YR 1969 TOTAL 3,908.60 MEAN 10.7 MAX 219 MIN .17 AC-FT 7,750
WTR YR 1970 TOTAL 970.88 MEAN 2.66 MAX 103 MIN .05 AC-FT 1,930

PEAK DISCHARGE (BASE, 90 CFS).--Jan. 21 (0645) 202 cfs (4.38 ft); Mar. 1 (1215) 227 cfs (4.46 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, 2,970 cfs Mar. 1 (gage height, 9.61 ft); minimum daily, 0.61 cfs Sept. 30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.4	2.5	7.2	65	1,440	18	13	4.9	2.3	1.1	.88
2	1.4	2.3	2.5	6.4	54	504	17	13	4.5	2.3	1.1	.88
3	1.4	2.4	2.5	6.0	47	260	17	12	4.2	2.2	1.1	.88
4	1.4	2.4	2.5	5.4	43	315	16	12	4.1	2.0	1.1	.96
5	1.4	2.9	2.5	5.2	39	335	16	11	3.9	2.0	1.1	.96
6	1.4	2.7	2.5	4.9	35	221	16	12	3.8	1.9	1.1	.88
7	1.4	3.4	2.7	4.8	32	164	16	12	3.8	1.8	1.1	.88
8	1.5	3.7	2.9	4.9	29	134	15	12	4.1	1.7	1.1	.88
9	1.5	3.5	2.9	6.5	27	112	15	12	6.0	1.6	1.1	.88
10	1.6	3.4	3.3	178	29	106	15	11	7.6	1.6	1.1	.80
11	1.6	3.1	3.5	146	28	87	15	10	5.8	1.5	1.1	.80
12	1.6	3.0	3.7	104	29	76	14	11	5.1	1.4	1.1	.80
13	1.8	2.9	3.6	57	64	67	17	10	4.7	1.3	1.1	.80
14	1.8	2.8	3.5	537	106	60	35	9.9	4.4	1.3	1.1	.80
15	2.0	2.8	3.4	302	66	55	36	9.0	4.3	1.2	1.0	.80
16	1.9	2.8	3.3	1,340	53	50	28	8.5	4.2	1.2	.96	.82
17	2.2	2.8	3.2	471	207	45	24	8.0	4.2	1.2	1.0	.84
18	3.2	2.9	3.0	248	131	40	20	7.7	4.1	1.1	1.0	.82
19	3.0	2.9	3.2	141	91	38	20	7.6	3.9	1.1	1.0	.87
20	2.9	2.9	3.7	142	73	35	19	7.7	3.6	1.1	1.0	.91
21	2.6	2.7	21	1,420	61	33	18	7.7	3.3	1.1	1.0	.86
22	2.5	2.7	39	425	52	32	17	7.3	3.1	1.1	1.0	.77
23	2.4	2.6	13	217	45	30	16	6.9	2.8	1.1	1.0	.73
24	2.4	2.5	12	490	41	28	15	6.4	2.6	1.1	.96	.77
25	2.3	2.6	123	293	37	27	15	6.1	2.5	1.1	.88	.78
26	2.4	2.5	76	179	34	25	14	6.1	2.4	1.1	.88	.75
27	2.5	2.5	30	213	31	23	16	6.1	2.3	1.1	.88	.74
28	2.5	2.5	18	160	92	22	15	6.0	2.4	1.1	.88	.68
29	2.4	2.5	13	118	-----	21	14	6.0	2.4	1.1	.88	.63
30	2.4	2.5	10	95	-----	20	13	5.8	2.4	1.1	.88	.61
31	2.4	-----	8.3	77	-----	20	-----	5.3	-----	1.1	.88	-----
TOTAL	63.2	83.6	424.2	7,404.3	1,641	4,425	542	279.1	117.4	43.9	31.48	24.46
MEAN	2.04	2.79	13.7	239	58.6	143	18.1	9.00	3.91	1.42	1.02	.82
MAX	3.2	3.7	123	1,420	207	1,440	36	13	7.6	2.3	1.1	.96
MIN	1.4	2.3	2.5	4.8	27	20	13	5.3	2.3	1.1	.88	.61
AC-FT	125	166	841	14,690	3,250	8,780	1,080	554	233	87	62	49
CAL YR 1969	TOTAL	33,111.4	MFAN	90.7	MAX	2,080	MIN	1.2	AC-FT	65,680		
WTR YR 1970	TOTAL	15,079.64	MEAN	41.3	MAX	1,440	MIN	.61	AC-FT	29,910		

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	1115	9.38	2,730	3- 1	0945	9.61	2,970
1-21	0830	9.14	2,490	3- 4	1900	6.43	617
1-24	0445	6.90	820				

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 unnamed 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.--25 years, 4.21 cfs (3,050 acre-ft per year); median of yearly mean discharges, 2.3 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 324 cfs Mar. 1 (gage height, 5.15 ft); no flow Aug. 6 to Sept. 30.

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 SECCND, WATER YEAR OCTGBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.14	.33	.56	3.5	130	1.7	.87	.40	.06	.03	0
2	.02	.14	.33	.56	3.2	50	1.7	.75	.36	.04	.03	0
3	.02	.14	.33	.56	2.7	20	1.6	.71	.26	.04	.01	0
4	.02	.14	.33	.56	2.6	24	1.5	.72	.23	.04	.01	0
5	.02	.18	.33	.56	2.4	30	1.5	.67	.18	.04	.01	0
6	.02	.18	.33	.56	2.2	20	1.4	.72	.18	.03	0	0
7	.02	.18	.48	.56	2.2	14	1.4	.76	.18	.03	0	0
8	.03	.18	.72	1.3	2.1	10	1.4	.79	.18	.03	0	0
9	.03	.22	.72	.82	2.1	9.0	1.3	.79	.12	.03	0	0
10	.02	.27	.94	6.1	2.3	8.0	1.3	.76	.11	.02	C	0
11	.03	.27	1.2	5.8	2.4	7.0	1.5	.71	.10	.02	0	0
12	.03	.22	1.4	6.1	2.4	6.0	1.8	.75	.10	.02	C	0
13	.04	.22	1.4	3.0	4.3	5.0	2.0	.74	.11	.02	0	0
14	.03	.27	1.3	38	6.5	4.5	2.5	.72	.11	.03	0	0
15	.06	.27	1.3	19	4.1	4.0	2.5	.66	.11	.04	C	0
16	.06	.33	1.3	73	3.2	3.8	2.2	.55	.14	.02	C	0
17	.06	.33	1.2	25	11	3.5	2.0	.49	.14	.02	0	0
18	.04	.40	1.2	11	6.5	3.4	1.8	.49	.14	.02	C	0
19	.04	.40	2.6	6.1	4.7	3.2	1.6	.47	.11	.02	0	0
20	.04	.40	5.4	5.4	3.8	3.0	1.5	.43	.11	.01	C	0
21	.06	.40	5.4	62	3.0	2.9	1.4	.39	.11	.02	0	0
22	.06	.40	4.7	31	2.8	2.7	1.3	.36	.08	.02	0	0
23	.06	.40	1.6	16	2.4	2.6	1.3	.32	.08	.02	C	0
24	.11	.40	1.1	53	2.4	2.5	1.1	.27	.06	.02	0	0
25	.11	.40	1.6	27	2.0	2.4	1.0	.26	.06	.02	0	0
26	.11	.40	2.6	14	2.0	2.2	1.2	.31	.06	.02	0	0
27	.11	.40	1.2	11	1.8	2.1	1.5	.31	.04	.03	0	0
28	.11	.48	.94	7.7	2.4	2.0	1.6	.30	.06	.02	0	0
29	.14	.40	.72	5.8	-----	2.0	1.2	.31	.04	.02	0	0
30	.14	.33	.64	4.4	-----	1.9	1.0	.28	.04	.02	0	0
31	.14	-----	.64	3.8	-----	1.8	-----	.37	-----	.02	0	-----
TOTAL	1.80	8.89	44.28	440.24	53.4	383.5	46.8	17.03	4.00	0.81	0.09	0
MEAN	.058	.30	1.43	14.2	3.34	12.4	1.56	.55	.13	.026	.003	0
MAX	.14	.48	5.4	73	11	130	2.5	.87	.40	.06	.03	0
MIN	.02	.14	.33	.56	1.8	1.8	1.0	.26	.04	.01	0	0
AC-FT	3.6	18	88	873	185	761	53	34	7.9	1.6	.2	0

CAL YR 1969	TOTAL 3,946.88	MEAN 10.8	MAX 317	MIN .02	AC-FT 7,830
WTR YR 1970	TOTAL 1,040.84	MEAN 2.85	MAX 130	MIN 0	AC-FT 2,060

PEAK DISCHARGE (BASE, 90 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	1215	4.67	179	3- 1	0945	5.15	324
1-21	1145	4.44	128	3- 4	1800	4.41	122
1-24	0515	4.28	93				

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.--8 years, 14.8 cfs (10,720 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 407 cfs Jan. 21 (gage height, 12.07 ft); minimum daily, 0.29 cfs Oct. 1.

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 except those for periods of no gage-height record or indefinite stage-discharge relation, which are poor. No regulation. Waste water from Livermore sewage disposal plant and gravel operations enters stream about 4 miles upstream from gage.

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	.29	5.6	5.6	5.3	12	101	6.5	4.2	2.3	6.1	1.7	2.0
2	3.9	3.2	7.1	4.7	10	50	7.0	6.0	3.1	3.8	1.7	2.0
3	1.5	4.5	5.6	3.5	10	20	8.6	5.6	2.4	1.9	2.2	2.0
4	1.4	6.0	5.1	3.9	10	90	7.9	5.6	3.5	1.9	1.4	2.0
5	1.9	8.6	5.6	3.8	10	72	9.4	6.0	2.3	2.1	1.9	2.0
6	1.7	9.4	5.4	5.3	9.8	26	9.3	7.5	2.4	2.7	2.0	2.0
7	1.7	7.1	7.1	2.9	9.6	15	9.3	5.0	3.4	5.5	2.0	2.0
8	1.8	7.3	9.1	4.5	9.5	10	8.8	4.5	4.7	4.0	2.0	2.0
9	2.0	7.3	6.0	6.6	9.5	9.8	6.8	2.6	5.4	3.4	2.0	2.0
10	1.9	6.6	2.7	13	9.0	9.6	5.4	2.1	4.7	2.7	2.0	2.0
11	2.7	6.8	2.2	23	8.0	9.0	7.1	4.9	3.6	2.3	2.0	2.0
12	3.7	5.3	3.8	9.7	10	8.0	6.8	4.4	4.9	2.0	2.0	2.0
13	2.7	3.2	4.2	5.8	35	8.3	8.2	3.4	4.9	4.3	2.0	2.0
14	2.4	2.6	6.4	127	15	7.8	8.4	3.7	4.4	3.0	2.0	2.0
15	6.0	5.3	3.5	47	12	7.5	14	2.9	4.4	4.2	2.0	2.0
16	11	7.1	2.4	124	15	7.5	11	2.0	4.4	3.6	2.0	2.0
17	16	5.8	3.0	60	30	7.5	11	2.1	5.1	2.5	2.0	2.0
18	7.9	6.2	3.2	25	15	7.5	16	3.1	4.7	2.2	2.0	2.0
19	5.1	6.2	4.1	11	12	7.5	13	4.2	4.1	2.4	2.0	2.0
20	5.3	6.4	21	14	10	7.5	7.3	3.4	5.4	2.6	2.0	2.0
21	6.4	6.4	38	293	9.0	7.5	3.2	1.6	5.3	1.7	2.0	2.0
22	6.6	6.2	13	72	7.5	7.0	3.2	1.5	4.9	2.4	2.0	2.0
23	5.3	6.8	4.5	28	7.0	7.0	4.7	1.3	3.5	2.1	2.0	2.0
24	4.2	5.8	7.3	231	7.0	7.0	4.9	1.1	5.6	2.5	2.0	2.0
25	4.4	6.2	18	52	7.0	6.5	4.7	3.5	4.2	1.6	2.0	2.0
26	6.6	3.9	8.2	28	6.5	6.5	4.7	2.7	3.1	2.6	2.0	2.0
27	6.6	3.1	3.5	40	6.5	6.5	5.3	1.4	3.8	2.3	2.0	2.0
28	5.8	4.7	5.4	25	8.0	6.5	4.3	2.8	3.2	2.4	2.0	2.0
29	4.7	4.9	4.1	16	-----	6.0	2.5	2.2	3.6	1.7	2.0	2.0
30	4.5	5.3	3.4	14	-----	6.0	3.1	1.7	3.6	2.0	2.0	2.0
31	4.5	-----	3.7	13	-----	6.0	-----	2.1	-----	1.9	2.0	-----
TOTAL	140.49	173.8	222.2	1,312.0	319.9	554.0	222.4	105.1	120.9	86.4	60.9	60.0
MEAN	4.53	5.79	7.17	42.3	11.4	17.9	7.41	3.39	4.03	2.79	1.96	2.00
MAX	16	9.4	38	293	35	101	16	7.5	5.6	6.1	2.2	2.0
MIN	.29	2.6	2.2	2.9	6.5	6.0	2.5	1.1	2.3	1.6	1.4	2.0
AC-FT	279	345	441	2,600	635	1,100	441	208	240	171	121	119
CAL YR 1969	TOTAL	6,120.06	MEAN	16.8	MAX	638	MIN	.29	ACFT	12,140		
WAT YR 1970	TOTAL	3,378.09	MEAN	9.26	MAX	293	MIN	.29	ACFT	6,700		

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	1400	11.06	311	1-24	0415	11.88	390
1-16	1700	10.58	258	3- 1	1430	10.57	256
1-21	1345	12.07	407	3- 4	1700	11.10	315

NOTE.--No gage-height record Feb. 5 to Apr. 3. Stage-discharge relation indefinite Aug. 6 to Sept. 30.

ALAMEDA CREEK BASIN

11176400 ARROYO VALLE ABOVE LANG CANYON, NEAR LIVERMORE, CALIF.

LOCATION.--Lat 37°33'00", long 121°39'57", in SE¹/₄ sec.29, T.4 N., R.3 E., Alameda County, on left bank 700 ft upstream from unnamed 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.--7 years, 30.6 cfs (22,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,710 cfs Mar. 1 (gage height, 6.22 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 SECCND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.13	.26	2.2	41	818	12	7.1	1.6	.14	0	0
2	0	.13	.26	2.0	34	412	12	7.1	1.5	.10	0	0
3	0	.13	.26	2.0	30	188	12	6.7	1.3	.08	0	0
4	0	.13	.26	2.0	28	224	11	6.3	1.1	.08	0	0
5	0	.33	.26	1.7	26	310	11	5.9	1.0	.05	0	0
6	0	.48	.26	1.7	24	170	11	5.9	.86	.04	0	0
7	0	.38	.26	1.7	22	122	10	6.3	.86	.04	0	0
8	0	.27	.42	2.1	22	96	10	6.3	.86	.03	0	0
9	0	.26	.47	7.2	20	75	10	5.9	1.6	.03	0	0
10	0	.26	.45	38	23	71	9.5	5.5	1.8	.03	0	0
11	0	.26	.48	29	22	57	9.5	5.5	1.6	.02	0	0
12	0	.26	.40	23	24	48	13	5.1	1.5	.02	0	0
13	0	.26	.37	12	32	41	14	5.1	1.3	.02	0	0
14	.01	.26	.36	212	36	36	19	4.8	1.1	.01	0	0
15	.04	.26	.36	180	32	33	18	4.1	1.0	.01	0	0
16	.26	.26	.36	939	28	30	18	3.8	1.0	.01	0	0
17	.41	.26	.36	384	72	28	14	3.5	1.0	.01	0	0
18	.31	.26	.36	191	50	25	13	3.5	.86	.01	0	0
19	.18	.26	.56	102	37	24	11	3.2	.74	.01	0	0
20	.13	.26	.95	89	32	22	10	3.2	.54	0	0	0
21	.13	.26	7.8	889	28	22	10	3.2	.45	0	0	0
22	.13	.26	9.8	333	25	21	9.5	3.2	.37	0	0	0
23	.13	.26	4.5	163	23	19	9.5	2.7	.30	0	0	0
24	.13	.26	7.6	550	22	19	9.0	2.5	.23	0	0	0
25	.13	.26	30	300	20	18	8.6	2.3	.30	0	0	0
26	.13	.26	15	163	19	17	8.6	2.3	.30	0	0	0
27	.13	.26	7.2	153	18	16	9.5	2.3	.23	0	0	0
28	.13	.26	4.3	105	28	15	9.0	2.0	.18	0	0	0
29	.13	.26	3.2	74	-----	14	8.2	2.0	.18	0	0	0
30	.13	.26	2.8	57	-----	14	7.4	2.0	.18	0	0	0
31	.13	-----	2.4	46	-----	13	-----	1.8	-----	0	-----	-----
TOTAL	2.77	7.70	102.32	5,054.6	818	3,018	337.3	131.1	25.84	0.74	0	0
MEAN	.089	.26	3.30	163	29.2	97.4	11.2	4.23	.86	.024	0	0
MAX	.41	.48	30	939	72	818	19	7.1	1.8	.14	0	0
MIN	0	.13	.26	1.7	18	13	7.4	1.8	.18	0	0	0
AC-FT	5.5	15	203	10,030	1,620	5,990	669	260	51	1.5	0	0

CAL YR 1969	TOTAL	27,664.77	MEAN	75.8	MAX	2,190	MIN	0	AC-FT	54,870
WTK YR 1970	TOTAL	9,498.37	MEAN	26.0	MAX	939	MIN	0	AC-FT	18,840

PEAK DISCHARGE (BASE, 500 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0830	6.02	1,530	3- 1	1315	6.22	1,710
1-21	0815	5.89	1,420	3- 4	2230	4.54	523
1-24	0815	4.94	734				

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, 105 cfs Jan. 21 (gage height, 3.17 ft); minimum daily, 0.65 cfs Mar. 8.

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 future releases or released directly into the channel at the dam for downstream percolation. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

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	47	33	31	44	11	10	.71	45	46	30	6.6	46
2	40	46	29	44	11	9.9	5.6	44	46	36	4.5	52
3	16	37	28	44	11	9.9	29	27	46	33	6.3	60
4	14	28	39	42	11	8.8	28	24	39	34	5.0	33
5	14	31	48	28	11	1.1	29	18	33	36	6.8	11
6	28	31	48	28	11	.87	25	18	33	39	4.5	27
7	46	20	48	28	11	.76	34	18	33	36	6.1	45
8	47	12	48	28	11	.65	39	18	33	36	4.6	32
9	47	12	48	15	11	.66	47	18	33	36	6.0	10
10	47	12	48	17	11	2.3	44	18	28	36	4.6	10
11	47	12	48	18	11	10	44	18	28	36	5.9	10
12	46	12	44	17	11	10	43	18	28	36	4.5	10
13	47	13	32	16	11	10	23	18	28	39	5.9	10
14	47	14	35	11	11	10	13	23	28	51	4.5	31
15	41	13	46	1.4	11	10	25	31	28	54	5.8	49
16	24	13	46	1.5	11	10	11	31	29	48	4.7	49
17	10	11	47	1.1	11	10	47	30	35	50	5.9	54
18	6.3	12	47	.86	9.9	10	47	31	22	49	4.5	58
19	31	13	35	.84	9.9	10	47	32	37	48	5.9	60
20	35	13	13	.98	9.9	10	46	29	37	48	4.7	60
21	47	13	9.7	6.7	9.9	10	44	29	37	49	5.5	57
22	47	13	1.2	1.6	9.9	10	45	33	40	45	4.4	58
23	47	13	7.5	1.6	9.9	8.5	45	43	49	40	5.7	60
24	43	13	14	2.0	9.9	8.3	46	42	50	40	4.4	48
25	28	14	14	1.1	9.9	6.7	46	42	49	40	6.0	18
26	30	14	14	3.5	9.9	12	46	41	47	27	7.6	36
27	44	15	14	14	9.9	14	46	41	48	11	9.9	35
28	44	22	14	11	9.9	8.8	46	41	48	11	6.3	44
29	44	31	27	11	-----	8.8	45	43	36	12	8.2	55
30	41	31	44	11	-----	6.2	45	45	36	11	7.1	57
31	29	-----	44	11	-----	.92	-----	46	-----	10	32	-----
TOTAL	1,124.3	567	1,011.4	461.18	295.9	239.16	1,081.31	955	1,110	1,107	204.4	1,185
MEAN	36.3	18.9	32.6	14.9	10.6	7.71	36.0	30.8	37.0	35.7	6.59	39.5
MAX	47	46	48	44	11	14	47	46	50	54	32	60
MIN	6.3	11	1.2	.84	9.9	.65	.71	18	22	10	4.4	10
AC-FT	2,230	1,120	2,010	915	587	474	2,140	1,890	2,200	2,200	405	2,350
(a)	2,200	1,120	1,990	894	585	464	2,100	1,890	2,200	2,120	307	658
CAL YR 1969 TOTAL	16,273.52		MEAN 44.6		MAX 864		MIN 0	AC-FT 32,280		a 21,560		
WTR YR 1970 TOTAL	9,341.65		MEAN 25.6		MAX 60		MIN .65	AC-FT 18,530		a 16,530		

a Imported water, in acre-feet, furnished by Calif. Department of Water Resources.

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.--13 years, 27.8 cfs (20,140 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 103 cfs Jan. 16 (gage height, 7.05 ft); maximum gage height, 8.99 ft Sept. 21 (backwater from swimmers' dam); no flow Aug. 6 to Sept. 1, Sept. 12, 13.

Period of record: Maximum discharge, 11,300 cfs Apr. 3, 1958 (gage height, 25.36 ft); no flow for several months 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.

DISCHARGE, IN CUBIC FEET PER SECND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	23	23	36	14	26	2.4	49	40	30	5.0	0
2	39	38	23	37	7.1	18	1.2	48	37	24	5.8	5.3
3	24	44	21	46	6.1	7.5	.21	40	39	26	5.0	32
4	13	25	21	47	6.0	19	8.6	30	38	27	1.0	37
5	14	24	35	33	5.7	30	31	24	30	29	.20	17
6	8.7	24	47	22	5.4	20	23	16	29	32	C	4.6
7	19	22	50	21	10	17	20	15	32	31	0	6.4
8	35	10	47	23	12	9.5	26	14	29	29	0	18
9	37	4.0	45	21	10	6.4	39	17	29	28	0	9.5
10	37	2.9	46	19	5.5	3.6	43	24	26	28	C	.86
11	36	2.2	44	22	4.9	5.4	52	20	22	30	C	.13
12	46	1.9	44	15	5.2	7.7	55	13	21	33	C	0
13	41	1.9	43	12	7.2	6.2	49	13	23	31	C	0
14	39	2.2	39	25	11	1.8	22	11	25	35	C	.10
15	47	2.8	39	21	11	5.0	13	15	24	46	C	4.9
16	33	8.9	41	29	9.4	6.5	20	24	21	49	C	22
17	20	7.6	41	14	9.7	4.8	15	33	22	48	0	22
18	12	4.1	42	14	6.3	4.4	54	28	27	52	0	32
19	12	2.1	46	8.6	4.3	6.7	62	25	13	60	C	35
20	23	2.4	38	11	3.6	4.5	49	24	30	51	0	36
21	31	2.6	28	57	6.0	10	46	23	35	47	0	36
22	39	2.8	16	28	9.3	15	45	23	33	48	C	35
23	40	2.6	3.7	16	5.5	8.4	44	34	34	42	C	32
24	42	2.6	4.5	35	4.1	4.8	45	40	40	38	C	34
25	32	2.6	16	23	3.3	4.1	55	37	41	39	0	20
26	29	2.8	12	13	3.2	3.5	62	33	47	42	C	6.7
27	33	8.8	5.1	13	3.1	2.6	50	35	45	24	C	17
28	38	8.8	4.4	14	7.2	8.9	45	35	50	7.4	0	21
29	38	11	4.4	13	-----	16	45	35	45	4.5	C	26
30	38	31	18	7.5	-----	9.9	45	46	31	4.5	0	33
31	31	-----	34	12	-----	4.1	-----	46	-----	4.5	0	-----
TOTAL	963.7	328.6	921.1	708.1	196.5	297.3	1,067.41	870	958	1,019.9	17.00	543.49
MEAN	31.1	11.0	29.7	22.8	7.02	9.59	35.6	28.1	31.9	32.9	.55	18.1
MAX	47	44	50	57	14	30	62	49	50	60	5.8	37
MIN	8.7	1.9	3.7	7.5	3.1	1.8	.21	11	13	4.5	C	0
AC-FT	1,910	652	1,830	1,400	390	590	2,120	1,730	1,900	2,020	34	1,080

CAL YR 1969 TOTAL 14,768.77 MEAN 40.5 MAX 872 MIN 0 AC-FT 29,290
WTR YR 1970 TOTAL 7,891.10 MEAN 21.6 MAX 62 MIN 0 AC-FT 15,650

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.--18 years (1912-19, 1920-30, 1969-70), 42.8 cfs (31,010 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,390 cfs Jan. 21 (gage height, 13.06 ft); minimum daily, 3.5 cfs Aug. 19.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	32	35	39	46	150	17	34	46	33	12	5.0
2	40	38	32	39	39	100	17	38	46	32	12	5.0
3	30	49	32	43	36	200	18	40	46	31	11	15
4	25	36	28	47	36	394	19	33	44	31	9.8	34
5	20	38	40	39	34	160	27	27	41	32	8.9	34
6	15	45	53	32	32	55	25	26	37	32	8.5	24
7	25	33	59	29	33	39	24	25	39	33	7.7	14
8	35	25	64	31	34	30	25	24	38	31	8.0	12
9	40	18	55	49	34	27	29	25	40	31	8.2	28
10	40	16	47	60	30	28	31	27	37	30	9.9	15
11	40	14	45	59	27	26	33	28	35	30	7.0	10
12	45	12	44	44	34	26	36	27	34	31	7.0	7.0
13	50	13	45	26	164	25	37	28	34	31	7.0	7.0
14	50	12	43	441	88	23	30	27	35	31	10	8.0
15	60	13	42	132	44	23	25	27	35	34	9.0	8.0
16	65	20	41	652	44	23	26	30	33	35	7.0	15
17	55	22	41	348	132	23	24	35	33	33	7.0	28
18	38	16	41	134	52	22	34	34	35	34	6.0	32
19	30	14	58	95	40	22	43	33	30	37	3.5	36
20	38	14	111	130	36	22	36	34	34	33	5.0	38
21	45	15	129	2,250	32	22	32	33	37	29	5.0	40
22	54	14	69	387	32	25	31	33	35	29	7.0	39
23	54	14	22	143	30	22	32	38	34	27	7.0	41
24	52	15	52	732	29	20	32	42	38	26	5.0	42
25	45	14	68	147	27	19	35	44	38	25	6.0	37
26	39	14	41	85	26	18	40	41	40	25	6.0	28
27	42	15	20	176	25	17	37	42	39	22	6.0	28
28	50	20	19	74	35	20	33	43	42	16	6.0	33
29	48	17	19	58	-----	22	32	44	40	14	8.0	34
30	47	30	23	49	-----	21	33	48	34	13	9.0	39
31	41	-----	36	45	-----	18	-----	51	-----	12	4.0	-----
TOTAL	1,298	648	1,453	6,615	1,251	1,642	893	1,061	1,129	883	233.5	736.0
MEAN	41.9	21.6	46.9	213	44.7	53.0	29.8	34.2	37.6	28.5	7.53	24.5
MAX	65	49	128	2,250	164	394	43	51	46	37	12	42
MIN	15	12	19	26	25	17	17	24	30	12	3.5	5.0
AC-FT	2,570	1,290	2,880	13,120	2,480	3,260	1,770	2,100	2,240	1,750	463	1,460

WAT YR 1970 TOTAL 17,842.5 MEAN 48.9 MAX 2,250 MIN 3.5 ACFT 35,390

NOTE.--No gage-height record Aug. 10 to Sept. 16.

11179000 ALAMEDA CREEK NEAR NILES, CALIF.

LOCATION.--Lat 37°35'14", long 121°57'35", in NW¼ 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 Sunolglen" 1901-21.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 85.66 ft 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.--79 years, 120 cfs (86,940 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,940 cfs Jan. 21 (gage height, 8.71 ft); minimum daily, 5.2 cfs Sept. 2.
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 loads for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	35	36	43	88	237	24	56	48	33	39	8.4
2	41	36	33	45	73	328	18	60	42	32	41	5.2
3	41	54	31	48	57	333	23	66	44	29	41	15
4	20	45	28	55	56	796	23	52	44	29	42	54
5	21	40	36	47	54	789	42	34	42	31	39	54
6	21	54	50	35	49	470	45	34	34	32	37	33
7	17	41	58	33	48	332	39	31	38	33	35	13
8	36	33	60	32	52	243	40	27	38	32	37	26
9	40	23	65	53	51	191	46	27	41	30	37	62
10	42	18	53	75	44	166	55	32	35	30	38	50
11	39	16	52	68	38	134	56	37	30	30	37	45
12	44	14	50	66	48	174	65	27	28	32	37	42
13	50	14	52	32	179	154	67	24	28	35	37	42
14	45	11	49	515	176	85	54	22	31	33	40	35
15	54	12	49	262	70	80	46	23	29	39	39	8.3
16	75	16	47	1,080	49	78	43	29	25	45	37	22
17	52	26	47	615	220	71	32	38	25	44	37	30
18	35	19	48	243	92	62	52	38	29	46	36	32
19	25	15	55	127	61	60	79	34	26	51	33	39
20	29	14	106	116	51	58	68	36	24	50	34	45
21	35	14	121	3,920	46	56	57	32	36	42	35	44
22	46	14	108	878	45	58	53	28	36	42	37	44
23	48	13	29	317	42	50	55	32	33	42	37	42
24	48	12	48	1,160	40	41	56	45	40	37	35	47
25	45	12	77	442	35	38	59	48	43	37	36	63
26	37	12	61	242	37	33	70	43	46	46	36	22
27	42	12	25	397	35	28	68	40	45	46	36	16
28	50	21	18	238	43	28	57	39	51	23	36	22
29	50	18	17	146	-----	37	52	42	48	44	38	24
30	49	30	17	107	-----	34	53	47	37	42	39	34
31	47	-----	38	94	-----	24	-----	56	-----	42	34	-----
TOTAL	1,262	694	1,564	11,531	1,879	5,268	1,497	1,179	1,096	1,159	1,152	1,018.9
MEAN	40.7	23.1	50.5	372	67.1	170	49.9	38.0	36.5	37.4	37.2	34.0
MAX	75	54	121	3,920	220	796	79	66	51	51	42	63
MIN	17	11	17	32	35	24	18	22	24	23	33	5.2
AC-FT	2,500	1,380	3,100	22,870	3,730	10,450	2,970	2,340	2,170	2,300	2,280	2,020
CAL YR 1969	TOTAL	55,492.1	MEAN	152	MAX	3,670	MIN	7.9	AC-FT	110,100		
WTR YR 1970	TOTAL	29,299.9	MEAN	80.3	MAX	3,920	MIN	5.2	AC-FT	58,120		

ALAMEDA CREEK BASIN

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.--14 years, 1.68 cfs (1,220 acre-ft per year); median of yearly mean discharges, 1.4 cfs (1,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 710 cfs Jan. 21 (gage height, 4.14 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0		0	0	5.2	7.9	.40	.05				
2	0		0	0	4.2	4.6	.43	.04				
3	0		0	0	4.1	2.9	.43	.03				
4	0		0	0	4.4	20	.40	.03				
5	0		0	0	3.8	11	.40	.04				
6	0		0	0	3.6	7.1	.37	.04				
7	0		0	0	3.0	5.4	.34	.04				
8	0		.03	0	2.0	5.0	.31	.04				
9	0		0	.02	1.9	4.2	.31	.04				
10	0		0	0	1.9	4.0	.31	.04				
11	0		0	.03	1.7	3.1	.29	.04				
12	0		0	0	2.0	2.8	.29	.03				
13	0		0	0	2.9	2.5	.27	.02				
14	0		0	13	2.2	2.2	.21	.01				
15	.12		0	8.3	1.7	2.0	.23	0				
16	.02		0	52	1.9	1.8	.25	0				
17	.01		0	16	4.7	1.6	.23	0				
18	.01		0	7.8	2.2	1.4	.17	0				
19	.01		.06	6.1	1.6	1.1	.21	0				
20	.01		.07	17	1.5	1.1	.21	0				
21	0		.09	335	1.4	1.2	.17	0				
22	0		0	46	1.4	1.1	.16	0				
23	0		0	22	2.6	1.1	.16	0				
24	0		.03	33	1.2	1.0	.13	0				
25	0		.02	17	1.1	.84	.13	0				
26	0		0	12	1.0	.79	.13	0				
27	0		0	44	1.0	.65	.13	0				
28	0		0	17	1.4	.57	.10	0				
29	0		0	11	-----	.57	.08	0				
30	0		0	8.1	-----	.53	.07	0				
31	0	-----	0	6.1	-----	.46	-----	0	-----			-----
TOTAL	.18	0	.30	671.45	67.6	100.51	7.32	.49	0	0	0	0
MEAN	.006	0	.010	21.7	2.41	3.24	.24	.016	0	0	0	0
MAX	.12	0	.09	335	5.2	20	.43	.05	0	0	0	0
MIN	0	0	0	0	1.0	.46	.07	0	0	0	0	0
AC-FT	.4	0	.6	1,330	134	199	15	1.0	0	0	0	0

CAL YR 1969 TOTAL 1,800.49 MEAN 4.93 MAX 166 MIN 0 ACFT 3,570
 WAT YR 1970 TOTAL 847.85 MEAN 2.32 MAX 335 MIN 0 ACFT 1,680

PEAK DISCHARGE (BASE, 40 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0730	2.84	167	1-27	0600	2.87	177
1-21	1000	4.14	710	3- 4	1400	2.50	80
1-24	0030	2.53	87				

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.--12 years, 48.3 cfs (34,990 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,530 cfs Jan. 21 (gage height, 12.38 ft); no flow May 25, June 1, 2.
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 good. This stream is a distributary of Alameda Creek. See REMARKS for Alameda Creek at Union City.

COOPERATION.--One discharge measurement furnished by Alameda County Water District.

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	9.4	14	6.5	.1	84	152	12	14	0	12	7.4	4.8
2	12	12	8.9	.1	67	322	8.8	13	0	7.4	7.8	.08
3	15	11	19	.1	34	333	8.2	4.2	3.5	6.6	7.8	.06
4	15	9.9	24	.6	40	685	7.8	7.8	7.8	7.4	4.2	.06
5	14	12	13	.2	37	810	4.5	13	7.4	7.4	5.8	.06
6	9.4	14	2.7	.1	31	478	8.8	14	12	7.4	9.4	.06
7	4.8	14	.80	1.7	33	340	9.4	15	13	9.5	12	.07
8	11	14	.21	3.7	35	251	13	16	15	9.5	9.9	.07
9	26	12	.12	5.4	38	192	13	16	16	8.5	5.6	.07
10	35	10	.11	51	32	156	13	15	19	4.5	1.8	.08
11	43	12	.11	46	31	128	11	19	16	4.5	2.9	.08
12	43	15	1.3	20	28	149	4.0	11	15	4.5	5.9	.07
13	27	16	4.5	11	84	156	1.4	13	11	3.5	7.8	.07
14	12	18	4.5	479	222	68	.89	13	8.8	6.0	8.8	1.9
15	24	19	2.6	403	68	56	1.7	9.4	4.0	4.6	7.8	1.9
16	25	20	.12	990	46	58	2.5	7.4	.38	5.8	4.0	.14
17	18	20	.10	696	178	53	2.3	7.4	.42	7.4	3.6	.10
18	8.9	21	.09	306	98	51	2.2	7.0	4.7	8.8	4.6	2.0
19	6.9	17	1.2	145	56	31	8.8	8.2	11	8.2	3.7	4.2
20	6.9	16	93	119	38	40	7.0	9.9	8.2	26	8.0	2.1
21	7.9	19	178	3,540	26	31	3.5	11	5.8	6.6	14	.34
22	12	19	180	1,200	28	34	22	7.8	5.4	7.0	16	.22
23	15	19	1.7	354	27	36	5.0	5.0	7.8	7.4	11	.18
24	14	17	3.2	1,130	25	29	3.5	.76	8.8	11	4.6	.20
25	14	15	51	513	26	24	3.5	0	8.8	16	2.3	.20
26	14	15	58	282	25	18	2.5	.26	11	16	11	.20
27	12	11	4.2	428	32	13	.76	.04	12	6.6	22	.30
28	12	9.4	1.9	280	26	11	2.0	.08	11	4.6	19	.30
29	12	9.4	.12	172	-----	11	4.6	.08	12	8.8	19	.30
30	12	7.9	.11	112	-----	14	7.4	.02	13	9.9	12	.35
31	14	-----	.11	93	-----	13	-----	.02	-----	7.8	11	-----
TOTAL	505.2	438.6	661.20	11,382.0	1,495	4,743	195.05	258.36	268.80	261.2	270.7	20.56
MEAN	16.3	14.6	21.3	367	53.4	153	6.50	8.33	8.96	8.43	8.73	.69
MAX	43	21	180	3,540	222	810	22	19	19	26	22	4.8
MIN	4.8	7.9	.09	.10	25	11	.76	0	0	3.5	1.8	.06
AC-FT	1,000	870	1,310	22,580	2,970	9,410	387	512	533	518	537	41

CAL YR 1969 TOTAL 50,724.08 MEAN 139 MAX 3,140 MIN 0 ACFT 100,600
WAT YR 1970 TOTAL 20,499.67 MEAN 56.2 MAX 3,540 MIN 0 ACFT 40,660

ALAMEDA CREEK BASIN

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.--12 years, 1.45 cfs (1,050 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 37 cfs Jan. 21 (gage height, 10.83 ft); no flow most of year. 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.

REVISIONS.--WSP 1929: Drainage area.

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	0	.11	0	0	.08	.50	0	0	0	0	C	0
2	0	0	0	0	.06	0	0	0	0	0	C	0
3	0	.20	0	0	.04	0	0	0	0	0	0	0
4	0	.32	0	0	.02	4.0	0	0	0	0	0	0
5	0	1.2	0	0	0	.17	0	0	0	0	0	0
6	0	1.9	0	0	0	.09	0	0	0	0	0	0
7	0	2.8	0	0	.80	.07	0	0	0	0	C	0
8	0	4.2	.02	0	0	.16	0	0	.04	0	0	0
9	0	4.5	0	.02	0	.10	0	0	0	0	0	0
10	0	2.9	0	0	0	.07	0	0	0	0	0	0
11	0	4.8	0	.42	0	.04	0	0	0	0	0	0
12	0	4.8	0	0	.20	.02	0	0	0	0	0	0
13	0	2.7	0	0	0	0	0	0	0	0	0	0
14	0	0	0	8.2	0	0	0	0	0	0	0	0
15	0	0	0	2.0	0	0	0	0	0	0	C	0
16	0	0	0	2.9	0	0	0	0	0	0	0	0
17	0	0	0	.85	.30	0	0	0	0	0	C	0
18	0	.09	0	.04	0	0	0	0	0	0	C	0
19	0	.94	.11	.25	0	0	0	0	0	0	0	0
20	0	1.5	.23	2.9	0	0	0	0	0	0	0	0
21	0	1.5	.77	12	0	0	0	0	0	0	0	0
22	0	.70	0	.71	0	0	0	0	0	0	0	0
23	0	0	0	1.3	0	0	0	0	0	0	C	0
24	0	0	.13	1.1	0	0	0	0	0	0	C	0
25	0	0	.07	.45	0	0	0	0	0	0	0	0
26	0	0	0	.33	0	0	0	0	0	0	0	0
27	0	0	0	2.5	0	0	0	0	0	0	0	0
28	0	0	0	.36	0	0	0	0	0	0	0	0
29	0	0	0	.27	-----	0	0	0	0	0	0	0
30	.18	0	0	.18	-----	0	0	0	0	0	C	0
31	.32	-----	0	.12	-----	0	-----	0	-----	0	0	-----
TOTAL	0.50	35.16	1.33	36.90	1.50	5.22	0	0	0.04	0	C	0
MEAN	.016	1.17	.043	1.19	.054	.17	0	0	.001	0	0	0
MAX	.32	4.8	.77	12	.80	4.0	0	0	.04	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	C	0
AC-FT	1.0	70	2.6	73	3.0	10	0	0	.08	0	C	0

CAL YR 1969 TOTAL 37.20
WTR YR 1970 TOTAL 80.65

MEAN .10 MAX 4.8 MIN 0
MEAN .22 MAX 12 MIN 0

AC-FT 74
AC-FT 160

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.--25 years, 14.6 cfs (10,580 acre-ft per year); median of yearly mean discharges, 9.0 cfs (6,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,040 cfs Jan. 21 (gage height, 13.40 ft); minimum daily, 0.01 cfs Aug. 10.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	.16	.41	.81	54	41	8.4	4.3	2.1	4.7	.03	.18
2	2.8	.13	.21	.61	46	25	8.7	4.0	2.1	4.0	.07	.21
3	3.1	.12	.34	.57	42	23	8.7	3.6	2.1	3.6	.05	.18
4	3.3	.19	.42	.57	40	137	8.1	3.6	1.3	3.4	.03	.25
5	3.2	5.0	4.6	.53	37	60	7.5	3.7	1.3	3.2	.08	.36
6	3.5	2.6	17	.44	38	43	7.3	3.9	1.0	3.4	.14	.21
7	3.2	.81	16	.49	40	38	7.1	4.0	1.5	3.4	.11	.18
8	3.8	.52	13	3.8	29	36	7.0	4.1	5.3	3.0	.06	.08
9	3.1	.51	1.2	12	18	34	6.9	4.3	11	2.4	.03	.10
10	3.1	.59	2.2	15	21	35	6.9	4.1	5.6	2.2	.01	.06
11	3.5	.50	2.6	12	16	29	6.9	3.7	3.4	1.2	.05	.10
12	3.6	.53	1.9	5.8	26	27	6.6	3.7	3.1	1.3	.18	.19
13	3.9	.51	1.9	8.4	112	25	6.7	3.7	2.9	1.3	.18	.19
14	3.9	.47	1.9	359	47	24	8.8	3.5	2.6	1.5	.10	.21
15	13	.89	1.8	102	35	24	8.4	3.0	2.7	2.0	.03	.10
16	4.4	.98	1.7	463	46	23	7.8	2.9	2.5	2.7	.03	.12
17	3.2	.77	1.7	152	74	20	7.5	3.2	2.5	2.9	.04	.07
18	.60	.48	2.1	88	38	17	5.9	2.8	2.4	2.6	.05	.13
19	.37	.64	9.6	72	33	17	5.7	2.8	2.1	2.4	.10	.14
20	4.4	.60	18	162	30	17	5.5	2.8	1.7	2.1	.10	.21
21	.16	.64	28	1,610	28	17	5.6	2.6	1.6	2.1	4.0	.12
22	.16	.71	2.8	262	26	16	5.3	1.9	1.7	1.5	9.4	.09
23	.33	.75	1.3	165	24	16	5.1	2.8	1.1	.04	9.4	.05
24	.21	.85	29	208	23	14	5.1	3.7	1.2	.12	8.9	.04
25	.22	.96	29	111	20	13	5.1	3.2	1.1	.99	6.9	.03
26	.21	.91	4.9	86	19	13	5.3	3.0	3.1	1.1	.25	.06
27	.39	.80	2.5	201	19	11	5.3	1.3	5.1	.72	.21	.02
28	.28	.57	1.7	98	32	11	4.9	1.5	5.2	.03	.26	.03
29	.22	.47	1.1	80	-----	11	4.4	1.5	5.1	.03	.22	.13
30	.19	.51	.93	68	-----	10	4.4	2.4	4.9	.02	.15	.05
31	.14	-----	.82	60	-----	9.3	-----	3.2	-----	.02	.12	-----
TOTAL	75.38	24.17	200.63	4,408.02	1,013	836.3	196.9	98.8	89.3	59.97	41.28	3.89
MEAN	2.43	.81	6.47	142	36.2	27.0	6.56	3.19	2.98	1.93	1.33	.13
MAX	13	5.0	29	1,610	112	137	8.8	4.3	11	4.7	9.4	.36
MIN	.14	.12	.21	.44	16	9.3	4.4	1.3	1.0	.02	.01	.02
AC-FT	150	48	398	8,740	2,010	1,660	391	196	177	119	82	7.7
CAL YR 1969	TOTAL	8,892.93	MEAN	24.4	MAX	378	MIN	.09	AC-FT	17,640		
WTR YR 1970	TOTAL	7,047.64	MEAN	19.3	MAX	1,610	MIN	.01	AC-FT	13,980		

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-16	0730	10.98	1,720	1-27	0515	8.35	610
1-21	1100	13.40	3,040	2-13	1515	7.62	410
1-23	2345	8.36	613	3- 4	1345	8.01	508

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, 3,300 cfs Jan. 21 (gage height, 7.67 ft, from crest-stage gage), from rating curve extended above 1,200 cfs; minimum daily, 0.32 cfs June 16.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	1.9	.81	3.0	48	43	11	4.0	2.1	3.4	1.2	1.1
2	4.3	1.9	.81	2.4	42	26	10	4.2	2.2	3.4	1.4	1.4
3	4.2	1.8	.81	2.3	38	24	10	4.1	2.1	3.4	1.5	1.2
4	4.2	3.0	.81	2.3	36	214	10	4.2	2.3	3.3	1.5	1.2
5	4.4	25	1.1	2.2	32	55	10	4.5	1.9	3.2	1.2	1.3
6	5.0	10	16	2.1	31	36	9.7	4.2	1.5	3.2	1.3	1.5
7	4.4	5.0	15	2.2	35	30	9.0	4.6	1.7	3.3	1.2	1.4
8	4.8	3.5	45	19	32	32	9.0	4.8	7.2	3.2	1.3	1.2
9	3.8	3.0	2.4	40	21	29	9.0	5.0	12	3.0	2.4	.88
10	6.1	3.0	9.2	23	25	29	9.0	4.9	2.9	3.0	2.2	.95
11	3.0	3.0	4.6	32	23	25	9.0	4.9	1.0	2.6	1.1	.87
12	3.6	2.8	1.7	14	28	24	8.5	4.7	.54	2.7	1.1	1.1
13	3.3	2.3	1.4	16	170	23	8.1	4.9	.42	2.6	1.2	.95
14	3.4	1.1	1.4	466	40	23	11	5.0	.46	2.6	1.2	1.1
15	70	.93	1.5	143	28	22	8.9	4.5	.42	2.6	.90	1.2
16	12	1.1	1.3	699	48	22	6.6	4.4	.32	2.7	.99	1.3
17	6.1	1.1	1.4	186	69	20	7.9	4.6	.35	2.9	1.6	1.5
18	2.0	.69	4.2	89	32	17	6.0	4.6	.35	2.7	1.1	1.6
19	1.8	.87	43	63	27	16	5.0	4.3	.35	2.7	1.1	1.7
20	5.8	.75	72	121	26	16	4.8	4.3	.35	2.6	1.4	1.8
21	1.7	.81	133	2,400	28	15	5.0	4.3	.42	2.6	3.5	1.8
22	1.6	.81	9.2	254	26	15	4.6	4.2	.54	2.4	9.1	1.8
23	1.7	.87	3.4	142	26	15	4.5	4.0	.50	2.3	8.5	1.5
24	1.8	.87	103	183	26	14	4.0	4.0	.59	2.2	7.7	1.3
25	1.8	.87	72	112	24	13	4.3	3.9	.81	1.9	7.4	1.3
26	1.7	.87	11	77	24	12	4.9	3.6	1.5	2.0	1.2	1.4
27	2.0	.87	5.0	231	26	12	4.8	3.0	2.7	1.9	.95	1.3
28	1.9	.81	3.8	96	42	11	4.2	2.8	3.2	1.6	.67	1.2
29	1.9	.87	3.0	67	-----	11	3.9	2.8	3.2	1.3	.72	1.0
30	1.8	.75	2.7	57	-----	11	4.0	2.8	3.2	1.4	1.1	1.1
31	1.8	-----	2.9	51	-----	11	-----	3.0	-----	1.3	.87	-----
TOTAL	176.4	81.14	573.44	5,597.5	1,053	866	216.7	129.1	57.12	80.0	68.60	38.95
MEAN	5.69	2.70	18.5	181	37.6	27.9	7.22	4.16	1.90	2.58	2.21	1.30
MAX	70	25	133	2,400	170	214	11	5.0	12	3.4	9.1	1.8
MIN	1.6	.69	.81	2.1	21	11	3.9	2.8	.32	1.3	.67	.87
AC-FT	350	161	1,140	11,100	2,090	1,720	430	256	113	159	136	77

CAL YR 1969	TOTAL 12,694.45	MEAN 34.8	MAX 501	MIN .69	AC-FT 25,180
WTR YR 1970	TOTAL 8,937.95	MEAN 24.5	MAX 2,400	MIN .32	AC-FT 17,730

PEAK DISCHARGE (BASE, 850 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0900	5.26	857	1-27	0315	5.38	971
1-16	0730	6.96	2,510	2-13	1345	5.75	1,320
1-21	1130	7.67	3,300	3- 4	1145	5.92	1,480

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.--6 years, 5.33 cfs (3,860 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 881 cfs Jan. 21 (gage height, 9.90 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.50	0	.11	11	15	1.7	.58	0			
2	0	0	0	.06	9.2	6.0	1.7	.58	0			
3	0	0	0	.04	8.4	4.5	1.5	.50	0			
4	0	0	0	.04	8.0	80	1.5	.50	0			
5	0	3.6	0	.03	7.0	40	1.9	.50	0			
6	0	.99	0	.01	6.7	30	1.5	.58	0			
7	0	.67	0	.02	6.1	20	1.5	.50	0			
8	2.2	.50	2.4	4.8	5.9	15	1.5	.50	2.3			
9	5.2	.50	.04	20	5.6	9.5	1.5	.66	1.5			
10	4.5	.50	3.8	9.1	5.6	6.7	1.5	.50	.76			
11	.03	3.6	2.7	7.6	5.0	5.6	1.5	.42	.16			
12	.04	4.5	4.9	3.7	9.5	5.3	1.4	.36	.04			
13	.04	.78	.60	15	21	4.7	1.4	.42	0			
14	.08	.01	.18	271	9.2	3.6	1.7	.36	0			
15	18	0	.01	61	6.4	3.4	.98	.27	0			
16	3.8	0	0	200	11	3.1	.98	.23	0			
17	.32	0	.01	48	18	2.7	.86	.23	0			
18	3.9	0	1.8	24	9.5	2.5	.86	.19	0			
19	6.7	0	26	20	7.0	2.3	.86	.27	0			
20	7.2	0	127	83	6.0	2.1	.76	.19	0			
21	8.5	0	48	475	5.5	2.1	.86	.19	0			
22	8.1	0	11	98	5.0	2.1	.86	.11	0			
23	7.6	0	13	84	4.5	1.9	.76	.04	0			
24	.36	0	106	90	4.2	1.7	.86	.03	0			
25	0	0	41	35	4.0	1.5	.76	0	0			
26	0	0	11	26	3.8	1.4	.86	.02	0			
27	0	0	3.3	43	3.6	1.2	.76	.04	0			
28	0	0	1.1	21	5.0	1.4	.76	.07	0			
29	2.2	0	.49	16	-----	1.4	.66	.03	0			
30	5.6	0	.27	13	-----	1.7	.58	0	0			
31	5.6	-----	.18	11	-----	1.5	-----	0	-----			-----
TOTAL	89.97	16.15	404.78	1,679.51	211.7	279.9	34.82	8.87	4.76	0	0	0
MEAN	2.90	.54	13.1	54.2	7.56	9.03	1.16	.29	.16	0	0	0
MAX	18	4.5	127	475	21	80	1.9	.66	2.3	0	0	0
MIN	0	0	0	.01	3.6	1.2	.58	0	0	0	0	0
AC-FT	178	32	803	3,330	420	555	69	18	9.4	0	0	0

CAL YR 1969 TOTAL 3,162.57 MEAN 8.66 MAX 157 MIN 0 AC-FT 6,270

WAT YR 1970 TOTAL 2,730.46 MEAN 7.48 MAX 475 MIN 0 AC-FT 5,420

PEAK DISCHARGE (BASE, 150 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0645	8.46	571	1-21	1015	9.90	881
12-24	0830	8.97	243	1-23	2330	5.90	235
1-14	1015	9.63	744	3- 4	unknown	-	unknown

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.--9 years (1961-70), 1.44 cfs (1,040 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 477 cfs Dec. 20 (gage height, 6.95 ft), from rating curve extended above 150 cfs; minimum daily, 0.01 cfs Sept. 13.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.06	.09	.28	.72	6.7	.19	.14	.15	.30	.09	.06
2	.08	.09	.14	.73	.60	.43	.34	.22	.22	.27	.10	.05
3	.06	.12	.06	.23	.50	.52	.23	.15	.14	.29	.15	.04
4	.06	.09	.08	.24	.50	23	.34	.11	.15	.16	.12	.08
5	.07	7.1	.07	.22	.50	1.4	.34	.09	.09	.10	.23	.05
6	.06	.50	.07	.25	.42	.71	.34	.11	.07	.11	.22	.05
7	.36	.30	.07	.27	.42	1.8	.34	.14	.08	.14	.17	.04
8	.08	.12	4.2	6.1	.42	1.2	.28	.13	4.6	.36	.09	.06
9	.04	.08	.12	15	1.1	1.3	.36	.16	1.6	.16	.14	.04
10	.11	.07	6.1	1.9	.72	.57	.33	.10	.11	.21	.23	.08
11	.04	.07	4.2	5.7	.42	.49	.25	.11	.12	.15	.20	.06
12	.05	.07	6.1	1.9	3.1	.46	.21	.10	.15	.14	.11	.04
13	.06	.06	.42	12	13	.41	.18	.12	.10	.20	.13	.01
14	.10	.07	.16	67	.96	.36	1.4	.17	.06	.31	.10	.03
15	31	.07	.13	19	.60	.39	.18	.24	.16	.23	.07	.04
16	3.4	.07	.10	28	5.2	.39	.16	.22	.09	.41	.06	.05
17	.70	.05	.16	3.8	1.7	.34	.20	.12	.10	.46	.11	.05
18	.15	.12	2.5	1.4	.72	.37	.17	.10	.18	.17	.21	.06
19	.11	.06	31	5.3	.50	.28	.18	.11	.29	.10	.14	.04
20	.11	.05	75	31	.50	.25	.18	.14	.08	.18	.12	.03
21	.12	.06	10	87	.42	.28	.18	.35	.07	.13	.17	.03
22	.12	.07	1.4	8.2	.42	.30	.17	.13	.21	.18	.08	.04
23	.13	.07	6.8	22	.42	.29	.17	.17	.15	.56	.06	.06
24	.09	.07	12	8.9	.42	.32	.23	.12	.19	.17	.37	.06
25	.11	.06	3.1	3.4	.42	.27	.18	.15	.14	.17	.20	.05
26	.10	.07	.96	2.8	.42	.20	.45	.23	.32	.11	.27	.06
27	.09	.07	.60	6.8	1.1	.22	.13	.13	.10	.12	.25	.08
28	.08	.08	.42	1.3	2.7	.19	.12	.37	.10	.34	.07	.19
29	.08	.07	.42	.96	-----	.19	.15	.11	.15	.50	.05	.08
30	.07	.07	.34	.84	-----	.19	.16	.17	.21	.31	.02	.07
31	.09	-----	.34	.72	-----	.50	-----	.13	-----	.18	.05	-----
TOTAL	37.79	9.91	167.15	342.74	38.92	44.32	8.14	4.84	10.18	7.22	4.38	1.68
MEAN	1.22	.33	5.39	11.1	1.39	1.43	.27	.16	.34	.23	.14	.056
MAX	31	7.1	75	87	13	23	1.4	.37	4.6	.56	.37	.19
MIN	.04	.05	.06	.22	.42	.19	.12	.09	.06	.10	.02	.01
AC-FT	75	20	332	680	77	88	16	9.6	20	14	8.7	3.3
CAL YR 1969	TOTAL 762.02		MEAN 2.09		MAX 75		MIN .04		AC-FT 1,510			
WTR YR 1970	TOTAL 677.27		MEAN 1.86		MAX 87		MIN .01		AC-FT 1,340			

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-15	1600	4.70	172	1-21	0830	6.07	340
12-20	0530	6.95	477	2-13	1045	5.53	268
1-14	0830	5.79	302				

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.--31 years (1939-70), 3.84 cfs (2,780 acre-ft per year); median of yearly mean discharges, 1.9 cfs (1,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 796 cfs Jan. 14 (gage height, 7.17 ft); minimum daily, 0.07 cfs Aug. 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.31	.24	1.2	12	15	3.5	1.8	.96	.43	.33	.20
2	.14	.29	.27	1.1	10	6.5	3.4	1.6	.94	.42	.27	.15
3	.13	.32	.27	1.1	10	5.9	3.1	1.6	.81	.37	.21	.15
4	.08	.37	.31	1.1	9.6	76	3.1	1.5	.75	.33	.23	.17
5	.09	1.2	.31	1.1	9.0	14	3.1	1.6	.75	.33	.26	.15
6	.12	.58	.31	1.1	8.2	9.3	3.0	1.6	.81	.39	.23	.13
7	.13	.40	.40	1.1	7.9	8.2	2.8	1.7	1.0	.42	.17	.12
8	.15	.35	.80	2.0	7.2	8.2	2.8	1.6	1.5	.42	.15	.15
9	.17	.30	.40	26	6.8	8.0	2.8	1.6	2.0	.44	.13	.17
10	.17	.30	.70	10	7.2	7.6	2.7	1.5	1.4	.46	.09	.17
11	.17	.30	.60	6.5	6.1	6.5	2.6	1.5	1.3	.46	.08	.17
12	.12	.35	.50	5.4	13	6.3	2.6	1.5	1.2	.44	.10	.15
13	.14	.35	.48	10	31	6.1	2.7	1.6	1.6	.35	.09	.19
14	.19	.30	.47	278	10	5.9	2.7	1.4	1.7	.35	.09	.14
15	.90	.25	.47	48	7.6	5.7	2.8	1.3	1.7	.39	.09	.09
16	.94	.24	.46	198	25	5.7	2.7	1.2	1.6	.44	.09	.14
17	.44	.22	.46	53	25	5.6	2.6	1.2	1.7	.44	.08	.13
18	.37	.22	1.5	18	12	5.6	2.5	1.3	1.8	.33	.10	.14
19	.35	.25	7.0	16	8.6	5.2	2.3	1.3	1.5	.27	.07	.15
20	.31	.28	100	73	7.6	5.2	2.2	1.3	1.5	.27	.12	.19
21	.29	.28	18	396	7.2	5.2	2.2	1.3	1.5	.27	.21	.17
22	.29	.28	2.7	99	6.5	5.4	2.1	1.2	1.1	.29	.21	.15
23	.35	.28	1.9	93	6.5	5.4	2.2	1.2	.60	.31	.23	.14
24	.37	.28	68	104	6.3	5.4	2.2	1.1	.60	.35	.16	.10
25	.37	.26	22	36	6.1	5.4	2.2	1.2	.53	.44	.14	.09
26	.38	.26	4.8	26	5.9	5.2	2.2	1.3	.55	.39	.19	.09
27	.39	.26	2.8	64	5.9	4.6	2.3	1.4	.58	.39	.21	.10
28	.37	.26	1.8	20	8.4	4.4	2.2	1.4	.58	.39	.17	.08
29	.35	.24	1.5	16	-----	4.2	2.1	1.3	.58	.35	.17	.09
30	.33	.24	1.3	15	-----	4.2	2.0	1.2	.48	.33	.21	.09
31	.31	-----	1.2	13	-----	4.1	-----	1.1	-----	.34	.21	-----
TOTAL	9.05	9.82	241.95	1,633.7	286.6	270.0	77.7	43.4	33.62	11.60	5.09	4.15
MEAN	.29	.33	7.80	52.7	10.2	8.71	2.59	1.40	1.12	.37	.16	.14
MAX	.94	1.2	100	396	31	76	3.5	1.8	2.0	.46	.33	.20
MIN	.08	.22	.24	1.1	5.9	4.1	2.0	1.1	.48	.27	.07	.08
AC-FT	18	19	480	3,240	568	536	154	86	67	23	10	8.2
CAL YR 1969	TOTAL	3,467.45	MEAN	9.50	MAX	199	MIN	.06	AC-FT	6,880		
WAT YR 1970	TOTAL	2,626.68	MEAN	7.20	MAX	396	MIN	.07	AC-FT	5,210		

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0730	4.37	313	1-23	2300	5.90	568
12-24	0700	3.66	200	1-27	0400	4.03	259
1-14	1100	7.17	796	3- 4	1300	4.74	372
1-21	1000	7.03	770				

NOTE.--No gage-height record Nov. 7 to Dec. 19.

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.--6 years, 4.75 cfs (3,440 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,400 cfs Jan. 14 (gage height, 8.71 ft), from rating curve extended as explained below; minimum daily, 0.03 cfs Sept. 24, 25.
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.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967(M).

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	.17	.10	.21	1.5	9.8	9.8	4.6	1.8	.49	.21	.17	.08
2	.17	.10	.24	1.4	8.6	4.0	4.6	2.0	.55	.21	.17	.06
3	.17	.20	.24	1.3	8.1	3.5	4.3	1.9	.60	.21	.17	.06
4	.17	.30	.28	1.3	7.6	57	4.1	1.8	.64	.21	.16	.06
5	.21	2.5	.27	1.2	6.7	15	4.2	2.2	.65	.21	.17	.04
6	.21	.51	.28	1.2	6.2	11	4.0	2.3	.75	.27	.16	.04
7	.21	.37	.28	1.2	5.9	10	3.8	2.3	.88	.27	.17	.04
8	.21	.32	2.2	3.9	5.5	10	3.7	2.1	2.3	.27	.16	.05
9	.21	.27	.38	21	5.4	10	3.7	2.0	2.0	.34	.16	.05
10	.17	.27	1.6	8.2	5.1	9.3	3.7	1.9	1.0	.42	.17	.05
11	.13	.31	1.7	7.9	4.7	8.6	3.6	1.8	.82	.51	.17	.06
12	.17	.38	.90	4.9	9.8	8.2	3.3	2.1	.71	.51	.17	.06
13	.17	.31	.71	5.3	16	8.1	3.5	2.1	.71	.51	.17	.07
14	.21	.52	.42	203	6.1	7.7	3.4	1.9	.71	.51	.10	.07
15	5.8	.23	.41	24	4.9	7.5	3.4	1.9	.71	.42	.10	.07
16	2.5	.21	.42	121	17	7.3	3.3	1.6	.71	.51	.11	.09
17	1.9	.19	.42	24	12	6.9	3.2	1.6	.60	.51	.10	.06
18	.42	.19	1.1	9.8	6.7	6.5	3.0	1.4	.60	.51	.11	.07
19	.42	.22	8.9	7.8	5.1	6.4	3.0	1.6	.60	.42	.13	.07
20	.42	.25	51	32	4.7	6.4	2.5	1.4	.42	.42	.11	.06
21	.34	.23	27	306	4.3	6.2	2.4	1.4	.34	.42	.12	.07
22	.27	.26	4.0	63	4.1	6.2	2.5	1.3	.34	.42	.12	.09
23	.34	.26	3.2	88	3.9	6.2	2.3	1.4	.34	.42	.10	.07
24	.34	.23	31	62	3.8	5.8	2.2	1.6	.27	.51	.10	.03
25	.42	.25	17	26	3.6	5.7	2.2	1.4	.27	.51	.10	.03
26	.42	.27	4.1	20	3.6	5.4	2.4	1.4	.27	.27	.10	.05
27	.42	.21	2.5	45	3.5	5.0	2.4	1.4	.27	.17	.09	.07
28	.34	.26	2.0	16	7.3	5.0	2.1	1.2	.27	.17	.07	.07
29	.34	.21	1.8	14	-----	4.9	2.1	1.1	.27	.17	.07	.07
30	.27	.22	1.6	13	-----	4.8	2.0	.71	.27	.17	.07	.07
31	.34	-----	1.6	11	-----	4.7	-----	.51	-----	.17	.06	-----
TOTAL	17.88	10.15	167.76	1,145.9	190.0	273.1	95.5	51.12	19.36	10.85	3.93	1.83
MEAN	.58	.34	5.41	37.0	6.79	8.81	3.18	1.65	.65	.35	.13	.061
MAX	5.8	2.5	51	306	17	57	4.6	2.3	2.3	.51	.17	.09
MIN	.13	.10	.21	1.2	3.5	3.5	2.0	.51	.27	.17	.06	.03
AC-FT	35	20	333	2,270	377	542	189	101	38	22	7.8	3.6
CAL YR 1969	TOTAL	3,063.66	MEAN	8.39	MAX	216	MIN	.07	AC-FT	6,080		
WTR YR 1970	TOTAL	1,987.38	MEAN	5.44	MAX	306	MIN	.03	AC-FT	3,940		

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0600	4.15	318	1-23	2200	5.88	707
1-14	0930	8.71	1,400	1-27	0400	3.55	188
1-21	0915	7.19	1,020	3- 4	1245	4.04	294

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.--18 years, 2.91 cfs (2,110 acre-ft per year); median of yearly mean discharges, 1.5 cfs (1,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 504 cfs Jan. 21 (gage height, 5.74 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.11	.14	.88	11	7.3	2.6	1.3	.43	.16	.09	.04
2	0	.11	.14	.79	9.8	5.1	2.6	1.2	.43	.12	.08	.04
3	0	.11	.14	.79	9.0	4.8	2.5	1.2	.43	.11	.07	.04
4	0	.14	.14	.71	8.6	26	2.4	1.2	.43	.10	.07	.04
5	0	.71	.14	.71	7.7	8.6	2.3	1.2	.45	.11	.08	.03
6	0	.38	.14	.71	8.6	6.6	2.3	1.2	.47	.13	.07	.02
7	0	.21	.14	.71	8.1	6.1	2.2	1.1	.46	.13	.05	.01
8	0	.17	.38	1.1	7.3	6.4	2.2	1.1	.49	.11	.04	.01
9	0	.11	.29	4.4	7.0	7.1	2.2	1.1	.74	.11	.03	.01
10	0	.11	.25	4.6	7.3	6.1	2.2	1.1	.46	.09	.02	.01
11	0	.11	.33	3.9	6.4	5.5	2.0	1.0	.42	.10	.02	0
12	0	.11	.29	2.7	7.3	5.3	2.0	1.0	.39	.09	.02	.01
13	0	.11	.29	5.5	15	5.1	2.2	.99	.37	.08	.02	.02
14	0	.14	.21	107	8.1	4.9	2.6	.92	.39	.08	.02	.02
15	1.4	.17	.17	22	6.7	4.8	2.3	.82	.38	.08	.02	.01
16	.98	.17	.17	104	18	4.5	2.1	.77	.33	.08	.02	.01
17	.17	.14	.17	22	13	4.3	2.0	.72	.34	.09	.02	.01
18	.11	.11	.21	12	8.1	4.0	1.8	.77	.32	.08	.02	0
19	.05	.14	1.8	12	7.0	3.9	1.8	.85	.29	.08	.03	.01
20	.03	.14	8.6	3.4	6.4	3.8	1.8	.82	.27	.08	.03	.02
21	.03	.14	16	253	6.1	3.7	1.8	.77	.27	.08	.03	.02
22	.03	.14	1.7	43	5.7	3.7	1.6	.71	.25	.09	.03	0
23	.08	.14	.98	43	5.5	3.6	1.6	.66	.25	.08	.03	0
24	.11	.14	29	37	5.4	3.4	1.6	.62	.20	.08	.03	0
25	.11	.14	15	22	5.1	3.3	1.7	.56	.21	.09	.03	0
26	.11	.14	3.9	17	5.1	3.2	1.6	.60	.22	.10	.03	0
27	.14	.14	2.7	36	4.9	3.0	1.5	.61	.23	.08	.03	0
28	.14	.11	2.0	16	6.8	3.0	1.5	.60	.24	.08	.03	0
29	.11	.11	1.4	14	-----	2.9	1.4	.57	.21	.08	.03	0
30	.11	.11	1.2	13	-----	2.8	1.4	.51	.18	.08	.04	0
31	.11	-----	.98	12	-----	2.7	-----	.45	-----	.08	.04	-----
TOTAL	3.82	4.81	89.00	815.90	225.0	165.5	59.8	27.02	10.55	2.93	1.17	0.38
MEAN	.12	.16	2.87	26.3	8.04	5.34	1.99	.87	.35	.095	.038	.013
MAX	1.4	.71	29	253	18	26	2.6	1.3	.74	.16	.09	.04
MIN	0	.11	.14	.71	4.9	2.7	1.4	.45	.18	.08	.02	0
AC-FT	7.6	9.5	177	1,620	446	328	119	54	21	5.8	2.3	.8
CAL YR 1969	TOTAL	1,733.39	MEAN	4.75	MAX	83	MIN	0	AC-FT	3,440		
WTR YR 1970	TOTAL	1,405.88	MEAN	3.85	MAX	253	MIN	0	AC-FT	2,790		

PEAK DISCHARGE((BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	0845	5.23	432	1-27	0415	3.58	179
1-21	0945	5.74	504	2-16	2115	3.03	101
1-23	2200	3.90	229	3- 4	1230	3.28	135

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, revised (from topographic map).

AVERAGE DISCHARGE.--18 years, 15.5 cfs (11,230 acre-ft per year); median of yearly mean discharges, 7.8 cfs (5,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,280 cfs Jan. 21 (gage height, 9.49 ft); minimum daily, 1.5 cfs Nov. 2, 3.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.6	2.2	5.1	34	34	9.8	6.2	4.3	3.1	2.1	1.8
2	2.0	1.5	2.1	4.9	30	19	9.8	5.8	4.1	3.2	1.9	1.8
3	2.2	1.5	2.1	4.7	27	17	9.8	5.4	3.6	3.4	1.9	1.8
4	2.3	1.8	2.1	4.6	27	225	10	5.4	3.6	2.4	1.9	1.8
5	2.0	8.4	2.1	4.4	24	46	10	5.4	4.0	2.3	2.0	1.7
6	1.7	7.0	2.1	4.2	23	26	9.8	5.4	3.9	2.5	2.6	1.7
7	1.6	4.7	2.3	4.3	22	23	9.2	5.5	3.8	3.1	2.0	1.7
8	1.7	3.2	5.0	10	21	23	8.6	5.5	4.3	3.1	1.9	1.7
9	1.7	2.7	5.6	55	21	24	8.6	5.6	6.8	3.1	1.9	1.7
10	1.8	2.5	4.6	46	25	26	8.6	5.4	5.1	2.8	1.8	1.7
11	1.7	2.4	5.7	32	19	19	8.6	5.1	4.5	2.8	1.8	1.7
12	1.8	2.2	4.1	16	27	18	8.6	5.3	4.4	2.5	1.8	1.7
13	1.6	2.1	3.1	13	72	17	11	5.4	4.4	2.2	1.8	1.7
14	1.6	2.1	2.7	856	36	17	12	5.2	4.1	2.2	1.8	1.8
15	18	2.2	2.5	106	23	16	11	4.9	4.0	2.1	1.8	1.8
16	16	2.4	2.4	814	78	16	9.2	4.8	3.9	2.1	2.0	1.8
17	5.1	2.3	2.3	121	103	15	8.6	4.5	3.9	2.2	1.8	1.8
18	3.1	2.4	2.5	50	33	14	8.1	4.6	3.8	2.1	1.8	1.7
19	2.4	4.5	24	39	24	14	8.1	4.5	3.8	2.1	1.9	1.7
20	2.0	2.8	188	154	22	14	8.1	4.5	4.6	2.1	1.9	1.7
21	1.9	2.6	197	1,840	20	13	8.1	4.4	3.8	2.0	1.9	1.7
22	1.7	2.2	16	222	19	13	7.9	4.4	3.3	2.0	1.9	1.6
23	1.8	2.2	8.7	186	19	13	7.2	4.2	3.6	2.1	1.9	1.6
24	1.8	2.2	157	390	19	13	7.2	4.3	3.3	2.1	1.8	1.7
25	2.0	2.1	91	86	19	12	7.4	4.5	3.2	2.0	1.9	1.8
26	2.2	2.3	18	61	17	12	7.4	4.5	3.2	2.2	1.9	2.0
27	2.1	2.3	9.6	168	17	11	6.9	4.0	3.1	2.1	1.9	1.7
28	1.9	2.2	7.5	57	30	11	6.4	3.3	3.1	2.1	1.9	1.7
29	1.8	2.1	6.3	46	-----	11	6.2	4.9	3.1	2.0	1.8	1.7
30	1.6	2.3	5.7	41	-----	10	6.2	4.8	3.2	2.0	1.8	1.7
31	1.6	-----	5.3	36	-----	10	-----	4.5	-----	2.1	1.8	-----
TOTAL	92.8	82.8	789.6	5,477.2	850	752	258.4	152.2	117.8	74.1	58.9	52.0
MEAN	2.99	2.76	25.5	177	30.4	24.3	8.61	4.91	3.93	2.39	1.90	1.73
MAX	18	8.4	197	1,840	103	225	12	6.2	6.8	3.4	2.6	2.0
MIN	1.6	1.5	2.1	4.2	17	10	6.2	3.3	3.1	2.0	1.8	1.6
AC-FT	184	164	1,570	10,360	1,690	1,490	513	302	234	147	117	103
CAL YR 1969	TOTAL 10,827.8		MEAN 29.7		MAX 782	MIN 1.5		AC-FT 21,480				
WTR YR 1970	TOTAL 8,757.8		MEAN 24.0		MAX 1,840	MIN 1.5		AC-FT 17,370				

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0615	5.25	850	1-24	0030	7.21	1,770
1-16	0815	8.84	2,810	1-27	0700	4.47	564
1-21	1045	9.49	3,280	3- 4	1400	5.18	822

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, 5,410 cfs Jan. 21 (gage height, 10.65 ft); minimum daily, 5.6 cfs Oct. 11.

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 except those for period of no gage-height record, which are fair. Flow slightly regulated by Lafayette Reservoir 10 miles upstream (capacity, 4,240 acre-ft). Some small diversions for irrigation above station.

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	6.6	11	6.4	14	80	80	23	17	12	9.8	8.2	8.0
2	6.6	5.7	6.6	13	73	50	23	17	12	10	8.0	7.9
3	6.6	19	6.6	12	68	42	23	17	11	9.8	8.0	7.5
4	6.1	18	6.5	11	62	420	23	16	10	12	8.2	7.5
5	6.6	45	5.7	12	60	70	23	16	10	7.9	8.2	7.5
6	5.7	15	5.7	11	55	52	23	16	11	7.8	8.7	7.5
7	6.0	12	6.0	11	52	45	22	16	11	8.2	8.0	7.5
8	5.8	8.0	22	39	50	47	22	16	18	8.9	7.1	7.5
9	6.3	7.3	11	125	50	49	21	15	29	8.6	7.1	7.5
10	6.0	7.5	24	99	58	56	20	14	13	8.8	7.3	7.5
11	5.6	7.1	17	77	45	44	20	14	12	9.2	12	7.9
12	5.7	7.3	16	39	90	38	20	15	12	9.3	9.5	8.0
13	5.8	7.5	12	37	180	36	24	14	11	8.1	7.3	13
14	6.0	7.3	7.2	1,410	80	35	33	14	12	9.5	6.6	7.5
15	106	7.1	6.7	272	60	32	25	14	12	9.4	6.0	7.1
16	44	6.5	6.3	1,530	200	32	22	14	11	9.8	6.6	7.1
17	15	5.7	6.1	333	250	31	21	13	12	9.9	6.7	7.5
18	8.4	5.9	8.6	168	85	30	20	12	11	8.8	7.0	7.1
19	7.1	8.3	14.9	155	65	29	20	13	12	8.3	7.4	7.1
20	7.1	6.5	852	354	55	28	26	13	10	8.5	7.0	7.1
21	6.6	6.5	616	3,080	50	27	34	12	11	7.1	7.1	7.1
22	6.1	6.2	56	574	46	27	29	13	9.9	6.9	7.0	6.6
23	7.0	6.1	43	554	45	27	21	13	9.9	7.4	7.0	6.6
24	7.2	6.4	440	895	44	27	18	12	9.0	7.8	7.4	6.6
25	7.7	6.3	265	301	43	27	18	12	9.1	7.6	7.9	6.1
26	6.7	7.1	54	280	42	25	17	12	9.3	7.5	11	6.6
27	7.4	6.1	28	532	42	23	17	12	9.8	8.2	7.3	7.1
28	7.1	6.5	22	200	70	24	16	11	9.4	7.7	7.4	6.6
29	7.1	6.1	20	120	-----	23	16	12	9.6	8.7	7.6	6.6
30	7.1	6.6	16	100	-----	23	17	13	9.5	8.4	7.4	6.6
31	6.6	-----	15	90	-----	23	-----	12	-----	8.0	7.4	-----
TOTAL	349.6	281.6	2,756.4	11,448	2,100	1,522	657	430	348.5	267.9	239.4	221.8
MEAN	11.3	9.39	88.9	369	75.0	49.1	21.9	13.9	11.6	8.64	7.72	7.39
MAX	106	45	852	3,080	250	420	34	17	29	12	12	13
MIN	5.6	5.7	5.7	11	42	23	16	11	9.0	6.9	6.0	6.1
AC-FT	693	559	5,470	22,710	4,170	3,020	1,300	853	691	531	475	440
CAL YR 1969	TOTAL	25,067.1	MEAN	68.7	MAX	1,340	MIN	5.6	AC-FT	49,760		
WTR YR 1970	TOTAL	20,622.2	MEAN	56.5	MAX	3,080	MIN	5.6	AC-FT	40,900		

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0645	8.83	3,950	1-23	2400	7.85	3,170
1-14	1030	10.12	4,990	1-27	0745	5.25	1,030
1-21	1045	10.65	5,410	3- 4	1415	5.54	1,280

NOTE.--No gage-height record Jan. 28 to Mar. 10.

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 172.22 ft (revised) above mean sea level. Prior to Nov. 22, 1958, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--34 years, 94.4 cfs (68,390 acre-ft per year); median of yearly mean discharges, 72 cfs (52,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,450 cfs Jan. 24 (gage height, 13.81 ft); minimum daily, 0.31 cfs Aug. 18.
 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 except those for period of indefinite stage-discharge relation, which are fair. No regulation; small diversions above station for irrigation of about 300 acres. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

REVISIONS.--WSP 1929: Drainage area.

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	1.2	3.0	4.3	82	274	472	38	16	5.2	3.3	1.7	.73
2	1.1	3.0	4.3	69	220	215	37	16	5.2	3.1	1.7	.61
3	1.2	3.0	3.5	61	185	155	36	14	4.8	3.0	1.8	1.0
4	1.1	3.0	3.0	53	165	690	33	14	4.8	2.8	1.9	1.3
5	1.1	11	3.0	43	148	508	32	14	4.8	2.9	1.8	1.6
6	1.4	9.5	3.0	38	132	334	32	14	3.9	3.1	1.6	1.3
7	1.2	6.2	3.5	36	119	268	31	13	4.4	2.6	.75	1.6
8	1.2	6.2	5.1	62	110	277	30	13	5.0	2.9	.49	.61
9	1.4	5.5	5.5	930	101	280	29	14	6.2	2.7	.80	.49
10	1.4	4.7	6.8	960	92	289	28	13	5.6	2.4	.73	.49
11	1.8	5.1	23	390	88	220	25	12	4.4	2.6	.67	.61
12	1.8	4.7	32	345	116	188	25	12	3.9	2.8	.80	.37
13	2.2	4.7	110	740	700	160	25	12	3.9	2.9	.61	.73
14	2.2	4.7	19	3,500	401	143	24	11	3.7	2.5	.49	2.2
15	14	5.1	12	1,300	256	129	22	11	4.6	2.4	.43	1.3
16	19	5.1	4.7	4,420	572	113	20	9.6	4.8	2.1	.67	1.3
17	10	4.3	3.5	1,670	825	98	22	8.6	3.7	2.3	.80	1.3
18	7.5	4.3	4.7	894	484	87	21	8.4	3.6	2.2	.31	.73
19	4.3	3.9	574	942	346	81	21	9.3	3.5	2.2	.37	.80
20	3.9	3.9	1,780	1,520	274	83	19	9.9	4.4	2.0	.61	1.9
21	3.0	3.9	1,630	6,430	218	83	21	9.0	5.0	1.9	1.3	2.2
22	3.9	4.3	460	3,030	177	70	17	8.4	4.8	1.8	2.2	1.9
23	3.9	4.3	1,520	3,510	157	66	17	8.2	4.6	1.7	1.9	1.3
24	4.3	3.9	2,930	4,390	137	64	19	7.4	4.6	1.6	1.6	1.9
25	4.3	4.3	655	1,490	119	60	18	7.4	4.1	1.5	1.6	1.6
26	3.9	4.3	353	906	112	56	18	7.0	3.9	1.6	1.3	1.3
27	3.9	4.3	241	1,540	102	49	15	7.0	3.9	1.7	.67	1.6
28	4.3	4.3	181	795	112	47	14	6.8	3.9	1.8	.67	1.6
29	3.9	4.3	140	560	-----	46	17	6.2	4.1	1.8	.73	.67
30	3.9	3.9	114	429	-----	44	15	6.4	3.9	1.7	.80	.49
31	3.9	-----	94	334	-----	41	-----	5.6	-----	1.7	1.3	-----
TOTAL	122.2	142.7	10,972.9	41,469	6,742	5,416	721	324.2	133.2	71.6	33.10	35.53
MEAN	3.94	4.76	354	1,338	241	175	24.0	10.5	4.44	2.31	1.07	1.18
MAX	19	11	2,930	6,430	825	690	38	16	6.2	3.3	2.2	2.2
MIN	1.1	3.0	3.0	36	88	41	14	5.6	3.5	1.5	.31	.37
AC-FT	242	283	21,760	82,250	13,370	10,740	1,430	643	264	142	66	70
CAL YR 1969	TOTAL 64,399.12	MEAN 176	MAX 4,640	MIN .70	AC-FT 127,700							
WTR YR 1970	TOTAL 66,183.43	MEAN 181	MAX 6,430	MIN .31	AC-FT 131,300							

PEAK DISCHARGE (BASE, 4,200 CFS, REVISED)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	1015	9.29	4,460	1-16	0800	13.01	8,410
12-24	0400	10.67	5,770	1-21	0400	13.35	8,860
1-14	unknown	9.87	4,980	1-24	0115	13.81	9,450

NOTE.--Stage-discharge relation indefinite July 1 to Aug. 7.

NAPA RIVER BASIN

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.--14 years, 179 cfs (129,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,700 cfs Jan. 24 (gage height, 22.02 ft); no flow Aug. 14, 15, 21. 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.

REVISIONS (WATER YEARS).--WSP 1315-B: 1930(M).

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	.65	4.7	7.6	203	634	728	123	36	10	3.3	1.0	1.3
2	.13	6.6	7.6	182	543	475	117	37	10	3.0	1.0	1.2
3	1.2	6.6	7.6	169	480	373	116	33	8.1	2.8	1.1	1.5
4	1.0	7.1	7.6	159	445	1,010	99	32	8.4	2.6	1.1	1.5
5	.65	15	7.6	145	403	956	102	34	8.4	2.6	1.0	1.6
6	.28	22	7.6	136	371	646	99	34	6.4	2.7	.90	1.2
7	1.0	14	7.6	134	343	533	96	34	6.5	2.4	.80	.30
8	1.7	9.4	11	146	325	528	89	30	6.4	2.4	.64	.80
9	1.0	7.9	13	1,420	307	470	90	32	9.4	2.2	1.2	1.1
10	2.8	8.1	16	1,390	289	545	90	33	8.7	2.0	1.2	1.3
11	3.1	8.0	58	688	275	450	85	32	6.5	2.0	.78	1.3
12	2.4	7.7	101	583	347	408	79	31	5.5	2.1	.07	1.3
13	3.5	7.5	258	1,140	1,150	367	76	31	5.2	2.1	.52	1.9
14	2.8	7.5	84	8,140	861	339	62	29	5.0	1.9	0	1.6
15	13	7.0	56	3,370	589	317	55	26	6.0	1.7	0	.64
16	30	8.0	43	8,500	700	295	50	25	6.0	1.6	.33	.51
17	27	7.2	35	4,030	1,400	273	54	23	4.5	1.6	.64	.91
18	11	6.6	34	2,210	854	252	59	22	4.3	1.5	.51	1.2
19	7.6	6.6	739	1,740	649	234	60	21	4.0	1.5	1.5	.78
20	5.1	7.0	2,360	2,100	540	219	52	21	4.5	1.4	.78	.24
21	3.5	7.0	2,230	11,100	470	222	51	22	5.0	1.3	0	.78
22	4.7	7.4	802	7,110	420	208	39	21	4.8	1.2	1.2	1.2
23	4.3	7.1	1,110	4,900	378	200	36	19	4.6	1.2	1.3	1.6
24	5.6	7.0	4,390	9,990	355	194	44	15	4.4	1.1	1.8	1.8
25	4.3	5.6	1,180	3,550	329	188	47	15	4.0	1.0	1.3	1.5
26	5.6	7.5	643	2,140	313	176	49	14	3.8	1.1	2.0	.78
27	7.1	7.4	458	2,800	295	163	35	14	3.5	1.2	2.8	.37
28	5.1	7.2	353	1,730	301	153	29	14	3.3	1.2	1.8	1.0
29	4.3	7.6	289	1,240	-----	149	32	14	3.5	1.1	1.5	.91
30	6.6	7.4	250	949	-----	142	37	13	3.4	1.0	1.6	1.2
31	6.6	-----	222	753	-----	131	-----	12	-----	1.0	1.8	-----
TOTAL	173.61	245.7	15,788.2	82,847	14,366	11,344	2,052	769	174.1	55.8	32.17	33.32
MEAN	5.60	8.19	509	2,672	513	366	68.4	24.8	5.80	1.80	1.04	1.11
MAX	30	22	4,390	11,100	1,400	1,010	123	37	10	3.3	2.8	1.9
MIN	.13	4.7	7.6	134	275	131	29	12	3.3	1.0	0	.24
AC-FT	344	487	31,320	164,300	28,490	22,500	4,070	1,530	345	111	64	66
CAL YR 1969	TOTAL	141,774.29	MEAN	388	MAX	7,420	MIN	0	AC-FT	281,200		
WTR YR 1970	TOTAL	127,880.90	MEAN	350	MAX	11,100	MIN	0	AC-FT	253,700		

PEAK DISCHARGE (BASE, 5,000 CFS, REVISED)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-24	0715	16.29	7,420	1-21	1230	21.36	13,800
1-14	1100	19.81	11,800	1-24	0630	22.02	14,700
1-16	1345	20.00	12,000				

NOTE.--No gage-height record June 11 to Aug. 7.

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 (revised).

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.--12 years, 11.1 cfs (8,040 acre-ft per year); median of yearly mean discharges, 7.9 cfs (5,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,060 cfs Jan. 21 (gage height, 7.43 ft); no flow many days.
 Period of record: Maximum discharge, 1,450 cfs Jan. 5, 1965 (gage height, 10.44 ft); no flow for many days in each year.

REMARKS.--Records good. Small storage and release affects summer 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	0	.35	.27	14	43	54	4.7	1.8	.39	.17	0	0
2	0	.31	.27	12	34	20	4.4	1.6	.39	.15	0	0
3	0	.31	.31	11	29	17	4.2	1.5	.35	.13	0	0
4	0	.27	.31	11	25	67	3.9	1.5	.35	.11	0	0
5	0	3.2	.31	9.8	22	36	3.9	1.4	.35	.11	0	0
6	0	1.1	.35	9.1	24	26	3.9	1.4	.35	.09	0	0
7	0	.78	.35	8.8	25	22	3.7	1.4	.35	.08	0	0
8	0	.71	.43	9.5	22	20	3.5	1.5	.35	.07	0	0
9	0	.48	.78	160	20	18	3.3	1.4	.71	.04	0	0
10	0	.39	.78	64	19	17	3.1	1.4	.71	.04	0	0
11	0	.39	12	40	18	15	3.1	1.5	.59	.04	0	0
12	0	.39	23	37	31	14	2.9	1.3	.48	.04	0	0
13	0	.43	18	100	117	13	2.9	1.3	.48	.04	0	0
14	0	.35	6.3	390	37	12	2.9	1.2	.43	.04	0	0
15	0	.31	5.0	200	28	11	2.9	1.0	.43	.04	0	0
16	0	.31	3.1	490	41	10	2.9	.93	.39	.04	0	0
17	0	.31	2.2	225	51	9.8	2.7	.85	.39	.04	0	0
18	.13	.27	2.2	127	37	9.1	2.5	.85	.39	.04	0	0
19	.17	.27	131	137	31	8.5	2.5	.93	.39	.04	0	0
20	.19	.27	215	260	26	8.2	2.4	.93	.39	.04	0	0
21	.21	.71	173	900	22	7.9	2.5	.85	.35	.04	0	0
22	.21	.31	37	400	19	7.5	2.4	.85	.31	.03	0	0
23	.21	.31	213	430	17	7.5	2.4	.71	.27	.02	0	0
24	.21	.27	362	420	16	7.5	2.2	.59	.27	.02	0	0
25	.21	.27	73	250	15	7.2	2.1	.59	.24	.01	0	0
26	.21	.31	37	180	14	6.6	2.2	.59	.21	0	0	0
27	.27	.31	29	230	13	6.3	2.2	.65	.21	0	0	0
28	.31	.31	24	135	14	5.9	2.2	.65	.19	0	0	0
29	.35	.31	19	90	-----	5.6	2.1	.59	.17	0	0	0
30	.35	.27	17	70	-----	5.3	1.9	.53	.17	0	0	0
31	.35	-----	15	52	-----	5.0	-----	.48	-----	0	0	-----
TOTAL	3.38	14.58	1,420.96	5,472.2	810	479.9	88.5	32.77	11.05	1.51	0	0
MEAN	.11	.49	45.8	177	28.9	15.5	2.95	1.06	.37	.049	0	0
MAX	.35	3.2	362	900	117	67	4.7	1.8	.71	.17	0	0
MIN	0	.27	.27	8.8	13	5.0	1.9	.48	.17	0	0	0
AC-FT	6.7	29	2,820	10,850	1,610	952	176	65	22	3.0	0	0
CAL YR 1969	TOTAL	8,451.14	MEAN	23.2	MAX	553	MIN	0	AC-FT	16,760		
WTR YR 1970	TOTAL	8,334.85	MEAN	22.8	MAX	900	MIN	0	AC-FT	16,530		

PEAK DISCHARGE (BASE, 400 CFS)							
DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-20	0645	5.97	597	1-21	1000	7.43	1,060
12-24	0300	6.94	886	1-23	2200	6.85	857
1- 9	1400	-	548	1-27	0145	-	470
1-14	unknown	-	680	2-13	0800	5.51	478
1-16	unknown	6.60	781				

SONOMA CREEK BASIN

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 (revised).

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.--15 years, 74.9 cfs (54,270 acre-ft per year); median of yearly mean discharges, 66 cfs (47,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,570 cfs Jan. 21 (gage height, 13.57 ft); minimum daily, 0.25 cfs Oct. 1.

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 indefinite stage-discharge relation, 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	2.6	2.2	47	175	203	31	11	4.2	2.0	.75	.71
2	.30	2.6	2.7	42	145	96	29	9.8	4.2	1.8	.73	.70
3	.60	3.0	4.5	39	115	83	29	9.8	4.4	1.6	.71	.72
4	.75	2.7	4.2	35	99	567	27	9.4	4.2	1.5	.74	.67
5	.85	12	4.2	33	92	171	26	9.0	4.0	1.4	.81	.57
6	1.0	8.1	4.2	30	87	125	25	9.8	3.8	1.4	.75	.44
7	1.2	6.7	4.2	28	82	112	25	9.8	4.0	1.4	.69	.48
8	1.6	6.4	9.0	32	77	108	23	9.4	4.3	1.4	.65	.50
9	2.0	5.0	7.8	758	72	105	22	9.4	6.7	1.3	.62	.46
10	1.7	4.4	11	344	68	103	21	8.6	6.0	1.3	.59	.42
11	2.5	4.1	30	198	65	91	20	8.6	5.3	1.3	.59	.39
12	2.5	4.0	41	164	81	85	20	8.6	4.9	1.3	.61	.46
13	1.8	3.7	33	857	466	79	20	8.0	4.6	1.2	.66	.51
14	2.7	3.6	16	2,870	147	75	19	7.1	4.5	1.1	.62	.52
15	12	3.8	13	780	113	70	19	6.3	4.5	1.2	.60	.47
16	7.6	3.9	11	2,990	220	65	18	5.7	4.4	1.3	.66	.40
17	5.0	2.2	9.0	839	225	60	17	5.3	4.3	1.1	.63	.35
18	3.2	1.9	11	374	151	57	16	5.5	4.2	1.0	.63	.36
19	3.1	1.9	379	435	125	52	16	5.5	4.0	.95	.62	.40
20	2.2	2.2	1,150	1,110	112	51	15	5.9	3.8	.93	.62	.32
21	2.3	2.4	853	4,130	101	46	15	4.9	3.6	.88	.62	.28
22	2.6	2.8	281	1,250	93	45	15	4.7	3.4	.92	.60	.27
23	3.0	2.8	1,010	1,800	86	43	13	4.7	3.3	.95	.58	.27
24	3.2	4.0	1,620	1,650	80	42	13	4.6	3.0	.98	.60	.27
25	2.8	3.6	374	860	74	40	13	4.6	2.9	1.0	.64	.28
26	2.9	3.2	219	600	70	38	14	4.6	2.7	.97	.75	.29
27	3.1	3.1	152	850	66	35	14	4.8	2.5	.92	.72	.30
28	2.9	2.6	114	530	73	34	14	4.4	2.3	.89	.68	.31
29	2.6	2.0	78	370	-----	32	14	4.6	2.2	.86	.70	.32
30	2.7	1.8	62	270	-----	31	12	4.4	2.1	.83	.70	.34
31	2.7	-----	55	215	-----	30	-----	4.2	-----	.78	.70	-----
TOTAL	83.65	113.1	6,565.0	24,530	3,360	2,774	575	213.0	118.3	36.46	20.57	12.78
MEAN	2.70	3.77	212	791	120	89.5	19.2	6.87	3.94	1.18	.66	.43
MAX	12	12	1,620	4,130	466	567	31	11	6.7	2.0	.81	.72
MIN	.25	1.8	2.2	28	65	30	12	4.2	2.1	.78	.58	.27
AC-FT	166	224	13,020	48,660	6,660	5,500	1,140	422	235	72	41	25

CAL YR 1969	TOTAL 45,752.41	MEAN 125	MAX 2,650	MIN .25	AC-FT 90,750
WTR YR 1970	TOTAL 38,401.86	MEAN 105	MAX 4,130	MIN .25	AC-FT 76,170

PEAK DISCHARGE (BASE, 1,400 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0730	10.09	3,370	1-23	2200	12.90	5,900
12-24	0430	10.42	3,640	1-27	0330	-	2,000
1- 9	1630	8.99	2,590	2-13	0830	7.74	1,800
1-16	0530	13.34	6,340	3- 4	1130	8.68	2,380
1-21	0230	13.57	6,570				

NOTE.--Stage-discharge relation indefinite May 27 to Sept. 30.

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).--24 years, 12.4 cfs (8,980 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,000 cfs Jan. 14 (gage height, 11.01 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, 2,450 acre-ft Sept. 30, 1969, and 2,240 acre-ft Sept. 30, 1970. Diversion from Stafford Lake for municipal water supply began Apr. 25, 1952, and amounted to 2,080 acre-ft for the water year 1970.

COOPERATION.--Record of diversions furnished by North Marin County Water District.

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	0	1.2	.70	3.0	43	77	1.8	.97	.24	.25	.34	0
2	0	.70	1.2	2.7	35	35	1.8	.90	.21	.15	.27	.01
3	0	.58	1.0	2.4	28	21	1.8	.90	.21	.16	.35	0
4	0	.58	.58	2.2	24	168	1.7	.72	.18	.07	.45	0
5	0	3.5	.58	2.2	19	90	1.7	.75	.19	.06	.45	0
6	0	1.7	.58	2.0	15	58	1.6	.73	.17	.13	.37	0
7	0	.90	.70	2.0	13	44	1.6	.73	.24	.22	.24	0
8	0	.58	3.8	10	12	38	1.6	.64	.52	.32	.27	0
9	0	.58	.70	131	11	30	1.6	.69	1.0	.13	.25	0
10	0	.58	3.3	42	11	24	1.6	.74	.34	.23	.16	0
11	0	.58	6.8	32	10	19	1.6	.76	.32	.21	.11	0
12	0	.70	4.2	23	23	17	1.6	.73	.22	.18	.26	0
13	1.6	.70	1.2	54	101	14	1.5	.70	.19	.13	.33	0
14	2.6	.76	1.0	698	43	12	1.6	.61	.23	.13	.27	0
15	22	.76	.76	307	27	10	1.7	.60	.25	.20	.29	0
16	3.2	.76	.76	748	64	8.7	1.7	.51	.30	.19	.24	0
17	1.2	.70	.76	362	79	6.4	1.6	.46	.22	.17	.21	0
18	.90	.70	4.4	172	57	4.6	1.5	.52	.27	.12	.19	0
19	1.0	.70	35	131	43	3.7	1.5	.48	.27	.09	.14	0
20	1.2	.76	181	215	36	3.4	1.5	.54	.18	.05	.07	0
21	1.2	.90	95	960	30	3.1	1.5	.41	.22	.03	.02	0
22	.76	.90	23	352	25	3.1	1.3	.42	.21	.14	.03	0
23	.76	.76	46	395	21	2.8	1.4	.36	.19	.08	.03	0
24	.76	.76	93	412	19	2.6	1.3	.32	.21	.01	.03	0
25	.70	.76	25	192	16	2.3	1.2	.36	.25	.04	.01	0
26	1.2	.76	13	128	15	2.2	1.2	.32	.30	.06	.14	0
27	1.7	.76	8.0	174	14	2.0	1.1	.38	.29	.14	.17	0
28	1.7	.76	7.6	103	23	2.0	1.0	.33	.37	.04	.12	0
29	1.7	.76	4.4	80	-----	2.1	1.0	.29	.31	.04	.03	0
30	1.7	.76	3.6	65	-----	2.0	.97	.21	.46	.02	.16	0
31	1.7	-----	3.3	53	-----	1.9	-----	.18	-----	.08	.01	-----
TOTAL	47.58	25.90	570.92	5,855.5	857	709.9	44.57	17.26	8.56	3.87	6.01	0.01
MEAN	1.53	.86	18.4	189	30.6	22.9	1.49	.56	.29	.12	.19	.0003
MAX	22	3.5	181	960	101	168	1.8	.97	1.0	.32	.45	.01
MIN	0	.58	.58	2.0	10	1.9	.97	.18	.17	.01	.01	0
AC-FT	94	51	1,130	11,610	1,700	1,410	88	34	17	7.7	12	.02

CAL YR 1969 TOTAL 8,425.05 MEAN 23.1 MAX 459 MIN 0 AC-FT 16,710
 WTR YR 1970 TOTAL 8,147.08 MEAN 22.3 MAX 960 MIN 0 AC-FT 16,160

CORTE MADERA CREEK BASIN

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.--19 years, 28.5 cfs (20,650 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,290 cfs Dec. 20 (gage height, 17.97 ft); minimum daily, 0.12 cfs Oct. 5.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	5.0	5.5	49	48	67	4.8	2.6	1.0	1.0	.51	.27
2	.45	5.0	5.0	46	38	24	7.0	2.3	1.0	1.0	.46	.15
3	.45	6.6	5.5	45	30	20	9.2	2.3	1.0	1.1	.50	.17
4	.39	6.6	5.0	43	23	372	5.2	2.3	1.0	1.1	.48	.15
5	.12	18	5.5	40	19	137	4.4	2.3	1.0	.87	.44	.20
6	.18	3.6	5.5	40	16	77	4.4	2.3	.55	.91	.48	.20
7	.17	6.6	5.5	39	15	56	4.4	2.3	1.0	.89	.48	.28
8	1.1	3.6	10	108	14	45	4.0	2.6	1.1	.89	.48	.40
9	.45	3.2	2.0	524	12	36	4.0	2.6	1.9	.86	.37	.27
10	.75	3.2	15	216	11	31	4.0	2.3	.96	.86	.35	.28
11	1.7	3.6	41	172	9.2	26	4.0	2.3	.95	.88	.37	.30
12	1.1	3.6	51	160	31	23	4.0	2.3	.93	.88	.40	.31
13	2.0	3.6	19	342	117	21	4.4	2.3	.91	.73	.44	.33
14	12	4.5	11	1,600	43	19	4.0	2.0	.93	.65	.45	.40
15	82	5.5	23	372	29	17	3.6	1.7	.93	.67	.36	.37
16	9.0	5.0	48	947	75	16	4.0	1.7	.94	.77	.35	.33
17	4.5	5.0	19	243	75	14	3.6	1.7	1.0	.79	.33	.27
18	2.0	5.0	23	133	46	13	3.6	1.7	.91	.65	.30	.23
19	1.7	5.5	409	121	36	12	4.0	1.5	.80	.64	.31	.25
20	1.7	6.0	1,070	411	30	7.5	3.6	1.5	.78	.71	.34	.23
21	1.4	6.0	456	1,720	23	6.5	3.6	1.5	.78	.61	.33	.30
22	1.7	6.0	164	548	20	6.5	3.3	1.5	.80	.58	.33	.23
23	2.4	6.0	265	785	17	7.0	3.3	1.2	.79	.59	.34	.28
24	2.8	6.6	662	733	15	5.6	3.3	1.2	.82	.61	.37	.23
25	3.2	6.6	198	246	13	5.2	3.3	1.5	.86	.58	.36	.19
26	3.2	6.0	129	151	12	5.2	3.3	1.5	2.6	.55	.34	.17
27	3.6	6.6	97	290	14	4.4	2.6	1.5	2.9	.59	.35	.18
28	4.1	6.6	77	138	39	4.4	2.9	1.5	2.2	.58	.39	.18
29	4.5	6.0	64	98	-----	4.8	2.6	1.2	1.1	.55	.33	.19
30	4.1	5.5	56	75	-----	5.2	2.6	1.2	1.1	.51	.35	.19
31	4.5	-----	51	58	-----	4.8	-----	1.0	-----	.55	.37	-----
TOTAL	157.48	170.6	3,997.5	10,493	870.2	1,093.1	121.3	57.4	33.54	23.15	12.06	7.53
MEAN	5.08	5.69	129	338	31.1	35.3	4.04	1.85	1.12	.75	.39	.25
MAX	82	18	1,070	1,720	117	372	9.2	2.6	2.9	1.1	.51	.40
MIN	.12	3.2	2.0	39	9.2	4.4	2.6	1.0	.55	.51	.30	.15
AC-FT	312	338	7,930	20,810	1,730	2,170	241	114	67	46	24	15

CAL YR 1969 TOTAL 18,997.77 MEAN 52.0 MAX 1,070 MIN 0 AC-FT 37,680

WTR YR 1970 TOTAL 17,036.86 MEAN 46.7 MAX 1,720 MIN .12 AC-FT 33,790

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0700	17.97	3,290	1-21	0345	16.82	2,940
12-24	0430	11.45	1,370	1-23	2200	14.03	2,330
1- 9	1445	10.97	1,240	3- 4	1115	9.42	1,090
1-14	0900	17.22	3,060				

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.--5 years, 7.92 cfs (5,740 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,180 cfs Jan. 21 (gage height, 7.52 ft); minimum daily, 0.16 cfs Oct. 13.

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 fair. No regulation or diversion above station.

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	.42	.42	.48	4.1	13	13	1.9	1.2	.82	.29	.22	.19
2	.69	.37	.42	3.6	11	7.1	2.5	1.2	.81	.28	.22	.19
3	.95	.32	.37	3.3	9.3	5.7	3.0	1.1	.80	.27	.22	.19
4	.77	.37	.37	3.1	8.5	39	2.5	1.1	.79	.27	.22	.19
5	.86	4.5	.42	2.9	7.1	28	2.2	1.1	.79	.27	.22	.19
6	.86	1.3	.42	2.8	6.2	20	2.0	1.1	.75	.27	.22	.19
7	.54	1.4	.32	2.7	5.2	17	2.0	1.1	.73	.27	.22	.19
8	.28	.86	3.5	10	4.5	14	1.9	1.1	.79	.27	.22	.19
9	.28	.69	.77	29	3.7	12	1.8	1.0	1.1	.27	.22	.19
10	.61	.54	3.3	26	3.3	10	1.8	1.0	.94	.26	.22	.19
11	.48	.48	3.3	27	2.5	9.2	1.7	1.0	.84	.25	.22	.18
12	.18	.72	2.3	28	5.7	7.8	1.7	1.0	.72	.25	.22	.18
13	.16	.48	1.8	32	14	6.4	1.6	.99	.66	.25	.21	.18
14	.32	.42	2.3	269	6.0	6.0	1.6	.98	.60	.25	.21	.18
15	27	.48	1.7	95	4.0	5.6	1.5	.97	.55	.25	.21	.18
16	4.5	.42	1.7	170	13	5.2	1.5	.96	.54	.24	.21	.18
17	1.5	.37	2.1	45	15	4.8	1.5	.95	.51	.24	.21	.18
18	.95	.37	2.9	24	12	4.5	1.5	.94	.49	.24	.21	.18
19	.61	.37	31	22	10	4.0	1.5	.93	.47	.24	.21	.18
20	.86	.42	226	100	7.8	3.5	1.5	.92	.46	.24	.21	.18
21	.61	.42	80	434	5.7	3.2	1.4	.91	.44	.24	.21	.18
22	.48	.37	45	113	4.8	2.9	1.4	.90	.42	.23	.21	.18
23	.48	.42	75	81	3.8	2.7	1.3	.89	.40	.23	.20	.18
24	.48	.37	130	92	3.3	2.6	1.3	.88	.38	.23	.20	.17
25	.42	.37	50	43	2.9	2.4	1.3	.87	.36	.23	.20	.17
26	.42	.37	16	30	2.7	2.3	1.3	.87	.35	.23	.20	.17
27	.42	.32	10	40	3.5	2.8	1.2	.86	.33	.23	.20	.17
28	.42	.37	7.5	28	9.3	2.6	1.2	.85	.32	.23	.20	.17
29	.42	.37	6.5	22	-----	2.4	1.2	.84	.30	.23	.20	.17
30	.42	.42	5.6	19	-----	2.2	1.2	.83	.29	.22	.20	.17
31	.42	-----	4.8	15	-----	2.0	-----	.82	-----	.22	.20	-----
TOTAL	47.81	19.10	715.87	1,816.5	197.8	250.9	50.0	30.16	17.75	7.69	6.54	5.43
MEAN	1.54	.64	23.1	58.6	7.06	8.09	1.67	.97	.59	.25	.21	.18
MAX	27	4.5	226	434	15	39	3.0	1.2	1.1	.29	.22	.19
MIN	.16	.32	.32	2.7	2.5	2.0	1.2	.82	.29	.22	.20	.17
AC-FT	95	38	1,420	3,600	392	498	99	60	35	15	13	11

CAL YR 1969 TOTAL 3,812.99 MEAN 10.4 MAX 226 MIN .16 AC-FT 7,560
WTR YR 1970 TOTAL 3,165.55 MEAN 8.67 MAX 434 MIN .16 AC-FT 6,280

PEAK DISCHARGE (BASE, 220 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0530	7.50	1,170	1-21	0900	7.52	1,180
1-14	0945	5.62	476				

PINE CREEK BASIN

11460170 PINE CREEK AT BOLINAS, CALIF

LOCATION.--Lat 37°55'07", long 122°41'31", in Las Baulines Grant, Marin County, on right bank 100 ft upstream from highway bridge, 0.4 mile upstream from mouth, and 0.9 mile north of Bolinas.

DRAINAGE AREA.--7.83 sq mi.

PERIOD OF RECORD.--May 1967 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 6.19 ft (revised) above mean sea level. Prior to Feb. 20, 1968, at datum 0.16 ft higher. Feb. 20 to Dec. 28, 1968, at datum 0.54 ft lower. Dec. 29, 1968, to Feb. 10, 1970, at datum 0.71 ft lower. Float-operated rain gage 2.1 miles north of gage.

EXTREMES.--Current year: Maximum discharge, 990 cfs Jan. 21 (gage height, 8.60 ft, datum then in use); minimum daily, 0.01 cfs Sept. 28-30.

Period of record: Maximum discharge, 990 cfs Jan. 21, 1970 (gage height, 8.60 ft, datum then in use); no flow Sept. 22, 1968.

REMARKS.--Records fair. No regulation; some small diversions above station for domestic use. Records of water temperatures and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

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	.70	1.1	1.0	45	34	21	5.6	2.8	1.3	.72	.21	.08
2	.70	1.1	1.0	43	31	17	5.4	2.7	1.3	.68	.21	.07
3	.51	1.1	1.1	42	29	16	5.2	2.7	1.3	.68	.21	.08
4	.39	1.2	1.1	40	27	50	5.1	2.6	1.3	.68	.21	.13
5	.32	5.3	1.1	39	25	38	5.0	2.5	1.3	.68	.19	.08
6	.29	3.7	1.1	38	23	31	4.9	2.5	1.4	.60	.15	.10
7	.32	2.9	1.0	37	22	27	4.8	2.4	1.5	.64	.14	.07
8	.39	2.3	1.2	41	21	27	4.7	2.4	1.7	.80	.11	.11
9	.32	2.0	1.5	66	20	24	4.6	2.3	.98	.72	.11	.10
10	.29	1.7	1.8	62	20	22	4.5	2.2	.19	.72	.05	.31
11	.17	1.6	2.0	57	19	19	4.5	2.2	.25	.76	.09	.15
12	.14	1.4	2.5	55	21	16	4.4	2.1	.31	.64	.13	.17
13	.17	1.4	3.0	69	37	15	4.3	2.1	.31	.60	.10	.10
14	.32	1.4	4.3	523	25	14	4.2	2.0	.31	.56	.09	.05
15	3.6	1.1	5.9	239	21	12	4.1	2.0	.34	.56	.17	.03
16	3.0	1.1	4.9	429	25	11	4.0	1.9	.40	.56	.13	.04
17	2.3	1.1	4.7	220	30	11	3.9	1.9	.34	.48	.10	.02
18	1.7	1.0	4.7	166	26	10	3.9	1.8	.44	.40	.05	.05
19	1.3	1.0	4.9	149	23	9.4	3.8	1.8	.56	.48	.04	.09
20	1.3	.95	274	293	21	8.8	3.8	1.8	.56	.34	.07	.07
21	1.3	.95	124	706	19	8.4	3.6	1.7	.60	.34	.08	.04
22	1.3	.95	83	203	18	7.8	3.5	1.7	.56	.34	.14	.03
23	1.3	.95	112	179	17	7.6	3.4	1.6	.64	.37	.10	.02
24	1.3	.95	159	203	16	7.2	3.3	1.6	.72	.37	.10	.03
25	1.3	.95	102	98	15	6.9	3.2	1.6	.76	.40	.08	.03
26	1.2	.90	78	68	15	6.7	3.2	1.5	.80	.28	.07	.02
27	1.2	.85	66	78	15	6.5	3.1	1.5	.86	.37	.07	.05
28	1.2	.90	60	59	18	6.3	3.0	1.5	.92	.34	.19	.01
29	1.2	1.1	55	54	-----	6.1	3.0	1.4	.80	.23	.10	.01
30	1.2	1.0	50	44	-----	5.9	2.9	1.4	.86	.15	.07	.01
31	1.1	-----	47	38	-----	5.7	-----	1.3	-----	.19	.07	-----
TOTAL	31.83	43.95	1,302.9	4,383	633	474.3	122.9	61.5	23.61	15.68	3.63	2.15
MEAN	1.03	1.47	42.0	141	22.6	15.3	4.10	1.98	.79	.51	.12	.072
MAX	3.6	5.3	274	706	37	50	5.6	2.8	1.7	.80	.21	.31
MIN	.14	.85	1.0	37	15	5.7	2.9	1.3	.19	.15	.04	.01
AC-FT	63	87	2,580	8,690	1,260	941	244	122	47	31	7.2	4.3
(a)	3.8	1.5	12.3	23.1	4.5	3.0	.3	.4	1.1	0	0	0
CAL YR 1969	TOTAL 6,459.88	MEAN 17.7	MAX 274	MIN .14	ACFT 12,810							
WAT YR 1970	TOTAL 7,098.45	MEAN 19.4	MAX 706	MIN .01	ACFT 14,080							

PEAK DISCHARGE (BASE, 150 CFS)

a Precipitation, in inches.

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0630	8.07	843	1-21	0430	8.60	990
12-23	1530	4.30	184	1-23	2200	6.47	428
1-14	1030	8.35	915				

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.--11 years, 44.9 cfs (32,530 acre-ft per year); median of yearly mean discharges, 37 cfs (26,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,520 cfs Jan. 21 (gage height, 21.56 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.

REVISIONS (WATER YEARS).--WRD Calif. 1969: 1967-68.

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	0	1.2	.43	24	76	183	7.8	2.0	.25	.02	.07	.01
2	0	1.1	.43	22	60	97	7.5	1.9	.22	.02	.06	.01
3	0	1.0	.43	20	50	84	7.2	1.8	.19	.02	.06	.01
4	0	.91	.43	18	45	512	6.6	1.8	.17	.02	.06	.01
5	0	6.0	.36	17	39	246	6.4	1.9	.16	.03	.05	.01
6	0	6.4	.40	16	35	153	6.4	1.6	.14	.03	.04	.01
7	0	2.3	.43	16	32	116	5.9	1.4	.14	.03	.03	0
8	0	1.5	1.3	150	29	114	5.4	1.2	.15	.03	.01	0
9	0	.91	1.5	1,150	27	90	5.4	1.3	.36	.04	.01	0
10	0	.80	3.3	450	26	78	5.2	1.1	.28	.04	0	.01
11	0	.60	5.7	175	24	68	4.9	1.0	.19	.04	0	0
12	0	.51	11	165	40	61	4.7	.95	.13	.05	.01	0
13	0	.43	10	450	370	54	4.3	.90	.09	.06	.01	0
14	0	.43	6.0	1,300	172	50	3.8	.85	.08	.06	0	0
15	0	.43	5.0	650	132	43	3.6	.79	.08	.07	0	0
16	0	.43	3.7	2,090	201	37	3.8	.74	.06	.05	0	0
17	0	.36	2.9	573	311	33	3.6	.77	.06	.05	0	0
18	0	.36	3.4	281	190	32	3.4	.81	.06	.05	0	0
19	0	.36	179	286	149	27	3.8	.76	.05	.06	0	0
20	0	.36	1,210	777	123	23	3.4	.72	.04	.07	0	0
21	0	.30	900	3,150	104	21	3.0	.72	.05	.07	0	0
22	1.2	.36	200	1,050	88	18	2.8	.64	.04	.07	0	0
23	33	.30	1,150	1,340	78	16	2.8	.57	.03	.07	0	0
24	5.5	.30	900	1,410	70	15	2.7	.50	.03	.07	0	0
25	3.5	.30	240	438	62	13	2.7	.45	.03	.07	.01	0
26	2.9	.30	120	244	57	12	2.7	.47	.03	.07	.01	.01
27	2.4	.30	76	696	53	11	2.5	.49	.03	.07	.01	0
28	2.0	.43	52	284	68	9.9	2.5	.44	.02	.06	.01	0
29	1.7	.43	39	192	-----	9.6	2.3	.46	.03	.06	.01	0
30	1.5	.43	33	134	-----	9.0	2.2	.36	.03	.06	.01	0
31	1.3	-----	28	95	-----	8.4	-----	.29	-----	.06	.01	-----
TOTAL	55.0	29.84	5,183.71	17,663	2,711	2,243.9	129.3	29.68	3.22	1.57	0.48	0.08
MEAN	1.77	.99	167	570	96.8	72.4	4.31	.96	.11	.051	.016	.003
MAX	33	6.4	1,210	3,150	370	512	7.8	2.0	.36	.07	.07	.01
MIN	0	.30	.36	16	24	8.4	2.2	.29	.02	.02	0	0
AC-FT	109	59	10,280	35,030	5,380	4,450	256	59	6.4	3.1	1.0	.2

CAL YR 1969 TOTAL 30,543.98 MEAN 83.7 MAX 2,580 MIN 0 AC-FT 60,580
 WTR YR 1970 TOTAL 28,050.78 MEAN 76.9 MAX 3,150 MIN 0 AC-FT 55,640

		PEAK DISCHARGE (BASE, 2,000 CFS, REVISED)					
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0715	17.52	2,880	1-21	1030	21.56	4,520
1-14	unknown	-	2,000	1-23	2215	19.59	3,670
1-16	0545	19.22	3,520				

NOTE.--No gage-height record May 1 to June 8.

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.--8 years, 22.9 cfs (16,590 acre-ft per year)

EXTREMES.--Current year: Maximum discharge, 1,790 cfs Jan. 21 (gage height, 17.79 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 for the water year 1970 are published in Part 2 of this report.

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	0	.92	.65	12	30	108	4.2	1.8	.39	.18	.03	.06
2	0	.92	.65	10	24	30	4.2	1.7	.33	.11	.03	.06
3	0	1.2	.65	9.2	21	21	3.9	1.4	.28	.02	.05	.03
4	0	1.1	.65	8.9	19	245	3.7	1.5	.31	0	.02	0
5	0	5.4	.65	8.1	16	71	3.6	1.6	.37	0	0	0
6	0	3.3	.65	7.6	13	39	3.6	1.5	.51	.04	0	0
7	0	2.0	.71	7.8	13	37	3.4	1.3	.62	.13	0	0
8	0	1.7	1.9	94	12	45	3.2	1.2	.84	.25	0	0
9	0	1.4	2.3	566	11	55	3.1	1.3	1.8	.36	0	0
10	.14	1.2	2.4	151	10	49	3.0	1.1	1.2	.20	0	0
11	.02	1.0	19	85	10	47	2.9	1.1	.71	0	0	0
12	0	.92	97	81	40	40	2.8	1.2	.48	0	0	0
13	0	.77	41	257	341	30	2.8	1.1	.33	.13	0	0
14	.38	.77	42	656	74	28	2.8	.98	.28	.39	0	0
15	16	.77	20	308	43	22	2.8	.94	.28	.31	0	0
16	8.6	.77	10	817	154	18	2.8	.81	.25	.33	0	0
17	3.2	.65	10	173	131	15	2.6	.82	.18	.28	0	0
18	1.7	.60	21	94	61	13	2.4	1.0	.21	.20	0	0
19	1.5	.60	276	234	39	11	2.8	.99	.30	.18	0	0
20	1.1	.60	617	544	30	9.8	2.4	.83	.29	.10	0	0
21	1.1	.60	420	1,040	24	9.3	2.5	.90	.34	.09	0	0
22	1.1	.65	96	345	20	8.7	2.4	.84	.33	.07	0	0
23	1.2	.65	562	639	17	8.0	2.3	.73	.35	.09	0	0
24	1.2	.65	426	423	16	7.5	2.2	.61	.40	.13	.04	0
25	1.2	.65	100	121	13	6.9	2.1	.55	.37	.20	.02	0
26	.92	.65	54	95	12	6.4	2.1	.60	.31	.18	.03	0
27	1.3	.65	35	332	11	5.6	1.9	.69	.19	.17	.01	0
28	1.2	.65	25	82	46	5.3	2.0	.59	.15	.35	0	0
29	1.1	.65	19	54	-----	5.1	1.9	.64	.05	.31	.04	0
30	1.1	.65	16	42	-----	4.9	1.8	.56	.03	.14	.08	0
31	1.1	-----	13	33	-----	4.5	-----	.47	-----	.05	.10	-----
TOTAL	45.16	33.04	2,930.21	7,329.6	1,251	1,006.0	84.2	31.35	12.48	4.99	0.45	0.15
MEAN	1.46	1.10	94.5	236	44.7	32.5	2.81	1.01	.42	.16	.015	.005
MAX	16	5.4	617	1,040	341	245	4.2	1.8	1.8	.39	.10	.06
MIN	0	.60	.65	7.6	10	4.5	1.8	.47	.03	.0	0	0
AC-FT	90	66	5,810	14,540	2,480	2,000	167	62	25	9.9	.9	.3
CAL YR 1969	TOTAL 12,709.78	MEAN 34.8	MAX 694	MIN 0	AC-FT 25,210							
WTR YR 1970	TOTAL 12,728.63	MEAN 34.9	MAX 1,040	MIN 0	AC-FT 25,250							

PEAK DISCHARGE (BASE, 1,000 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	0945	16.96	1,650	1-16	0615	16.37	1,570
12-23	2100	12.85	1,050	1-21	0100	17.79	1,790
1-9	1615	13.31	1,110	1-23	2245	15.90	1,500
1-14	0315	13.88	1,190				

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 611.98 ft above mean sea level. Prior to October 1952, non-recording 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.--20 years, 178 cfs (128,900 acre-ft per year); median of yearly mean discharges, 160 cfs (116,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,000 cfs Jan. 23 (gage height, 13.41 ft); no flow 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.

REMARKS.--Records good. No regulation; small diversions above station for irrigation of about 300 acres.

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	.10	1.8	2.6	77	346	128	38	18	6.1	2.6	.21	0
2	.10	2.0	2.6	68	287	108	40	18	6.0	2.5	.19	0
3	.10	2.3	3.1	63	244	100	40	18	5.7	2.3	.17	0
4	.10	3.2	3.1	58	217	603	40	18	5.6	2.1	.16	0
5	.15	9.4	3.1	53	196	278	38	18	5.5	2.0	.14	0
6	.15	9.4	3.7	48	176	173	37	19	5.3	1.9	.13	0
7	.15	6.1	3.7	48	161	200	38	20	5.6	1.8	.12	0
8	.15	8.7	8.1	73	150	328	38	20	5.9	1.7	.11	0
9	.15	8.1	8.1	1,450	138	274	41	21	8.2	1.6	.10	0
10	.15	5.5	9.4	1,110	128	265	37	21	7.4	1.4	.09	0
11	.15	4.3	23	449	119	217	36	21	6.3	1.4	.07	0
12	.15	3.7	1,240	409	226	189	35	19	6.3	1.4	.06	0
13	.15	3.1	489	940	1,340	164	35	16	6.3	1.3	.04	0
14	.23	2.6	304	4,840	510	167	35	15	6.2	1.1	.02	0
15	2.4	2.6	141	1,760	301	145	34	14	5.9	1.0	.01	0
16	6.0	3.1	87	4,900	979	130	34	13	5.3	.96	0	0
17	5.3	2.6	75	2,680	1,620	117	33	12	4.9	.86	0	0
18	4.7	2.6	148	1,060	331	106	32	11	4.5	.78	0	0
19	3.5	2.6	1,520	1,070	477	97	32	11	4.1	.72	0	0
20	2.3	2.0	742	2,030	332	89	30	9.5	3.9	.65	0	0
21	1.8	2.0	2,000	6,040	256	83	29	8.7	3.5	.59	0	0
22	1.3	2.6	495	3,010	210	76	27	8.1	3.5	.54	0	0
23	1.3	2.6	1,670	7,390	182	70	26	7.7	3.4	.49	0	0
24	1.1	2.6	796	4,220	164	65	24	7.1	3.4	.45	0	0
25	1.3	3.1	449	1,920	148	59	24	6.7	3.4	.40	0	0
26	1.5	3.1	400	2,670	133	54	23	6.3	3.4	.37	0	0
27	1.3	3.1	244	3,630	123	49	22	6.2	3.2	.33	0	0
28	1.3	2.6	175	1,400	126	48	21	6.2	3.2	.30	0	0
29	1.5	2.6	138	831	-----	46	20	6.2	3.0	.28	0	0
30	1.5	2.6	113	588	-----	44	19	6.3	2.9	.25	0	0
31	1.8	-----	91	444	-----	40	-----	6.3	-----	.23	0	-----
TOTAL	41.88	112.6	11,387.5	54,729	9,820	4,512	958	408.3	147.9	34.30	1.62	0
MEAN	1.35	3.75	367	1,765	351	146	31.9	13.2	4.93	1.11	.052	0
MAX	6.0	9.4	2,000	7,390	1,620	603	41	21	8.2	2.6	.21	0
MIN	.10	1.8	2.6	48	119	40	19	6.2	2.9	.23	0	0
AC-FT	83	223	22,590	108,600	19,480	8,950	1,900	810	293	68	3.2	0

CAL YR 1969 TOTAL 89,419.46 MEAN 245 MAX 4,950 MIN .10 AC-FT 177,400
 WTR YR 1970 TOTAL 62,153.10 MEAN 225 MAX 7,390 MIN 0 AC-FT 163,000

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0800	7.12	4,420	1-23	2100	13.41	11,000
1-14	0615	13.04	10,500	1-26	2330	11.97	9,370
1-21	0300	11.05	8,360				

NOTE.--No gage-height record May 9 to June 8, July 15 to Aug. 17.

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.--29 years, 340 cfs (246,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,400 cfs Jan. 23 (gage height, 20.13 ft); minimum daily, 55 cfs May 4.

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 water year 1970 are published in Part 2 of this report.

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	265	301	72	372	564	417	318	112	100	108	111	135
2	271	299	72	360	518	390	325	96	84	106	112	130
3	295	299	72	354	490	384	307	76	127	109	117	114
4	299	301	70	348	480	808	179	55	115	108	103	120
5	299	313	67	345	455	511	130	57	106	108	100	120
6	299	303	67	345	441	452	126	91	127	108	103	121
7	299	315	70	342	427	519	138	108	129	133	120	126
8	299	318	78	366	417	620	129	121	129	103	121	126
9	299	313	78	1,920	408	569	118	108	142	103	127	142
10	301	310	82	1,050	405	543	120	114	151	115	132	245
11	299	303	124	600	393	494	121	112	138	108	121	249
12	301	303	1,110	697	580	462	123	115	132	108	126	251
13	295	305	537	1,080	1,520	438	129	109	142	192	130	263
14	295	310	502	4,110	680	431	135	105	151	114	129	269
15	313	310	323	1,390	580	405	130	103	145	114	115	271
16	310	305	339	3,970	1,190	390	126	93	136	108	106	271
17	310	301	333	2,280	1,300	378	127	102	129	108	123	271
18	308	305	405	975	788	375	115	94	103	102	120	271
19	301	303	1,770	1,210	640	366	120	82	105	103	126	271
20	301	299	901	2,020	576	354	117	75	117	105	130	277
21	295	301	1,630	5,430	525	354	123	75	118	109	132	231
22	308	297	580	2,110	487	354	132	94	115	112	130	231
23	308	299	1,940	7,620	469	348	127	93	120	115	130	277
24	310	299	1,050	3,780	448	345	126	100	117	115	130	253
25	310	267	692	1,350	431	330	129	99	115	112	123	255
26	310	88	592	1,910	417	336	130	94	118	118	103	257
27	313	73	480	3,890	411	330	127	99	112	126	106	259
28	313	70	417	1,030	420	330	108	100	114	121	108	263
29	303	72	402	760	-----	330	114	91	112	118	117	263
30	301	72	396	680	-----	325	105	91	109	115	121	261
31	308	-----	384	612	-----	279	-----	106	-----	108	133	-----
TOTAL	9,338	7,954	15,635	53,306	16,460	12,967	4,354	2,970	3,658	3,412	3,705	6,693
MEAN	301	265	504	1,720	588	418	145	95.8	122	110	120	223
MAX	313	318	1,940	7,620	1,520	808	325	121	151	126	133	251
MIN	265	70	67	342	393	279	105	55	84	102	100	114
AC-FT	18,520	15,780	31,010	105,700	32,650	25,720	8,640	5,890	7,260	6,770	7,350	13,280
CAL YR 1969	TOTAL 166,568	MEAN 456	MAX 4,040	MIN 67	ACFT 330,400							
WAT YR 1970	TOTAL 140,452	MEAN 385	MAX 7,620	MIN 55	ACFT 278,600							

PEAK DISCHARGE (BASE, 3,300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-19	1100	12.67	4,270	1-21	0200	16.39	8,130
12-23	1000	12.45	4,050	1-23	2200	20.13	12,400
1- 9	1400	12.05	3,650	1-27	0100	17.58	9,440
1-14	0700	17.64	9,500	2-16	1900	12.05	3,650

RUSSIAN RIVER BASIN

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, 114,800 acre-ft Jan. 24 (elevation, 760.86 ft); minimum, 42,500 acre-ft Sept. 10, 11 (elevation, 718.26 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 Bel 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63,800	72,100	71,900	70,800	59,100	74,000	75,800	79,000	78,500	70,000	57,000	45,000
2	68,800	72,000	71,800	71,300	56,900	68,700	76,300	79,000	78,100	69,600	56,600	44,700
3	69,000	72,000	71,800	71,700	57,900	63,500	76,900	79,000	77,800	69,200	56,200	44,400
4	69,100	72,000	71,800	72,200	58,900	62,600	77,100	79,000	77,500	68,700	55,600	44,000
5	69,200	72,100	71,700	72,400	59,800	63,600	77,100	79,000	77,000	68,200	55,100	43,700
6	69,300	72,100	71,700	72,300	60,700	64,500	77,200	79,000	76,700	67,800	54,600	43,400
7	69,400	72,200	71,700	72,200	61,500	65,700	77,200	78,900	76,300	67,400	54,100	43,100
8	69,500	72,200	71,700	72,200	62,300	67,000	77,200	79,100	76,000	67,000	53,600	42,800
9	69,700	72,300	71,800	75,500	63,100	68,200	77,200	79,100	75,800	66,500	53,200	42,600
10	69,800	72,300	71,800	75,300	63,800	69,300	77,200	79,200	75,600	66,100	52,800	42,600
11	70,000	72,300	72,000	72,300	64,500	70,300	77,200	79,300	75,500	65,700	52,400	42,600
12	70,100	72,300	74,500	69,700	65,700	71,200	77,300	79,400	75,200	65,400	51,900	42,700
13	70,200	72,400	75,500	69,400	68,700	72,100	77,400	79,500	75,100	65,000	51,600	42,800
14	70,300	72,400	73,900	77,700	70,200	72,900	77,500	79,600	74,900	64,600	51,200	42,900
15	70,700	72,400	72,300	80,600	71,300	73,800	77,600	79,600	74,800	64,100	50,700	43,100
16	71,000	72,400	72,400	88,400	73,900	74,100	77,700	79,700	74,600	63,700	50,300	43,300
17	71,200	72,400	72,400	90,800	74,000	73,800	77,800	79,700	74,400	63,400	49,900	43,400
18	71,400	72,400	72,700	86,200	71,200	73,600	77,900	79,600	74,200	63,000	49,600	43,600
19	71,600	72,400	76,200	82,900	68,100	73,300	78,000	79,600	73,900	62,600	49,200	43,800
20	71,800	72,400	78,200	83,900	67,100	73,300	78,100	79,600	73,600	62,200	48,900	44,000
21	72,000	72,400	80,200	94,400	68,400	73,100	78,200	79,600	73,400	61,700	48,600	44,200
22	72,200	72,400	78,100	95,900	69,300	73,000	78,300	79,600	73,100	61,300	48,200	44,400
23	72,300	72,400	79,400	110,200	70,200	72,900	78,400	79,600	72,800	60,900	47,900	44,600
24	72,300	72,400	78,100	112,300	71,100	73,000	78,500	79,700	72,500	60,500	47,600	44,700
25	72,300	72,500	75,200	103,100	71,900	73,100	78,600	79,700	72,200	60,000	47,300	44,700
26	72,700	72,300	72,000	99,200	72,700	73,400	78,700	79,700	71,900	59,600	46,900	44,800
27	72,700	72,200	72,500	98,500	73,500	73,900	78,800	79,600	71,500	59,200	46,600	44,800
28	72,700	72,100	70,400	87,300	74,500	74,300	78,800	79,500	71,100	58,800	46,400	44,900
29	72,700	72,000	70,100	76,300	-----	74,700	78,900	79,300	70,800	58,300	45,900	44,900
30	72,100	71,900	70,000	68,700	-----	75,100	78,900	79,100	70,400	57,900	45,600	44,900
31	72,100	-----	70,300	63,900	-----	75,400	-----	78,900	-----	57,500	45,300	-----
MAX	72,300	72,500	80,200	112,300	74,500	75,400	78,900	79,700	78,500	70,000	57,000	45,000
MIN	68,800	71,900	70,000	63,900	56,900	62,600	75,800	78,900	70,400	57,500	45,300	42,600
(a)	737.37	737.29	736.32	732.41	738.73	738.19	741.25	741.20	736.39	728.42	720.22	719.96
(b)	+3,300	-200	-1,600	-6,400	+10,600	+900	+3,500	+200	-8,500	-12,900	-12,200	-400
CAL YR 1969	b	+900										
WTR YR 1970	b	-23,900										

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.

EXTREMES.--Current year: Maximum discharge, 7,350 cfs Jan. 24 (gage height, 10.84 ft); minimum daily, 1.9 cfs Jan. 15.

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.

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 water year 1970 are published in Part 2 of this report.

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	209	303	88	75	2,950	568	151	70	223	273	290	261
2	209	303	75	75	1,520	2,990	118	68	245	294	290	261
3	209	303	68	75	34	2,670	75	68	245	294	303	261
4	209	303	68	75	34	1,440	75	68	241	294	326	261
5	207	252	68	222	34	29	77	67	242	294	326	261
6	209	265	68	345	34	31	69	66	242	281	330	258
7	209	273	68	345	34	31	100	66	242	273	330	257
8	209	273	70	345	34	31	117	66	244	273	330	256
9	209	273	70	224	34	31	105	66	215	273	326	253
10	209	273	70	1,320	34	28	73	66	191	273	326	253
11	209	273	70	2,490	34	32	115	66	191	273	308	231
12	209	273	72	2,540	34	33	109	65	190	273	294	216
13	209	273	70	1,730	36	33	67	64	191	277	294	216
14	209	273	1,560	3.7	34	33	68	60	192	273	299	203
15	198	273	1,330	1.9	34	33	68	62	195	273	299	191
16	187	273	326	3.4	36	308	68	62	195	269	299	192
17	187	273	326	1,290	1,220	477	68	63	196	273	285	195
18	187	273	326	3,950	2,140	467	69	64	215	273	273	195
19	187	273	118	3,480	2,170	462	70	62	225	269	268	195
20	187	273	3.4	2,040	1,940	359	70	62	223	281	265	196
21	187	273	502	3.4	33	441	70	62	223	294	265	198
22	187	273	2,110	1,690	33	441	70	62	223	290	265	200
23	227	273	1,400	403	33	402	70	62	223	290	265	218
24	277	273	2,100	2,190	33	310	70	61	223	290	265	231
25	299	227	2,640	6,620	33	265	70	82	223	285	263	247
26	299	133	2,610	4,260	33	193	70	95	239	285	261	257
27	299	133	1,350	3,080	33	148	70	109	247	285	261	257
28	303	103	495	6,580	33	149	70	133	244	281	261	257
29	303	88	441	6,340	-----	151	70	169	259	285	261	257
30	303	88	408	4,270	-----	151	70	191	268	285	261	253
31	303	-----	210	2,980	-----	151	-----	191	-----	285	261	-----
TOTAL	7,046	7,415	19,180.4	59,046.4	12,684	12,888	2,432	2,518	6,715	8,711	8,950	6,987
MEAN	227	247	619	1,905	453	416	81.1	81.2	224	281	289	233
MAX	303	303	2,640	6,620	2,950	2,990	151	191	268	294	330	261
MIN	187	88	3.4	1.9	33	28	67	60	190	269	261	191
AC-FT	13,980	14,710	38,040	117,100	25,160	25,560	4,820	4,990	13,320	17,280	17,750	13,860
CAL YR 1969	TOTAL	157,371.80	MEAN	431	MAX	3,250	MIN	.10	AC-FT	312,100		
WTR YR 1970	TOTAL	154,572.8	MEAN	423	MAX	6,620	MIN	1.9	AC-FT	306,600		

RUSSIAN RIVER BASIN

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.--31 years, 728 cfs (527,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,800 cfs Jan. 24 (gage height, 21.58 ft); minimum daily, 70 cfs May 24.

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 water year 1970 are published in Part 2 of this report.

REVISIONS.--WSP 1041: Drainage area.

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	221	322	124	370	3,540	655	351	133	207	264	271	250
2	221	322	114	318	2,610	3,150	335	130	250	285	278	246
3	221	326	95	294	883	3,320	253	123	250	285	281	243
4	221	326	90	270	710	3,380	236	118	250	288	307	243
5	225	318	88	336	603	1,190	219	115	253	295	311	243
6	225	298	88	485	531	852	210	113	253	288	307	239
7	225	318	88	485	482	798	185	109	253	264	307	239
8	229	322	95	596	438	1,230	232	111	264	264	307	232
9	229	318	93	4,230	399	956	210	111	260	264	311	232
10	229	314	95	3,830	355	1,010	175	109	207	260	311	279
11	229	310	123	3,450	325	876	204	113	201	264	299	219
12	232	310	2,000	3,590	498	828	201	111	198	264	281	193
13	232	310	1,390	4,230	1,790	768	170	106	201	260	278	195
14	235	310	1,510	11,400	1,180	744	170	102	204	260	278	193
15	256	310	1,870	3,770	801	696	168	93	198	260	278	173
16	225	310	579	11,400	1,620	762	163	89	195	257	278	168
17	221	306	490	7,120	3,650	977	168	87	193	253	274	165
18	225	310	579	6,270	4,040	963	163	87	195	253	257	163
19	221	310	3,730	5,230	3,680	928	163	77	210	250	253	165
20	218	314	2,070	5,210	2,720	810	158	75	207	253	250	168
21	218	306	4,830	13,600	1,210	804	160	75	207	260	250	170
22	214	314	3,010	8,300	1,030	798	170	75	213	260	253	168
23	229	310	4,360	16,900	928	768	155	72	207	260	250	170
24	274	306	3,960	15,800	834	678	150	70	207	264	250	188
25	314	298	3,490	10,600	750	590	150	81	204	260	250	193
26	322	222	3,250	7,760	696	535	153	91	210	264	250	213
27	322	178	2,260	10,100	645	429	153	97	229	264	250	219
28	326	170	1,150	8,680	635	395	145	128	239	260	250	219
29	326	150	959	7,510	-----	379	140	145	246	260	250	222
30	326	130	784	5,630	-----	367	135	185	260	260	253	225
31	326	-----	604	3,830	-----	359	-----	198	-----	260	250	-----
TOTAL	7,737	8,668	43,968	181,544	37,583	30,995	5,645	3,329	6,671	8,203	8,473	6,185
MEAN	250	289	1,418	5,856	1,342	1,000	188	107	222	265	273	206
MAX	326	326	4,830	16,900	4,040	3,380	351	198	264	295	311	250
MIN	214	130	88	270	325	359	135	70	193	250	250	163
AC-FT	15,350	17,190	87,210	360,100	74,550	61,480	11,200	6,600	13,230	16,270	16,810	12,270
CAL YR 1969	TOTAL 368,409		MEAN 1,009		MAX 11,800		MIN 88		AC-FT 730,700			
WTR YR 1970	TOTAL 349,031		MEAN 956		MAX 16,900		MIN 70		AC-FT 692,200			

PEAK DISCHARGE (BASE, 9,600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	1115	18.10	18,700	1-24	0100	21.58	27,800
1-21	0615	17.26	16,700	1-27	0430	16.75	15,500

RUSSIAN RIVER BASIN

11463000 RUSSIAN RIVER NEAR CLOVERDALE, CALIF.

LOCATION.--Lat 38°52'16", long 123°03'09", in NW $\frac{1}{4}$ sec. 23, T.12 N., R.11 W., Mendocino County, on left bank 0.3 mile downstream from Cummsky Creek and 5.5 miles northwest of Cloverdale. Prior to July 30, 1970, at site 0.2 mile upstream.

DRAINAGE AREA.--503 sq mi. Area at site used prior to July 30, 1970, 502 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.--19 years, 1,007 cfs (729,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 36,000 cfs Jan. 23 (gage height, 25.46 ft); minimum daily, 80 cfs May 25.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	323	131	602	4,660	891	418	173	201	257	257	246
2	208	323	125	512	3,940	2,800	414	169	236	279	268	241
3	211	323	110	465	1,380	3,400	356	160	249	282	273	239
4	211	328	108	430	990	4,620	325	153	249	290	287	234
5	211	355	103	405	786	2,050	311	145	252	296	302	234
6	215	305	103	566	650	1,330	300	138	257	290	302	236
7	215	319	100	584	566	1,170	280	134	252	262	302	239
8	218	346	110	980	498	1,910	321	134	262	257	305	231
9	218	328	108	7,360	432	1,380	301	134	273	254	311	229
10	218	319	115	5,880	375	1,430	262	134	226	257	311	229
11	218	314	229	4,440	335	1,140	284	134	200	262	308	226
12	225	314	3,200	4,570	770	1,040	280	130	193	265	284	199
13	225	310	2,540	6,200	3,900	909	250	125	197	268	279	188
14	229	314	1,610	16,900	2,630	847	247	117	200	257	276	192
15	265	314	2,330	6,730	1,790	776	240	111	193	257	276	172
16	237	310	924	16,800	2,950	793	234	105	190	257	276	160
17	222	310	785	10,400	5,490	1,090	239	102	189	254	279	158
18	222	310	908	7,970	5,090	1,070	230	104	192	254	259	152
19	218	310	6,760	6,760	4,490	1,020	227	99	200	254	254	152
20	218	310	4,750	7,090	3,480	919	218	89	205	254	249	156
21	218	310	7,970	18,800	1,760	895	213	91	205	262	246	156
22	222	310	4,250	13,000	1,300	894	222	91	210	262	246	158
23	222	310	5,820	21,200	1,130	859	206	85	203	259	249	152
24	265	314	5,930	24,600	980	778	199	82	201	262	249	168
25	305	314	4,540	13,700	837	672	192	80	201	262	249	172
26	310	233	4,080	10,300	754	624	195	87	201	262	249	192
27	319	190	3,130	13,200	690	506	195	95	219	268	246	203
28	319	180	1,650	10,900	722	479	187	122	231	265	249	212
29	319	149	1,340	9,280	-----	467	180	143	241	259	246	214
30	319	137	1,160	7,380	-----	453	176	179	254	252	246	217
31	319	-----	900	5,020	-----	433	-----	197	-----	254	249	-----
TOTAL	7,545	8,832	65,919	253,024	53,265	37,645	7,702	3,842	6,582	8,173	8,382	5,957
MEAN	243	294	2,126	8,162	1,902	1,214	257	124	219	264	270	199
MAX	319	355	7,970	24,600	5,490	4,620	418	197	273	296	311	246
MIN	204	137	100	405	335	433	176	80	189	252	246	152
AC-FT	14,970	17,520	130,800	501,900	105,700	74,670	15,280	7,620	13,060	16,210	16,630	11,820
CAL YR 1969	TOTAL 494,432		MEAN 1,355		MAX 19,200		MIN 100		AC-FT 980,700			
WTR YR 1970	TOTAL 466,868		MEAN 1,279		MAX 24,600		MIN 80		AC-FT 926,000			

PEAK DISCHARGE (BASE, 13,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	1045	20.00	21,600	1-23	2300	25.46	36,000
1-21	1030	19.30	19,900	1-27	0830	18.21	17,500

RUSSIAN RIVER BASIN

407

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 unnamed 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.--13 years, 203 cfs (147,100 acre-ft per year); median of yearly mean discharges, 160 cfs (116,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 15,000 cfs Jan. 23 (gage height, 13.94 ft), from rating curve extended as explained below; minimum daily, 2.1 cfs Sept. 26, 27.
 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.

REVISIONS (WATER YEARS).--WSP 1929: 1958-60, Drainage area.

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	4.6	7.7	8.6	203	455	874	89	42	17	9.8	4.3	3.7
2	4.6	7.7	8.6	185	388	392	86	40	16	9.0	4.3	3.4
3	4.8	7.7	8.6	173	348	328	83	39	15	8.2	4.3	3.1
4	5.0	8.0	8.6	163	320	856	78	38	15	7.4	4.0	3.1
5	5.0	35	8.6	155	288	556	77	37	15	7.0	4.0	2.9
6	5.2	28	8.6	147	264	435	74	37	15	7.0	4.0	2.9
7	5.2	19	8.9	141	245	410	71	37	16	7.0	3.7	2.9
8	5.7	26	15	292	230	450	70	37	17	7.0	3.7	2.9
9	6.2	17	15	2,910	218	372	68	37	23	6.6	3.7	2.7
10	6.5	13	41	1,480	206	348	66	35	20	7.0	3.4	2.9
11	6.2	12	230	748	198	300	64	35	17	7.0	2.9	2.7
12	5.5	10	2,630	832	332	284	62	36	16	7.0	2.9	2.5
13	5.5	10	808	2,550	1,500	263	65	35	15	6.2	3.4	2.7
14	7.2	9.5	356	5,540	620	245	64	33	15	5.8	3.1	2.7
15	22	9.8	206	1,980	372	227	62	30	16	5.2	3.1	2.9
16	24	9.8	141	4,530	1,030	212	60	28	15	5.5	3.1	2.7
17	14	9.5	145	2,260	1,110	194	60	27	15	5.5	3.1	2.7
18	11	9.5	175	1,410	748	180	56	27	14	5.2	3.1	2.7
19	9.8	9.2	3,610	1,390	550	168	56	26	12	4.6	3.1	2.7
20	9.2	9.2	2,820	1,910	460	160	54	26	12	4.3	3.1	3.1
21	8.3	9.2	4,770	5,700	396	151	48	26	11	4.6	3.1	3.4
22	8.0	9.2	1,230	4,000	352	145	53	24	11	4.9	3.7	3.1
23	8.6	9.2	2,250	8,570	316	136	50	23	10	4.9	4.0	2.7
24	9.2	9.2	2,990	4,860	288	130	49	21	11	4.9	4.0	2.7
25	9.2	8.9	1,120	2,110	263	122	48	21	11	4.9	3.7	2.5
26	8.9	8.9	660	1,390	242	116	49	21	11	4.9	3.7	2.1
27	9.2	8.6	450	2,200	230	109	49	21	11	4.9	3.7	2.1
28	8.9	8.6	352	1,230	450	105	48	21	11	4.6	3.7	2.3
29	8.6	8.6	292	856	-----	100	45	20	11	4.3	3.4	2.3
30	8.3	8.6	251	660	-----	97	43	18	11	3.7	3.1	2.5
31	8.0	-----	227	545	-----	94	-----	17	-----	3.7	3.7	-----
TOTAL	262.4	356.6	25,844.5	61,120	12,419	8,559	1,847	915	425	182.6	110.1	83.6
MEAN	8.46	11.9	834	1,972	444	276	61.6	29.5	14.2	5.89	3.55	2.79
MAX	24	35	4,770	8,570	1,500	874	89	42	23	9.8	4.3	3.7
MIN	4.6	7.7	8.6	141	198	94	43	17	10	3.7	2.9	2.1
AC--FT	520	707	51,260	121,200	24,630	16,980	3,660	1,810	843	362	218	166

CAL YR 1969 TOTAL 122,604.0 MEAN 336 MAX 6,290 MIN 4.2 AC-FT 243,200
 WTR YR 1970 TOTAL 112,124.8 MEAN 307 MAX 8,570 MIN 2.1 AC-FT 222,400

PEAK DISCHARGE (BASE, 7,500 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0545	11.09	8,780	1-21	0200	10.63	7,930
1-14	0830	11.62	9,840	1-23	2030	13.94	15,000

RUSSIAN RIVER BASIN

11463900 MAACAMA CREEK NEAR KELLOGG, CALIF.

LOCATION.--Lat 38°38'25", long 122°45'45", in SW¼ 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.--9 years (1961-70), 93.5 cfs (67,740 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,760 cfs Jan. 23 (gage height, 15.65 ft); minimum daily, 0.27 cfs Aug. 11.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.0	2.4	70	202	260	30	14	5.2	3.0	.73	.57
2	1.5	2.0	2.4	61	165	126	30	13	4.4	3.4	.69	.57
3	1.7	2.0	2.4	55	151	105	28	13	4.6	3.4	1.3	.93
4	1.5	2.1	2.4	50	137	358	27	13	4.3	2.9	.65	.54
5	1.4	8.1	2.4	46	120	213	26	13	4.4	2.5	.51	.45
6	1.3	5.3	2.4	42	108	156	25	13	3.8	1.9	.73	.39
7	1.2	3.5	2.4	40	99	151	24	12	4.1	2.3	.78	.39
8	1.2	3.0	3.8	105	91	166	23	12	5.5	2.2	.73	.36
9	1.1	2.7	3.5	1,300	84	154	23	12	7.3	1.8	.45	.36
10	1.0	2.5	7.1	445	79	139	22	11	6.7	2.3	.31	.33
11	.55	2.4	39	250	75	121	21	11	5.8	2.1	.27	.33
12	.49	2.4	802	290	154	109	21	11	5.3	2.1	.29	.65
13	.73	2.4	247	1,550	842	98	21	11	5.2	1.8	.61	.88
14	1.5	2.3	98	2,410	276	91	22	10	5.3	1.6	.45	.83
15	4.3	2.4	59	838	192	84	21	9.4	5.6	1.6	.29	.78
16	5.5	2.4	38	2,680	595	76	21	8.7	5.3	2.2	1.2	.73
17	3.1	2.4	34	983	478	70	21	8.7	5.3	1.3	.93	.69
18	2.4	2.4	61	550	303	64	19	8.4	4.9	1.1	.39	.65
19	2.1	2.4	1,360	758	219	60	18	8.4	5.0	1.1	.39	.69
20	2.0	2.4	1,520	1,390	181	56	18	8.2	4.0	1.1	.42	.73
21	1.7	2.4	1,650	3,570	151	53	18	7.9	4.0	.93	.31	.69
22	1.7	2.4	380	2,370	130	51	17	7.5	3.4	.88	.33	.54
23	2.0	2.5	1,490	3,580	116	48	17	7.5	3.4	.88	.39	.48
24	2.0	2.4	1,610	1,790	104	45	16	6.7	3.5	1.3	1.1	.48
25	2.0	2.4	472	818	93	41	16	6.7	3.6	1.6	1.1	.42
26	2.1	2.4	262	623	87	39	17	6.9	3.4	1.9	.99	.39
27	2.2	2.4	181	879	81	37	16	7.3	2.6	1.7	.78	.42
28	2.0	2.4	137	460	119	36	16	6.1	2.6	1.3	.65	.48
29	2.0	2.4	107	375	-----	35	15	6.3	2.8	1.1	.65	.51
30	2.0	2.4	90	300	-----	33	15	5.9	2.8	.69	.61	.48
31	2.0	-----	79	242	-----	32	-----	5.5	-----	.69	.65	-----
TOTAL	58.27	81.2	10,747.2	28,920	5,432	3,107	624	295.1	134.1	54.67	19.68	16.74
MEAN	1.88	2.71	347	933	194	100	20.8	9.52	4.47	1.76	.63	.56
MAX	5.5	8.1	1,650	3,580	842	358	30	14	7.3	3.4	1.3	.93
MIN	.49	2.0	2.4	40	75	32	15	5.5	2.6	.69	.27	.33
AC-FT	116	161	21,320	57,360	10,770	6,160	1,240	585	266	108	39	33
CAL YR 1969	TOTAL 52,850.99	MEAN 145	MAX 3,220	MIN .18	AC-FT 104,800							
WTR YR 1970	TOTAL 49,489.96	MEAN 136	MAX 3,580	MIN .27	AC-FT 98,160							

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0530	12.42	4,060	1-16	0500	15.48	6,600
12-24	0215	11.89	3,640	1-21	0215	14.68	5,880
1- 9	1515	12.84	4,390	1-23	1945	15.65	6,760
1-13	2345	14.02	5,340	2-13	0730	10.63	2,800

RUSSIAN RIVER BASIN

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.--31 years, 1,440 cfs (1,043,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 53,500 cfs Jan. 24 (gage height, 22.08 ft); minimum daily, 99 cfs May 24.
 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 for water temperatures for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 981: 1942. WSP 1929: Drainage area.

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	200	320	184	1,410	6,280	2,850	610	248	222	229	226	240
2	204	320	174	1,160	5,740	2,510	590	244	156	229	232	232
3	200	320	171	1,020	3,560	4,050	570	232	173	243	240	222
4	204	330	162	926	2,480	6,570	515	224	191	254	246	222
5	204	365	156	860	2,050	4,800	490	212	199	266	262	218
6	208	385	150	860	1,770	2,610	470	208	210	278	278	218
7	204	355	144	926	1,590	2,000	455	184	215	278	282	218
8	196	360	153	1,200	1,440	2,890	435	192	226	250	286	215
9	216	375	156	12,600	1,300	2,300	460	192	266	236	294	207
10	216	360	171	13,300	1,210	2,200	440	184	278	236	299	202
11	216	330	265	7,250	1,120	1,860	400	180	243	240	299	197
12	212	330	4,210	6,140	1,400	1,670	410	174	210	232	299	192
13	220	325	6,180	11,400	7,520	1,480	410	174	202	243	278	188
14	208	325	1,970	28,600	5,760	1,340	390	168	196	243	270	184
15	254	325	2,750	16,200	3,310	1,240	380	159	202	226	262	180
16	292	325	1,510	28,400	4,300	1,130	365	150	202	220	262	162
17	272	320	996	19,400	8,900	1,240	360	141	188	218	258	150
18	252	320	996	12,300	7,470	1,280	350	138	183	218	258	147
19	244	320	11,900	10,500	6,060	1,220	340	135	176	218	250	141
20	240	320	14,500	11,900	5,290	1,170	330	121	183	218	240	175
21	232	310	17,700	33,000	3,170	1,060	315	118	191	221	236	141
22	228	330	9,070	28,300	2,290	1,060	310	118	191	222	236	135
23	228	325	10,400	28,700	1,870	1,030	305	113	193	218	236	135
24	232	320	14,900	46,100	1,650	968	292	99	188	218	240	135
25	252	315	8,070	21,800	1,440	890	284	109	186	222	232	141
26	288	325	6,220	15,700	1,280	830	280	107	183	226	236	147
27	305	280	4,990	19,300	1,180	765	284	116	183	232	236	162
28	320	240	3,200	14,400	1,190	710	272	138	199	232	236	177
29	315	220	3,200	12,300	-----	680	264	160	210	222	236	177
30	315	200	2,020	10,600	-----	655	252	183	218	218	240	174
31	320	-----	1,740	7,140	-----	635	-----	212	-----	222	240	-----
TOTAL	7,497	9,595	128,408	423,692	92,620	55,693	11,628	5,133	6,063	7,228	7,925	5,434
MEAN	242	320	4,142	13,670	3,308	1,797	388	166	202	233	256	181
MAX	320	385	17,700	46,100	8,900	6,570	610	248	278	278	299	240
MIN	196	200	144	860	1,120	635	252	99	156	218	226	135
AC-FT	14,870	19,030	254,700	840,400	183,700	110,500	23,060	10,180	12,030	14,340	15,720	10,780

CAL YR 1969 TOTAL 794,919 MEAN 2,178 MAX 35,800 MIN 144 ACFT 1,577,000
 WAT YR 1970 TOTAL 760,916 MEAN 2,085 MAX 46,100 MIN 99 ACFT 1,509,000

PEAK DISCHARGE (BASE, 19,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1300	13.35	22,900	1-21	1900	17.80	36,700
12-24	0400	12.05	19,400	1-24	0800	22.08	53,500
1- 9	1900	13.44	23,100	1-27	1500	13.10	22,200
1-14	1800	17.05	34,300				

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.--29 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, 14,300 cfs Jan. 23 (gage height, 15.81 ft); minimum daily, 0.41 cfs Sept. 13, 14, 17, 18, 26-29.
 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 water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	2.9	5.4	150	475	218	51	22	9.8	3.1	1.2	.70
2	.78	2.9	5.4	135	365	164	48	21	9.4	3.2	1.2	.85
3	.78	2.9	5.4	123	260	152	45	20	8.0	2.9	1.0	.85
4	.78	7.0	5.4	113	233	698	40	19	6.7	2.6	1.0	.85
5	.78	13	5.4	103	212	460	38	19	6.7	2.6	.85	.70
6	.88	12	5.4	94	194	340	37	19	7.6	2.6	.85	.60
7	1.0	26	5.4	92	176	315	37	18	7.6	2.8	.70	.50
8	1.0	27	12	396	161	375	36	18	8.9	2.6	.70	.50
9	1.1	20	13	3,180	149	276	36	18	13	2.2	.70	.50
10	1.1	14	45	2,120	135	251	36	18	11	2.1	.60	.50
11	1.1	11	160	1,200	123	236	35	18	9.7	2.1	.85	.50
12	1.1	9.9	1,660	1,040	284	218	34	18	7.6	2.0	.85	.50
13	1.1	8.9	822	1,470	1,390	203	36	18	7.6	2.1	.70	.41
14	3.0	8.1	485	4,540	850	194	35	17	7.1	1.9	.60	.41
15	33	8.1	300	2,530	520	176	33	16	7.1	1.7	.60	.50
16	16	7.0	202	5,620	860	164	34	15	7.1	1.7	.60	.50
17	7.4	6.4	172	2,920	970	146	33	15	6.2	1.7	.70	.41
18	6.3	5.8	265	1,600	760	135	30	14	6.2	1.6	.70	.41
19	5.4	5.4	2,370	1,290	600	125	29	14	5.8	1.8	.60	.50
20	4.0	5.4	2,240	1,920	500	115	28	12	5.0	2.0	.50	.50
21	3.3	5.4	2,830	5,770	400	107	30	13	5.0	1.6	.50	.50
22	3.3	5.4	1,240	3,630	340	103	29	13	4.2	1.7	.50	.50
23	3.3	5.4	1,600	6,140	290	95	27	13	4.2	1.9	.60	.50
24	3.3	5.4	1,390	5,010	250	89	26	12	4.2	1.9	.70	.50
25	3.3	5.4	886	2,300	220	85	25	12	4.6	1.6	.70	.50
26	3.3	5.4	598	1,800	194	79	27	12	4.2	1.5	.85	.41
27	3.3	5.4	414	2,620	164	72	26	12	3.6	1.3	.85	.41
28	3.2	5.4	305	1,500	197	68	24	11	3.6	1.3	.70	.41
29	3.1	5.4	240	990	-----	65	23	11	3.3	1.3	.60	.41
30	3.1	5.4	194	758	-----	60	22	11	3.0	1.2	.60	.50
31	2.9	-----	169	586	-----	56	-----	10	-----	1.3	.58	-----
TOTAL	122.88	257.7	18,649.8	61,740	11,272	5,840	990	479	198.0	61.9	22.68	15.83
MEAN	3.96	8.59	602	1,992	403	188	33.0	15.5	6.60	2.00	.73	.53
MAX	33	27	2,830	6,140	1,390	698	51	22	13	3.2	1.2	.85
MIN	.78	2.9	5.4	92	123	56	22	10	3.0	1.2	.50	.41
AC-FT	244	511	36,990	122,500	22,360	11,580	1,960	950	393	123	45	31

CAL YR 1969 TOTAL 97,765.73 MEAN 268 MAX 5,400 MIN .69 AC-FT 193,900
 WTR YR 1970 TOTAL 99,649.79 MEAN 273 MAX 6,140 MIN .41 AC-FT 197,700

PEAK DISCHARGE (BASE, 3,300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-19	1130	9.05	5,100	1-21	0245	11.93	8,500
1-9	1445	9.80	5,880	1-23	2045	15.81	14,300
1-16	0500	12.80	9,720	1-27	0115	8.60	4,650

NOTE.--No gage-height record Oct. 17 to Dec. 1.

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.--11 years, 331 cfs (239,800 acre-ft per year); median of yearly mean discharges, 290 cfs (210,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 27,700 cfs Jan. 23 (gage height, 16.42 ft); no flow Sept. 25-30. 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 water temperatures, suspended-sediment loads, and sediment and turbidity data for the water year 1970 are published in Part 2 of this report.

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	.48	5.4	9.9	231	841	698	124	57	21	6.0	1.2	.16
2	.39	5.4	9.9	196	695	434	122	55	19	6.2	1.1	.14
3	.39	5.4	9.9	178	590	382	119	53	17	5.8	1.0	.13
4	.31	5.4	9.9	162	486	1,410	113	53	15	5.7	.98	.11
5	.31	11	9.9	143	438	1,050	112	53	12	5.3	.94	.11
6	.31	25	9.9	133	394	518	109	53	13	4.9	.82	.10
7	.31	23	9.9	131	353	631	107	53	13	4.5	.72	.10
8	.39	47	15	578	321	730	101	53	15	4.0	.68	.09
9	.31	51	25	7,590	291	562	95	53	23	3.7	.70	.09
10	.31	35	57	3,850	263	522	94	53	19	3.6	.64	.08
11	.31	26	278	1,850	247	462	94	53	16	3.4	.77	.08
12	.23	21	2,770	1,580	512	420	93	53	13	3.3	.72	.07
13	.23	19	1,430	2,520	2,530	375	93	53	13	3.0	.67	.08
14	.23	17	694	9,360	1,520	357	94	52	12	2.3	.63	.09
15	8.9	15	422	4,120	1,080	320	93	51	12	2.0	.61	.10
16	33	15	249	12,400	1,630	296	90	48	11	2.0	.59	.12
17	18	13	210	6,040	1,970	269	91	44	10	1.5	.76	.11
18	13	12	342	2,800	1,500	248	84	41	10	1.5	.75	.10
19	11	11	4,580	3,230	1,200	238	83	38	9.4	1.7	.73	.09
20	9.9	9.9	4,520	3,540	940	220	83	34	8.5	1.8	.71	.07
21	8.2	9.9	5,990	12,200	760	206	83	37	8.1	1.5	.68	.06
22	6.2	9.9	1,920	7,340	675	200	83	34	7.3	1.6	.60	.04
23	6.2	9.9	2,920	11,400	542	192	82	31	7.1	1.7	.51	.03
24	6.2	9.9	3,020	11,500	480	174	77	28	7.0	1.7	.44	.01
25	6.2	9.9	1,510	4,270	431	168	74	26	7.6	1.6	.38	0
26	6.2	9.9	978	3,020	392	164	69	28	7.2	1.5	.33	0
27	6.2	9.9	706	4,910	354	154	66	28	7.0	1.2	.29	0
28	6.2	9.9	530	2,580	461	148	62	28	6.7	1.3	.25	0
29	6.2	9.9	410	1,710	-----	141	58	26	6.4	1.2	.22	0
30	5.8	9.9	328	1,250	-----	136	57	24	5.8	1.1	.20	0
31	5.8	-----	269	1,020	-----	129	-----	24	-----	1.2	.18	-----
TOTAL	167.71	471.5	34,242.3	121,832	21,896	11,954	2,705	1,317	352.1	87.8	19.80	2.16
MEAN	5.41	15.7	1,105	3,930	782	386	90.2	42.5	11.7	2.83	.64	.072
MAX	33	51	5,990	12,400	2,530	1,410	124	57	23	6.2	1.2	.16
MIN	.23	5.4	9.9	131	247	129	57	24	5.8	1.1	.18	0
AC-FT	333	935	67,920	241,700	43,430	23,710	5,370	2,610	698	174	39	4.3
CAL YR 1969	TOTAL	199,800.18	MEAN	547	MAX	13,500	MIN	.23	AC-FT	396,300		
WAT YR 1970	TOTAL	195,047.37	MEAN	534	MAX	12,400	MIN	0	AC-FT	386,900		

PEAK DISCHARGE (BASE, 8,200 CFS)				NOTE.--No gage-height record May 18 to Sept. 4.			
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-19	1200	10.57	9,980	1-21	0500	13.02	15,600
1-9	1600	12.77	14,900	1-23	2300	16.42	27,700
1-16	0700	14.29	19,500				

RUSSIAN RIVER BASIN

11465800 SANTA ROSA CREEK NEAR SANTA ROSA, CALIF.

LOCATION.--Lat 38°27'25", long 122°37'50", in Los Guillicos Grant, Sonoma County, on left bank 500 ft downstream from highway bridge, 1,500 ft upstream from small left-bank tributary, and 4.6 miles east of Santa Rosa.

DRAINAGE AREA.--12.5 sq mi.

PERIOD OF RECORD.--July 1959 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 318.58 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 19.0 cfs (13,760 acre-ft per year); median of yearly mean discharges, 16 cfs (11,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,150 cfs Jan. 21 (gage height, 10.99 ft); minimum daily, 0.08 cfs Sept. 23, 28.

Period of record: Maximum discharge, 3,200 cfs Feb. 8, 1960 (gage height, 13.35 ft, from floodmarks), from rating curve extended above 1,500 cfs on basis of slope-area measurements at gage heights 11.0 and 13.35 ft; no flow at times.

REMARKS.--Records good. No regulation; pumping for irrigation of about 200 acres above station during periods of low 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	.86	1.5	15	59	113	9.8	4.7	2.3	.95	.35	.31
2	.54	.86	1.5	13	49	38	9.5	4.6	2.3	.88	.28	.29
3	.86	.92	1.6	12	40	31	8.9	4.4	2.4	.65	.31	.31
4	.92	1.0	1.6	12	34	157	8.6	4.4	1.9	.65	.39	.28
5	1.0	6.4	1.5	11	32	91	8.3	4.2	1.9	.60	.43	.19
6	1.0	3.1	1.5	9.9	29	59	8.0	4.4	1.7	.65	.35	.19
7	1.0	1.4	1.6	9.6	26	49	7.8	4.2	1.9	.70	.35	.22
8	1.2	1.2	3.7	11	24	51	7.6	4.2	2.1	.70	.31	.22
9	1.2	1.0	2.9	11.2	23	66	7.4	4.2	2.8	.70	.28	.19
10	1.0	1.0	3.5	7.7	21	60	7.2	3.9	2.6	.70	.22	.16
11	1.3	.92	11	41	20	47	7.0	4.9	2.3	.70	.25	.16
12	1.5	.86	27	35	23	40	6.8	4.0	2.2	.70	.31	.19
13	1.6	.86	17	163	146	35	6.8	3.9	2.0	.60	.31	.25
14	1.8	.92	6.6	485	54	32	6.8	3.7	2.0	.55	.22	.22
15	6.1	1.0	4.8	235	38	28	6.8	3.4	2.1	.55	.22	.19
16	4.6	1.1	3.1	622	89	26	6.6	3.3	2.0	.65	.25	.14
17	1.1	1.1	2.9	268	105	24	6.4	3.1	2.0	.55	.22	.14
18	.86	1.1	3.7	157	62	22	6.2	3.3	1.9	.47	.22	.14
19	.74	1.1	184	178	47	20	6.0	3.1	1.9	.39	.22	.19
20	.68	1.1	410	333	40	19	5.8	3.1	1.8	.35	.22	.19
21	.68	1.1	345	1,190	34	18	6.0	3.0	1.5	.31	.25	.12
22	.74	1.0	74	556	30	18	5.8	2.9	1.5	.31	.25	.10
23	.80	1.1	368	598	28	16	5.6	2.7	1.3	.35	.28	.03
24	.80	1.1	445	571	25	15	5.6	2.5	1.3	.43	.25	1.0
25	.80	1.1	123	318	24	14	5.5	2.6	1.4	.51	.31	.55
26	.80	1.0	59	229	22	13	5.5	2.7	1.3	.51	.39	.19
27	.86	1.0	39	300	21	13	5.6	2.9	.98	.51	.35	.12
28	.86	1.0	30	181	22	12	5.6	2.6	.98	.51	.31	.08
29	.86	1.2	24	130	-----	12	5.1	2.7	1.0	.47	.35	.10
30	.86	1.3	20	95	-----	12	4.9	2.5	1.0	.43	.35	.10
31	.86	-----	17	72	-----	13	-----	2.4	-----	.28	.31	-----
TOTAL	38.12	38.70	2,235.0	7,039.5	1,167	1,164	203.5	107.5	54.36	17.31	9.11	6.60
MEAN	1.23	1.29	72.1	227	41.7	37.5	6.78	3.47	1.81	.56	.29	.22
MAX	6.1	6.4	445	1,190	146	157	9.8	4.7	2.8	.95	.43	1.0
MIN	.20	.86	1.5	9.6	20	12	4.9	2.4	.98	.28	.22	.08
AC-FT	76	77	4,430	13,960	2,310	2,310	404	213	108	34	18	13

CAL YR 1969 TOTAL 12,298.62 MEAN 33.7 MAX 721 MIN .04 AC-FT 24,390
 WTR YR 1970 TOTAL 12,080.70 MEAN 33.1 MAX 1,190 MIN .08 AC-FT 23,960

PEAK DISCHARGE (BASE, 500 CFS)					
DATE	TIME	G.H.	DISCHARGE	DATE	TIME
12-20	0745	9.73	1,520	1-21	0245
12-23	2030	8.86	1,100	1-23	2200
1-14	0015	8.15	820	1-27	0245
1-16	0530	9.49	1,400		

NOTE.--No gage-height record May 29 to June 30.

DISCHARGE
2,150
1,990
520

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, 67.7 ft Jan. 24.
 Period of record: Maximum elevation, 73.3 ft Dec. 23, 1964.

REMARKS.--The laguna 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 laguna acts as a natural regulator of floods on lower Russian River.

ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			-	51.90	52.40	53.50						
2			-	51.80	52.20	53.10						
3			-	51.70	52.20	52.50						
4			-	51.60	52.10	56.10						
5			-	51.60	52.00	55.10						
6			-	51.50	51.90	53.70						
7			-	51.50	51.90	53.10						
8			-	51.70	51.80	52.80						
9			-	56.20	51.70	53.20						
10			-	55.70	51.70	53.00						
11			-	54.40	51.60	52.60						
12			50.10	53.70	51.80	52.20						
13			50.60	57.20	56.50	51.80						
14			51.10	61.30	55.00	51.50						
15			51.20	59.80	53.70	51.10						
16			51.30	62.80	54.40	50.80						
17			51.20	59.50	54.80	50.40						
18			51.30	55.90	54.00	50.10						
19			54.80	56.30	53.20	-						
20			58.90	60.20	52.60	-						
21			58.20	65.70	52.20	-						
22			55.60	62.70	51.90	-						
23			58.00	63.10	51.60	-						
24			58.40	67.10	51.40	-						
25			55.80	60.90	51.30	-						
26			54.30	56.90	51.10	-						
27			53.30	56.60	51.00	-						
28			52.60	55.00	50.90	-						
29			52.20	53.90	-----	-						
30			52.10	53.20	-----	-						
31	-----		52.00	52.70	-----	-	-----		-----			-----
MEAN			-	56.58	52.46	-						
MAX			-	67.10	56.50	-						
MIN			-	51.50	50.90	-						

RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CALIF.

LOCATION.--Lat 38°30'03", long 122°55'59", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--31 years, 2,321 cfs (1,682,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 72,900 cfs Jan. 24 (gage height, 43.95 ft); minimum daily, 63 cfs May 28, 29.

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 loads, and sediment and turbidity data for the water year 1970 are published in Part 2 of this report.

COOPERATION.--Three discharge measurements furnished by Sonoma County Water Agency.

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	180	314	204	2,350	9,790	5,400	1,030	365	111	185	182	198
2	183	314	194	1,930	8,700	4,540	974	354	141	187	184	194
3	183	312	187	1,670	6,560	5,570	938	337	157	189	187	187
4	180	314	182	1,500	5,070	9,360	854	323	173	206	188	184
5	183	378	172	1,340	4,470	10,600	794	305	183	198	187	182
6	185	435	167	1,280	4,000	5,970	746	296	191	207	201	180
7	185	378	163	1,390	3,650	4,640	698	281	203	215	207	179
8	179	348	179	2,000	3,370	5,150	645	254	213	212	212	174
9	185	375	193	18,800	3,130	4,570	635	248	243	205	216	169
10	187	365	218	31,000	2,910	4,540	625	243	269	205	217	166
11	187	348	485	13,400	2,720	4,000	600	238	257	212	216	189
12	185	340	5,250	9,890	3,300	3,620	585	235	230	206	217	196
13	187	338	10,800	15,700	14,000	3,250	570	235	213	205	207	173
14	187	336	3,700	42,900	13,300	2,970	560	228	205	205	180	176
15	242	338	3,650	40,400	7,590	2,740	550	213	198	196	191	183
16	413	338	2,650	49,300	7,440	2,520	530	198	189	188	199	177
17	322	332	1,620	48,100	15,600	2,460	522	181	191	183	202	148
18	272	326	1,520	27,900	12,300	2,520	506	173	181	180	198	124
19	254	328	14,800	19,400	9,750	2,390	486	165	181	182	198	117
20	244	328	30,700	22,000	8,210	2,260	474	158	173	176	195	117
21	234	318	34,600	53,600	5,990	2,100	462	143	175	177	192	150
22	228	330	23,400	61,000	4,700	2,020	450	130	179	170	190	119
23	226	334	15,400	50,700	4,060	1,950	430	121	179	158	197	111
24	228	332	31,300	69,800	3,660	1,860	418	108	179	171	200	109
25	240	328	18,200	55,500	3,300	1,710	407	97	175	172	190	111
26	270	330	10,700	32,400	3,010	1,580	403	94	173	178	193	114
27	292	318	7,760	33,000	2,780	1,450	403	82	175	186	193	120
28	300	272	5,500	25,600	2,820	1,310	403	63	177	183	193	128
29	306	250	4,080	19,800	-----	1,230	389	63	183	180	193	137
30	308	226	3,300	16,100	-----	1,150	379	70	181	166	198	134
31	312	-----	2,780	11,700	-----	1,090	-----	87	-----	170	204	-----
TOTAL	7,267	9,923	234,054	781,450	176,180	106,520	17,466	6,088	5,678	5,853	6,127	4,646
MEAN	234	331	7,550	25,210	6,292	3,436	582	196	189	189	198	155
MAX	413	435	34,600	69,800	15,600	10,600	1,030	365	269	215	217	198
MIN	179	226	163	1,280	2,720	1,090	379	63	111	158	180	109
AC-FT	14,410	19,680	464,200	1,550M	349,500	211,300	34,640	12,080	11,260	11,610	12,150	9,220
CAL YR 1969	TOTAL	1,421,659	MEAN	3,895	MAX	63,100	MIN	124	AC-FT	2,820,000		
WTR YR 1970	TOTAL	1,361,252	MEAN	3,729	MAX	69,800	MIN	63	AC-FT	2,700,000		

PEAK DISCHARGE (BASE, 23,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1730	30.71	38,400	1-22	0745	41.30	64,900
12-24	1100	28.71	34,400	1-24	1500	43.95	72,900
1-10	0130	31.12	39,300	1-27	1430	29.01	35,000
1-16	1945	38.65	58,100				

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 current year.

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.--20 years, 429 cfs (310,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 35,800 cfs Jan. 23 (gage height, 20.72 ft); minimum daily, 0.55 cfs Sept. 30.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	7.0	12	410	870	265	111	44	18	4.2	2.4	2.1
2	5.5	7.0	12	345	690	250	105	44	16	3.9	2.4	2.1
3	5.5	7.0	14	300	574	240	102	43	17	3.5	2.4	2.2
4	5.6	8.0	13	265	490	840	97	41	16	3.3	2.4	2.2
5	5.5	7.2	12	230	425	660	95	41	17	3.1	2.3	2.2
6	5.5	7.5	12	195	360	510	92	39	16	3.0	2.2	2.2
7	5.5	3.8	12	180	318	450	87	39	16	2.9	2.1	2.1
8	5.6	11.7	20	390	276	530	84	39	20	2.9	2.0	1.9
9	5.7	10.4	31	3,800	240	495	82	39	29	2.9	2.0	3.1
10	5.9	4.3	9.5	2,800	213	460	77	39	29	2.9	1.8	4.0
11	6.0	2.7	4.51	1,780	191	425	75	38	24	3.0	1.5	3.2
12	6.0	2.1	4,790	1,420	441	395	72	39	23	3.0	1.5	2.6
13	5.7	1.9	2,770	2,910	760	365	77	39	17	3.0	1.5	2.3
14	5.7	1.6	1,810	8,680	570	342	84	38	16	3.0	1.4	2.1
15	3.7	1.5	1,020	3,530	415	307	72	35	17	2.9	1.4	1.9
16	1.50	1.5	610	13,400	1,000	289	70	33	16	2.8	1.3	1.7
17	4.0	1.4	400	4,300	1,800	289	68	32	16	2.8	1.3	1.5
18	2.4	1.3	360	2,410	1,450	289	66	30	16	2.7	1.3	1.3
19	1.6	1.2	6,000	2,810	1,150	272	70	30	11	2.7	1.3	1.1
20	1.3	1.2	2,850	4,830	960	251	64	30	10	2.6	1.3	1.0
21	1.1	1.2	8,400	17,500	790	233	59	29	8.0	2.6	1.3	.95
22	9.0	1.2	2,450	8,860	690	216	59	29	7.5	2.6	1.4	.88
23	1.0	1.2	3,300	14,900	580	202	57	26	7.0	2.4	1.4	.85
24	9.0	1.2	2,520	11,800	485	181	55	26	6.5	2.3	1.5	.82
25	9.0	1.2	1,830	3,800	425	163	53	24	6.0	2.5	1.5	.82
26	8.0	1.2	1,390	2,700	375	156	53	24	5.8	2.6	1.6	.77
27	8.0	1.2	1,050	6,750	335	149	53	26	5.6	2.5	1.6	.72
28	9.0	1.2	830	2,940	300	139	53	26	5.2	2.5	1.6	.66
29	8.0	1.2	690	1,990	-----	129	50	24	5.0	2.3	1.7	.60
30	8.0	1.2	570	1,430	-----	126	46	23	4.6	2.4	1.8	.55
31	7.0	-----	485	1,060	-----	117	-----	21	-----	2.4	2.0	-----
TOTAL	455.2	762.0	44,809	128,715	17,173	9,735	2,188	1,030	421.2	88.2	53.2	50.42
MEAN	14.7	25.4	1,445	4,152	613	314	72.9	33.2	14.0	2.85	1.72	1.68
MAX	150	117	8,400	17,500	1,800	840	111	44	29	4.2	2.4	4.0
MIN	5.5	7.0	12	180	191	117	46	21	4.6	2.3	1.3	.55
AC-FT	903	1,510	88,880	255,300	34,060	19,310	4,340	2,040	835	175	106	100

CAL YR 1969	TOTAL	205,322.1	MEAN	563	MAX	17,000	MIN	2.2	AC-FT	407,300
WTR YR 1970	TOTAL	205,480.22	MEAN	563	MAX	17,500	MIN	.55	AC-FT	407,600

		PEAK DISCHARGE (BASE, 10,000 CFS)					
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-19	unknown	14.42	19,000	1-21	0415	16.99	25,400
1- 9	unknown	-	11,000	1-23	2300	20.72	35,800
1-16	0730	17.93	27,800	1-27	0400	11.28	12,400

GARCIA RIVER BASIN

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.--8 years, 352 cfs (255,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 26,600 cfs Jan. 23 (gage height, 16.48 ft), from rating curve extended as explained below; minimum daily, 10 cfs Oct. 3, 4, 6, 7.
 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, 10 cfs Oct. 3, 4, 6, 7, 1969.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

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	11	15	16	330	704	302	98	70	29	18	16	15
2	11	14	16	294	600	270	96	66	29	18	16	15
3	10	14	15	270	522	254	94	64	29	18	16	15
4	10	16	15	254	445	666	91	60	28	18	16	15
5	11	76	15	234	375	510	89	59	27	16	16	15
6	10	58	15	216	338	375	87	59	27	16	16	15
7	10	42	15	213	314	346	84	55	27	16	16	15
8	12	115	20	270	290	415	82	55	28	16	16	15
9	12	79	26	2,780	266	365	78	55	32	16	16	14
10	15	47	30	2,210	250	360	78	52	29	16	16	14
11	15	36	165	1,290	238	330	76	52	28	16	16	14
12	12	31	2,420	1,260	282	310	74	52	27	16	16	14
13	12	27	1,690	2,440	606	286	84	52	26	16	15	14
14	12	25	1,250	7,670	462	282	80	50	25	16	15	14
15	61	23	741	2,570	350	254	72	48	25	16	15	14
16	98	22	471	6,680	962	234	70	45	25	16	15	14
17	43	20	379	3,530	1,610	206	70	44	24	16	15	14
18	31	19	408	1,810	1,200	189	68	43	22	16	15	14
19	26	19	4,900	1,690	934	180	74	41	22	16	15	14
20	22	19	2,540	2,730	753	168	68	40	22	16	15	14
21	19	19	6,220	9,960	636	159	68	39	22	16	15	14
22	18	18	2,000	6,440	558	153	66	38	22	16	15	14
23	17	18	2,440	14,600	504	144	66	37	21	15	15	14
24	17	18	1,960	9,050	450	138	66	35	21	16	15	14
25	17	17	1,400	3,350	385	129	66	34	21	16	15	14
26	16	17	1,060	2,450	338	123	70	33	20	16	15	14
27	16	17	823	4,960	310	117	72	33	20	16	15	14
28	16	17	654	2,240	302	111	70	32	20	16	15	14
29	15	17	534	1,520	-----	108	70	31	19	16	15	14
30	15	17	450	1,100	-----	105	70	30	18	16	15	14
31	15	-----	380	854	-----	103	-----	30	-----	16	15	-----
TOTAL	625	892	33,068	95,265	14,984	7,692	2,297	1,434	735	503	477	428
MEAN	20.2	29.7	1,067	3,073	535	248	76.6	46.3	24.5	16.2	15.4	14.3
MAX	98	115	6,220	14,600	1,610	666	98	70	32	18	16	15
MIN	10	14	15	213	238	103	66	30	18	15	15	14
AC-FT	1,240	1,770	65,590	189,000	29,720	15,260	4,560	2,840	1,460	998	946	849
CAL YR 1969	TOTAL 175,396		MEAN 481		MAX 14,000	MIN 10		AC-FT 347,900				
WTR YR 1970	TOTAL 158,400		MEAN 434		MAX 14,600	MIN 10		AC-FT 314,200				

PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-19	1200	11.65	10,800	1-21	0415	12.26	12,500
1- 9	1700	9.71	6,220	1-23	2215	16.48	26,600
1-14	0945	11.78	11,100	1-27	0300	10.42	7,770

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. Prior to Oct. 1, 1969, at site 0.2 mile upstream.

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.--20 years, 534 cfs (386,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 43,900 cfs Jan. 24 (gage height, 33.44 ft), from rating curve extended above 17,000 cfs on basis of slope-area measurement at gage height 40.60 ft, former site and datum; minimum daily, 5.3 cfs Sept. 17-19.
 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. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1445: 1954(M).

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	5.5	20	23	378	1,330	506	196	75	35	20	8.8	5.8
2	5.6	20	23	326	1,080	441	186	71	33	19	8.2	5.7
3	5.6	20	23	291	950	406	182	67	30	18	8.2	5.8
4	5.6	20	25	249	850	1,050	175	65	29	17	7.9	5.8
5	5.5	35	27	217	762	1,020	165	64	29	16	7.9	5.8
6	5.4	61	27	214	682	714	161	62	29	16	7.9	6.1
7	5.4	55	27	207	610	614	154	62	27	16	7.9	6.0
8	5.7	61	33	207	550	950	144	62	27	16	7.6	6.0
9	5.7	108	40	4,360	530	782	137	62	35	16	7.3	6.0
10	5.9	69	45	4,800	490	794	134	62	39	16	7.6	5.9
11	5.9	50	95	2,130	483	686	128	62	36	16	7.6	5.8
12	5.8	42	2,290	1,680	690	622	122	64	29	16	7.6	5.6
13	5.9	38	2,180	2,990	1,740	574	128	64	25	16	7.6	5.5
14	6.0	34	950	13,400	1,530	550	144	61	25	14	7.6	5.5
15	14	32	678	5,000	1,060	498	128	58	25	13	7.3	5.4
16	69	31	424	10,400	1,510	462	122	56	24	13	6.9	5.4
17	55	30	333	9,590	3,640	431	119	52	23	14	6.3	5.3
18	45	29	329	4,480	2,410	406	116	49	22	14	6.0	5.3
19	37	28	4,050	3,030	1,780	382	116	49	22	13	5.9	5.3
20	31	27	2,780	3,540	1,380	361	113	49	22	13	5.9	5.4
21	28	26	7,340	15,800	1,110	340	105	48	22	13	5.8	5.5
22	25	26	2,740	11,000	890	315	100	47	22	12	5.7	5.9
23	24	26	2,870	18,900	746	301	95	47	22	12	5.7	6.3
24	23	26	3,150	24,100	650	287	90	44	22	11	6.0	6.3
25	22	25	1,900	6,930	570	277	85	40	22	11	6.0	6.3
26	23	25	1,420	4,000	522	263	85	38	22	12	5.9	6.9
27	22	25	1,030	10,200	480	249	88	38	21	12	5.9	6.5
28	21	25	802	4,370	466	231	85	38	21	11	5.9	5.9
29	20	25	634	2,860	-----	221	83	36	21	11	5.7	5.7
30	20	24	514	2,120	-----	214	81	34	21	10	5.6	5.7
31	20	-----	441	1,630	-----	207	-----	34	-----	9.6	5.8	-----
TOTAL	578.5	1,063	37,243	169,399	29,491	15,154	3,767	1,660	782	436.6	212.0	174.4
MEAN	18.7	35.4	1,201	5,464	1,053	489	126	53.5	26.1	14.1	6.84	5.81
MAX	69	108	7,340	24,100	3,640	1,050	196	75	39	20	8.8	6.9
MIN	5.4	20	23	207	466	207	81	34	21	9.6	5.6	5.3
AC-FT	1,150	2,110	73,870	336,000	58,500	30,060	7,470	3,290	1,550	866	421	346
CAL YR 1969	TOTAL	289,200.6	MEAN	792	MAX	16,600	MIN	5.4	AC-FT	573,600		
WTR YR 1970	TOTAL	259,960.5	MEAN	712	MAX	24,100	MIN	5.3	AC-FT	515,600		

PEAK DISCHARGE (BASE, 7,000 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1230	18.50	12,400	1-21	0745	23.08	18,300
1- 9	2000	16.90	10,600	1-24	0215	33.44	43,900
1-14	1200	25.00	22,000	1-27	0515	21.03	15,200

BIG RIVER BASIN

11468070 SOUTH FORK BIG RIVER NEAR COMPTCHE, CALIF.

LOCATION.--Lat 39°13'47", long 123°27'53", in SW¹/₄ 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 current year.

GAGE.--Water-stage recorder. Altitude of gage is 500 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 53.8 cfs (38,980 acre-ft per year); median of yearly mean discharges, 47 cfs (34,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,360 cfs Jan. 23 (gage height, 12.22 ft), from rating curve extended as explained below; minimum daily, 0.49 cfs Sept. 26-30.
 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, 0.49 cfs Sept. 26-30, 1970.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

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	1.0	1.1	1.1	32	125	45	20	6.9	2.8	2.2	.99	.75
2	1.0	1.1	1.1	26	98	39	19	6.5	3.1	2.2	.97	.84
3	1.0	1.1	1.1	23	81	36	18	6.1	3.1	2.0	.95	.75
4	1.0	1.3	1.1	21	70	143	17	6.1	2.8	1.8	.93	.75
5	1.0	20	1.1	18	61	99	17	6.1	2.8	1.8	.93	.66
6	1.0	10	1.2	16	53	74	16	6.1	2.8	1.8	.93	.75
7	1.0	7.5	1.2	16	48	93	16	6.1	2.8	1.8	.93	.75
8	1.0	9.5	5.5	18	43	126	15	6.1	3.8	1.7	.84	.75
9	1.0	6.5	3.9	123	41	125	15	6.9	5.4	1.7	.84	.75
10	1.0	4.5	6.9	247	37	120	14	6.9	4.4	1.7	.93	.75
11	1.0	3.7	13	154	35	104	14	6.5	3.6	1.6	.84	.66
12	1.0	3.0	334	158	55	90	13	6.5	2.8	1.6	.75	.66
13	1.0	2.6	112	270	126	78	13	6.1	2.8	1.5	.75	.57
14	1.2	2.2	71	1,450	107	76	11	5.4	3.1	1.5	.84	.57
15	10	1.9	39	557	86	64	10	5.4	2.6	1.5	.75	.57
16	8.5	1.7	24	1,220	303	57	11	5.1	2.8	1.4	.75	.57
17	3.5	1.5	19	1,180	480	52	11	5.1	2.6	1.4	.75	.66
18	2.5	1.4	23	627	348	48	9.7	4.8	2.2	1.4	.75	.66
19	1.8	1.3	223	411	231	43	11	4.8	2.2	1.3	.84	.66
20	1.7	1.3	149	623	163	41	9.7	4.8	2.2	1.3	.75	.66
21	1.5	1.2	623	2,100	123	37	9.7	4.8	2.0	1.3	.75	.75
22	1.4	1.2	216	1,230	96	35	9.2	4.4	2.0	1.3	.84	.66
23	1.3	1.2	400	2,430	79	34	8.2	4.4	2.0	1.2	.84	.66
24	1.3	1.1	299	1,740	64	31	8.2	4.1	2.0	1.2	.84	.57
25	1.2	1.1	195	732	58	28	7.7	3.8	2.0	1.2	.84	.57
26	1.2	1.1	142	732	51	26	9.2	3.8	2.0	1.1	.84	.49
27	1.1	1.1	102	1,370	47	24	8.7	3.8	2.0	1.1	.84	.49
28	1.1	1.1	76	567	46	23	7.7	3.8	2.0	1.1	.84	.49
29	1.1	1.0	56	342	-----	22	7.7	3.3	2.0	1.1	.84	.49
30	1.1	1.0	44	225	-----	22	7.3	3.3	2.2	1.0	.75	.49
31	1.1	-----	37	159	-----	21	-----	3.1	-----	1.0	.84	-----
TOTAL	55.6	94.3	3,221.2	18,817	3,159	1,856	364.0	160.9	80.9	45.8	26.07	19.40
MEAN	1.79	3.14	104	607	113	59.9	12.1	5.19	2.70	1.48	.84	.65
MAX	10	20	623	2,430	480	143	20	6.9	5.4	2.2	.99	.84
MIN	1.0	1.0	1.1	16	35	21	7.3	3.1	2.0	1.0	.75	.49
AC-FT	110	187	6,390	37,320	6,270	3,680	722	319	160	91	52	38
CAL YR 1969	TOTAL	28,021.80	MEAN	76.8	MAX	1,490	MIN	.74	AC-FT	55,580		
WTR YR 1970	TOTAL	27,900.17	MEAN	76.4	MAX	2,430	MIN	.49	AC-FT	55,340		

PEAK DISCHARGE (BASE, 700 CFS)			
DATE	TIME	G.H.	DISCHARGE
12-21	0645	7.47	1,320
1-14	0545	9.88	2,610
1-16	1130	7.86	1,530
1-21	0215	9.55	2,410

NOTE.--No gage-height record Oct. 1 to Dec. 1.

DATE	TIME	G.H.	DISCHARGE
1-23	2045	12.22	4,360
1-26	2400	10.03	2,700
2-16	1845	6.16	791

11468500 NOYO RIVER NEAR FORT BRAGG, CALIF.

LOCATION.--Lat 39°25'42", long 123°44'12", in NE 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.--19 years, 219 cfs (158,700 acre-ft per year); median of yearly mean discharges, 210 cfs (152,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,300 cfs Jan. 23 (gage height, 22.28 ft); minimum daily, 1.4 cfs on many days in September.

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. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

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	2.6	3.9	7.7	145	566	202	72	35	17	8.0	4.0	3.4
2	2.6	3.9	7.7	126	449	173	68	34	17	7.8	4.1	3.2
3	2.4	3.9	7.7	108	357	158	66	32	16	7.4	4.1	3.1
4	2.4	5.9	8.1	97	308	365	63	31	16	7.2	3.7	3.4
5	2.1	4.6	8.1	87	261	427	61	30	16	6.8	3.8	4.3
6	2.4	3.0	8.0	83	222	334	58	30	16	6.6	3.9	4.8
7	2.4	1.9	8.4	80	199	317	57	30	16	6.2	3.8	3.6
8	4.1	1.9	1.3	83	182	434	54	30	18	6.1	3.7	1.9
9	3.6	1.5	1.4	170	165	421	53	33	20	5.9	3.5	1.4
10	3.9	1.2	1.5	837	152	413	51	34	19	5.9	3.6	1.4
11	4.1	1.1	3.4	644	139	352	50	32	17	5.9	3.4	1.4
12	8.5	9.9	965	497	186	301	48	31	16	5.9	3.4	1.6
13	2.9	8.9	799	943	483	263	48	30	17	5.9	3.3	1.4
14	2.9	8.5	586	3,010	729	256	51	28	16	5.7	2.8	1.4
15	2.1	8.5	332	1,700	535	221	52	27	15	5.4	2.8	1.4
16	3.0	8.5	164	3,170	975	198	50	25	15	5.3	3.1	1.4
17	1.5	8.5	102	3,010	1,880	181	51	24	14	4.9	3.1	1.6
18	9.5	8.1	93	1,810	1,310	169	48	23	13	4.7	3.0	1.4
19	6.8	8.1	991	1,220	936	157	57	23	13	4.9	2.4	1.4
20	5.4	7.8	947	1,370	683	145	49	22	13	4.8	2.4	1.9
21	4.8	7.7	2,470	5,420	516	134	46	21	12	4.9	1.9	1.9
22	4.4	7.9	1,240	4,140	398	117	44	21	12	4.9	2.4	1.9
23	4.1	7.9	1,470	7,250	326	117	42	21	11	4.8	2.6	1.9
24	3.9	7.7	1,290	6,900	282	110	40	21	11	4.6	2.9	1.9
25	3.9	7.7	801	2,730	242	104	40	20	10	4.6	2.9	2.1
26	3.9	7.8	609	1,830	212	97	41	19	9.8	4.6	2.9	2.1
27	4.3	7.7	487	4,770	194	92	41	19	9.4	4.6	2.6	1.9
28	4.1	7.7	360	2,100	189	86	39	19	9.0	4.6	2.6	1.9
29	4.1	7.8	272	1,330	-----	81	37	18	8.6	4.6	3.1	1.9
30	4.1	7.7	214	953	-----	80	36	18	8.2	4.6	3.3	1.9
31	4.1	-----	175	728	-----	77	-----	18	-----	4.0	3.5	-----
TOTAL	180.3	324.0	14,498.7	57,341	13,076	6,582	1,513	799	421.0	172.1	98.6	64.8
MEAN	5.82	10.8	468	1,850	467	212	50.4	25.8	14.0	5.55	3.18	2.16
MAX	30	46	2,470	7,250	1,880	434	72	35	20	8.0	4.1	4.8
MIN	2.1	3.9	7.7	80	139	77	36	18	8.2	4.0	1.9	1.4
AC-FT	358	643	28,760	113,700	25,940	13,060	3,000	1,580	835	341	196	129

CAL YR 1969	TOTAL	100,840.8	MEAN	276	MAX	7,760	MIN	2.1	AC-FT	200,000
WTR YR 1970	TOTAL	95,070.5	MEAN	260	MAX	7,250	MIN	1.4	AC-FT	188,600

PEAK DISCHARGE (BASE, 2,400 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1215	12.77	3,690	1-21	0745	17.14	6,410
1-14	1045	13.52	4,110	1-23	2345	22.28	13,300
1-16	1500	13.36	4,030	1-27	0515	17.85	6,980

NOTE.--No gage-height record May 27 to July 7.

PUDDING CREEK BASIN

11468540 PUDDING CREEK NEAR FORT BRAGG, CALIF.

LOCATION.--Lat 39°27'25", long 123°43'20", in NE¼NW¼ 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 current year.

GAGE.--Water-stage recorder. Datum of gage is 88.92 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 20.3 cfs (14,710 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,130 cfs Jan. 23 (gage height, 6.74 ft); minimum daily, 0.04 cfs Aug. 29 to Sept. 2.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	.30	.56	13	32	13	4.0	1.7	.65	.27	.11	.04
2	.56	.30	.50	10	25	9.5	3.8	1.7	.55	.27	.07	.04
3	.56	.30	.50	9.8	21	8.8	3.6	1.6	.55	.27	.05	.05
4	.56	.90	.50	7.9	19	57	3.6	1.6	.65	.31	.05	.05
5	.45	6.7	.50	6.7	16	39	3.4	1.6	.65	.31	.05	.05
6	.45	3.1	.50	6.0	15	26	3.4	1.6	.65	.31	.05	.05
7	.45	2.2	.50	6.0	13	40	3.2	1.5	.55	.35	.05	.05
8	.56	3.0	1.0	8.2	11	57	3.0	1.6	.75	.27	.05	.05
9	.64	2.3	1.4	42	11	45	3.0	2.5	1.3	.27	.05	.05
10	.81	1.5	1.8	141	9.5	41	3.0	2.6	1.1	.27	.05	.05
11	.90	1.0	5.8	85	8.5	30	3.0	2.5	.85	.31	.05	.07
12	1.0	.90	104	61	22	23	2.8	2.8	.55	.31	.05	.05
13	1.1	.72	106	102	38	19	3.0	2.1	.65	.31	.05	.05
14	1.0	.72	104	209	37	22	3.0	1.7	.65	.27	.05	.05
15	3.1	.72	44	120	29	16	2.8	1.6	.55	.27	.05	.05
16	2.4	.64	19	312	141	14	2.8	1.5	.55	.23	.05	.05
17	1.4	.56	14	181	199	12	2.6	1.4	.55	.23	.05	.05
18	.92	.56	17	106	99	10	2.6	1.4	.49	.23	.05	.07
19	.59	.56	149	76	60	8.8	3.8	1.4	.49	.23	.05	.15
20	.44	.56	107	131	41	7.9	3.0	1.3	.43	.23	.05	.15
21	.37	.56	528	622	30	7.3	2.6	1.3	.43	.23	.05	.15
22	.31	.56	144	347	23	6.7	2.5	1.3	.39	.19	.05	.15
23	.30	.56	262	773	18	6.5	2.3	1.2	.31	.19	.05	.15
24	.30	.56	163	439	16	6.0	2.1	1.1	.31	.19	.05	.15
25	.25	.56	87	156	13	5.6	2.1	.95	.39	.19	.05	.15
26	.26	.56	67	144	11	5.4	2.1	.95	.43	.15	.05	.15
27	.32	.56	56	388	10	5.0	2.3	1.1	.43	.15	.05	.11
28	.31	.56	39	125	11	4.6	2.0	1.1	.43	.15	.05	.07
29	.31	.56	28	69	-----	4.4	1.8	.95	.35	.11	.04	.07
30	.30	.56	20	50	-----	4.4	1.8	.75	.27	.11	.04	.11
31	.30	-----	16	38	-----	4.2	-----	.65	-----	.11	.04	-----
TOTAL	21.77	33.14	2,087.56	4,783.6	979.0	559.1	85.0	47.05	16.90	7.29	1.60	2.48
MEAN	.70	1.10	67.3	154	35.0	18.0	2.83	1.52	.56	.24	.052	.083
MAX	3.1	6.7	528	773	199	57	4.0	2.8	1.3	.35	.11	.15
MIN	.25	.30	.50	6.0	8.5	4.2	1.8	.65	.27	.11	.04	.04
AC-FT	43	66	4,140	9,490	1,940	1,110	169	93	34	14	3.2	4.9

CAL YR 1969	TOTAL	9,528.70	MEAN	26.1	MAX	762	MIN	.02	AC-FT	18,900
WTR YR 1970	TOTAL	8,624.49	MEAN	23.6	MAX	773	MIN	.04	AC-FT	17,110

PEAK DISCHARGE (BASE, 500 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1100	6.37	978	1-23	2100	6.74	1,130
1-21	0400	5.81	759	1-27	0200	5.53	661

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.--6 years, 86.9 cfs (62,960 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,100 cfs Jan. 23 (gage height, 11.50 ft); minimum daily, 1.3 cfs Sept. 27-30.

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 water year 1970 are published in Part 2 of this report.

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	3.0	4.8	4.4	68	206	64	29	15	8.5	6.3	3.7	2.5
2	3.0	4.8	4.0	58	171	54	28	14	7.9	5.9	3.5	2.5
3	3.0	4.8	4.0	50	146	50	27	14	8.1	5.7	3.5	2.3
4	3.0	8.8	4.0	44	131	115	26	14	8.3	5.7	3.5	2.3
5	3.0	59	4.0	39	117	118	25	14	8.3	5.3	3.3	2.3
6	2.7	29	4.0	35	104	95	25	14	8.3	5.3	3.3	2.1
7	2.7	18	4.4	32	95	115	24	13	8.5	5.3	3.3	2.1
8	4.4	15	9.8	33	88	168	23	14	8.9	5.1	3.1	2.1
9	4.0	12	12	80	80	164	22	15	9.9	5.1	3.1	1.9
10	4.8	9.3	14	396	74	156	22	16	9.3	5.1	2.8	1.9
11	4.4	7.8	29	305	68	136	22	16	8.7	5.1	2.7	1.7
12	4.0	6.8	423	255	88	118	21	18	8.3	5.1	2.7	1.7
13	3.6	6.0	281	363	131	102	22	15	7.9	4.9	2.7	1.5
14	3.6	5.6	241	734	141	104	22	14	7.7	4.7	2.5	1.5
15	12	5.6	159	513	123	87	21	13	7.9	4.5	2.7	1.5
16	16	5.6	100	1,180	317	77	20	12	7.9	4.5	2.7	1.5
17	12	5.6	72	1,030	535	69	20	11	7.9	4.5	2.5	1.7
18	9.3	5.2	77	654	380	63	20	11	7.5	4.5	2.5	1.9
19	7.3	5.2	346	450	271	57	24	11	7.1	4.5	2.5	1.9
20	6.4	5.2	312	471	201	53	20	11	6.9	4.3	2.5	1.9
21	5.6	5.2	1,050	2,010	158	49	19	11	6.9	4.3	2.5	1.9
22	5.2	5.2	486	1,660	127	46	18	10	7.1	4.1	2.5	1.7
23	4.8	4.4	675	2,340	105	43	18	9.9	6.9	4.1	2.5	1.7
24	4.8	4.4	489	2,040	92	41	17	9.9	6.9	4.1	2.5	1.7
25	4.8	4.4	323	1,020	80	38	16	9.9	6.9	4.1	2.5	1.7
26	4.8	4.4	236	742	70	37	18	9.9	7.1	3.9	2.5	1.5
27	5.6	4.4	180	1,510	64	35	17	9.9	7.1	3.9	2.5	1.3
28	5.2	4.4	142	738	63	34	16	9.9	6.9	3.9	2.5	1.3
29	5.2	4.4	115	453	-----	32	16	9.1	6.9	3.7	2.5	1.3
30	4.8	4.4	95	333	-----	31	15	8.9	6.7	3.7	2.5	1.3
31	4.8	-----	79	255	-----	30	-----	9.1	-----	3.7	2.5	-----
TOTAL	167.8	269.7	5,974.6	19,891	4,226	2,381	633	382.5	233.2	144.9	86.6	54.2
MEAN	5.41	8.99	193	642	151	76.8	21.1	12.3	7.77	4.67	2.79	1.81
MAX	16	59	1,050	2,340	535	168	29	18	9.9	6.3	3.7	2.5
MIN	2.7	4.4	4.0	32	63	30	15	8.9	6.7	3.7	2.5	1.3
AC-FT	333	535	11,850	39,450	8,380	4,720	1,260	759	463	287	172	108
CAL YR 1969	TOTAL 36,038.2	MEAN 98.7	MAX 2,100	MIN 2.7	AC-FT 71,480							
WTR YR 1970	TOTAL 34,444.5	MEAN 94.4	MAX 2,340	MIN 1.3	AC-FT 68,320							

PEAK DISCHARGE (BASE, 900 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1015	8.32	1,490	1-21	0845	9.77	2,190
1-14	0730	6.91	914	1-23	2200	11.50	3,100
1-16	1330	8.27	1,470	1-27	0045	9.36	1,980

MATTOLE RIVER BASIN

11469000 MATTOLE RIVER NEAR PETROLIA, CALIF.

LOCATION.--Lat 40°18'42", long 124°15'48", in NW $\frac{1}{4}$ 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.--22 years, 1,351 cfs (978,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 52,800 cfs Dec. 21 (gage height, 21.95 ft), from rating curve extended as explained below; minimum daily, 20 cfs Sept. 14-18, 25.

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, 1970.

REMARKS.--Records good. Diversions for irrigation of about 350 acres above station. Records of chemical analyses and water temperatures for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1285: 1912-13. WSP 1929: Drainage area.

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	42	63	110	1,580	2,600	1,140	402	191	96	55	29	25
2	42	62	110	1,400	2,220	875	390	184	87	54	28	25
3	41	60	108	1,250	2,000	798	374	178	87	52	28	25
4	39	364	108	1,150	1,780	1,620	358	173	89	51	27	25
5	38	2,160	101	1,070	1,610	1,420	347	189	87	48	26	24
6	37	764	98	996	1,420	1,140	336	171	87	45	26	23
7	37	505	98	948	1,260	1,280	326	166	84	44	26	23
8	62	2,650	132	1,800	1,160	1,670	315	168	84	44	26	23
9	65	1,160	172	3,800	1,070	1,630	300	176	93	44	26	23
10	63	652	592	5,600	1,000	1,700	300	186	108	43	26	23
11	60	490	2,320	3,500	948	1,450	290	189	98	43	26	23
12	59	364	9,430	6,800	1,050	1,290	276	222	87	41	26	22
13	52	304	7,720	10,500	2,380	1,160	315	194	82	40	25	21
14	45	268	9,650	8,400	2,160	1,820	318	171	80	39	24	20
15	134	248	5,240	15,000	1,650	1,480	276	161	78	37	24	20
16	622	232	3,930	18,000	5,560	1,280	267	151	77	36	24	20
17	520	206	3,230	13,000	7,080	1,140	260	144	75	36	24	20
18	254	194	3,510	8,800	4,560	1,030	260	142	71	36	24	20
19	175	180	8,220	7,600	3,200	935	347	137	69	35	25	21
20	125	172	11,400	10,200	2,430	856	286	132	68	35	25	21
21	98	169	42,700	21,000	1,940	792	254	127	66	33	25	22
22	47	158	26,600	18,200	1,600	736	238	125	63	33	25	22
23	76	152	16,000	23,600	1,370	682	228	122	63	31	25	22
24	73	144	9,300	21,600	1,200	635	222	118	60	31	25	21
25	70	134	6,850	9,960	1,070	590	216	116	57	30	26	20
26	63	132	5,000	17,600	976	551	235	112	58	31	25	21
27	71	130	3,870	22,900	908	520	238	112	57	31	25	21
28	78	125	3,080	8,060	976	486	214	108	58	30	25	21
29	78	118	2,540	5,430	-----	468	202	106	60	29	25	21
30	73	115	2,110	4,000	-----	451	194	104	58	29	25	21
31	65	-----	1,800	3,030	-----	424	-----	100	-----	29	25	-----
TOTAL	3,304	12,475	186,129	276,774	57,178	32,049	8,584	4,675	2,287	1,195	791	659
MEAN	107	416	6,004	8,928	2,042	1,034	286	151	76.2	38.5	25.5	22.0
MAX	622	2,650	42,700	23,600	7,080	1,820	402	222	108	55	29	25
MIN	37	60	98	948	908	424	194	100	57	29	24	20
AC-FT	6,550	24,740	369,200	549,000	113,400	63,570	17,030	9,270	4,540	2,370	1,570	1,310
CAL YR 1969	TOTAL 552,643		MEAN 1,514		MAX 42,700		MIN 33		AC-FT 1,096,000			
WTR YR 1970	TOTAL 586,100		MEAN 1,606		MAX 42,700		MIN 20		AC-FT 1,163,000			

PEAK DISCHARGE (BASE, 15,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0600	21.95	52,800	1-23	2215	18.45	37,000
1-16	unknown	--	19,500	1-27	0030	20.57	46,300
1-21	0530	15.56	25,000				

11469800 COLD CREEK TRIBUTARY NEAR ELK CREEK, CALIF.

LOCATION.--Lat 39°26'18", long 122°45'35", Lake County, Mendocino National Forest, on left bank at culvert on Pacific Crest Road, 4 miles upstream from mouth, and 16.5 miles southwest of town of Elk Creek.

DRAINAGE AREA.--0.81 sq mi.

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

GAGE.--Water-stage recorder, crest-stage gage, and culvert control. Altitude of gage is 5,170 ft (from topographic map).

EXTREMES.--Maximum discharge during period, 258 cfs Jan. 23 (gage height, 10.78 ft), from rating curve extended above 11 cfs on basis of maximum flow through culvert; minimum daily, 0.06 cfs Oct. 1, 2, Nov. 1-3.

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

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	.06	.06	.15	1.5	3.8	6.2	.81	.43	.19	.13	.08	.08
2	.06	.06	.13	1.4	3.2	4.4	.81	.39	.19	.13	.08	.08
3	.07	.06	.13	1.3	2.8	3.6	.76	.39	.19	.13	.08	.08
4	.08	.24	.13	1.2	2.5	3.2	.71	.36	.17	.11	.08	.08
5	.08	2.7	.13	1.1	2.4	3.2	.71	.36	.17	.11	.08	.08
6	.08	.63	.13	.93	2.2	3.4	.66	.36	.17	.11	.08	.08
7	.09	.62	.13	1.0	1.9	6.2	.66	.36	.17	.11	.08	.08
8	.11	1.7	.25	3.6	1.9	6.9	.66	.39	.17	.11	.08	.08
9	.11	.66	.19	24	1.8	5.0	.61	.39	.19	.10	.08	.08
10	.13	.47	.19	15	1.6	4.4	.61	.39	.19	.10	.08	.08
11	.13	.36	7.8	8.3	1.6	4.0	.56	.39	.19	.10	.08	.08
12	.15	.30	54	8.7	2.7	3.6	.56	.43	.17	.10	.08	.08
13	.17	.25	15	26	2.5	3.6	.61	.39	.17	.10	.08	.08
14	.17	.25	9.7	55	2.7	4.6	.66	.33	.19	.10	.08	.08
15	.25	.23	5.0	20	2.7	4.0	.66	.30	.21	.09	.08	.08
16	.94	.23	3.6	48	6.7	3.4	.66	.30	.21	.09	.08	.08
17	.38	.21	2.7	42	5.7	3.0	.66	.27	.19	.09	.08	.08
18	.21	.21	3.6	14	4.4	2.5	.56	.27	.19	.09	.08	.08
19	.17	.21	35	12	3.6	2.2	.56	.27	.17	.09	.08	.08
20	.13	.21	22	20	3.2	2.1	.51	.27	.17	.09	.08	.08
21	.11	.21	51	45	3.0	1.8	.56	.27	.17	.08	.08	.08
22	.11	.19	9.9	22	2.8	1.6	.51	.25	.15	.08	.08	.08
23	.10	.17	20	117	2.7	1.4	.51	.23	.15	.08	.08	.08
24	.10	.17	16	37	2.8	1.3	.47	.23	.15	.08	.08	.08
25	.09	.17	7.0	12	3.2	1.2	.47	.21	.13	.08	.08	.08
26	.09	.17	5.2	24	3.2	1.1	.56	.21	.13	.08	.08	.09
27	.08	.17	4.2	30	3.4	1.0	.51	.21	.13	.08	.08	.09
28	.08	.15	3.0	11	6.1	1.0	.47	.21	.13	.08	.08	.09
29	.08	.15	2.4	7.6	-----	.93	.47	.21	.13	.08	.08	.09
30	.07	.15	2.0	5.7	-----	.87	.43	.21	.13	.08	.08	.09
31	.07	-----	1.7	4.6	-----	.87	-----	.19	-----	.08	.08	-----
TOTAL	4.55	11.36	282.36	620.93	87.1	92.57	17.96	9.47	5.06	2.96	2.48	2.45
MEAN	.15	.38	9.11	20.0	3.11	2.99	.60	.31	.17	.096	.080	.082
MAX	.94	2.7	54	117	6.7	6.9	.81	.43	.21	.13	.08	.09
MIN	.06	.06	.13	.93	1.6	.87	.43	.19	.13	.08	.08	.08
AC-FT	9.0	23	560	1,230	173	184	36	19	10	5.9	4.9	4.9

WTR YR 1970 TOTAL 1,139.25 MEAN 3.12 MAX 117 MIN .06 AC-FT 2,260

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0715	4.23	121	1-23	2115	10.78	258
1-14	0730	4.16	118	1-26	2345	4.75	145

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, 82,800 acre-ft Jan. 23 (gage height, 1,908.22 ft); minimum, 9,260 acre-ft Oct. 5 (gage height, 1,850.96 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. Records of turbidity data for the water year 1970 are 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38,988	22,415	9,491	66,917	68,263	67,539	67,715	75,267	77,017	70,925	62,116	52,211
2	38,389	21,791	9,430	66,898	68,008	67,364	67,734	75,435	76,848	70,622	61,822	51,900
3	37,837	21,223	9,363	66,820	67,871	67,247	67,910	75,603	76,657	70,380	61,455	51,606
4	37,289	20,876	9,296	66,762	67,695	67,481	68,283	75,834	76,488	70,119	61,127	51,330
5	36,670	20,594	9,663	66,724	67,539	67,344	68,676	75,834	76,298	69,838	60,799	51,023
6	35,906	20,246	10,340	66,666	67,422	67,247	69,091	76,044	76,129	69,527	60,491	50,732
7	35,090	19,824	10,997	66,685	67,325	67,559	69,428	76,087	75,939	69,269	60,165	50,443
8	34,505	19,349	11,684	67,247	67,228	67,773	69,818	76,192	75,792	69,012	59,823	50,075
9	34,346	18,857	12,403	71,310	67,169	67,715	70,099	76,340	75,603	68,735	59,446	49,567
10	33,860	18,397	13,133	69,647	67,111	67,578	70,360	76,509	75,414	68,440	59,089	48,967
11	33,306	17,889	13,861	68,755	67,072	67,481	70,622	76,657	75,246	68,165	58,734	48,294
12	32,721	17,359	20,082	69,408	67,754	67,364	70,884	76,805	75,016	67,891	58,379	47,566
13	32,131	16,800	26,261	71,838	68,992	67,286	71,228	76,932	74,849	67,598	58,026	46,861
14	31,768	16,179	28,462	73,273	68,243	67,305	71,492	77,038	74,661	67,344	57,675	46,162
15	31,430	15,602	29,717	71,940	67,852	67,228	71,797	77,123	74,495	67,014	57,360	45,471
16	31,095	15,034	30,169	74,100	69,738	67,169	72,124	77,187	74,328	66,724	57,028	44,847
17	30,738	14,468	31,338	72,553	69,170	67,111	72,369	77,251	74,141	66,453	56,716	44,262
18	30,282	13,888	33,198	70,662	68,499	67,014	72,615	77,294	73,996	66,184	56,421	43,683
19	29,773	13,280	38,363	70,662	68,165	66,995	72,882	77,336	73,810	65,896	56,094	43,123
20	29,191	12,667	52,754	71,940	67,930	66,937	73,128	77,379	73,603	65,608	55,784	42,553
21	28,617	12,036	63,678	74,661	67,734	66,898	73,376	77,379	73,417	65,303	55,476	41,989
22	28,089	11,426	68,342	72,964	67,598	66,859	73,603	77,379	73,190	65,018	55,169	41,430
23	27,557	10,806	70,985	82,799	67,481	66,840	73,810	77,357	72,984	64,714	54,863	40,875
24	26,978	10,221	69,838	74,724	67,403	66,975	74,038	77,336	72,758	64,430	54,542	40,340
25	26,418	9,897	68,972	71,635	67,325	67,150	74,245	77,315	72,533	64,110	54,238	39,768
26	25,856	9,786	68,224	73,438	67,267	67,267	74,453	77,251	72,287	63,809	53,953	39,162
27	25,332	9,724	67,793	72,308	67,247	67,364	74,661	77,230	72,001	63,528	53,702	38,575
28	24,806	9,681	67,500	70,501	67,481	67,442	74,849	77,187	71,736	63,210	53,401	37,968
29	24,287	9,608	67,305	69,567	-----	67,500	75,016	77,145	71,431	62,950	53,102	37,380
30	23,562	9,546	67,111	68,972	-----	67,598	75,163	77,123	71,188	62,671	52,804	36,798
31	23,003	-----	66,995	68,578	-----	67,715	-----	77,060	-----	62,393	52,507	-----
MAX	38,988	22,415	70,985	82,799	69,738	67,773	75,163	77,379	77,017	70,925	62,116	52,211
MIN	23,003	9,546	9,296	66,666	67,072	66,840	67,715	75,267	71,188	62,393	52,507	36,798
(a)	1,869.45	1,851.45	1,900.64	1,901.45	1,900.89	1,901.01	1,904.68	1,905.58	1,902.75	1,898.11	1,892.55	1,881.80
(b)	-16,600	-13,500	+54,400	+1,580	-1,100	+234	+7,550	+1,900	-5,870	-8,800	-9,990	-15,700

CAL YR 1969 b -369
 WTR YR 1970 b -2,780

a Elevation, in feet, at end of month.
 b Change in contents, in acre-feet.

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.--48 years, 543 cfs (393,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 29,600 cfs Jan. 23 (gage height, 19.53 ft), from rating curve extended as explained below; minimum daily, 34 cfs Apr. 7.
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 water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	302	56	540	1,840	1,070	280	88	95	154	154	157
2	300	306	56	459	1,540	937	286	67	128	154	160	157
3	300	304	55	403	1,330	818	189	50	144	154	165	157
4	298	304	55	367	1,200	902	74	48	144	154	165	156
5	298	280	55	332	1,090	911	52	66	144	153	165	157
6	300	280	55	306	987	826	54	89	144	153	163	156
7	302	298	55	298	906	843	34	89	143	153	175	156
8	300	294	55	376	834	1,280	38	77	146	153	183	174
9	300	294	55	3,360	778	1,190	71	67	149	153	183	265
10	298	284	55	4,820	731	1,140	104	66	149	153	183	318
11	298	286	59	2,670	690	1,030	65	65	149	153	177	335
12	296	290	92	2,260	898	937	56	63	149	153	174	339
13	300	290	82	4,550	2,040	859	57	75	147	153	172	339
14	304	290	83	12,900	2,050	851	57	80	149	152	172	337
15	294	290	150	6,700	1,440	814	57	78	147	152	168	337
16	288	290	228	11,400	1,840	762	59	86	144	152	166	335
17	290	290	241	10,600	3,410	712	59	86	142	152	165	335
18	288	288	248	6,260	2,330	668	58	78	142	152	162	335
19	296	288	209	4,660	1,770	610	60	70	142	152	162	332
20	302	288	113	4,830	1,460	577	59	70	142	150	162	332
21	304	288	82	11,900	1,250	536	59	80	142	150	160	330
22	302	290	1,280	10,000	1,100	503	59	89	142	150	160	330
23	302	288	3,960	18,300	996	474	59	96	142	150	160	330
24	302	286	4,860	18,500	919	358	60	96	144	154	160	328
25	302	152	2,960	8,480	851	312	60	96	147	157	160	330
26	302	56	2,070	5,820	802	335	60	96	150	156	160	330
27	300	56	1,470	10,400	766	306	60	96	154	156	159	330
28	302	56	1,120	5,790	802	304	58	96	154	156	157	328
29	302	56	906	3,930	-----	322	58	96	154	156	157	330
30	302	56	758	2,880	-----	265	74	95	154	156	157	330
31	300	-----	636	2,220	-----	243	-----	95	-----	154	157	-----
TOTAL	9,272	7,420	22,159	176,311	36,650	21,695	2,376	2,489	4,322	4,750	5,123	8,505
MEAN	299	247	715	5,687	1,309	700	79.2	80.3	144	153	165	284
MAX	304	306	4,860	18,500	3,410	1,280	286	96	154	157	183	339
MIN	288	56	55	298	690	243	34	48	95	150	154	156
AC-FT	18,390	14,720	43,950	349,700	72,700	43,030	4,710	4,940	8,570	9,420	10,160	16,870
CAL YR 1969	TOTAL	358,497	MEAN	982	MAX	16,500	MIN	55	AC-FT	711,100		
WTR YR 1970	TOTAL	301,072	MEAN	825	MAX	18,500	MIN	34	AC-FT	597,200		

EEL RIVER BASIN

11471000 POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CALIF.

LOCATION.--Lat 39°21'42", long 123°07'38", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.6, T.17 N., R.11 W., Mendocino County, on right bank 100 ft downstream from powerhouse of Pacific Gas and Electric Co., 1.8 miles southwest of Van Arsdale Dam, and 2.9 miles northwest of town of Potter Valley.

PERIOD OF RECORD.--December 1909 to current year. Prior to October 1922, monthly discharge only, published in WSP 1315-B. Prior to October 1931, published as Snow Mountain Water and Power Co.'s tailrace near Potter Valley.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 1,020 ft (from topographic map). No gage prior to Dec. 1, 1922. Dec. 1, 1922, to Sept. 30, 1923, nonrecording gage and Oct. 1, 1923, to Apr. 12, 1950, water-stage recorder, at site 50 ft upstream at different datum.

AVERAGE DISCHARGE.--60 years (1910-70), 201 cfs (145,600 acre-ft per year).

EXTREMES.--1922 to current year: Maximum daily discharge, 348 cfs Apr. 24, 1953; no flow at times in several years.

REMARKS.--Water is diverted from Eel River above Van Arsdale Dam. After passing through powerhouse, part of it is used for irrigation in Potter Valley and remainder flows into East Fork Russian River. Water for irrigation diverted from tailrace is included in figures of discharge. Records of water temperatures and turbidity data for the water year 1970 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 1395: 1950.

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	303	300	60	294	300	293	296	100	95	137	138	127
2	302	300	59	294	296	293	304	110	113	135	141	140
3	298	299	59	294	302	293	249	69	139	136	136	135
4	301	300	58	294	300	293	122	71	104	136	136	146
5	300	295	59	294	300	294	84	70	126	135	144	145
6	300	279	59	294	299	296	88	103	137	134	159	128
7	300	298	61	294	299	296	76	100	135	137	156	187
8	300	298	61	294	297	294	81	102	134	135	162	301
9	303	301	67	294	297	294	76	86	133	135	160	310
10	303	299	65	294	297	294	101	88	132	129	150	312
11	302	299	109	294	296	294	95	80	131	137	147	323
12	300	294	306	294	291	291	89	85	136	129	156	325
13	289	298	302	294	290	289	91	86	139	135	157	308
14	297	299	277	293	291	289	92	92	139	137	143	303
15	303	296	234	293	290	289	90	92	136	132	139	309
16	302	295	302	291	290	289	93	92	138	131	132	319
17	300	295	296	286	290	289	92	97	138	129	145	318
18	297	299	297	286	293	290	87	98	135	133	147	321
19	299	294	296	284	299	279	92	79	131	129	155	318
20	296	284	296	284	297	287	83	80	135	134	139	301
21	303	292	296	286	297	294	91	86	134	128	132	276
22	306	284	296	284	297	297	82	92	141	134	134	277
23	302	293	296	286	297	297	85	98	138	132	135	285
24	300	290	294	287	297	290	81	101	138	137	143	307
25	300	218	302	287	297	284	89	99	141	139	136	307
26	301	62	296	297	293	293	83	95	141	140	142	302
27	303	56	297	297	293	290	86	102	138	136	136	296
28	303	58	296	299	293	290	71	101	136	135	139	299
29	291	60	296	277	-----	290	82	101	136	138	145	300
30	293	60	296	299	-----	280	81	93	135	148	136	298
31	286	-----	294	300	-----	239	-----	95	-----	138	138	-----
TOTAL	9,283	7,595	6,582	9,038	8,278	8,970	3,212	2,843	3,984	4,180	4,458	8,023
MEAN	299	253	212	292	296	289	107	91.7	133	135	144	267
MAX	306	301	306	300	302	297	304	110	141	148	162	325
MIN	286	56	58	277	290	239	71	69	95	128	132	127
AC-FT	18,410	15,060	13,060	17,930	16,420	17,790	6,370	5,640	7,900	8,290	8,840	15,910

CAL YR 1969 TOTAL 96,966 MEAN 266 MAX 316 MIN 56 AC-FT 192,300
 WAT YR 1970 TOTAL 76,446 MEAN 209 MAX 325 MIN 56 AC-FT 151,600

11471500 EEL RIVER AT VAN ARSDALE DAM, NEAR POTTER VALLEY, CALIF.

LOCATION.--Lat 39°23'19", long 123°06'54", in NE 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)--61 years (1909-70), 634 cfs (459,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 36,200 cfs Jan. 23 (gage height, 25.85 ft); minimum daily, 1.3 cfs Oct. 13.
 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	1.8	2.0	312	1,780	887	32	21	2.6	4.4	3.3	2.6
2	2.6	1.8	2.0	280	1,470	765	24	22	2.4	4.4	3.1	2.6
3	2.5	4.9	2.0	171	1,250	621	17	3.6	2.2	4.6	3.1	2.3
4	2.3	12	2.0	130	1,100	724	11	3.6	2.4	4.8	3.1	2.2
5	1.9	64	2.0	101	965	771	16	3.8	4.2	4.8	3.6	2.2
6	1.6	1.7	2.0	66	837	663	19	10	4.2	4.8	4.2	2.3
7	1.7	1.8	2.0	54	736	663	11	3.6	4.0	4.8	3.6	2.3
8	2.5	12	2.2	103	647	1,150	8.1	3.6	4.6	4.8	3.5	4.2
9	2.2	6.1	2.2	2,880	574	1,100	5.2	3.3	5.2	4.4	3.5	3.8
10	2.2	2.3	2.0	5,240	511	1,070	66	3.1	6.1	4.4	3.6	3.3
11	1.8	1.6	7.0	2,740	461	925	19	3.1	6.1	4.4	3.8	2.6
12	1.4	1.7	923	2,230	791	818	5.2	2.7	5.6	4.4	3.5	2.6
13	1.3	2.3	176	4,590	1,940	713	11	2.6	5.6	4.6	3.6	3.0
14	14	1.8	34	14,500	2,010	696	10	2.8	5.6	4.6	3.6	3.0
15	37	1.6	1.4	7,520	1,390	647	5.0	2.8	5.9	4.4	3.8	3.1
16	6.5	1.6	2.8	12,900	2,170	574	10	2.7	5.9	4.4	3.8	3.5
17	5.1	1.8	1.9	12,200	3,550	506	5.0	3.0	5.6	4.6	4.4	3.6
18	1.8	1.8	89	6,960	2,470	448	4.6	2.8	5.0	4.6	4.2	3.6
19	1.6	1.7	979	4,860	1,800	394	4.6	2.6	5.2	5.2	4.0	3.6
20	1.9	1.7	502	5,120	1,460	355	4.6	2.6	5.2	5.0	3.6	3.6
21	11	4.7	1,410	13,800	1,230	308	5.0	2.4	4.8	4.2	3.3	3.6
22	1.7	1.7	1,280	11,500	1,030	278	4.8	2.4	4.6	4.4	3.8	3.5
23	1.8	3.4	4,220	22,000	893	247	4.4	2.6	4.0	4.2	3.3	3.1
24	1.8	1.8	5,240	22,600	782	177	4.4	2.6	3.8	3.8	3.1	3.0
25	3.7	1.6	3,000	9,460	691	89	4.8	2.6	3.8	4.4	2.8	2.7
26	3.8	1.4	2,020	6,160	631	113	4.6	3.3	3.6	4.2	2.7	2.3
27	1.9	1.7	1,200	12,000	574	89	4.6	3.0	3.5	4.0	2.6	2.3
28	1.5	2.4	911	6,040	605	69	19	2.6	3.5	3.6	2.6	2.1
29	2.2	2.0	699	3,780	-----	91	4.4	2.3	4.0	3.6	2.6	1.9
30	8.9	2.0	502	2,740	-----	74	4.2	2.4	4.4	3.5	2.6	1.7
31	14	-----	401	2,140	-----	28	-----	2.6	-----	3.6	2.6	-----
TOTAL	147.1	148.7	23,619.5	195,177	34,348	16,053	348.5	134.1	133.6	135.9	104.9	86.2
MEAN	4.75	4.96	762	6,296	1,227	518	11.6	4.33	4.45	4.38	3.38	2.87
MAX	37	64	5,240	22,600	3,550	1,150	66	22	6.1	5.2	4.4	4.2
MIN	1.3	1.4	1.4	54	461	28	4.2	2.3	2.2	3.5	2.6	1.7
AC-FT	292	295	46,850	387,100	68,130	31,840	691	266	265	270	208	171

CAL YR 1969 TOTAL 307,811.0 MEAN 843 MAX 18,700 MIN 1.3 AC-FT 610,500
 WTR YR 1970 TOTAL 270,436.5 MEAN 741 MAX 22,600 MIN 1.3 AC-FT 536,400

EEL RIVER BASIN

11471800 TOMKI CREEK NEAR WILLITS, CALIF.

LOCATION.--Lat 39°25'10", long 123°13'40", in NE $\frac{1}{4}$ sec.18, T.18 N., R.12 W., Mendocino County, on left bank 500 ft upstream from Halfmile Creek, 5.8 miles upstream from mouth, and 6.8 miles east of Willits.

DRAINAGE AREA.--43.4 sq mi.

PERIOD OF RECORD.--July 1963 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,591.91 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 103 cfs (74,620 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,490 cfs Jan. 26 (gage height, 9.85 ft); no flow many days.
Period of record: Maximum discharge, 16,500 cfs Dec. 22, 1964 (gage height, 15.92 ft), from rating curve extended above 4,000 cfs on basis of slope-area measurement of maximum flow; no flow at times in each year.

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

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	0	.19	.64	44	113	61	16	8.7	2.3	.19	0	0
2	0	.19	.64	38	87	42	16	7.9	2.3	.15	0	0
3	0	.18	.64	32	70	35	15	7.2	2.3	.13	0	0
4	0	.32	.52	29	57	188	15	6.8	1.9	.11	0	0
5	0	5.0	.52	24	45	173	14	6.2	1.9	.09	0	0
6	0	1.4	.76	21	37	114	14	5.8	1.9	.07	0	0
7	0	1.5	.64	22	31	158	13	5.6	1.9	.05	0	0
8	0	12	2.8	33	27	265	13	5.7	1.5	.03	0	0
9	Q	11	4.3	470	23	200	12	6.0	1.5	.01	0	0
10	0	7.6	10	602	20	184	12	6.3	1.5	0	0	0
11	0	5.1	51	274	18	150	12	6.4	1.5	0	0	0
12	0	3.7	1,040	362	100	122	11	6.4	1.5	0	0	0
13	0	2.7	394	726	453	102	12	5.8	1.1	0	0	0
14	0	2.5	312	1,980	281	109	12	5.8	1.1	0	0	0
15	.09	2.2	140	755	146	85	12	5.3	1.1	0	0	0
16	.13	1.8	78	2,290	534	69	11	5.3	1.1	0	0	0
17	.23	1.3	69	1,500	630	59	12	4.8	.90	0	0	0
18	.19	.94	138	700	380	51	11	4.8	.90	0	0	0
19	.16	.89	862	653	248	44	12	4.3	.90	0	0	0
20	.15	.85	529	843	182	39	10	4.3	.76	0	0	0
21	.14	.75	1,250	2,660	135	35	10	3.8	.76	0	0	0
22	.14	.90	416	1,620	106	32	13	3.8	.76	0	0	0
23	.15	.90	970	3,560	86	30	11	3.3	.64	0	0	0
24	.15	.90	493	2,170	72	27	11	3.3	.64	0	0	0
25	.15	.76	336	862	59	25	9.9	3.3	.52	0	0	0
26	.16	.76	269	1,130	50	23	11	3.3	.42	0	0	0
27	.17	.76	182	1,730	44	21	10	2.8	.37	0	0	0
28	.17	.76	120	547	44	20	10	2.8	.32	0	0	0
29	.19	.64	86	313	-----	19	9.4	2.8	.28	0	0	0
30	.19	.64	67	205	-----	18	8.8	2.8	.24	0	0	0
31	.19	-----	53	146	-----	17	-----	2.3	-----	0	0	-----
TOTAL	2.75	69.13	7,876.46	26,341	4,078	2,517	359.1	153.7	34.81	0.83	0	0
MEAN	.089	2.30	254	850	146	81.2	12.0	4.96	1.16	.027	0	0
MAX	.23	12	1,250	3,560	630	265	16	8.7	2.3	.19	0	0
MIN	0	.18	.52	21	18	17	8.8	2.3	.24	0	0	0
AC-FT	5.5	137	15,620	52,250	8,090	4,990	712	305	69	1.6	0	0

CAL YR 1969 TOTAL 49,064.48 MEAN 134 MAX 3,120 MIN 0 AC-FT 97,320
WTR YR 1970 TOTAL 41,432.78 MEAN 114 MAX 3,560 MIN 0 AC-FT 82,180

PEAK DISCHARGE (BASE, 4,000 CFS).--Jan. 23 (2030) 5,310 cfs (9.72 ft); Jan. 26 (2345) 5,490 cfs (9.85 ft).

NOTE.--No gage-height record May 12 to July 28.

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.

EXTREMES.--Current year: Maximum discharge, 61,600 cfs Jan. 23 (gage height, 30.35 ft), from rating curve extended above 14,000 cfs; minimum daily, 2.9 cfs Sept. 5-13, 15-18.
 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, 2.8 cfs on several days in 1967-69.
 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 loads for the water year 1970 are published in Part 2 of this report.

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	5.4	8.2	16	640	2,910	1,210	159	70	27	12	5.0	3.7
2	5.1	11	16	531	2,460	1,150	159	68	26	12	5.0	3.4
3	4.9	11	16	437	2,140	954	150	73	25	12	5.0	3.4
4	4.7	11	16	381	1,880	1,330	139	65	22	12	4.3	3.1
5	4.9	72	16	314	1,680	1,650	133	58	20	6.5	4.0	2.9
6	4.9	74	16	259	1,470	1,240	127	56	19	8.9	3.7	2.9
7	4.9	42	16	236	1,330	1,350	127	56	20	9.6	3.7	2.9
8	5.4	35	18	245	1,210	2,090	124	58	19	9.6	3.4	2.9
9	5.6	35	21	1,500	1,090	1,890	119	58	21	9.6	3.4	2.9
10	5.9	33	35	8,100	1,010	1,870	114	58	23	9.6	3.4	2.9
11	5.9	29	167	4,850	912	1,570	147	58	25	9.6	4.0	2.9
12	5.9	24	6,130	5,400	1,400	1,400	116	68	23	9.6	4.0	2.9
13	5.9	21	2,880	3,000	3,660	1,220	108	65	23	8.9	4.0	2.9
14	5.9	21	2,000	14,000	3,640	1,190	108	61	25	8.2	3.4	3.1
15	17	20	1,110	8,600	2,430	1,080	108	51	23	8.2	3.4	2.9
16	48	19	680	23,000	4,250	966	105	47	22	8.2	3.4	2.9
17	46	19	625	16,000	6,130	864	105	45	22	8.2	3.4	2.9
18	28	17	888	8,050	4,200	785	100	45	23	7.6	3.4	2.9
19	21	17	6,900	6,100	3,090	685	98	43	22	7.0	3.4	3.4
20	16	17	4,950	9,130	2,420	620	98	43	21	7.0	3.4	3.7
21	12	17	10,200	26,800	1,980	558	95	43	19	7.0	3.4	3.7
22	11	17	4,700	22,800	1,680	499	100	43	15	6.5	3.4	4.0
23	10	17	6,970	39,300	1,440	454	100	41	14	6.5	3.4	4.0
24	11	17	6,720	45,000	1,280	413	93	39	10	6.5	3.7	3.7
25	9.6	17	5,200	17,500	1,120	291	88	39	11	6.5	3.7	3.7
26	8.9	17	3,500	12,400	1,010	252	85	37	12	6.5	3.7	3.7
27	8.5	17	2,350	22,200	936	252	85	37	12	6.5	3.7	3.7
28	8.5	17	1,660	10,500	954	219	85	35	12	5.9	3.4	3.7
29	8.5	17	1,260	6,380	-----	203	85	33	12	5.4	3.4	3.4
30	8.5	17	972	4,490	-----	213	75	31	12	5.0	3.7	3.1
31	8.5	-----	785	3,440	-----	197	-----	29	-----	5.0	3.7	-----
TOTAL	356.5	705.2	70,833	326,583	59,712	28,665	3,335	1,553	580	251.6	115.9	98.2
MEAN	11.5	23.5	2,285	10,530	2,133	925	111	50.1	19.3	8.12	3.74	3.27
MAX	48	74	10,200	45,000	6,130	2,090	159	73	27	12	5.0	4.0
MIN	4.9	8.2	16	236	912	197	75	29	10	5.0	3.4	2.9
AC-FT	707	1,400	140,500	647,800	118,400	56,860	6,610	3,080	1,150	499	230	195

CAL YR 1969 TOTAL 535,488.6 MEAN 1,467 MAX 28,000 MIN 4.1 AC-FT 1,062,000
 VTR YR 1970 TOTAL 492,788.4 MEAN 1,350 MAX 45,000 MIN 2.9 AC-FT 977,400

PEAK DISCHARGE (BASE, 20,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-14	1600	19.70	27,800	1-23	2300	30.35	61,600
1-16	unknown	-	31,000	1-27	0200	20.04	28,700
1-21	2400	20.30	29,400				

EEL RIVER BASIN

11472200 OUTLET CREEK NEAR LONGVALE, CALIF.

LOCATION.--Lat 39°37'05", long 123°21'20", in NE $\frac{1}{4}$ 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.--14 years, 443 cfs (321,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 21,000 cfs Jan. 23 (gage height, 17.93 ft); minimum daily, 0.70 cfs Aug. 20.

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. Records of water temperatures and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1929: 1958(M), 1960.

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	1.2	3.7	6.1	199	647	356	77	37	11	4.5	1.4	1.3
2	1.2	3.6	6.1	167	511	234	74	33	11	4.5	1.4	1.2
3	1.2	3.7	5.9	142	425	193	71	30	9.6	4.5	1.4	1.2
4	1.2	4.9	5.6	127	372	765	66	28	9.3	4.2	1.3	1.2
5	1.3	92	5.6	112	321	1,080	63	28	8.6	4.2	1.3	1.2
6	1.3	51	5.9	100	274	567	62	28	8.2	3.9	1.3	1.2
7	1.4	31	5.9	106	244	848	57	28	7.8	3.9	1.3	1.2
8	1.9	27	8.6	172	220	1,170	54	27	8.2	3.5	1.2	1.4
9	2.0	26	12	1,790	200	800	54	27	9.6	3.5	1.2	1.6
10	2.5	21	33	3,130	182	776	53	30	10	3.4	1.1	1.3
11	2.3	16	209	1,610	167	586	51	34	11	3.4	1.1	1.1
12	2.3	14	5,030	1,760	553	483	50	39	10	3.4	1.0	1.1
13	2.2	12	2,370	2,830	1,970	395	50	37	9.3	3.2	.93	.99
14	2.5	10	1,970	6,330	1,650	495	53	31	9.6	3.1	.78	.86
15	12	9.3	853	3,770	891	388	51	28	8.6	3.0	.78	.84
16	28	8.6	459	9,460	2,870	310	50	25	7.8	2.8	.78	.82
17	24	7.8	439	7,080	3,040	258	50	23	7.8	2.6	.78	1.1
18	19	7.1	699	3,400	2,030	226	50	21	7.8	2.4	.78	.95
19	14	6.8	3,840	2,830	1,240	197	53	20	7.5	2.2	.78	.95
20	10	6.4	2,650	3,730	755	178	54	19	6.8	2.1	.70	.95
21	7.8	6.4	5,940	10,600	574	163	51	18	6.4	2.0	.78	1.1
22	6.6	6.1	2,320	7,740	457	153	54	17	5.9	2.0	.86	1.2
23	5.6	6.4	4,180	14,400	383	143	50	17	5.6	1.8	.86	1.2
24	4.9	6.1	2,330	12,000	329	133	48	16	5.0	1.8	.91	1.1
25	4.6	5.9	1,830	4,710	273	122	46	15	5.0	1.8	1.0	.95
26	4.3	6.1	1,310	4,770	239	112	45	14	5.0	1.7	1.1	.93
27	4.0	6.1	814	7,470	216	104	44	14	4.8	1.7	.95	.86
28	4.3	6.1	550	3,110	224	96	43	13	5.0	1.7	.95	.86
29	4.0	6.1	403	1,840	-----	90	42	13	5.0	1.7	1.1	.86
30	3.5	6.1	301	1,120	-----	85	39	12	4.5	1.7	1.3	.78
31	3.5	-----	236	760	-----	81	-----	12	-----	1.6	1.3	-----
TOTAL	184.6	423.3	38,827.7	117,365	21,257	11,587	1,605	734	231.7	87.8	32.42	32.30
MEAN	5.95	14.1	1,253	3,786	759	374	53.5	23.7	7.72	2.83	1.05	1.08
MAX	28	92	5,940	14,400	3,040	1,170	77	39	11	4.5	1.4	1.6
MIN	1.2	3.6	5.6	100	167	81	39	12	4.5	1.6	.70	.78
AC-FT	366	840	77,010	232,800	42,160	22,980	3,180	1,460	460	174	64	64

CAL YR 1969 TOTAL 201,643.98 MEAN 552 MAX 14,700 MIN .78 AC-FT 400,000
WTR YR 1970 TOTAL 192,367.82 MEAN 527 MAX 14,400 MIN .70 AC-FT 381,600

(PEAK DISCHARGE (BASE, 7,000 CFS))

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-12	0500	10.41	7,420	1-21	0230	14.13	13,300
12-21	0645	12.35	10,400	1-23	2100	17.93	21,000
1-16	0545	13.73	12,600	1-26	2330	15.76	16,400

11472800 MIDDLE FORK EEL RIVER ABOVE BLACK BUTTE RIVER, NEAR COVELO, CALIF.

LOCATION.--Lat 39°49'45", long 123°04'11", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.22, T.23 N., R.11 W., Mendocino County, on left bank 1.2 miles upstream from Black Butte River and 9.8 miles northeast of Covelo.

DRAINAGE AREA.--204 sq mi.

PERIOD OF RECORD.--October 1967 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,498.9 ft above mean sea level. Prior to Oct. 31, 1968, at datum 5.0 ft higher.

EXTREMES.--Current year: Maximum discharge, 48,400 cfs Jan. 23 (gage height, 16.08 ft), from rating curve extended above 10,000 cfs; minimum daily, 3.5 cfs Sept. 13-20.
 Period of record: Maximum discharge, 48,400 cfs Jan. 23, 1970 (gage height, 16.08 ft), from rating curve extended above 10,000 cfs; minimum daily, 3.5 cfs Sept. 13-20, 1970.

REMARKS.--Records fair. No regulation or diversion above station. Records of water temperatures, and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

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	9.8	16	25	470	1,290	1,040	342	180	86	29	9.2	5.6
2	9.8	15	25	410	1,040	760	337	202	86	22	9.2	5.3
3	9.5	15	24	375	895	670	323	202	72	22	9.2	5.3
4	9.5	15	24	360	832	600	314	220	72	19	9.2	4.9
5	9.5	545	25	320	766	610	296	242	61	22	9.2	4.9
6	9.5	208	24	300	718	600	286	246	50	22	8.7	4.2
7	9.5	116	24	310	660	1,500	268	228	50	22	8.1	4.2
8	9.8	101	28	460	625	1,940	268	255	50	22	8.1	4.6
9	10	89	38	1,500	595	1,220	268	268	61	22	8.1	5.3
10	10	73	52	3,300	565	923	268	282	57	22	7.6	5.3
11	10	62	182	2,300	540	846	268	273	50	22	7.6	4.2
12	10	58	7,850	2,550	600	766	268	250	50	21	7.6	3.9
13	10	52	3,400	3,750	694	718	250	268	50	17	7.6	3.5
14	10	47	2,920	12,000	650	909	246	255	61	17	7.6	3.5
15	31	44	1,620	6,050	615	853	228	268	50	17	7.0	3.5
16	177	45	810	14,000	1,390	754	224	286	50	17	7.0	3.5
17	172	44	800	6,700	1,520	722	224	291	34	17	7.0	3.5
18	67	40	1,100	6,000	965	690	211	291	34	17	7.0	3.5
19	44	36	4,200	2,500	874	658	237	268	34	17	7.0	3.5
20	33	36	1,700	1,750	790	626	211	268	34	17	6.7	3.5
21	28	34	10,800	13,200	754	594	193	237	34	13	6.7	4.2
22	25	32	1,600	8,000	712	562	180	224	30	9.8	6.7	4.9
23	23	32	6,300	30,400	665	530	180	211	28	9.8	6.7	5.3
24	21	30	3,700	12,500	635	494	158	189	28	9.8	6.7	5.3
25	19	30	2,700	4,780	615	510	158	180	28	9.8	6.7	5.6
26	18	29	1,650	3,300	610	490	158	162	28	13	6.7	5.6
27	18	24	1,080	7,970	615	485	158	158	22	13	6.3	5.3
28	17	28	850	5,060	712	445	158	136	28	9.8	6.3	5.3
29	17	27	650	3,600	-----	435	158	125	34	9.8	6.0	4.9
30	16	26	560	2,560	-----	395	180	100	34	9.8	6.0	4.9
31	16	-----	495	1,710	-----	375	-----	100	-----	9.8	6.0	-----
TOTAL	878.9	1,949	55,256	158,485	21,942	22,720	7,018	6,865	1,386	520.4	229.5	137.0
MEAN	28.4	65.0	1,782	5,112	784	733	234	221	46.2	16.8	7.40	4.57
MAX	177	545	10,800	30,400	1,520	1,940	342	291	86	29	9.2	5.6
MIN	9.5	15	24	300	540	375	158	100	22	9.8	6.0	3.5
AC-FT	1,740	3,870	109,600	314,400	43,520	45,070	13,920	13,620	2,750	1,030	455	272

CAL YR 1969 TOTAL 391,634.1 MEAN 1,073 MAX 33,600 MIN 9.5 AC-FT 776,800
 WTR YR 1970 TOTAL 277,386.8 MEAN 760 MAX 30,400 MIN 3.5 AC-FT 550,200

PEAK DISCHARGE (BASE, 10,000 CFS)								NOTE.--No gage-height record Aug. 1 to Sept. 30.
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	
12-12	1115	11.09	13,400	1-21	unknown	-	15,700	
12-21	unknown	-	23,000	1-23	1915	16.08	48,400	
1-14	unknown	-	21,000	1-27	0330	11.00	12,900	
1-16	unknown	-	24,000					

EEL RIVER BASIN

11472900 BLACK BUTTE RIVER NEAR COVELO, CALIF.

LOCATION.--Lat 39°49'15", long 123°04'50", in SE $\frac{1}{4}$ sec.2, 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.--12 years, 317 cfs (229,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,400 cfs Jan. 23 (gage height, 24.10 ft); minimum daily, 1.9 cfs Sept. 12, 13, 15.

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 (1958-70), 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 loads for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1715: 1959(M): Corrected figures of daily discharge, in cubic feet per second, for water year 1967 superseding figures published in WRD Calif. 1967 are given herewith: Aug. 6 and 7, 9.6 cfs for each day.

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	5.0	10	9.7	393	1,080	648	250	88	43	15	5.2	2.5
2	5.0	9.9	9.5	315	853	426	250	83	41	14	5.2	2.3
3	5.0	9.9	9.3	315	790	355	245	82	39	14	5.8	2.3
4	5.3	11	9.4	279	740	372	235	82	38	13	5.0	2.3
5	5.3	104	9.4	262	684	345	215	78	37	12	5.0	2.0
6	5.3	69	9.2	250	684	350	194	76	36	12	4.8	2.3
7	5.3	37	9.9	250	693	855	178	76	34	12	4.8	2.5
8	5.3	48	13	348	693	1,190	178	80	31	11	4.8	2.5
9	5.3	55	17	3,060	648	750	178	98	39	12	4.8	2.6
10	5.3	36	22	2,460	582	630	178	87	36	12	4.8	2.3
11	5.6	27	50	1,470	590	515	178	88	33	11	4.6	2.2
12	5.6	24	3,200	2,030	1,010	480	167	94	31	11	4.4	1.9
13	5.6	23	1,810	4,150	1,730	456	160	102	30	9.9	4.2	1.9
14	5.6	20	900	5,000	1,290	536	170	96	45	9.2	4.2	2.0
15	30	18	530	1,500	1,000	474	170	87	38	8.5	4.0	1.9
16	97	17	162	5,500	2,190	390	170	80	34	8.3	3.2	2.0
17	117	17	115	5,000	1,740	438	163	76	32	8.0	3.2	2.0
18	51	15	184	2,760	760	396	149	73	29	7.8	3.0	2.0
19	31	13	2,410	1,800	639	366	160	72	27	7.5	3.0	2.2
20	22	13	1,350	1,400	529	355	153	70	25	7.5	3.0	2.2
21	17	13	4,710	5,420	474	320	153	67	23	7.3	2.8	2.5
22	15	13	1,230	3,950	420	275	146	65	22	7.0	2.8	2.6
23	13	12	3,630	10,100	378	235	139	62	21	6.8	2.8	2.6
24	13	12	2,750	8,950	378	250	135	58	20	6.5	2.8	2.8
25	12	12	2,350	3,690	378	260	130	55	19	6.3	2.8	2.6
26	11	11	1,400	3,860	372	260	135	54	19	6.3	2.6	2.6
27	11	11	978	6,580	372	260	139	53	18	6.0	2.6	2.6
28	11	11	693	2,770	432	295	108	51	18	5.6	2.6	2.5
29	11	10	543	2,040	-----	280	94	51	18	5.6	2.6	2.5
30	10	9.5	444	1,650	-----	275	90	47	16	5.4	2.6	2.5
31	10	-----	393	1,590	-----	260	-----	45	-----	5.2	2.5	-----
TOTAL	556.5	691.3	29,950.4	89,142	22,129	13,297	5,010	2,276	892	283.7	116.5	69.7
MEAN	18.0	23.0	966	2,876	790	429	167	73.4	29.7	9.15	3.76	2.32
MAX	117	104	4,710	10,100	2,190	1,190	250	102	45	15	5.8	2.8
MIN	5.0	9.5	9.2	250	372	235	90	45	16	5.2	2.5	1.9
AC-FT	1,100	1,370	59,410	176,800	43,890	26,370	9,940	4,510	1,770	563	231	138
CAL YR 1969	TOTAL	201,795.4	MEAN	553	MAX	9,550	MIN	5.0	AC-FT	400,300		
WTR YR 1970	TOTAL	164,414.1	MEAN	450	MAX	10,100	MIN	1.9	AC-FT	326,100		

PEAK DISCHARGE (BASE, 5,500 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0800	20.54	9,400	1-21	unknown	-	6,600
1-14	0700	-	7,500	1-23	2145	24.10	20,400
1-16	unknown	-	7,950	1-27	0100	22.04	13,600

11473700 MILL CREEK NEAR COVELO, CALIF.

LOCATION.--Lat 39°44'57", long 123°10'48", in NW¼SE¼ 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. Prior to Oct. 1, 1969, at site 0.6 mile downstream.

DRAINAGE AREA.--95.6 sq mi.

PERIOD OF RECORD.--September 1956 to current year.

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.--14 years, 164 cfs (118,800 acre-ft per year); median of yearly mean discharges, 140 cfs (101,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,400 cfs Jan. 23 (gage height, 20.37 ft); no flow for several months.

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 good. No regulation or diversion above station. Records of suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

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	0	0	0	73	326	225	38	13	2.4	0	0	0
2	0	0	0	59	277	92	36	13	2.0	0	0	0
3	0	0	0	49	249	72	35	12	1.7	0	0	0
4	0	0	0	42	215	392	32	11	1.6	0	0	0
5	0	0	0	33	184	286	31	10	1.4	0	0	0
6	0	0	0	18	164	192	30	9.4	1.1	0	0	0
7	0	0	0	18	153	558	27	8.4	.97	0	0	0
8	0	0	0	40	141	752	25	7.9	.97	0	0	0
9	0	0	0	873	134	392	24	8.8	1.4	0	0	0
10	0	0	0	1,190	127	348	24	8.4	1.5	0	0	0
11	0	0	8.9	478	116	265	23	8.4	1.4	0	0	0
12	0	1,880	567	225	203	23	10	1.1	0	0	0	0
13	0	759	1,650	818	167	23	10	.97	0	0	0	0
14	0	539	3,710	444	192	23	8.8	.97	0	0	0	0
15	0	145	1,540	271	143	21	8.4	.97	0	0	0	0
16	0	62	5,680	1,400	123	20	7.5	.97	0	0	0	0
17	0	64	3,100	1,210	105	20	7.1	.68	0	0	0	0
18	0	254	1,250	533	94	20	6.2	.47	0	0	0	0
19	0	2,170	1,390	376	86	20	5.4	.33	0	0	0	0
20	0	974	1,610	320	80	20	5.4	.23	0	0	0	0
21	0	2,750	5,710	280	73	19	5.4	.15	0	0	0	0
22	0	638	3,630	222	70	17	4.9	.07	0	0	0	0
23	0	2,100	9,800	153	66	14	4.5	.02	0	0	0	0
24	0	876	4,850	127	62	14	4.3	0	0	0	0	0
25	0	625	1,620	98	57	14	4.0	0	0	0	0	0
26	0	507	2,160	88	54	17	3.8	0	0	0	0	0
27	0	296	3,780	77	50	19	3.3	0	0	0	0	0
28	0	207	1,130	118	45	17	3.1	0	0	0	0	0
29	0	153	673	-----	44	14	3.1	0	0	0	0	0
30	0	113	491	-----	43	14	2.9	0	0	0	0	0
31	0	89	385	-----	39	-----	2.9	-----	0	0	-----	0
TOTAL	0	15,209.9	57,599	8,846	5,370	674	221.3	23.37	0	0	0	0
MEAN	0	491	1,858	316	173	22.5	7.14	.78	0	0	0	0
MAX	0	2,750	9,800	1,400	752	38	13	2.4	0	0	0	0
MIN	0	0	18	77	39	14	2.9	0	0	0	0	0
AC-FT	0	30,170	114,200	17,550	10,650	1,340	439	46	0	0	0	0
CAL YR 1969	TOTAL	84,592.70	MEAN	232	MAX	5,100	MIN	0	AC-FT	167,800		
WTR YR 1970	TOTAL	87,943.57	MEAN	241	MAX	9,800	MIN	0	AC-FT	174,400		

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-12	1800	14.19	3,460	1-16	0715	18.36	8,400
12-19	1200	15.34	4,670	1-23	2100	20.37	11,400
12-21	0730	16.01	5,410	1-27	0100	18.69	8,870
12-23	0800	13.84	3,130	2-16	1915	14.70	3,970

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. Prior to Nov. 6, 1969, at site 600 ft downstream.

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.--6 years, 226 cfs (163,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 16,500 cfs Jan. 23 (gage height, 20.59 ft), from rating curve extended above 2,500 cfs as explained below; minimum daily, 0.50 cfs Sept. 5.
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 loads for the water year 1970 are published in Part 2 of this report.

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	1.8	4.5	5.3	197	396	231	92	42	17	6.8	1.6	.78
2	1.8	4.5	5.3	184	270	162	87	41	16	6.6	1.5	.78
3	1.9	4.3	5.3	162	236	133	84	41	16	6.1	1.5	.78
4	1.8	4.6	5.3	157	196	219	81	39	16	5.9	1.5	.64
5	1.8	5.4	5.3	138	165	201	78	37	15	5.4	1.6	.50
6	1.9	24	5.3	125	147	198	76	36	15	5.2	1.5	.64
7	1.9	17	5.3	126	124	267	73	36	14	4.8	1.5	.64
8	2.1	30	6.4	220	110	415	70	35	15	4.8	1.5	.78
9	2.2	24	6.7	2,050	106	330	68	36	16	4.5	1.5	.78
10	2.2	17	9.5	2,040	88	322	66	35	15	4.3	1.5	.64
11	2.2	14	66	816	82	290	62	36	15	4.1	1.5	.78
12	2.2	12	1,690	835	316	290	61	38	14	3.2	1.5	.64
13	2.3	10	630	1,620	679	286	63	36	14	2.8	1.5	.78
14	2.7	9.6	319	4,390	500	310	62	34	14	2.8	1.5	.78
15	5.9	9.0	168	2,590	341	294	61	33	13	2.3	1.3	1.2
16	19	8.6	95	4,580	931	264	60	31	13	2.3	1.2	1.5
17	29	8.0	74	4,220	785	246	57	29	12	2.3	1.1	1.2
18	12	7.5	100	2,320	410	231	55	29	11	2.3	1.1	1.1
19	8.7	7.2	1,410	1,140	314	204	56	28	11	2.3	1.1	.78
20	5.6	7.0	610	1,180	258	173	54	27	10	1.9	1.1	.92
21	6.1	6.8	3,560	4,490	180	160	51	26	9.9	1.9	.92	.92
22	5.4	6.8	1,250	3,810	145	155	51	25	9.0	1.8	.78	1.1
23	5.2	6.7	1,580	9,000	130	145	49	24	8.4	1.8	.78	.92
24	5.0	6.1	1,030	6,930	108	135	49	23	8.1	1.8	.78	.92
25	4.8	5.8	774	2,560	89	130	47	22	7.8	1.8	.78	.92
26	4.8	5.8	616	1,530	87	126	49	21	7.6	1.8	.78	1.2
27	4.6	5.8	459	3,500	80	118	47	21	7.1	1.6	1.1	1.1
28	4.5	5.8	371	1,400	104	112	46	20	7.1	1.6	1.1	1.1
29	4.5	5.8	299	840	-----	108	44	19	7.3	1.6	.92	1.1
30	4.5	5.6	252	650	-----	103	43	19	7.1	1.6	.64	1.2
31	4.5	-----	223	518	-----	97	-----	18	-----	1.6	.64	-----
TOTAL	162.9	337.8	15,635.7	64,318	7,377	6,455	1,842	937	361.4	99.6	37.32	27.12
MEAN	5.25	11.3	504	2,075	263	208	61.4	30.2	12.0	3.21	1.20	.90
MAX	29	54	3,560	9,000	931	415	92	42	17	6.8	1.6	1.5
MIN	1.8	4.3	5.3	125	80	97	43	18	7.1	1.6	.64	.50
AC-FT	323	670	31,010	127,600	14,630	12,800	3,650	1,860	717	198	74	54

CAL YR 1969 TOTAL 93,374.10 MEAN 256 MAX 3,560 MIN 1.7 AC-FT 185,200
WTR YR 1970 TOTAL 97,590.84 MEAN 267 MAX 9,000 MIN .50 AC-FT 193,600

DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0645	17.87	6,340	1-23	2115	20.59	13,400
1-14	0730	17.98	6,560	1-27	0015	17.73	6,060

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.--5 years, 1,854 cfs (1,343,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 90,500 cfs Jan. 23 (gage height, 27.15 ft); minimum daily, 5.8 cfs Sept. 14-16.

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 loads for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WRD Calif. 1967: 1966: Corrected figure of daily discharge, in cubic feet per second, for water year 1967, superseding figure published in WRD Calif. 1967 are given herewith: Aug. 31, 25 cfs.

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	14	37	50	925	3,730	2,970	767	383	194	76	18	7.2
2	14	36	49	789	3,060	2,120	745	376	186	72	18	7.9
3	14	36	49	671	2,690	1,800	708	383	178	72	17	7.9
4	14	36	49	576	2,310	2,210	664	390	170	68	17	7.9
5	14	551	49	483	1,940	2,300	642	390	167	62	16	7.2
6	14	463	49	414	1,620	1,960	620	382	150	66	12	7.9
7	14	266	48	401	1,410	3,440	601	382	143	58	12	8.6
8	14	210	52	451	1,310	7,760	576	376	139	53	12	8.6
9	15	218	58	4,650	1,140	4,330	558	436	136	51	12	8.6
10	16	168	85	9,060	1,010	3,770	545	490	136	50	12	7.2
11	16	138	337	4,140	920	3,010	570	490	139	56	11	7.2
12	16	115	14,100	4,040	1,500	2,620	533	490	143	50	11	7.2
13	16	107	9,740	9,680	4,200	2,310	520	490	139	38	9.3	6.5
14	16	97	4,510	25,500	3,400	2,640	551	442	133	40	9.3	5.8
15	24	90	2,880	10,500	2,550	2,590	526	424	130	34	10	5.8
16	184	82	1,660	34,300	5,100	2,250	508	394	122	29	9.3	5.8
17	383	83	1,420	27,500	8,380	2,090	483	388	122	29	8.6	6.5
18	210	83	2,050	12,500	4,270	1,860	464	382	122	27	8.6	7.9
19	109	69	11,700	9,650	3,210	1,660	514	376	114	27	7.9	7.9
20	75	67	8,080	9,830	2,620	1,530	489	352	108	26	7.9	7.9
21	59	66	22,100	32,400	2,240	1,420	439	334	101	25	8.6	7.9
22	52	63	7,510	25,700	1,930	1,340	439	322	96	23	7.9	9.3
23	47	62	11,100	52,700	1,720	1,270	395	305	89	23	7.9	9.3
24	45	59	8,880	52,400	1,600	1,200	383	290	86	22	7.9	10
25	43	58	5,750	17,800	1,490	1,170	370	270	80	22	7.9	10
26	42	57	4,450	12,500	1,450	1,110	389	255	78	22	7.2	10
27	40	56	2,900	31,400	1,460	1,050	420	240	78	22	7.2	9.3
28	38	55	2,080	11,200	1,490	959	383	230	78	21	7.9	8.6
29	37	54	1,630	7,470	-----	925	376	225	76	20	7.2	8.6
30	36	52	1,340	5,580	-----	874	376	215	78	20	7.2	8.6
31	36	-----	1,100	4,400	-----	818	-----	206	-----	18	7.2	-----
TOTAL	1,667	3,534	125,855	419,610	69,750	67,356	15,554	11,108	3,711	1,222	323.0	239.1
MEAN	53.8	118	4,060	13,540	2,491	2,173	518	358	124	39.4	10.4	7.97
MAX	383	551	22,100	52,700	8,380	7,760	767	490	194	76	18	10
MIN	14	36	48	401	920	818	370	206	76	18	7.2	5.8
AC-FT	3,310	7,010	249,600	832,300	138,300	133,600	30,850	22,030	7,360	2,420	641	474

CAL YR 1969	TOTAL	903,675.0	MEAN	2,476	MAX	46,200	MIN	14	AC-FT	1,792,000
WTR YR 1970	TOTAL	719,929.1	MEAN	1,972	MAX	52,700	MIN	5.8	AC-FT	1,428,000

(PEAK DISCHARGE (BASE, 35,000 CFS))						
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.
12-21	1200	21.12	41,800	1-23	2245	27.15
1-14	1015	20.63	38,800	1-27	0330	23.24
1-16	1030	22.07	48,500			

NOTE.--No gage-height record May 4 to June 17.

EEL RIVER BASIN

11474500 NORTH FORK EEL RIVER NEAR MINA, CALIF.

LOCATION.--Lat 39°56'18", long 123°20'36", in SW¹/₄ 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.--17 years, 635 cfs (460,100 acre-ft per year); median of yearly mean discharges, 530 cfs (384,000 acre-feet per year).

EXTREMES.--Current year: Maximum discharge, 29,000 cfs Jan. 23 (gage height, 19.8 ft, from floodmarks), from rating curve extended as explained below; minimum daily, 0.40 cfs Aug. 23, 24, Sept. 6-12, 15, 16.
 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 poor. No regulation or diversion above station.

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	2.1	8.3	9.8	402	1,140	764	146	81	33	10	2.8	1.2
2	2.1	7.5	9.1	370	922	441	139	75	32	10	2.8	.90
3	2.1	7.1	9.1	328	800	376	131	72	31	10	2.3	.60
4	2.1	63	8.5	298	645	669	124	68	29	10	2.3	.60
5	2.1	610	8.5	265	576	773	117	66	27	9.4	2.3	.60
6	2.1	225	8.4	235	490	708	112	63	26	8.5	2.3	.40
7	2.2	78	8.0	205	427	2,320	110	63	25	8.5	1.9	.40
8	2.4	67	18	390	360	3,050	105	65	24	7.7	1.9	.40
9	2.5	59	35	1,120	300	1,860	103	94	23	6.9	1.9	.40
10	2.7	54	67	1,450	268	1,540	100	95	25	6.9	1.5	.40
11	2.9	45	250	1,000	234	1,190	98	99	25	6.9	1.5	.40
12	3.1	38	2,050	1,130	463	953	95	112	25	6.9	1.2	.40
13	3.2	34	1,200	1,780	1,760	799	93	103	23	6.0	1.2	.60
14	3.4	26	1,380	2,900	1,410	932	102	90	21	5.2	1.2	.60
15	12	22	945	1,660	870	774	97	80	21	4.5	1.2	.40
16	97	20	610	2,640	3,300	670	97	72	21	3.9	1.2	.40
17	180	18	360	4,350	3,830	583	93	66	20	3.9	.90	.60
18	63	17	399	2,300	2,110	511	88	63	19	3.9	.90	.60
19	34	16	1,300	2,300	1,460	442	109	60	18	3.9	.90	.60
20	25	15	2,450	2,310	1,110	396	100	59	17	3.9	.60	.60
21	19	14	6,700	6,600	859	356	90	55	15	3.9	.60	.90
22	15	14	2,480	6,000	692	320	88	48	14	3.9	.60	.90
23	14	13	3,550	14,000	587	296	84	51	14	3.9	.40	.90
24	11	13	2,200	12,500	503	272	81	48	13	3.9	.40	.90
25	11	12	1,540	4,900	424	249	79	46	13	3.3	.60	1.2
26	10	11	1,200	6,350	368	227	84	42	12	2.8	.60	1.2
27	10	11	890	11,600	326	206	113	42	12	2.8	.60	1.2
28	10	11	710	4,150	389	187	106	41	11	2.8	.90	1.5
29	10	10	620	2,530	-----	177	90	38	10	2.8	.60	1.5
30	8.7	9.8	520	1,860	-----	171	87	35	10	2.8	.60	1.5
31	8.4	-----	475	1,400	-----	159	-----	35	-----	2.8	.90	-----
TOTAL	573.1	1,548.7	32,010.4	99,323	26,618	22,371	3,061	2,027	609	172.6	39.60	22.80
MEAN	18.5	51.6	1,033	3,204	951	722	102	65.4	20.3	5.57	1.28	.76
MAX	180	610	6,700	14,000	3,830	3,050	146	112	33	10	2.8	1.5
MIN	2.1	7.1	8.0	205	234	159	79	35	10	2.8	.40	.40
AC-FT	1,140	3,070	63,490	197,000	52,800	44,370	6,070	4,020	1,210	342	79	45

CAL YR 1969 TOTAL 269,886.60 MEAN 739 MAX 15,700 MIN 2.1 AC-FT 535,300
 WTR YR 1970 TOTAL 188,376.20 MEAN 516 MAX 14,000 MIN .40 AC-FT 373,600

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-12	unknown	12.08	8,140	1-27	0100	18.50	23,800
12-21	unknown	-	24,000	2-16	2100	12.19	8,340
1-23	unknown	19.8	29,000				

NOTE.--No gage-height record Oct. 31 to Dec. 17, Dec. 19 to Jan. 25.

11475000 EEL RIVER AT FORT SEWARD, CALIF.

LOCATION.--Lat 40°13'05", long 123°37'54", in SE¹NE¹ 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 Dobbyn 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.--15 years, 4,830 cfs (3,499,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 230,000 cfs Jan. 24 (gage height, unknown); minimum daily, 21 cfs Sept. 5-20.
 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 and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

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	38	111	107	3,400	11,000	5,520	1,600	713	336	117	37	22
2	38	107	102	2,880	9,000	5,100	1,480	699	315	117	37	22
3	38	105	100	2,430	7,600	4,110	1,410	685	295	117	37	22
4	36	124	98	2,090	6,600	4,500	1,340	678	280	114	34	22
5	36	596	98	1,830	3,700	6,960	1,270	678	270	107	34	21
6	34	1,290	98	1,590	5,200	5,780	1,230	671	255	98	33	21
7	31	785	98	1,460	4,650	7,280	1,200	692	240	95	32	21
8	34	550	102	1,530	4,150	16,700	1,150	643	230	92	31	21
9	38	462	113	6,240	3,760	11,800	1,110	657	230	86	31	21
10	38	427	202	27,900	3,360	10,400	1,070	832	230	80	30	21
11	38	366	910	17,100	3,040	8,480	1,040	818	240	78	29	21
12	38	315	20,400	12,500	3,280	7,450	1,070	818	240	75	29	21
13	40	273	28,300	21,800	9,400	6,620	1,020	825	230	70	28	21
14	40	230	14,600	58,760	14,000	6,720	1,030	776	221	69	27	21
15	100	214	9,680	43,000	7,430	6,660	1,040	741	212	68	26	21
16	200	188	5,020	82,100	11,900	5,240	1,000	685	226	66	26	21
17	539	168	3,700	61,000	31,000	5,280	972	657	226	63	25	21
18	688	166	4,780	47,100	19,000	4,640	930	657	212	61	25	21
19	466	159	19,600	31,600	12,800	4,040	923	636	203	58	25	21
20	333	152	24,400	30,000	9,550	3,630	972	601	194	58	25	21
21	261	142	54,800	43,000	7,730	3,310	916	573	185	56	24	23
22	212	138	28,700	68,000	6,560	3,050	867	538	173	54	24	23
23	180	133	30,400	110,000	5,840	2,850	846	504	157	51	24	23
24	161	127	30,900	170,000	5,240	2,670	790	486	145	49	24	23
25	147	124	21,600	77,000	4,590	2,510	755	462	138	46	23	25
26	138	122	18,100	51,000	4,120	2,230	748	438	135	46	23	25
27	131	120	12,500	90,000	3,790	2,190	825	408	128	46	23	25
28	124	116	8,680	45,000	3,780	2,040	825	396	124	46	23	25
29	118	113	6,420	25,300	-----	1,900	762	384	117	44	23	25
30	113	109	4,960	18,000	-----	1,830	727	366	117	42	22	25
31	111	-----	4,020	14,000	-----	1,760	-----	354	-----	39	22	-----
TOTAL	4,539	8,032	353,588	1,167,600	224,070	163,900	30,918	19,071	6,304	2,207	855	666
MEAN	146	268	11,410	37,660	8,003	5,287	1,031	615	210	71.2	27.6	22.2
MAX	688	1,290	54,900	170,000	31,000	16,700	1,600	832	336	117	37	25
MIN	31	105	98	1,460	3,040	1,760	727	354	117	39	22	21
AC-FT	9,000	15,930	701,300	2,3160	444,400	325,100	61,330	37,830	12,500	4,380	1,700	1,320
CAL YR 1969	TOTAL	2,393,999	MEAN	6,559	MAX	109,000	MIN	31	AC-FT	4,748,000		
WTR YR 1970	TOTAL	1,981,700	MEAN	5,429	MAX	170,000	MIN	21	AC-FT	3,931,000		

PEAK DISCHARGE (BASE, 41,000 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-13	0045	23.06	42,200	1-24	unknown	-	230,000
12-21	1630	30.19	78,800	1-27	0815	36.34	116,000
1-16	1430	34.66	106,000				

NOTE.--No gage-height record Jan. 20 to Feb. 8, Aug. 6 to Sept. 9.

11475500 SOUTH FORK EEL RIVER NEAR BRANSCOMB, CALIF.

LOCATION,--Lat 39°43'09", long 123°39'06", in NW¼ sec.32, T.22 N., R.16 W., Mendocino County, on right bank 0.4 mile upstream from Jack of Hearts Creek and 4.7 miles north of Branscomb.

DRAINAGE AREA.--43.9 sq mi.

PERIOD OF RECORD.--October 1946 to September 1970 (discontinued as a continuous-record station; converted to a crest-stage partial-record station).

GAGE.--Water-stage recorder. Datum of gage is 1,383.63 ft above mean sea level.

AVERAGE DISCHARGE.--24 years, 172 cfs (124,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,510 cfs Jan. 23 (gage height, 11.53 ft), from rating curve extended as explained below; minimum, 0.79 cfs Sept. 29, 30.
 Period of record: Maximum discharge, 20,100 cfs Dec. 22, 1955 (gage height, 16.20 ft), from rating curve extended above 4,600 cfs on basis of slope-area measurement of maximum flow; minimum, 0.79 cfs Sept. 29, 30, 1970.

REMARKS.--Records excellent. No regulation or diversion above station. Records of water temperatures and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1395: Drainage area. WSP 1445: 1951, 1952(M), 1953(P), 1954.

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	1.3	7.0	6.6	205	295	138	52	22	12	7.3	2.7	1.5
2	1.6	6.6	6.3	180	247	129	50	21	12	7.0	2.7	1.7
3	1.3	6.6	6.3	155	214	122	48	20	11	6.6	2.4	1.5
4	1.2	44	6.3	140	190	200	46	19	11	5.9	2.7	1.5
5	1.3	178	6.3	125	170	185	44	18	11	5.9	2.4	1.3
6	1.3	55	6.3	115	155	155	43	17	11	5.2	2.4	1.1
7	1.4	34	6.3	108	143	277	42	17	11	5.2	2.4	1.1
8	5.2	30	14	107	138	361	40	17	12	5.0	2.4	1.2
9	5.2	25	16	130	131	329	39	18	15	4.8	2.4	1.1
10	6.9	22	30	520	127	298	38	19	14	4.6	1.9	1.2
11	6.1	19	81	450	122	256	37	20	12	4.4	1.9	1.2
12	4.1	17	1,090	430	185	228	37	24	12	4.3	1.7	.92
13	3.4	15	670	750	315	200	39	22	11	4.0	1.4	.92
14	3.4	14	686	1,900	222	239	37	19	11	3.8	1.4	1.2
15	41	13	400	1,500	201	193	35	18	11	3.5	1.4	1.1
16	42	12	254	2,700	1,070	175	35	18	11	3.5	1.4	1.2
17	34	11	210	2,400	733	140	34	17	11	3.9	1.4	1.2
18	22	11	239	1,700	576	122	33	16	10	3.9	1.3	1.3
19	16	10	782	1,600	454	112	39	16	9.6	3.9	1.3	1.3
20	13	10	823	2,300	358	103	34	16	9.1	3.6	1.3	1.4
21	11	9.1	2,700	4,300	286	96	31	16	9.1	3.4	1.4	1.7
22	9.2	8.7	964	3,590	239	91	30	15	8.2	3.4	1.3	1.4
23	8.2	8.7	1,450	5,920	206	85	29	14	7.7	2.9	1.5	1.4
24	8.2	8.2	878	3,710	178	80	28	14	7.7	3.1	1.9	1.3
25	7.7	8.2	671	1,560	155	75	27	14	7.7	2.7	1.5	.92
26	7.7	7.7	558	1,810	140	71	31	14	7.7	2.7	1.5	.92
27	10	7.7	444	3,040	136	67	29	14	8.2	2.9	1.5	.92
28	8.7	7.3	350	1,050	138	64	27	14	8.7	2.7	1.5	.92
29	8.2	7.3	310	620	-----	60	25	13	8.2	2.7	1.4	.79
30	7.7	6.6	265	457	-----	57	23	13	7.7	2.7	1.5	.79
31	7.3	-----	235	365	-----	55	-----	13	-----	2.7	1.5	-----
TOTAL	305.6	619.7	14,164.4	43,937	7,524	4,763	1,082	528	308.6	128.2	55.4	36.00
MEAN	9.86	20.7	457	1,417	269	154	36.1	17.0	10.3	4.14	1.79	1.20
MAX	42	178	2,700	5,920	1,070	361	52	24	15	7.3	2.7	1.7
MIN	1.2	6.6	6.3	107	122	55	23	13	7.7	2.7	1.3	.79
AC-FT	606	1,230	28,100	87,150	14,920	9,450	2,150	1,050	612	254	110	71
CAL YR 1969	TOTAL	70,621.30	MEAN	193	MAX	4,730	MIN	1.2	AC-FT	140,100		
WTR YR 1970	TOTAL	73,451.90	MEAN	201	MAX	5,920	MIN	.79	AC-FT	145,700		

PEAK DISCHARGE (BASE, 2,000 CFS)				NOTE.--No gage-height record Mar. 17 to May 13.			
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0700	8.46	4,610	1-21	unknown	-	6,100
1-14	unknown	-	3,000	1-23	1945	11.53	9,510
1-16	unknown	-	4,600	1-26	2345	10.25	7,280

EEL RIVER BASIN

11475560 ELDER CREEK NEAR BRANSCOMB, CALIF.
(Hydrologic bench-mark station)

LOCATION.--Lat 39°43'47", long 123°38'34", in NW¼NE¼ sec.29, T.22 N., R 16 W., Mendocino County, on right bank 0.2 mile upstream from mouth, and 5.3 miles north of Branscomb.

Rain gage No. 1: Lat 39°43'50", long 123°38'07", in NW¼NW¼ sec.28, T.22 N., R.16 W., altitude, 1,440 ft at site 0.5 mile east of gaging station.

Rain gage No. 2: Lat 39°42'36", long 123°37'03", in NW¼SW¼ sec.34, T.22 N., R.16 W., altitude, 2,680 ft at site 2 miles southeast of gaging station.

DRAINAGE AREA.--6.50 sq mi.

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

GAGE.--Water-stage recorder and two recording and storage-type precipitation gages. Datum of gage is 1,391.08 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,250 cfs Jan. 23 (gage height, 8.31 ft); minimum daily, 0.50 cfs Sept. 28-30.

Period of record: Maximum discharge, 1,250 cfs Jan. 23, 1970 (gage height, 8.31 ft); minimum daily, 0.50 cfs Sept. 28-30, 1970.

Flood of Dec. 22, 1964, reached a stage of 11.41 ft, from floodmarks (discharge, 3,660 cfs, by slope-area measurement of maximum flow).

REMARKS.--Records good. No regulation; small diversion above station for domestic use. Records of chemical analyses, water temperatures, and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

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	.98	1.6	1.6	34	48	23	13	5.7	4.4	2.6	1.1	.58
2	.98	1.6	1.6	29	43	21	13	5.5	4.4	2.5	1.1	.58
3	.98	1.6	1.6	25	39	19	12	5.3	4.3	2.4	1.0	.58
4	.98	6.2	1.6	23	36	23	11	5.0	3.9	2.3	.98	.58
5	.98	16	1.6	20	33	24	11	4.8	3.5	2.2	.92	.58
6	.98	6.2	1.6	18	30	24	10	4.7	3.5	2.2	.92	.54
7	.98	4.4	1.6	17	28	38	10	4.5	3.5	2.2	.92	.54
8	1.3	4.4	2.2	17	25	53	9.7	4.5	3.5	1.9	.92	.54
9	1.2	4.3	2.0	27	24	53	9.4	4.4	3.7	1.9	.92	.54
10	1.2	3.7	3.0	79	22	49	9.4	4.3	3.7	1.9	.86	.58
11	1.2	3.4	12	65	21	44	9.1	4.7	3.7	1.8	.86	.58
12	1.2	3.0	105	67	23	40	8.8	4.5	3.7	1.7	.86	.58
13	1.2	2.8	51	125	29	37	8.4	4.4	3.7	1.7	.86	.58
14	1.2	2.5	76	268	34	36	8.4	4.4	3.7	1.6	.80	.63
15	4.3	2.4	34	213	32	33	8.4	4.8	3.7	1.6	.80	.63
16	5.3	2.3	26	401	75	32	8.1	5.0	3.7	1.4	.80	.63
17	4.4	2.3	40	368	106	30	7.8	5.0	3.7	1.4	.74	.68
18	3.0	2.2	68	243	72	28	7.5	5.0	3.5	1.4	.74	.68
19	2.4	2.1	198	230	62	26	8.1	5.0	3.5	1.4	.74	.68
20	1.9	2.0	134	345	59	24	7.2	5.0	3.5	1.3	.74	.63
21	1.7	1.8	420	545	49	22	7.2	5.0	3.4	1.2	.74	.63
22	1.7	1.8	270	517	42	21	7.0	5.0	3.0	1.2	.74	.63
23	1.6	1.9	210	896	37	20	6.7	5.0	3.0	1.2	.68	.63
24	1.6	1.9	164	440	33	20	6.7	5.0	2.9	1.2	.68	.58
25	1.6	1.9	120	218	30	18	6.5	5.0	2.9	1.2	.68	.58
26	1.6	1.9	101	415	27	17	7.0	5.0	2.8	1.2	.68	.54
27	1.6	1.9	82	360	24	16	6.7	4.8	2.8	1.2	.68	.54
28	1.6	1.7	66	225	23	15	6.2	4.4	2.8	1.1	.68	.50
29	1.6	1.7	54	120	-----	15	6.0	4.4	2.8	1.1	.68	.50
30	1.6	1.7	46	82	-----	14	6.0	4.4	2.6	1.1	.58	.50
31	1.6	-----	39	64	-----	13	-----	4.4	-----	1.1	.58	-----
TOTAL	54.46	93.2	2,334.4	6,496	1,106	848	256.3	148.9	103.8	50.2	24.98	17.57
MEAN	1.76	3.11	75.3	210	39.5	27.4	8.54	4.80	3.46	1.62	.81	.59
MAX	5.3	16	420	896	106	53	13	5.7	4.4	2.6	1.1	.68
MIN	.98	1.6	1.6	17	21	13	6.0	4.3	2.6	1.1	.58	.50
AC-FT	108	185	4,630	12,880	2,190	1,680	508	295	206	100	50	35
(a)	-	-	-	23.8	-	-	-	.7	.3	0	0	0
(b)	6.0	5.0	-	-	7.6	4.7	1.9	1.0	.5	0	0	0

CAL YR 1969 TOTAL 12,110.68 MEAN 33.2 MAX 580 MIN .92 AC-FT 24,020
WTR YR 1970 TOTAL 11,533.81 MEAN 31.6 MAX 896 MIN .50 AC-FT 22,880

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	a Precipitation, in inches, at rain gage No. 1.
12-19	unknown	--	280	1-16	1145	6.53	479	b Precipitation, in inches, at rain gage No. 2.
12-21	unknown	--	590	1-23	1945	8.31	1,250	
1-14	0930	5.88	300	1-26	unknown	--	1,030	

EEL RIVER BASIN

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.--13 years, 157 cfs (113,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,240 cfs Jan. 26 (gage height, 15.34 ft); no flow Aug. 26 to Sept. 5.
 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 good. No regulation or diversion above station.

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	1.3	3.8	4.9	128	265	125	38	17	7.6	3.6	.49	0
2	1.3	3.8	4.9	111	215	86	36	16	7.1	3.4	.42	0
3	1.3	3.6	4.9	99	174	78	34	15	7.1	3.1	.40	0
4	1.3	24	4.9	89	156	328	33	14	7.3	2.8	.35	0
5	1.4	148	4.9	80	134	221	32	13	7.3	2.7	.34	0
6	1.4	31	4.9	75	120	141	30	13	7.3	2.5	.31	.16
7	1.6	19	4.9	76	101	460	27	13	7.3	2.3	.35	.25
8	2.0	22	9.0	151	89	429	26	13	7.3	2.2	.33	.23
9	2.6	16	10	834	82	339	25	14	7.8	2.1	.32	.22
10	3.5	13	35	818	76	283	25	14	8.2	1.9	.28	.15
11	3.2	11	245	450	309	229	24	15	7.8	1.8	.22	.12
12	2.7	9.8	1,920	714	671	184	23	17	7.6	1.7	.17	.08
13	2.5	8.7	842	1,260	261	154	23	16	7.3	1.6	.12	.05
14	2.6	8.0	1,080	1,960	208	230	24	15	7.6	1.5	.09	.07
15	54	8.0	360	1,520	205	154	24	13	6.9	1.4	.06	.06
16	45	7.3	258	3,670	400	129	22	12	6.4	1.3	.07	.06
17	31	6.6	429	2,020	769	112	22	12	5.9	1.2	.06	.07
18	13	6.4	514	885	480	100	21	11	5.6	1.1	.05	.09
19	8.7	6.4	1,710	1,190	336	89	24	10	5.2	1.0	.03	.12
20	6.6	6.2	1,130	1,860	259	81	23	10	4.8	.96	.03	.13
21	5.8	6.2	2,700	3,620	202	74	22	10	4.6	.90	.03	.15
22	4.9	5.8	746	2,350	165	70	21	9.8	4.4	.84	.02	.15
23	4.9	5.6	1,640	5,050	143	67	19	9.3	4.3	.78	.02	.18
24	4.7	5.5	770	2,630	126	62	18	8.5	4.2	.75	.02	.17
25	4.5	5.5	774	1,200	109	57	18	8.2	4.1	.69	.02	.14
26	4.2	5.3	594	2,420	99	54	21	8.2	4.1	.69	0	.11
27	4.2	5.3	396	2,260	90	50	24	8.0	4.2	.67	0	.11
28	4.2	5.1	293	826	102	46	24	8.2	4.5	.60	0	.13
29	3.9	5.1	218	538	-----	44	19	8.2	4.2	.58	0	.10
30	3.9	4.9	176	399	-----	42	18	8.0	3.9	.60	0	.09
31	3.9	-----	148	320	-----	39	-----	7.8	-----	.52	0	-----
TOTAL	236.1	416.9	17,031.3	39,603	6,346	4,557	740	367.2	181.9	47.78	4.60	3.19
MEAN	7.62	13.9	549	1,278	227	147	24.7	11.8	6.06	1.54	.15	.11
MAX	54	148	2,700	5,050	769	460	38	17	8.2	3.6	.49	.25
MIN	1.3	3.6	4.9	75	76	39	18	7.8	3.9	.52	0	0
AC-FT	468	827	33,780	78,550	12,590	9,040	1,470	728	361	95	9.1	6.3
CAL YR 1969	TOTAL 70,220.00		MEAN 192		MAX 4,770		MIN .12		AC-FT 139,300			
WTR YR 1970	TOTAL 69,534.97		MEAN 191		MAX 5,050		MIN 0		AC-FT 137,900			

PEAK DISCHARGE (BASE, 5,000 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0445	13.00	5,900	1-23	2000	14.70	7,600
1-16	0415	13.18	6,080	1-26	2215	15.34	8,240
1-21	0100	12.75	5,650				

NOTE.--No gage-height record June 16 to July 20.

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.--5 years, 923 cfs (668,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 39,400 cfs Jan. 23 (gage height, 20.27 ft); minimum daily, 15 cfs Sept. 30.

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, 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. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

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	28	39	43	862	1,710	832	310	150	80	45	22	18
2	27	39	43	760	1,480	716	294	150	80	45	22	18
3	26	38	42	688	1,330	645	282	150	80	45	22	17
4	26	110	42	635	1,220	988	270	150	80	42	22	18
5	26	481	42	590	1,130	1,070	258	145	75	42	21	17
6	25	158	42	550	1,050	838	250	140	75	40	21	17
7	24	104	41	525	994	1,620	243	140	70	40	20	17
8	35	102	41	550	946	2,080	233	130	70	38	20	18
9	35	95	85	1,320	898	1,660	232	130	70	38	20	18
10	42	80	500	4,480	862	1,590	222	130	70	36	19	18
11	41	75	1,900	2,240	832	1,220	215	130	65	36	19	18
12	38	71	5,800	2,200	1,050	1,100	206	120	65	36	19	18
13	34	66	3,980	4,240	1,920	970	215	120	64	34	20	17
14	32	64	4,030	9,630	1,780	1,120	232	120	62	34	20	17
15	159	59	2,060	5,860	1,360	952	206	120	61	34	19	16
16	320	57	1,250	18,300	5,180	838	200	110	60	32	19	16
17	193	58	1,010	15,500	6,260	787	203	110	61	32	19	16
18	118	58	1,360	8,680	3,330	710	188	110	61	32	19	16
19	78	55	5,140	5,460	2,340	650	232	100	58	30	19	16
20	59	52	4,360	6,980	1,810	595	200	100	56	30	18	16
21	52	52	9,600	21,900	1,490	555	185	100	56	30	18	16
22	48	51	5,280	18,100	1,220	515	176	100	56	28	18	16
23	43	50	8,000	26,900	1,110	488	167	100	50	28	18	16
24	42	49	4,730	21,400	988	455	164	100	50	28	18	16
25	42	48	3,590	8,360	910	428	158	95	50	26	18	16
26	41	47	3,000	8,060	820	406	179	90	50	25	17	16
27	41	46	2,320	17,100	771	386	182	90	50	25	18	16
28	41	45	1,780	5,790	782	366	167	90	45	25	18	16
29	41	45	1,420	3,460	-----	350	159	90	45	25	17	16
30	39	44	1,170	2,510	-----	338	151	86	45	24	18	15
31	38	-----	990	1,990	-----	322	-----	84	-----	23	18	-----
TOTAL	1,834	2,338	73,691	225,620	45,573	25,590	6,379	3,580	1,860	1,028	596	501
MEAN	59.2	77.9	2,377	7,278	1,628	825	213	115	62.0	33.2	19.2	16.7
MAX	320	481	9,600	26,900	6,260	2,080	310	150	80	45	22	18
MIN	24	38	41	525	771	322	151	84	45	23	17	15
AC-FT	3,640	4,640	146,200	447,500	90,390	50,760	12,650	7,100	3,690	2,040	1,180	994

CAL YR 1969 TOTAL 393,735 MEAN 1,079 MAX 22,900 MIN 21 AC-FT 781,000
 WTR YR 1970 TOTAL 388,590 MEAN 1,065 MAX 26,900 MIN 15 AC-FT 770,800

PEAK DISCHARGE (BASE, 8,500 CFS)						
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.
12-21	1345	15.47	20,400	1-23	2015	20.27
1-16	0900	16.63	24,200	1-27	0130	18.16
1-21	0515	17.31	26,700	2-16	2000	11.59

NOTE.--No gage-height record Apr. 29 to Sept. 12.

EEL RIVER BASIN

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.

EXTREMES.--Current year: Maximum discharge, 21,000 cfs Dec. 21 (gage height, 14.40 ft), from rating curve extended above 5,600 cfs; minimum daily, 1.7 cfs Sept. 22.
 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, 1.7 cfs Sept. 22, 1970.

REMARKS.--Records good. No regulation; small diversion above station for irrigation.

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	5.5	8.6	10	140	446	207	67	40	21	10	5.5	3.6
2	5.5	8.4	11	132	370	155	64	40	21	10	5.2	3.2
3	5.5	8.4	11	125	370	153	62	39	20	10	5.2	3.2
4	5.5	31	11	114	330	258	60	39	20	9.7	5.2	3.4
5	5.5	301	10	102	287	216	58	37	19	9.7	4.9	2.6
6	5.5	84	9.8	94	221	188	61	36	19	9.7	4.9	2.8
7	5.5	48	9.8	101	194	671	65	35	19	9.1	4.9	3.4
8	6.5	64	14	123	176	712	60	35	18	9.1	4.6	3.8
9	7.3	49	17	408	163	647	57	34	18	8.8	4.6	3.4
10	7.3	35	64	695	153	579	56	34	18	8.6	4.6	3.8
11	7.1	28	414	260	148	481	53	35	17	8.8	4.6	4.0
12	6.8	23	3,170	305	390	418	52	36	16	8.5	4.9	3.8
13	6.5	20	1,210	692	774	385	55	32	16	8.4	4.9	3.2
14	6.2	18	1,580	1,430	575	480	68	31	15	7.7	4.6	2.8
15	37	17	625	872	430	408	56	31	15	7.9	4.6	2.8
16	80	16	449	3,710	2,340	360	50	30	15	7.5	4.6	2.8
17	61	14	401	2,990	1,510	308	48	29	14	7.3	4.6	2.8
18	27	14	453	991	778	275	46	29	14	7.3	4.6	3.0
19	18	13	1,800	1,230	536	228	49	27	13	7.2	4.6	2.8
20	14	13	1,580	1,870	402	200	45	26	13	7.0	4.6	2.4
21	12	12	7,270	4,130	325	174	44	26	13	6.8	4.6	2.0
22	11	12	548	4,250	269	160	45	25	13	6.7	4.6	1.7
23	10	12	1,690	6,430	239	148	44	22	12	6.7	4.6	2.8
24	10	11	621	5,660	218	135	44	20	12	6.4	4.0	4.6
25	9.5	11	720	1,970	198	123	43	22	12	6.4	4.0	4.0
26	9.1	11	573	2,950	181	110	44	23	11	6.1	4.0	4.0
27	9.1	11	414	2,670	169	89	46	23	11	6.1	4.0	4.0
28	9.1	11	242	1,460	219	88	44	23	11	5.8	4.0	4.0
29	9.1	11	204	893	-----	84	42	22	10	5.8	4.0	4.0
30	9.0	10	176	726	-----	77	41	22	10	5.8	4.0	4.0
31	8.8	-----	157	570	-----	72	-----	22	-----	5.5	3.8	-----
TOTAL	429.9	925.4	24,464.6	48,093	12,411	8,589	1,569	925	456	240.4	141.8	98.7
MEAN	13.9	30.8	789	1,551	443	277	52.3	29.8	15.2	7.75	4.57	3.29
MAX	80	301	7,270	6,430	2,340	712	68	40	21	10	5.5	4.6
MIN	5.5	8.4	9.8	94	148	72	41	20	10	5.5	3.8	1.7
AC-FT	853	1,840	48,530	95,390	24,620	17,040	3,110	1,830	904	477	281	196

CAL YR 1969 TOTAL 126,098.5 MEAN 345 MAX 8,000 MIN 5.4 AC-FT 250,100
 WTR YR 1970 TOTAL 98,343.8 MEAN 269 MAX 7,270 MIN 1.7 AC-FT 195,100

PEAK DISCHARGE (BASE, 5,000 CFS)				PEAK DISCHARGE (BASE, 5,000 CFS)			
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-12	0615	10.63	7,310	1-23	1945	14.51	17,400
12-21	0515	14.40	21,000	1-26	2045	13.61	13,200
1-17	0215	10.99	5,180	2-16	1600	11.58	6,590
1-21	0015	12.01	7,630				

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CALIF.

LOCATION.--Lat 40°10'55", long 123°46'30", in NW $\frac{1}{4}$ 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.--31 years, 1,881 cfs (1,363,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 85,800 cfs Jan. 23 (gage height, 27.95 ft); minimum daily, 28 cfs Sept. 30.

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 water year 1970 are published in Part 2 of this report.

REVISIONS.--WSP 1395: Drainage area.

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	43	90	109	1,580	3,820	1,780	650	305	155	92	47	36
2	41	90	107	1,380	2,910	1,430	626	294	148	91	47	36
3	39	87	106	1,190	2,550	1,280	608	284	142	88	47	36
4	39	105	105	1,100	2,180	1,730	578	274	138	85	45	37
5	39	1,200	104	1,010	1,910	2,280	560	265	134	85	45	35
6	39	540	104	924	1,660	1,760	536	262	134	82	43	36
7	46	325	103	876	1,390	2,690	520	256	132	82	43	38
8	54	415	148	972	1,270	4,920	505	256	130	80	42	49
9	60	320	200	2,390	1,140	3,700	490	259	138	78	42	81
10	62	265	855	9,970	1,040	3,660	475	277	146	78	41	119
11	63	210	4,200	5,830	964	2,870	460	301	148	75	41	86
12	65	196	19,900	4,720	1,440	2,520	445	329	140	74	40	37
13	64	180	12,900	9,790	4,180	2,190	465	298	134	70	41	33
14	63	175	10,900	21,400	4,400	2,490	554	265	128	70	42	33
15	162	171	5,780	15,400	2,690	2,270	480	250	126	68	41	31
16	598	162	3,370	36,400	8,340	1,940	435	235	119	67	38	29
17	604	158	2,460	37,500	16,200	1,760	430	226	117	66	35	29
18	398	150	3,170	21,500	8,590	1,600	414	215	117	63	30	29
19	262	143	10,400	15,200	5,700	1,460	445	210	114	60	33	31
20	193	130	13,500	15,300	4,320	1,350	455	203	112	63	37	32
21	160	128	47,000	46,900	3,400	1,250	406	180	105	60	39	32
22	135	128	18,200	45,700	2,760	1,160	382	159	103	59	38	31
23	123	125	20,700	58,000	2,390	1,080	362	173	103	59	37	29
24	111	123	12,800	58,600	2,080	1,010	354	180	101	58	38	29
25	105	118	9,280	24,500	1,850	956	343	173	97	56	38	29
26	99	117	7,580	21,700	1,660	892	366	144	97	55	36	29
27	99	115	5,420	44,600	1,510	846	390	136	97	54	38	29
28	99	112	3,940	17,500	1,580	790	358	112	96	54	38	29
29	99	111	2,910	9,820	-----	755	329	134	92	53	36	29
30	95	110	2,240	6,850	-----	720	312	157	92	50	37	28
31	92	-----	1,870	4,760	-----	685	-----	157	-----	49	37	-----
TOTAL	4,151	6,299	220,461	543,362	93,924	55,824	13,733	6,969	3,635	2,124	1,232	1,167
MEAN	134	210	7,112	17,530	3,354	1,801	458	225	121	68.5	39.7	38.9
MAX	604	1,200	47,000	58,600	16,200	4,920	650	329	155	92	47	119
MIN	39	87	103	876	964	685	312	112	92	49	30	28
AC-FT	8,230	12,490	437,300	1,078M	186,300	110,700	27,240	13,820	7,210	4,210	2,440	2,310

CAL YR 1969 TOTAL 977,510 MEAN 2,678 MAX 70,000 MIN 34 AC-FT 1,939,000

WTR YR 1970 TOTAL 952,881 MEAN 2,611 MAX 58,600 MIN 28 AC-FT 1,890,000

PEAK DISCHARGE (BASE, 15,000 CFS)								NOTE.--No gage-height record June 29 to Aug. 2.
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	
12-12	1700	13.58	22,000	1-23	2400	27.95	85,800	
12-21	1115	23.81	65,100	1-27	0445	23.76	64,800	
1-16	1500	19.61	45,900	2-17	0045	14.04	23,700	

EEL RIVER BASIN

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.--10 years, 126 cfs (91,290 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,280 cfs Jan. 26 (gage height, 12.44 ft); minimum daily, 0.89 cfs Sept. 30.

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, 0.89 cfs Sept. 30, 1970.

REMARKS.--Records good. Minor diversions above station for domestic use.

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	1.4	3.5	4.7	209	320	106	41	19	13	5.1	1.9	1.4
2	1.4	3.5	4.7	185	245	100	40	19	13	5.1	1.9	1.4
3	1.4	3.2	4.4	168	227	91	38	18	12	4.7	1.7	1.4
4	1.3	2.6	4.1	152	209	122	38	18	13	4.4	1.5	1.5
5	1.3	6.8	3.8	134	203	107	37	17	12	4.7	1.6	1.5
6	1.5	27	3.8	119	184	97	37	16	13	4.7	1.5	1.5
7	1.6	26	3.8	109	175	107	35	17	12	4.4	1.5	1.5
8	2.6	104	12	122	173	105	35	17	13	4.4	1.8	1.5
9	2.6	44	11	187	154	112	37	18	14	4.0	1.7	1.5
10	2.9	28	46	392	144	110	36	19	11	3.5	1.6	1.5
11	2.6	21	248	195	136	104	34	21	8.1	3.5	1.5	1.5
12	2.0	17	415	300	173	99	32	21	7.7	3.3	1.5	1.4
13	1.9	14	325	680	308	94	34	19	7.7	3.3	1.4	1.3
14	1.9	12	475	410	231	109	36	17	6.6	3.3	1.3	1.3
15	1.6	12	301	700	202	93	33	16	7.3	3.1	1.4	1.3
16	2.8	11	250	1,420	769	90	32	15	7.3	3.1	1.4	1.3
17	2.4	9.5	220	695	740	89	32	15	7.3	3.1	1.4	1.3
18	1.4	8.9	220	480	604	82	31	15	7.3	3.1	1.4	1.2
19	9.5	8.5	682	340	360	75	36	15	7.0	3.1	1.4	1.2
20	7.6	6.2	722	1,720	277	65	34	15	6.6	2.6	1.4	1.2
21	6.3	7.6	2,650	1,320	235	60	32	15	6.2	2.6	1.4	1.2
22	5.0	7.2	1,210	1,560	200	57	29	15	6.2	2.6	1.4	1.2
23	4.7	6.9	1,050	2,220	168	55	26	15	5.5	2.6	1.4	1.2
24	4.4	6.6	744	2,850	143	53	25	14	5.1	2.6	1.4	1.2
25	4.1	6.3	608	2,090	125	47	24	14	5.1	2.6	1.4	1.2
26	4.1	6.0	501	2,400	116	46	26	13	5.1	2.4	1.4	1.2
27	4.1	5.6	408	2,800	109	45	27	14	5.1	2.2	1.4	1.3
28	4.1	5.3	355	1,300	122	44	25	14	5.9	2.2	1.4	1.0
29	4.1	5.0	298	780	-----	42	23	13	5.9	2.2	1.4	1.0
30	4.1	5.0	255	620	-----	41	21	13	5.5	2.2	1.4	.89
31	3.8	-----	229	540	-----	41	-----	12	-----	1.9	1.4	-----
TOTAL	174.3	516.8	12,264.3	27,197	7,052	2,488	966	499	254.5	102.6	46.2	39.09
MEAN	5.62	17.2	396	877	252	80.3	32.2	16.1	8.48	3.31	1.49	1.30
MAX	2.8	10.4	2,650	2,850	769	122	41	21	14	5.1	1.9	1.5
MIN	1.3	3.2	3.8	109	109	41	21	12	5.1	1.9	1.3	.89
AC-FT	346	1,030	24,330	53,950	13,990	4,930	1,920	990	505	204	92	78
CAL YR 1969	TOTAL	62,347.3	MEAN	171	MAX	2,650	MIN	1.3	AC-FT	123,700		
WTR YR 1970	TOTAL	51,599.79	MEAN	141	MAX	2,850	MIN	.89	AC-FT	102,300		

DATE	TIME	PEAK DISCHARGE (BASE, 1,700 CFS)			
		G.H.	DISCHARGE	DATE	TIME
12-21	0445	12.43	4,260	1-23	1945
1-16	unknown	-	2,300	1-26	2000
1-20	unknown	-	2,650		

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.--60 years, 7,200 cfs (5,216,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 310,000 cfs Jan. 24 (gage height, 46.98 ft); minimum daily, 75 cfs Sept. 30.

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 loads for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	243	313	6,600	23,000	9,800	2,730	1,520	675	305	125	84
2	118	247	318	5,600	19,000	8,600	2,610	1,480	647	300	121	84
3	118	247	304	4,850	16,300	6,900	2,540	1,420	612	295	118	84
4	118	263	300	4,200	14,200	8,600	2,460	1,390	591	290	116	82
5	115	1,380	309	3,650	13,000	12,000	2,390	1,350	570	285	113	82
6	113	2,890	304	3,350	10,000	10,400	2,320	1,320	552	279	111	80
7	105	2,160	300	3,200	9,200	14,500	2,250	1,350	528	267	109	80
8	113	1,450	331	3,650	7,900	27,000	2,190	1,290	522	255	107	80
9	128	1,100	380	9,800	7,050	21,000	2,120	1,300	530	246	105	88
10	138	960	546	48,000	6,400	17,000	2,070	1,560	550	235	103	94
11	140	820	5,980	36,000	6,050	14,200	2,020	1,600	570	227	101	90
12	138	740	47,000	32,000	6,400	12,200	1,990	1,620	555	220	99	86
13	138	660	60,000	38,000	14,100	11,000	1,950	1,590	525	210	99	82
14	145	600	43,000	120,000	25,000	12,000	2,010	1,500	510	202	99	82
15	180	552	27,500	83,600	16,700	10,500	1,980	1,400	498	196	97	80
16	498	498	15,000	113,000	20,700	9,500	1,890	1,320	506	192	95	78
17	1,180	462	12,500	148,000	57,000	8,500	1,850	1,280	500	187	94	78
18	1,180	438	14,500	98,300	35,800	7,600	1,810	1,250	475	182	93	78
19	970	420	22,000	63,700	23,900	7,000	1,830	1,200	465	179	92	78
20	668	420	42,000	63,700	17,800	6,100	1,890	1,120	450	175	92	78
21	516	390	102,000	136,000	14,400	5,440	1,800	1,060	425	170	92	78
22	420	390	64,400	174,000	11,900	5,000	1,700	1,000	395	165	90	78
23	365	370	48,200	167,000	10,500	4,600	1,620	980	375	160	90	76
24	322	345	50,700	267,000	8,800	4,300	1,590	940	360	156	88	76
25	300	340	31,500	127,000	7,800	4,000	1,560	900	340	153	88	76
26	291	340	25,200	76,300	7,050	3,700	1,590	826	328	150	86	76
27	287	340	16,400	150,000	6,400	3,500	1,790	766	320	146	86	76
28	271	327	13,400	76,000	7,000	3,300	1,730	742	310	142	86	76
29	267	331	11,000	43,900	-----	3,150	1,680	710	307	138	86	76
30	259	336	8,800	34,500	-----	3,000	1,590	689	307	134	86	75
31	243	-----	8,100	27,500	-----	2,870	-----	696	-----	128	86	-----
TOTAL	9,967	20,059	672,585	2,168.4M	423,350	277,260	59,550	37,169	14,298	6,369	3,053	2,411
MEAN	322	669	21,700	69,950	15,120	8,944	1,985	1,199	477	205	98.5	80.4
MAX	1,180	2,890	102,000	267,000	57,000	27,000	2,730	1,620	675	305	125	94
MIN	105	243	300	3,200	6,050	2,870	1,560	689	307	128	86	75
AC-FT	19,770	39,790	1,334M	4,301M	839,700	549,900	118,100	73,720	28,360	12,630	6,060	4,780

CAL YR 1969 TOTAL 3,982,993 MEAN 10,910 MAX 190,000 MIN 105 AC-FT 7,900,000
WTR YR 1970 TOTAL 3,694,471 MEAN 10,120 MAX 267,000 MIN 75 AC-FT 7,328,000

PEAK DISCHARGE (BASE, 72,000 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-13	unknown	-	74,000	1-24	0800	46.98	310,000
12-21	2000	33.95	139,000	1-27	1300	37.05	186,000
1-16	2230	36.09	175,000				

NOTE.--No gage-height record Feb. 23 to May 25, July 8 to Sept. 30.

EEL RIVER BASIN

11477500 VAN DUZEN RIVER NEAR DINSMORES, CALIF.

LOCATION.--Lat 40°29'05", long 123°39'25", in NW¼ 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.--12 years, 383 cfs (277,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 16,700 cfs Dec. 21 (gage height, 14.97 ft); minimum daily, 1.9 cfs for many days.

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. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

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	3.9	11	17	342	682	300	101	57	28	10	3.3	2.8
2	4.2	10	17	303	508	216	93	51	26	9.5	3.3	2.8
3	4.2	9.6	17	273	436	191	87	48	25	8.5	3.3	2.8
4	4.2	30	16	250	390	218	83	46	24	8.0	3.3	2.8
5	4.2	760	16	225	348	220	80	45	23	8.0	3.3	2.8
6	4.2	220	16	205	315	230	76	42	22	8.0	3.3	2.8
7	4.2	125	15	200	285	767	73	40	21	7.5	3.3	2.8
8	5.3	111	20	339	260	1,120	71	45	20	7.0	3.3	2.8
9	4.7	90	27	1,800	243	706	68	61	22	6.5	3.3	2.8
10	4.9	70	42	2,030	225	570	66	85	28	6.0	3.3	2.4
11	5.7	53	595	1,260	211	466	64	92	27	5.5	3.3	1.9
12	6.4	50	4,150	1,330	273	400	61	106	24	5.5	3.3	1.9
13	6.2	44	2,310	2,210	545	347	60	103	22	5.1	3.3	1.9
14	6.4	40	2,560	3,560	480	605	61	99	20	4.6	3.3	1.9
15	21	36	1,210	2,290	378	434	59	87	20	3.7	3.3	1.9
16	297	33	676	4,550	1,780	358	58	73	21	3.7	3.3	1.9
17	260	32	492	5,450	1,820	322	54	64	20	3.7	3.3	1.9
18	116	29	550	2,840	878	286	53	58	19	3.3	3.3	1.9
19	65	26	2,860	2,910	585	259	79	53	19	3.3	3.3	1.9
20	43	25	3,120	2,890	424	240	68	50	18	3.3	3.3	1.9
21	31	24	8,860	5,690	345	218	60	47	16	3.3	3.3	1.9
22	24	23	2,310	5,500	288	201	54	44	14	3.3	3.7	1.9
23	19	21	3,040	9,020	250	184	51	42	13	3.3	3.7	1.9
24	17	21	2,040	7,390	220	167	50	39	13	3.3	3.7	1.9
25	15	21	1,770	3,120	200	154	49	37	12	3.3	3.7	1.9
26	14	20	1,400	4,680	185	147	59	35	11	3.3	3.7	1.9
27	14	19	991	6,220	174	134	65	33	11	3.3	3.7	1.9
28	13	19	688	2,420	238	125	59	32	11	3.3	3.7	1.9
29	12	18	532	1,620	-----	119	59	30	11	3.3	3.3	1.9
30	12	18	444	1,150	-----	114	58	30	11	2.8	3.3	1.9
31	11	-----	384	846	-----	107	-----	30	-----	3.3	3.3	-----
TOTAL	1,052.7	2,008.6	41,185	82,913	12,966	9,925	1,979	1,704	572	156.5	105.1	65.6
MEAN	34.0	67.0	1,329	2,675	463	320	66.0	55.0	19.1	5.05	3.39	2.19
MAX	297	760	8,860	9,020	1,820	1,120	101	106	28	10	3.7	2.8
MIN	3.9	9.6	15	200	174	107	49	30	11	2.8	3.3	1.9
AC-FT	2,090	3,980	81,690	164,500	25,720	19,690	3,930	3,380	1,130	310	208	130

CAL YR 1969 TOTAL 182,385.6 MEAN 500 MAX 8,990 MIN 2.5 AC-FT 361,800
 WTR YR 1970 TOTAL 154,632.5 MEAN 424 MAX 9,020 MIN 1.9 AC-FT 306,700

PEAK DISCHARGE (BASE, 3,400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-12	0915	9.74	6,070	1-21	0415	10.57	7,890
12-21	0630	14.97	16,700	1-23	2230	13.52	14,000
1-14	0700	9.16	4,790	1-27	0015	13.93	14,800
1-17	0530	10.20	7,080	2-16	1815	8.92	4,260

11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CALIF.

LOCATION.--Lat 40°28'50", long 123°53'23", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ 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.--20 years, 898 cfs (650,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 33,500 cfs Dec. 21 (gage height, 20.06 ft), from rating curve extended above 12,000 cfs as explained below; minimum daily, 6.1 cfs Sept. 30.

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 good. No storage or large diversion above station. Records of chemical analyses and water temperatures for the water year 1970 are published in Part 2 of this report.

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	12	36	35	950	1,600	1,010	220	151	78	29	13	8.2
2	12	34	33	850	1,320	740	203	137	76	30	14	8.2
3	12	31	33	780	1,200	677	195	125	69	30	15	8.2
4	12	38	33	700	1,120	928	183	119	64	28	12	8.2
5	12	2,200	31	660	1,020	961	175	112	62	27	12	8.2
6	12	538	31	650	940	884	168	110	60	26	12	8.2
7	12	285	31	640	860	2,460	165	110	58	26	12	8.2
8	14	260	40	700	781	2,650	154	131	55	26	11	8.2
9	24	216	63	1,760	718	1,730	151	224	67	22	11	8.2
10	27	168	132	3,170	646	1,520	147	300	78	22	11	8.2
11	24	139	1,520	1,390	594	1,280	144	340	76	20	10	8.2
12	21	116	10,400	1,610	790	1,110	137	430	64	21	10	8.2
13	20	104	5,800	4,540	1,810	983	140	388	57	19	9.8	8.2
14	19	91	6,240	9,100	1,430	1,310	172	316	55	19	9.2	8.2
15	26	85	2,900	4,760	1,100	1,130	154	280	53	19	9.2	8.2
16	460	79	1,700	9,120	5,020	950	144	233	53	16	9.2	7.6
17	718	69	1,180	13,200	5,380	830	144	199	51	16	9.2	7.6
18	300	63	1,310	6,160	2,800	740	131	179	48	16	9.2	7.1
19	172	59	7,440	5,640	1,830	668	300	168	44	16	9.2	7.1
20	116	53	8,600	5,800	1,440	610	207	161	41	16	9.2	7.6
21	91	52	20,900	13,200	1,200	549	175	147	40	16	9.2	7.6
22	71	49	4,840	13,300	1,030	507	154	137	40	16	9.2	7.6
23	61	48	6,960	18,500	895	458	140	125	36	15	9.2	7.6
24	52	45	5,000	17,300	800	406	137	113	34	14	8.7	7.6
25	45	43	3,900	7,850	713	382	131	110	32	14	8.7	7.6
26	43	41	3,200	10,100	650	346	154	105	31	13	8.7	7.6
27	43	39	2,500	14,600	610	316	191	100	30	13	8.7	7.1
28	45	38	2,000	5,890	686	285	172	95	32	13	8.7	6.6
29	45	37	1,450	3,370	-----	270	165	93	32	13	8.7	6.6
30	41	34	1,250	2,260	-----	256	154	88	32	13	8.7	6.1
31	38	-----	1,050	1,760	-----	242	-----	85	-----	12	8.2	-----
TOTAL	2,600	5,090	100,602	180,310	38,983	27,188	5,007	5,411	1,548	596	313.9	232.0
MEAN	83.9	170	3,245	5,816	1,392	877	167	175	51.6	19.2	10.1	7.73
MAX	718	2,200	20,900	18,500	5,380	2,650	300	430	78	30	15	8.2
MIN	12	31	31	640	594	242	131	85	30	12	8.2	6.1
AC-FT	5,160	10,100	199,500	357,600	77,320	53,930	9,930	10,730	3,070	1,180	623	460

CAL YR 1969 TOTAL 415,514.0 MEAN 1,138 MAX 20,900 MIN 7.0 AC-FT 824,200
WTR YR 1970 TOTAL 367,880.9 MEAN 1,008 MAX 20,900 MIN 6.1 AC-FT 729,700

PEAK DISCHARGE (BASE, 15,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0745	20.06	33,500	1-23	2245	18.47	28,400
1-17	0845	14.25	16,300	1-27	0130	18.11	27,200

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.--11 years, 360 cfs (260,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,800 cfs Jan. 26 (gage height, 11.38 ft), from rating curve extended above 4,200 cfs on basis of field estimate at gage height 19.9 ft; minimum daily, 2.3 cfs Oct. 6. 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 fair. No regulation or diversion above station.

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	2.7	9.9	8.8	322	906	312	77	75	50	16	7.4	4.7
2	2.7	9.1	8.6	264	724	235	76	72	47	15	7.2	4.7
3	2.6	8.5	8.5	220	514	217	73	70	44	14	7.2	4.7
4	2.5	9.7	8.2	190	494	574	72	70	41	13	7.0	4.7
5	2.4	209	8.0	163	410	628	71	69	38	13	7.4	4.7
6	2.3	86	8.0	141	338	482	70	70	35	13	7.0	4.8
7	2.4	45	8.0	131	299	1,150	68	78	36	12	7.0	4.8
8	2.9	138	14	130	264	1,070	66	92	40	12	6.8	3.5
9	5.0	93	27	719	233	760	65	125	45	12	6.6	3.5
10	6.0	53	74	1,250	213	724	64	170	50	12	6.4	4.7
11	5.5	38	541	914	174	562	64	210	45	11	6.1	5.0
12	4.9	32	2,380	980	538	445	63	250	39	11	6.1	5.5
13	4.5	28	1,190	1,420	600	361	76	210	34	9.5	5.7	5.5
14	4.2	24	1,550	2,560	500	604	84	180	31	10	5.5	5.3
15	5.6	21	844	1,640	390	471	76	150	28	9.7	5.5	5.1
16	5.0	21	524	1,880	2,400	370	74	140	28	9.5	5.3	5.3
17	7.5	19	385	3,850	1,960	312	66	120	25	9.2	5.3	4.7
18	4.0	17	330	1,810	1,100	263	78	110	24	9.2	5.5	5.3
19	2.6	16	1,780	1,360	788	221	130	100	23	8.7	5.5	5.0
20	2.0	15	1,590	1,340	622	186	98	94	23	8.7	5.3	4.8
21	16	14	6,290	2,850	487	153	81	88	21	8.4	5.1	4.7
22	14	13	1,750	3,910	385	133	73	82	20	8.4	5.1	4.7
23	12	12	3,590	5,000	312	117	69	78	19	9.0	5.0	4.5
24	12	12	1,590	6,140	263	102	68	72	18	8.7	5.1	4.5
25	11	11	1,590	2,770	217	99	67	68	17	8.4	5.1	4.5
26	9.9	10	1,950	4,200	183	94	80	64	17	8.2	5.0	4.5
27	11	9.9	1,480	5,410	159	91	98	61	16	7.9	5.0	4.5
28	11	9.6	1,060	2,040	221	87	90	58	17	7.9	4.8	4.8
29	11	9.2	751	1,260	-----	84	82	56	18	7.7	4.7	4.7
30	11	9.0	548	1,020	-----	82	77	54	16	7.4	4.7	3.9
31	11	-----	408	928	-----	80	-----	52	-----	7.4	4.7	-----
TOTAL	397.1	1,001.9	32,294.1	56,812	15,694	11,069	2,296	3,188	905	317.9	180.1	141.6
MEAN	12.8	33.4	1,042	1,833	561	357	76.5	103	30.2	10.3	5.81	4.72
MAX	75	209	6,290	6,140	2,400	1,150	130	250	50	16	7.4	5.5
MIN	2.3	8.5	8.0	130	159	80	63	52	16	7.4	4.7	3.5
AC-FT	788	1,990	64,060	112,700	31,130	21,960	4,550	6,320	1,800	631	357	281
CAL YR 1969	TOTAL	170,670.8	MEAN	468	MAX	7,230	MIN	2.3	AC-FT	338,500		
WTR YR 1970	TOTAL	124,296.7	MEAN	341	MAX	6,290	MIN	2.3	AC-FT	246,500		

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0815	10.22	10,400	1-23	2230	10.81	11,600
1-14	0300	6.58	4,100	1-26	2300	11.38	12,800
1-17	1015	7.66	5,790	2-16	1900	7.32	5,310

NOTE.--No gage-height record Mar. 25 to June 14.

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, 63,500 acre-ft Jan. 24 (elevation, 2,663.87 ft); minimum, 15,000 acre-ft Dec. 10, 11 (elevation, 2,612.85 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	2,615	16,500	2,635	32,500	2,655	52,900
2,600	8,520	2,620	20,100	2,640	37,300	2,660	56,700
2,605	10,700	2,625	23,900	2,645	42,300	2,665	65,000
2,610	13,300	2,630	27,800	2,650	47,400	2,670	72,300

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31,800	25,300	17,500	51,700	53,100	52,400	52,000	52,100	49,900	46,800	41,600	34,800
2	31,600	25,100	17,000	51,400	52,800	52,400	51,900	52,100	49,800	46,700	41,400	34,600
3	31,400	24,900	16,600	51,100	52,600	52,300	52,000	52,100	49,700	46,600	41,200	34,300
4	31,100	24,900	16,500	50,700	52,400	52,300	51,900	52,100	49,600	46,500	41,000	34,100
5	30,900	24,800	16,200	50,300	52,200	52,400	51,900	52,100	49,500	46,300	40,800	33,900
6	30,600	24,700	16,000	49,900	51,000	52,400	51,800	52,000	49,300	46,200	40,500	33,700
7	30,400	24,500	15,700	49,600	51,800	53,600	51,800	51,900	49,200	46,100	40,300	33,400
8	30,100	24,400	15,500	49,400	51,700	54,200	51,800	51,900	49,100	46,000	40,100	33,200
9	29,900	24,200	15,200	50,200	51,400	53,900	51,800	51,800	49,000	45,800	39,900	33,000
10	29,700	24,000	15,000	52,300	51,200	53,600	51,700	51,700	49,000	45,700	39,600	32,800
11	29,300	23,900	15,700	53,000	51,100	53,300	51,700	51,700	48,900	45,500	39,400	32,500
12	29,100	23,700	21,300	53,300	51,100	53,100	51,700	51,700	48,800	45,300	39,200	32,200
13	28,600	23,500	24,000	54,700	51,600	53,000	51,700	51,600	48,800	45,200	38,900	32,000
14	28,600	22,500	26,800	56,600	52,000	53,000	51,800	51,500	48,700	45,000	38,700	31,700
15	28,600	23,000	28,200	56,200	52,200	52,800	51,800	51,500	48,600	44,900	38,500	31,500
16	28,500	22,800	28,900	57,400	54,000	52,700	51,900	51,500	48,600	44,700	38,300	31,200
17	28,300	22,600	29,600	56,900	54,300	52,600	51,900	51,400	48,500	44,500	38,100	31,000
18	28,100	22,400	30,100	56,200	53,800	52,500	52,000	51,300	48,500	44,300	37,800	30,700
19	27,900	22,100	33,700	56,000	53,400	52,400	52,100	51,200	48,400	44,100	37,600	30,500
20	27,600	21,900	37,300	56,400	53,100	52,300	51,900	51,100	48,300	43,900	37,400	30,200
21	27,400	21,700	46,900	58,900	52,800	52,200	51,700	51,000	48,300	43,700	37,100	30,000
22	27,200	21,400	49,500	58,700	52,600	52,200	51,800	50,900	48,200	43,500	36,900	29,800
23	26,900	21,200	53,800	63,400	52,400	52,100	51,900	50,900	48,000	43,300	36,700	29,500
24	26,700	20,800	54,300	60,300	52,200	52,000	51,800	50,800	47,800	43,100	36,500	29,300
25	26,500	20,400	54,200	57,200	52,200	52,000	51,800	50,700	47,700	42,900	36,200	29,100
26	26,300	19,900	53,800	59,700	52,200	52,100	51,800	50,600	47,500	42,700	36,000	28,900
27	26,200	19,400	53,300	58,300	52,100	52,100	51,900	50,400	47,400	42,500	35,900	28,700
28	26,000	18,900	52,900	56,000	52,400	52,100	52,000	50,300	47,200	42,400	35,700	28,500
29	25,800	18,400	52,500	54,800	-----	52,100	52,000	50,200	47,000	42,200	35,500	28,200
30	25,600	17,900	52,200	54,000	-----	52,000	52,000	50,100	46,900	42,100	35,300	28,000
31	25,500	-----	52,000	53,500	-----	52,000	-----	50,000	-----	41,900	35,000	-----
MAX	31,800	25,300	54,300	63,400	54,300	54,200	52,100	52,100	49,900	46,800	41,600	34,800
MIN	25,500	17,900	15,000	49,400	51,000	52,000	51,700	50,000	46,900	41,900	35,000	28,000
(a)	2,627.00	2,617.05	2,654.14	2,655.53	2,654.48	2,654.19	2,654.19	2,652.41	2,649.51	2,644.53	2,637.66	2,630.11
(b)	-6,400	-7,600	+34,100	+1,500	-1,100	-400	0	-2,000	-3,100	-5,000	-6,900	-7,000
CAL YR 1969	b	-500										
WTR YR 1970	b	-3,900										

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

MAD RIVER BASIN

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.--17 years, 377 cfs (273,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,900 cfs Jan. 24 (gage height, 12.17 ft); minimum daily, 22 cfs Apr. 22.

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 good. Flow regulated by Ruth Reservoir 9 miles upstream beginning in July 1961 (see sta 11480400). No diversion above station. Records of water temperatures and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1395: 1954. WSP 1715: 1957(M), 1958(P). WSP 1929: Drainage area.

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	104	95	201	367	1,020	560	134	46	69	74	104	101
2	103	95	198	345	838	420	125	49	69	57	104	101
3	103	95	156	340	700	370	121	49	69	57	101	101
4	103	112	101	337	610	415	116	47	69	57	104	101
5	103	132	112	334	537	430	112	43	69	56	104	101
6	100	119	112	331	478	450	105	42	68	56	104	101
7	108	121	112	331	436	700	101	89	68	57	104	101
8	112	121	121	403	408	1,250	99	87	69	64	104	101
9	110	121	125	689	400	870	96	93	60	80	104	101
10	110	119	135	644	384	680	95	93	41	80	104	102
11	110	119	209	708	314	580	93	90	41	78	104	109
12	110	119	605	858	331	510	92	89	41	78	104	109
13	110	119	367	1,420	396	470	90	93	41	78	104	109
14	110	119	236	3,520	366	620	49	83	41	78	102	109
15	133	119	103	3,400	356	490	46	81	40	78	102	109
16	130	118	64	5,810	814	410	47	81	39	80	102	109
17	122	116	51	6,820	1,590	360	32	80	36	95	102	109
18	119	116	121	4,210	1,370	320	39	80	37	96	102	109
19	119	115	823	3,010	1,080	290	56	80	37	96	102	109
20	116	114	919	2,910	868	260	83	78	37	95	102	107
21	116	114	1,860	5,410	706	235	215	78	37	95	104	107
22	119	114	610	6,740	595	215	22	77	38	95	102	107
23	121	114	880	8,470	510	195	24	77	83	95	104	104
24	114	149	1,580	10,300	450	175	95	75	83	95	102	99
25	99	206	1,610	5,840	410	160	59	75	81	95	102	98
26	99	206	1,400	4,630	375	150	59	74	81	95	102	98
27	97	203	1,060	7,400	350	140	51	73	81	87	98	98
28	99	203	799	4,270	480	130	26	80	81	68	92	101
29	99	201	626	2,540	-----	155	33	70	80	67	92	119
30	97	201	502	1,710	-----	148	38	70	80	68	90	119
31	95	-----	421	1,290	-----	140	-----	70	-----	101	93	-----
TOTAL	3,390	4,015	16,219	95,387	17,172	12,298	2,353	2,292	1,766	2,451	3,144	3,149
MEAN	109	134	523	3,077	613	397	78.4	73.9	58.9	79.1	101	105
MAX	133	206	1,860	10,300	1,590	1,250	215	93	83	101	104	119
MIN	95	95	51	331	314	130	22	42	36	56	90	98
AC-FT	6,720	7,960	32,170	189,200	34,060	24,390	4,670	4,550	3,500	4,860	6,240	6,250
GAL YR 1969	TOTAL	182,652	MEAN	500	MAX	9,240	MIN	49	AC-FT	362,300		
WTR YR 1970	TOTAL	163,636	MEAN	448	MAX	10,300	MIN	22	AC-FT	324,600		

11480750 MAD RIVER NEAR KNEELAND, CALIF.

LOCATION.--Lat 40°45'50", long 123°53'20", in NW¹/₄NW¹/₄ 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.--5 years, 1,124 cfs (814,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 30,100 cfs Jan. 23 (gage height, unknown); minimum daily, 91 cfs June 29.

Period of record: Maximum discharge, 32,200 cfs Jan. 13, 1969 (gage height, 22.00 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 fair. Flow regulated by Ruth Reservoir 47 miles upstream (see sta 11480400). No diversion above station. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

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	110	131	204	1,060	2,900	1,250	358	381	161	122	112	109
2	110	131	204	859	2,410	1,140	337	373	157	119	115	110
3	110	131	204	811	1,950	1,110	295	330	151	109	115	110
4	110	160	158	799	1,650	1,330	280	285	149	106	115	111
5	107	963	124	745	1,410	1,310	265	255	145	106	114	112
6	105	341	128	700	1,270	1,240	250	233	143	104	115	112
7	107	236	128	683	1,140	2,750	241	217	141	104	115	112
8	139	264	148	732	1,060	3,330	225	477	139	103	115	112
9	132	229	177	3,140	954	2,960	217	900	151	103	116	112
10	126	198	210	4,320	864	2,650	237	1,120	173	110	117	112
11	126	181	1,200	2,980	775	2,340	221	1,120	135	110	117	112
12	123	174	7,350	3,700	760	2,060	205	1,130	128	110	117	113
13	123	168	4,080	5,780	1,200	1,870	217	1,040	124	110	117	113
14	123	162	4,170	10,000	1,500	2,140	270	945	122	110	117	113
15	150	160	2,260	8,200	1,230	1,950	250	757	122	110	117	113
16	323	160	1,290	11,500	2,900	1,750	229	629	120	110	117	114
17	471	156	914	19,800	4,700	1,570	225	541	119	110	117	115
18	272	152	769	12,500	3,210	1,420	229	469	114	113	116	116
19	198	152	5,550	11,500	2,560	1,270	1,080	413	113	114	115	120
20	179	148	6,530	11,000	1,990	1,130	653	373	112	114	115	119
21	168	147	19,200	17,500	1,810	1,010	741	330	110	114	115	119
22	162	147	5,050	22,000	1,650	909	565	285	109	114	115	119
23	160	145	8,730	24,000	1,530	819	275	265	106	114	115	119
24	158	145	5,590	27,000	1,440	757	245	245	119	114	115	117
25	152	181	5,410	12,500	1,320	701	445	229	122	114	115	113
26	136	204	5,190	11,600	1,120	557	461	213	122	114	115	112
27	136	204	3,370	19,500	1,040	485	517	199	106	114	115	112
28	136	204	2,150	6,400	1,180	469	429	193	95	112	113	112
29	136	204	1,690	4,700	-----	437	358	190	91	103	110	113
30	136	204	1,450	4,000	-----	413	381	173	122	102	110	119
31	132	-----	1,290	3,090	-----	389	-----	169	-----	101	109	-----
TOTAL	4,856	6,182	94,918	263,099	47,523	43,516	10,701	14,479	3,821	3,413	3,561	3,415
MEAN	157	206	3,062	8,487	1,697	1,404	357	467	127	110	115	114
MAX	471	963	19,200	27,000	4,700	3,330	1,080	1,130	173	122	117	120
MIN	105	131	124	683	760	389	205	169	91	101	109	109
AC-FT	9,630	12,260	188,300	521,900	94,260	86,310	21,230	28,720	7,580	6,770	7,060	6,770

CAL YR 1969	TOTAL	525,297	MEAN	1,439	MAX	24,400	MIN	92	AC-FT	1,042,000
WTR YR 1970	TOTAL	499,484	MEAN	1,368	MAX	27,000	MIN	91	AC-FT	990,700

PEAK DISCHARGE (BASE, 12,000 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0815	20.18	28,600	1-23	2345	-	30,100
1-14	1900	13.87	12,800	1-27	0015	-	23,800
1-17	0730	-	24,000				

NOTE.--No gage-height record Jan. 14-30.

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.--23 years, 1,489 cfs (1,079,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 34,500 cfs Jan. 27 (gage height, unknown); minimum daily, 0.75 cfs July 31.

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). Since 1938, approximately 80 cfs diverted daily 0.5 mile above station for municipal supply of cities of Eureka and Arcata. Records of chemical analyses, water temperatures, and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

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	31	50	186	1,280	3,640	1,240	600	347	101	44	6.8	11
2	35	47	197	1,100	2,910	1,050	585	293	94	41	31	14
3	31	41	199	992	2,420	976	550	245	90	39	31	21
4	30	79	175	920	2,100	1,050	540	181	91	48	37	21
5	31	1,090	70	848	1,930	1,180	535	149	87	41	39	23
6	30	612	66	776	1,800	1,020	565	152	86	30	37	25
7	28	346	68	758	1,710	2,450	585	148	84	19	35	48
8	84	382	104	758	1,600	5,000	535	266	80	17	30	46
9	128	379	212	1,720	1,480	3,300	500	1,030	93	12	33	42
10	91	275	325	3,260	1,390	2,700	545	1,270	125	11	29	38
11	88	215	604	2,480	1,330	2,340	555	1,050	101	24	24	26
12	75	172	5,560	2,390	1,280	2,040	500	1,160	74	25	24	27
13	65	150	4,020	4,160	1,890	1,800	488	874	62	19	25	29
14	64	132	3,620	8,840	2,050	2,300	540	718	59	17	22	28
15	75	131	2,610	8,230	1,650	2,130	540	575	58	18	24	27
16	240	140	1,390	11,200	3,120	1,800	464	456	52	18	24	27
17	528	123	1,050	19,500	7,580	1,570	464	374	52	15	23	27
18	391	123	812	13,500	4,600	1,390	452	329	46	21	22	29
19	233	101	3,120	8,630	3,440	1,210	976	290	44	27	22	31
20	164	93	4,620	7,850	2,700	1,090	665	258	41	28	21	33
21	132	90	19,700	14,200	2,040	1,000	580	233	37	29	23	30
22	110	85	7,580	20,500	1,670	888	807	208	35	25	24	31
23	97	84	10,300	21,100	1,440	226	296	190	33	24	25	31
24	96	78	6,830	30,000	1,210	772	208	176	35	27	24	30
25	83	85	5,800	17,300	1,060	724	284	159	56	25	23	29
26	69	182	6,000	15,500	896	660	790	152	58	24	22	24
27	64	201	4,800	26,700	796	585	1,010	148	56	24	24	22
28	70	199	3,360	13,900	912	590	650	138	53	24	23	20
29	67	195	2,520	6,730	-----	555	436	130	51	22	19	20
30	63	190	1,950	5,220	-----	560	371	125	46	5.3	16	24
31	54	-----	1,480	3,920	-----	625	-----	114	-----	.75	12	-----
TOTAL	3,347	6,070	99,328	274,262	60,644	45,421	16,611	11,938	1,980	744.05	774.8	834
MEAN	108	202	3,204	8,847	2,166	1,465	554	385	66.0	24.0	25.0	27.8
MAX	528	1,090	19,700	30,000	7,580	5,000	1,010	1,270	125	48	39	48
MIN	28	41	66	759	796	555	208	114	33	.75	6.8	11
AC-FT	6,640	12,040	197,000	544,000	120,300	90,090	32,950	23,680	3,930	1,480	1,540	1,650

CAL YR 1969 TOTAL 582,605 MEAN 1,596 MAX 25,100 MIN 17 AC-FT 1,156,000
 WTR YR 1970 TOTAL 521,953.85 MEAN 1,430 MAX 30,000 MIN .75 AC-FT 1,035,000

PEAK DISCHARGE (BASE, 15,000 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1015	17.54	30,800	1-24	0245	18.23	33,500
1-17	1230	15.49	22,800	1-27	0115	-	34,500

NOTE.--No gage-height record Jan. 27, 28.

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.--15 years, 136 cfs (98,530 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,200 cfs Jan. 23 (gage height, unknown); minimum daily, 4.5 cfs Sept. 27-30.

Period of record: Maximum discharge, 8,330 cfs Jan. 4, 1966 (gage height, 11.12 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 good. No storage or diversion above station.

REVISIONS (WATER YEARS).--WRD Calif. 1964: 1956-60.

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	7.4	8.8	8.6	128	364	121	36	39	22	12	6.7	5.3
2	7.4	8.6	8.6	112	280	104	36	37	21	12	6.7	5.3
3	7.4	8.4	8.0	100	230	92	33	33	20	11	6.4	5.3
4	7.4	34	8.0	92	194	94	31	31	20	11	6.4	5.3
5	7.4	303	8.0	83	165	96	30	30	20	11	6.4	5.1
6	6.8	70	8.0	79	143	87	29	29	20	11	6.4	5.1
7	7.4	33	8.0	79	128	463	29	28	20	11	6.1	4.9
8	51	70	13	72	114	409	28	52	20	11	6.1	4.9
9	35	57	18	96	104	233	27	130	21	10	5.8	4.9
10	22	36	42	104	92	180	45	173	24	10	5.8	4.9
11	18	26	92	100	85	155	33	168	21	9.6	5.5	4.9
12	15	20	356	330	105	135	28	197	19	9.1	5.5	4.7
13	12	17	261	560	150	128	27	124	18	9.1	5.5	4.7
14	11	15	400	365	128	270	27	88	18	8.5	5.5	4.7
15	14	15	200	700	117	224	25	71	18	8.2	5.5	4.7
16	43	18	126	1,500	123	178	23	60	17	8.2	5.5	4.7
17	58	15	108	3,900	480	153	22	54	17	8.2	5.5	4.7
18	34	12	86	2,150	270	133	24	51	16	8.2	5.3	4.9
19	17	11	148	970	185	117	110	47	16	8.2	5.3	4.9
20	13	11	317	870	150	100	64	44	16	7.9	5.3	5.1
21	9.8	11	2,180	1,500	126	92	52	40	14	7.9	5.3	5.3
22	8.6	11	635	3,300	108	87	45	37	14	7.6	5.3	5.1
23	8.0	10	962	6,650	98	79	42	34	13	7.3	5.3	5.1
24	8.0	10	480	2,680	90	72	39	33	13	7.3	5.5	4.9
25	7.4	9.8	408	1,170	79	68	39	30	13	7.3	5.5	4.9
26	7.4	9.8	505	2,800	76	61	64	30	13	7.0	5.5	4.7
27	9.8	9.2	455	2,730	71	57	85	30	13	7.0	5.5	4.5
28	13	8.6	296	870	96	52	58	29	13	7.0	5.5	4.5
29	12	8.6	212	540	-----	51	48	27	13	7.0	5.5	4.5
30	10	8.6	185	468	-----	44	43	26	13	6.7	5.5	4.5
31	9.2	-----	153	400	-----	38	-----	24	-----	6.7	5.3	-----
TOTAL	497.4	940.4	8,695.2	35,498	4,351	4,173	1,222	1,826	516	274.0	176.9	147.0
MEAN	16.0	31.3	280	1,145	155	135	40.7	58.9	17.2	8.84	5.71	4.90
MAX	58	303	2,180	6,650	480	463	110	197	24	12	6.7	5.3
MIN	6.8	8.4	8.0	72	71	38	22	24	13	6.7	5.3	4.5
AC-FT	987	1,870	17,250	70,410	8,630	8,280	2,420	3,620	1,020	543	351	292
CAL YR 1969	TOTAL	44,309.8	MEAN	121	MAX	2,180	MIN	5.0	AC-FT	87,890		
WTR YR 1970	TOTAL	58,316.9	MEAN	160	MAX	6,650	MIN	4.5	AC-FT	115,700		

DATE	TIME	PEAK DISCHARGE (BASE, 3,000 CFS)	NOTE
		G.H. DISCHARGE DATE	
		TIME	
12-21	0815	7.51 4,000 1-23	unknown 8,200
1-17	unknown	- 7,500 1-26	2245 10.43 7,410

NOTE.--No gage-height record Jan. 12-25.

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.--19 years, 1,053 cfs (762,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 28,000 cfs Jan. 27 (gage height, 18.56 ft); minimum daily, 13 cfs Sept. 27-30.

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 fair. No regulation or diversion above station. Records of water temperatures and suspended-sediment loads for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	65	63	1,210	3,170	992	468	370	275	103	38	22
2	26	60	61	1,080	2,520	784	440	350	265	101	37	22
3	26	56	61	974	2,190	724	412	335	255	97	36	21
4	25	237	58	900	1,870	718	404	320	247	94	35	21
5	23	1,290	58	810	1,580	712	372	312	240	91	34	21
6	22	655	58	725	985	650	360	305	233	89	33	20
7	22	406	56	685	1,140	2,190	340	300	228	86	32	20
8	161	566	88	660	1,020	3,000	315	450	225	83	31	20
9	168	430	145	860	922	2,150	288	800	222	81	30	20
10	118	321	264	1,150	838	1,960	392	1,610	255	78	29	20
11	100	252	546	1,030	790	1,620	328	1,500	225	74	29	19
12	72	201	2,180	1,200	814	1,380	276	1,900	206	71	28	19
13	53	168	2,250	2,020	992	1,300	256	1,380	194	68	27	19
14	43	148	2,210	3,080	929	2,210	264	1,040	182	66	27	19
15	48	137	1,700	3,180	772	2,060	248	880	174	64	27	19
16	212	150	1,210	6,330	2,420	1,540	236	760	166	62	26	18
17	502	137	998	12,000	4,610	1,240	252	670	158	60	26	18
18	367	120	880	8,460	2,650	1,080	248	610	152	58	26	18
19	209	108	1,370	6,650	2,010	943	525	570	145	56	25	18
20	148	104	2,570	6,430	1,500	874	424	530	139	54	25	17
21	110	98	10,300	9,650	1,130	814	364	490	136	52	25	17
22	92	94	4,680	16,400	957	748	308	460	132	50	25	17
23	78	90	5,780	19,100	880	690	272	435	129	49	24	17
24	70	86	3,710	15,900	814	660	248	415	126	48	24	16
25	61	84	3,270	10,600	760	650	268	390	122	47	24	16
26	60	78	3,660	11,600	700	595	432	365	119	46	23	15
27	96	76	3,150	19,000	670	575	515	345	115	44	23	13
28	120	72	2,370	8,860	814	545	428	330	111	43	23	13
29	94	68	1,960	5,300	-----	545	404	315	108	41	23	13
30	78	68	1,630	4,320	-----	515	392	300	105	40	22	13
31	70	-----	1,370	3,540	-----	488	-----	285	-----	39	22	-----
TOTAL	3,296	6,425	58,706	183,704	40,447	34,952	10,479	19,122	5,389	2,035	859	541
MEAN	106	214	1,894	5,926	1,445	1,127	349	617	180	65.6	27.7	18.0
MAX	502	1,290	10,300	19,100	4,610	3,000	525	1,900	275	103	38	22
MIN	22	56	56	660	670	488	236	285	105	39	22	13
AC-FT	6,540	12,740	116,400	364,400	80,230	69,330	20,790	37,930	10,690	4,040	1,700	1,070
CAL YR 1969	TOTAL 373,332		MEAN 1,023		MAX 15,100		MIN 21		AC-FT 740,500			
WTR YR 1970	TOTAL 365,955		MEAN 1,003		MAX 19,100		MIN 13		AC-FT 725,900			

PEAK DISCHARGE (BASE, 9,000 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1100	15.39	15,900	1-22	1100	17.85	24,500
1-17	1315	14.81	14,200	1-27	0245	18.56	28,000

NOTE.--No gage-height record May 1 to Sept. 21.

BUTTE VALLEY BASIN

455

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.--18 years, 37.0 cfs (26,810 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,170 cfs Jan. 23 (gage height, 4.93 ft), from rating curve extended as explained below; minimum daily, 13 cfs several days in August and September.

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 fair prior to Apr. 3, good thereafter. No storage or diversion above station.

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	14	14	15	35	72	35	33	30	66	29	16	13
2	14	14	14	32	65	35	34	32	72	28	16	13
3	14	14	14	27	63	34	34	34	80	27	15	13
4	14	21	14	26	60	33	34	38	81	26	15	13
5	14	41	16	25	57	33	36	41	80	26	15	14
6	14	21	14	25	54	33	38	43	82	25	15	14
7	14	19	14	25	51	36	37	44	74	24	15	14
8	14	20	15	26	49	34	36	49	71	23	15	13
9	15	19	14	27	48	33	37	54	62	23	15	13
10	15	18	15	27	47	31	40	52	62	22	14	13
11	14	17	15	26	46	31	38	50	52	22	14	13
12	14	17	26	29	63	31	37	47	48	21	14	13
13	14	17	48	49	51	33	39	46	54	21	14	13
14	14	17	39	80	47	51	37	45	52	20	14	13
15	21	17	30	49	45	40	36	47	46	20	14	13
16	23	17	25	53	44	39	35	53	45	19	14	13
17	18	16	25	60	43	35	34	67	44	19	13	13
18	17	15	25	52	41	34	34	79	43	19	13	13
19	16	15	44	62	41	35	35	82	43	18	13	13
20	15	15	78	69	40	36	32	80	44	18	14	13
21	15	15	345	141	39	36	32	76	43	18	14	13
22	15	15	112	434	38	35	31	76	42	18	14	13
23	15	14	80	806	37	34	31	78	40	18	13	13
24	15	14	65	530	37	33	31	75	38	17	13	13
25	15	14	59	272	36	34	31	79	36	17	13	13
26	14	14	50	186	36	35	31	89	35	17	13	13
27	14	14	46	150	36	36	30	92	33	17	13	13
28	14	14	43	123	36	35	29	82	33	17	13	13
29	14	16	44	106	-----	34	28	75	32	17	13	13
30	14	14	40	93	-----	33	29	70	30	16	13	13
31	14	-----	40	81	-----	33	-----	65	-----	16	13	-----
TOTAL	467	508	1,424	3,726	1,322	1,080	1,019	1,870	1,563	638	433	393
MEAN	15.1	16.9	45.9	120	47.2	34.8	34.0	60.3	52.1	20.6	14.0	13.1
MAX	23	41	345	806	72	51	40	92	82	29	16	14
MIN	14	14	14	25	36	31	28	30	30	16	13	13
AC-FT	926	1,010	2,820	7,390	2,620	2,140	2,020	3,710	3,100	1,270	859	780
CAL YR 1969	TOTAL 16,036		MEAN 43.9		MAX 345		MIN 14		AC-FT 31,810			
WTR YR 1970	TOTAL 14,443		MEAN 39.6		MAX 806		MIN 13		AC-FT 28,650			

PEAK DISCHARGE (BASE, 100 CFS).--Dec. 21 (0730) 593 cfs (3.89 ft); Jan. 23 (1630) 1,170 cfs (4.93 ft).

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.--11 years, 1,747 cfs (1,266,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,480 cfs Jan. 27 (gage height, 8.73 ft); minimum, 318 cfs May 10, 11; minimum daily, 350 cfs Aug. 29.

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 (see REMARKS for station at Keno, 11509500).

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	1,130	2,410	2,280	2,660	8,050	2,660	1,150	1,250	1,420	575	379	894
2	1,410	2,160	2,150	2,630	7,900	2,790	1,480	687	1,500	646	380	894
3	1,380	2,540	2,280	2,660	7,670	3,480	1,280	736	1,350	377	989	1,140
4	565	2,620	2,360	2,660	7,490	3,590	1,120	988	1,330	443	1,020	1,090
5	570	2,620	2,390	2,660	7,180	3,270	1,150	652	1,350	415	1,050	373
6	1,180	2,610	951	2,660	6,380	3,060	1,120	664	474	613	1,040	407
7	1,440	2,610	958	2,660	5,390	3,140	1,090	652	411	411	1,050	452
8	1,470	2,480	1,600	2,660	4,360	3,430	1,090	675	1,290	407	384	1,160
9	1,780	2,360	1,900	2,660	3,830	3,990	1,180	755	1,250	381	407	1,190
10	1,360	2,500	1,900	2,660	2,760	4,370	1,290	794	411	544	1,180	1,470
11	1,030	2,610	1,900	2,540	2,760	4,220	1,970	922	570	388	1,480	1,290
12	1,030	2,610	1,910	2,660	3,080	4,410	867	915	607	431	1,460	377
13	1,390	2,610	973	2,660	3,730	4,660	1,050	1,120	658	751	1,090	363
14	1,540	2,580	973	2,660	4,030	5,010	1,000	1,520	396	609	1,090	1,180
15	1,490	2,360	1,810	2,650	4,010	4,780	1,050	2,070	629	607	373	1,480
16	1,570	2,360	1,870	2,650	3,900	4,550	995	2,070	403	607	911	2,090
17	1,480	2,520	1,420	2,650	4,240	4,040	1,030	2,080	554	570	1,090	1,820
18	1,180	2,610	2,010	2,500	4,880	3,750	736	2,210	539	427	1,470	1,450
19	1,140	2,600	2,580	2,650	5,070	3,210	951	2,060	544	381	1,470	1,090
20	1,530	2,600	2,600	2,630	4,780	2,840	1,030	1,810	377	742	1,190	860
21	1,490	2,540	2,320	2,630	4,390	2,610	1,030	1,450	435	699	1,400	1,180
22	1,600	2,120	2,290	2,670	4,450	2,600	980	894	529	693	1,060	1,490
23	2,630	2,180	2,620	3,090	4,320	2,600	980	544	670	552	1,060	1,500
24	2,620	2,410	2,610	4,990	3,900	2,600	980	385	377	648	1,220	1,490
25	2,630	2,340	2,630	6,380	3,450	2,610	675	867	381	384	1,470	1,430
26	2,700	2,290	2,630	7,350	2,740	2,610	724	1,020	607	378	1,430	965
27	2,620	2,280	2,650	8,170	2,770	2,610	1,210	1,450	385	673	1,180	749
28	2,620	2,290	2,660	8,620	2,800	2,440	1,240	1,450	396	655	880	1,180
29	2,620	2,290	2,660	8,930	-----	2,380	1,250	1,460	591	646	350	1,480
30	2,620	2,300	2,660	8,740	-----	2,280	1,250	1,480	385	725	373	1,480
31	2,620	-----	2,660	8,230	-----	1,600	-----	1,270	-----	651	901	-----
TOTAL	52,435	73,410	65,205	122,620	130,310	102,190	32,948	36,900	20,819	17,029	30,827	34,014
MEAN	1,691	2,447	2,103	3,955	4,654	3,296	1,098	1,190	694	549	994	1,134
MAX	2,700	2,620	2,660	8,930	8,050	5,010	1,970	2,210	1,500	751	1,480	2,090
MIN	565	2,120	951	2,500	2,740	1,600	675	385	377	377	350	363
AC-FT	104,000	145,600	129,300	243,200	258,500	202,700	65,350	73,190	41,290	33,780	61,150	67,470
CAL YR 1969	TOTAL	710,314		MEAN	1,946	MAX	7,080	MIN	374	AC-FT	1,409,000	
WTR YR 1970	TOTAL	718,707		MEAN	1,969	MAX	8,930	MIN	350	AC-FT	1,426,000	

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 September 1970. Pressure device and telemark. Datum of gage is at mean sea level. Reservoir is formed by gravity type dam completed in 1922. Capacity is 77,000 acre-ft. Record of contents furnished by Pacific Power and Light Company.

11516510. IRON GATE RESERVOIR NEAR HORNBOOK.--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 September 1970. Pressure device and telemark. Datum of gage is at mean sea level. Reservoir is formed by earthfill and rockfill dam completed in 1962. Capacity is 58,000 acre-ft. Record of contents furnished by Pacific Power and Light Company.

MONTHEND ELEVATIONS AND CONTENTS, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

Date	Elevation (feet)a	Copco Lake		Change in contents (acre-feet)	Iron Gate Reservoir		Change in contents (acre-feet)
		Contents (acre-feet)			Elevation (feet)a	Contents (acre-feet)	
Oct. 31.....	2,606.37	45,753		+1,553	2,328.40	59,190	+4,990
Nov. 30.....	2,603.67	43,144		-2,609	2,328.32	59,111	-79
Dec. 31.....	2,605.36	44,769		+1,625	2,328.47	59,259	+148
CAL YR 1969.....	-	-		+2,269	-	-	+1,359
Jan. 31.....	2,601.92	41,490		-3,279	2,329.95	60,744	+1,485
Feb. 28.....	2,605.79	45,186		+3,696	2,328.54	59,329	-1,415
Mar. 31.....	2,604.39	43,833		-1,353	2,326.67	57,507	-1,822
Apr. 30.....	2,603.93	42,391		-1,442	2,325.42	56,322	-1,185
May 31.....	2,604.37	43,814		+1,423	2,326.75	57,583	+1,261
June 30.....	2,606.35	45,734		+1,920	2,325.15	56,069	-1,514
July 31.....	2,601.63	41,220		-4,514	2,325.00	55,928	-141
Aug. 31.....	2,606.29	45,675		+4,455	2,325.17	56,088	+160
Sept. 30.....	2,602.95	42,460		-3,215	2,324.43	55,401	-687
WTR YR 1970.....	-	-		-1,740	-	-	+1,201

a 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.--10 years, 2,105 cfs (1,525,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 14,900 cfs Jan. 26 (gage height, 10.16 ft); minimum daily, 694 cfs June 11.

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 water year 1970 are published in Part 2 of this report.

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	1,320	2,930	2,560	2,970	9,110	3,600	1,600	1,020	1,260	716	1,040	1,330
2	1,330	2,630	2,560	2,940	9,010	3,970	1,540	1,020	1,210	716	1,040	1,320
3	1,320	2,750	2,580	2,940	8,820	4,840	1,500	1,020	1,640	716	1,040	1,320
4	1,320	2,960	2,580	2,980	8,510	4,820	1,500	1,010	1,610	710	1,040	1,330
5	1,320	2,960	2,370	2,930	7,930	4,630	1,500	1,020	1,600	776	1,040	1,330
6	1,320	2,930	1,720	2,910	7,450	3,870	1,500	1,020	1,080	721	1,010	1,320
7	1,310	2,900	1,710	2,930	6,940	4,550	1,500	1,030	904	721	1,020	1,310
8	1,310	2,900	1,690	2,930	6,440	4,900	1,500	1,040	787	721	1,010	1,300
9	1,320	2,900	1,710	2,960	5,360	5,020	1,500	1,040	770	721	1,010	1,300
10	1,310	2,900	1,720	2,970	4,060	5,780	1,500	1,020	732	721	1,010	1,300
11	1,310	2,940	1,720	2,970	3,760	5,560	1,500	1,120	694	721	1,010	1,300
12	1,310	2,960	1,760	2,970	3,780	5,600	1,500	1,330	738	721	1,010	1,300
13	1,310	2,680	1,760	3,050	3,790	5,840	1,500	1,510	732	716	1,010	1,300
14	1,310	2,870	1,730	3,640	4,280	6,260	1,440	1,790	754	716	1,010	1,300
15	1,310	2,940	1,700	3,640	4,990	6,020	1,340	1,830	738	721	1,010	1,310
16	1,320	2,930	1,690	4,470	5,110	5,840	1,340	2,670	704	721	1,010	1,310
17	1,310	2,930	1,690	4,380	5,180	5,220	1,340	2,930	699	716	1,010	1,320
18	1,310	2,970	2,040	3,930	5,660	4,990	1,340	2,460	699	710	1,010	1,320
19	1,310	2,930	3,190	3,820	6,300	4,340	1,340	1,820	699	704	1,010	1,320
20	1,310	2,670	3,430	3,870	5,860	3,710	1,330	1,820	704	704	1,020	1,310
21	1,460	2,550	5,440	3,870	5,380	3,480	1,330	1,810	704	704	1,020	1,300
22	1,770	2,560	3,990	5,400	5,500	3,470	1,330	1,040	704	704	1,020	1,300
23	1,940	2,550	4,550	6,770	5,460	3,470	1,330	1,010	704	704	1,020	1,300
24	2,720	2,550	3,780	9,750	5,080	3,460	1,330	1,010	716	704	1,020	1,310
25	2,770	2,560	3,690	9,350	4,230	3,440	1,330	1,010	716	704	1,020	1,310
26	2,760	2,580	3,010	9,940	3,440	3,440	1,320	1,220	838	699	1,020	1,310
27	2,770	2,580	2,960	12,700	3,400	3,300	1,320	1,810	743	699	1,020	1,310
28	2,860	2,560	2,900	11,100	3,540	3,120	1,320	1,820	721	699	1,020	1,300
29	2,930	2,560	2,870	10,400	-----	3,100	1,320	1,830	716	699	1,030	1,310
30	2,910	2,560	2,970	10,100	-----	2,800	1,330	1,820	716	704	1,020	1,310
31	2,910	-----	3,000	9,570	-----	1,730	-----	1,340	-----	710	1,030	-----
TOTAL	54,090	83,190	81,070	165,150	158,370	134,170	42,370	45,240	26,032	22,119	31,610	39,310
MEAN	1,745	2,773	2,615	5,327	5,656	4,328	1,412	1,459	868	714	1,020	1,310
MAX	2,930	2,970	5,440	12,700	9,110	6,260	1,600	2,930	1,640	776	1,040	1,330
MIN	1,310	2,550	1,690	2,910	3,400	1,730	1,320	1,010	694	699	1,010	1,300
AC-FT	107,300	165,000	160,800	327,600	314,100	266,100	84,040	89,730	51,630	43,870	62,700	77,970
CAL YR 1969	TOTAL	844,494	MEAN	2,314	MAX	8,590	MIN	680	ACFT	1,675,000		
WAT YR 1970	TOTAL	882,721	MEAN	2,418	MAX	12,700	MIN	694	ACFT	1,751,000		

11516600 COTTONWOOD CREEK AT HORN BROOK, CALIF.

LOCATION.--Lat 41°55'06", long 122°33'45", in SW¼SE¼ 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 current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 2,160 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 52.4 cfs (37,960 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,090 cfs Jan. 26 (gage height, 8.65 ft); minimum daily, 0.37 cfs Aug. 28 to Sept. 3.

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.

REVISIONS.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in WRD California for years indicated.

Water year	Date	Discharge (cfs)	Gage height (feet)
1966	Jan. 6, 1966	945	5.92
1967	Jan. 28, 1967	990	6.05
1968	Feb. 23, 1968	1,020	6.10
1969	Jan. 13, 1969	920	5.92

REMARKS.--Records good. Some diversion above station for irrigation. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

REVISIONS.--Revised figures of discharge, in cubic feet per second, for highwater periods in water years 1966-69, superseding figures published in WRD Calif., 1966-69, are given below:

Jan. 6, 1966.....	631	Feb. 23, 1968.....	669
Jan. 28, 1967.....	826	Jan. 13, 1969.....	581
29.....	800	20.....	414
Feb. 22, 1968.....	451		

Month	Cfs-days	Max	Min	Mean	Ac-ft
January 1966	2,411	631	15	77.8	4,780
WTR YR 1966	13,053.60	631	.10	35.8	25,890
January 1967	3,332	826	16	107	6,610
CAL YR 1966	14,475.06	631	.10	39.7	28,710
WTR YR 1967	16,424.07	826	.05	45.0	32,580
February 1968	3,880	669	22	134	7,700
CAL YR 1967	14,801.53	826	.05	40.6	29,360
WTR YR 1968	8,280.59	669	.08	22.6	16,420
January 1969	3,904	581	20	126	7,740
CAL YR 1968	8,661.81	669	.08	23.7	17,180
WTR YR 1969	19,658.25	581	.29	53.9	38,990

REVISED PEAK DISCHARGE.--1966: Jan. 6 (0430) 945 cfs (5.97 ft); Mar. 9 (2400) 658 cfs (5.43 ft).
 1967: Dec. 4 (1930) 634 cfs (5.39 ft); Jan. 28 (0945) 990 cfs (6.05 ft); Mar. 16 (unknown) 628 cfs (5.38 ft).
 1968: Feb. 23 (0315) 1,020 cfs (6.10 ft)
 1969: Jan. 13 (0600) 920 cfs (5.92 ft); Jan. 20 (2245) 744 cfs (5.58 ft).

KLAMATH RIVER BASIN

11516600 COTTONWOOD CREEK AT HORN BROOK, CALIF.--Continued

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	1.2	7.1	7.7	28	203	122	60	30	14	7.2	.70	.37
2	1.3	6.8	8.1	24	169	113	58	30	14	6.8	.77	.37
3	1.3	6.8	9.0	22	152	111	55	28	14	6.8	.70	.37
4	1.4	7.7	9.0	23	135	103	52	31	13	5.5	.70	.42
5	1.4	18	8.5	18	121	94	51	29	13	5.5	.70	.42
6	1.5	12	9.0	18	111	98	51	28	24	7.6	.70	.47
7	1.5	11	8.5	21	103	269	49	28	34	5.1	.70	.47
8	2.0	11	12	20	98	249	46	29	19	4.7	.64	.42
9	2.2	10	11	21	95	220	43	29	21	4.3	.64	.42
10	3.5	9.6	9.6	21	91	215	44	29	18	5.5	.58	.47
11	3.9	9.6	15	23	88	196	43	29	17	5.5	.58	.42
12	3.7	9.6	84	28	91	176	42	28	15	4.7	.58	.42
13	4.0	9.0	33	47	89	160	42	27	15	2.2	.52	.42
14	5.3	9.0	55	212	82	163	39	26	15	2.0	.52	.47
15	6.5	8.5	27	139	78	140	38	26	16	2.0	.52	.47
16	9.9	8.5	21	701	121	127	37	25	14	2.4	.52	.52
17	9.4	8.5	19	492	144	117	35	26	13	2.2	.52	.47
18	8.7	9.0	18	263	110	108	34	25	11	2.2	.47	.52
19	8.0	9.0	85	227	94	102	34	25	11	2.0	.47	.52
20	7.7	8.5	127	214	88	98	34	24	11	1.6	.47	.52
21	7.4	9.0	574	250	85	92	33	22	10	1.4	.47	.58
22	7.1	9.0	120	1,040	80	87	31	20	10	1.4	.47	.58
23	7.1	9.0	335	1,040	77	83	29	20	8.0	1.1	.47	.58
24	7.1	9.0	123	1,100	73	79	31	20	7.6	.92	.47	.58
25	7.1	8.5	97	448	70	75	30	19	7.2	.92	.42	.58
26	7.1	8.5	75	794	69	73	32	19	7.2	.84	.42	.58
27	7.1	8.5	58	1,080	66	70	32	17	7.2	.77	.42	.58
28	8.5	8.5	47	521	107	67	31	17	7.2	.77	.37	.58
29	8.3	7.7	39	370	-----	66	32	17	6.8	.77	.37	.58
30	7.3	7.7	34	294	-----	64	31	16	7.2	.77	.37	.58
31	7.1	-----	30	241	-----	61	-----	15	-----	.70	.37	-----
TOTAL	165.6	274.6	2,108.4	9,740	2,890	3,798	1,199	754	400.4	96.16	16.62	14.75
MEAN	5.34	9.15	68.0	314	103	123	40.0	24.3	13.3	3.10	.54	.49
MAX	9.9	18	574	1,100	203	269	60	31	34	7.6	.77	.58
MIN	1.2	6.8	7.7	18	66	61	29	15	6.8	.70	.37	.37
AC-FT	328	545	4,180	19,320	5,730	7,530	2,380	1,500	794	191	33	29
CAL YR 1969	TOTAL	21,072.81	MEAN	57.7	MAX	581	MIN	.61	AC-FT	41,800		
WTR YR 1970	TOTAL	21,457.53	MEAN	58.8	MAX	1,100	MIN	.37	AC-FT	42,560		

PEAK DISCHARGE (BASE, 400 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0630	6.72	1,450	1-24	0030	7.94	2,430
12-23	0300	5.37	622	1-26	2330	8.65	3,090
1-16	1400	6.79	1,500				

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.--13 years, 17.4 cfs (12,610 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 575 cfs Jan. 23 (gage height, 4.66 ft); minimum daily, 2.5 cfs Nov. 17, 20-22.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	3.5	3.8	18	38	22	20	25	28	10	6.4	5.0
2	5.6	3.2	3.8	17	33	21	21	28	27	9.4	6.4	5.1
3	5.0	3.2	3.8	16	37	21	20	31	26	9.0	6.2	5.0
4	4.7	5.3	3.8	15	35	20	21	33	25	8.8	6.2	5.2
5	4.7	14	3.8	14	33	19	22	33	23	8.7	6.1	5.3
6	4.7	7.3	3.8	14	32	26	24	31	24	8.6	6.0	5.5
7	4.4	5.3	3.8	14	32	62	22	32	22	8.2	6.0	5.3
8	6.6	4.7	3.8	15	33	63	21	41	23	7.9	5.9	5.1
9	6.0	4.4	5.0	14	32	44	23	41	24	7.8	5.8	5.0
10	6.0	4.4	9.5	4.7	31	36	31	40	25	7.6	5.8	5.0
11	5.3	4.4	19	7.3	30	35	27	38	20	7.7	5.7	4.9
12	4.8	3.8	30	12	35	35	24	40	19	7.7	5.6	4.8
13	4.4	3.8	23	26	32	37	25	41	23	7.5	5.5	4.8
14	4.7	3.2	14	88	29	45	25	40	20	7.4	5.5	4.8
15	6.6	3.8	9.5	53	27	40	24	40	17	7.2	5.3	4.8
16	11	3.8	6.0	75	26	36	24	40	16	7.1	5.3	4.8
17	8.1	2.5	6.6	82	27	33	22	41	15	7.0	5.2	4.7
18	6.0	3.2	6.2	58	25	29	22	42	14	7.2	5.2	4.7
19	5.3	3.1	31	46	22	27	27	42	14	7.2	5.2	4.7
20	5.3	2.5	47	40	21	26	24	41	13	7.0	5.2	4.6
21	5.0	2.5	178	73	21	25	23	40	13	7.0	5.1	4.5
22	4.7	2.5	70	218	20	25	22	39	14	7.0	5.1	4.5
23	4.4	3.2	48	269	19	25	23	38	12	6.8	5.1	4.5
24	4.4	3.2	42	160	19	25	23	37	12	6.6	5.1	4.5
25	4.4	3.2	40	88	17	25	22	36	11	6.5	5.0	4.4
26	4.4	3.2	34	99	17	25	23	36	11	6.5	5.0	4.4
27	4.4	3.8	28	116	17	23	23	35	11	6.6	5.0	4.3
28	4.4	3.8	26	65	21	23	23	34	14	6.7	5.0	4.2
29	4.4	3.8	24	51	-----	23	21	33	12	6.4	5.0	4.2
30	4.4	3.8	23	47	-----	21	23	31	11	6.4	5.0	4.2
31	3.8	-----	22	40	-----	20	-----	30	-----	6.4	5.0	-----
TOTAL	162.6	122.4	772.2	1,855.0	761	937	695	1,129	539	231.9	169.9	142.8
MEAN	5.25	4.08	24.9	59.8	27.2	30.2	23.2	36.4	18.0	7.48	5.48	4.76
MAX	11	14	178	269	38	63	31	42	28	10	6.4	5.5
MIN	3.8	2.5	3.8	4.7	17	19	20	25	11	6.4	5.0	4.2
AC-FT	323	243	1,530	3,680	1,510	1,860	1,380	2,240	1,070	460	337	283

CAL YR 1969 TOTAL 9,393.4 MEAN 25.7 MAX 178 MIN 1.0 ACFT 18,630
WAT YR 1970 TOTAL 7,517.8 MEAN 20.6 MAX 269 MIN 2.5 ACFT 14,910

KLAMATH RIVER BASIN

11517500 SHASTA RIVER NEAR YREKA, CALIF.

LOCATION.--Lat 41°49'23", long 122°35'40", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--33 years, 181 cfs (131,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,570 cfs Jan. 27 (gage height, 8.84 ft); minimum daily, 11 cfs Aug. 15.

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 water year 1970 are published in Part 2 of this report.

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	99	199	189	278	822	529	221	177	121	92	24	24
2	109	199	188	266	736	520	202	191	100	66	23	22
3	110	198	187	251	686	452	184	173	83	52	25	43
4	129	200	188	241	653	423	157	156	73	46	32	36
5	166	208	187	236	600	389	154	112	66	64	27	78
6	166	219	185	225	557	360	145	115	70	94	24	64
7	164	207	186	225	528	410	148	126	70	75	23	70
8	166	201	191	239	504	629	132	136	75	58	27	69
9	180	201	197	251	488	568	118	132	78	55	28	43
10	190	199	193	266	472	562	124	140	76	43	33	36
11	198	199	193	275	458	532	107	195	73	32	25	33
12	192	196	303	264	439	509	117	206	53	32	22	34
13	185	195	386	275	467	473	128	203	68	29	16	30
14	182	195	307	487	466	464	161	181	101	18	12	28
15	196	200	292	553	431	452	180	155	100	20	11	55
16	213	206	256	772	454	434	183	133	98	22	14	48
17	223	200	232	1,080	536	417	182	113	92	14	17	45
18	221	194	224	780	595	402	162	107	87	18	16	50
19	212	193	277	637	493	378	146	116	93	15	17	56
20	206	192	444	572	428	353	136	131	93	18	21	62
21	206	194	1,260	549	419	345	140	123	79	28	25	56
22	206	194	937	1,640	403	335	155	112	84	30	31	69
23	206	193	1,350	2,050	390	321	147	108	83	33	28	78
24	203	191	1,040	3,950	384	312	131	112	86	27	21	70
25	203	192	768	2,340	375	301	128	114	87	16	21	64
26	201	194	562	1,950	350	283	139	93	81	13	18	78
27	199	192	438	4,010	341	266	166	91	65	13	25	95
28	199	191	379	2,160	400	250	150	97	80	18	29	112
29	198	191	343	1,480	-----	237	161	117	89	21	19	111
30	197	190	307	1,170	-----	237	181	117	91	21	34	115
31	193	-----	288	967	-----	236	-----	113	-----	23	27	-----
TOTAL	5,723	5,923	12,477	30,439	13,875	12,379	4,585	4,195	2,495	1,106	715	1,774
MEAN	185	197	402	982	496	399	153	135	83.2	35.7	23.1	59.1
MAX	223	219	1,350	4,010	822	629	221	206	121	94	34	115
MIN	99	190	185	225	341	236	107	91	53	13	11	22
AC-FT	11,350	11,750	24,750	60,380	27,520	24,550	9,090	8,320	4,950	2,190	1,420	3,520

CAL YR 1969	TOTAL 77,065	MEAN 211	MAX 2,090	MIN 16	AC-FT 152,900
WTR YR 1970	TOTAL 95,686	MEAN 262	MAX 4,010	MIN 11	AC-FT 189,800

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-13	0030	4.13	438	1-27	0230	8.84	5,570
12-21	1000	5.97	1,680	2-18	0700	4.46	630
1-17	0500	5.41	1,210	3- 1	0100	4.31	555
1-24	0230	8.44	4,750	3- 8	0800	4.61	706

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.

AVERAGE DISCHARGE.--11 years, 103 cfs (74,620 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,720 cfs Dec. 21 (gage height, 9.30 ft); minimum daily, 0.72 cfs Aug. 22, 23, Sept. 23, 24.

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	8.8	10	81	238	134	102	70	166	34	1.4	.88
2	5.0	8.2	10	76	208	125	104	92	180	33	1.3	.93
3	5.0	8.2	10	72	197	116	102	148	182	31	1.3	.93
4	5.0	8.8	10	68	186	114	96	237	166	29	1.3	.93
5	5.4	15	9.8	63	181	110	96	261	158	28	1.4	.98
6	5.4	13	10	63	174	110	106	230	177	27	1.4	.98
7	5.4	16	10	65	167	153	108	182	163	24	1.5	.98
8	5.7	38	12	63	160	198	106	177	138	22	1.4	.93
9	5.7	22	12	260	158	173	106	188	118	21	1.2	.93
10	6.0	17	12	168	155	160	112	168	100	19	1.2	.88
11	6.0	16	102	117	158	149	116	150	88	18	1.1	.88
12	6.0	16	462	150	286	141	114	132	79	17	1.1	.84
13	6.0	16	230	227	265	141	129	118	90	16	.98	.80
14	6.0	16	525	544	214	185	127	118	106	15	.93	.80
15	10	16	164	323	182	180	114	153	88	15	.88	.80
16	12	16	96	550	230	166	106	244	86	13	.84	.80
17	13	14	71	480	220	160	98	334	81	12	.84	.76
18	13	13	79	319	182	150	96	339	75	10	.80	.76
19	13	13	777	396	166	141	98	306	73	9.5	.76	.76
20	12	13	856	373	155	134	90	261	73	9.0	.76	.76
21	11	12	2,800	834	146	129	83	244	73	8.5	.76	.76
22	11	12	634	1,540	136	127	81	237	86	8.0	.72	.76
23	11	12	470	2,440	129	127	79	244	70	7.5	.72	.72
24	10	12	298	1,700	125	129	77	227	63	7.5	.76	.72
25	10	12	259	719	121	132	77	240	54	7.2	.80	.76
26	9.8	12	200	1,420	116	127	77	261	50	6.9	.84	.76
27	8.8	12	158	1,090	116	123	75	230	49	6.6	.88	.76
28	8.8	11	131	560	121	121	72	188	52	2.6	.88	.76
29	8.8	10	113	423	-----	121	70	168	46	1.4	.88	.80
30	8.8	10	97	334	-----	116	65	158	39	1.4	.88	.80
31	8.8	-----	88	279	-----	110	-----	153	-----	1.4	.88	-----
TOTAL	257.4	419.0	8,715.8	15,797	4,892	4,302	2,882	6,258	2,969	461.5	31.39	24.91
MEAN	8.30	14.0	281	510	175	139	96.1	202	99.0	14.9	1.01	.83
MAX	13	38	2,800	2,440	286	198	129	339	182	34	1.5	.98
MIN	5.0	8.2	9.8	63	116	110	65	70	39	1.4	.72	.72
AC-FT	511	831	17,290	31,330	9,700	8,530	5,720	12,410	5,890	915	62	49
CAL YR 1969	TOTAL	58,682.60	MEAN	161	MAX	2,800	MIN	2.3	ACFT	116,400		
WAT YR 1970	TOTAL	47,010.00	MEAN	129	MAX	2,800	MIN	.72	ACFT	93,240		

PEAK DISCHARGE (BASE, 550 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-12	0600	5.83	757	1-14	0400	5.34	698
12-14	0600	6.41	1,310	1-16	0100	5.29	664
12-19	1330	6.91	1,860	1-23	1530	7.82	3,640
12-21	0530	9.30	6,720	1-26	2000	7.65	3,360
1-9	1600	5.18	599				

KLAMATH RIVER BASIN

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, 72 cfs Jan. 27 (gage height, 8.35 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 fair. No regulation or diversion above station.

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			0	.24	1.7	.54	.08	.36	.16	.01		
2			0	.21	1.6	.54	.08	.18	.16	0		
3			0	.16	1.6	.42	.08	.16	.14	0		
4			0	.14	1.8	.36	.08	.14	.16	0		
5			0	.12	1.7	.36	.06	.14	.14	0		
6			0	.12	1.6	.36	.06	.16	.14	0		
7			0	.12	1.5	.39	.06	.16	.14	0		
8			0	.12	1.4	.42	.06	.16	.18	0		
9			0	.14	1.2	.42	.06	.18	.16	0		
10			0	.14	1.2	.39	.04	.18	.12	0		
11			0	.14	1.3	.39	.04	.16	.09	0		
12			.29	.16	1.6	.39	.04	.16	.12	0		
13			.14	.24	1.4	.36	.12	.14	.14	0		
14			.21	1.6	1.0	.33	.09	.14	.16	0		
15			.09	1.4	.94	.33	.06	.14	.14	0		
16			.06	3.8	1.2	.30	.06	.14	.14	0		
17			.03	3.7	1.6	.27	.04	.16	.14	0		
18			.02	2.3	1.4	.24	.04	.18	.12	0		
19			.18	2.2	1.1	.21	.04	.21	.12	0		
20			.60	1.9	.99	.21	.03	.21	.09	0		
21			5.3	3.2	.66	.18	.03	.18	.09	0		
22			1.2	14	.46	.16	.03	.18	.12	0		
23			2.9	19	.36	.16	.03	.21	.09	0		
24			1.4	13	.36	.14	.03	.24	.06	0		
25			1.1	7.0	.36	.14	.03	.27	.04	0		
26			.94	14	.36	.12	.03	.30	.02	0		
27			.74	25	.46	.12	.03	.33	.02	0		
28			.54	6.1	.54	.12	.03	.30	.03	0		
29			.42	3.9	-----	.08	.09	.27	.03	0		
30			.33	3.6	-----	.08	.36	.21	.02	0		
31		-----	.27	2.8	-----	.08	-----	.18	-----	0		-----
TOTAL	0	0	16.76	130.55	31.39	8.61	1.91	6.13	3.28	.01	0	0
MEAN	0	0	.54	4.21	1.12	.28	.064	.20	.11	.0003	0	0
MAX	0	0	5.3	25	1.8	.54	.36	.36	.18	.01	0	0
MIN	0	0	0	.12	.36	.08	.03	.14	.02	0	0	0
AC-FT	0	0	33	259	62	17	3.8	12	6.5	.02	0	0
(a)	1.28	.67	7.56	7.93	6.50	.75	1.78	.50	.58	.07	--	.26

CAL YR 1969 TOTAL 141.05 MEAN .39 MAX 12 MIN 0 ACFT 280
 WAT YR 1970 TOTAL 198.64 MEAN .54 MAX 25 MIN 0 ACFT 394

a Precipitation, in inches.

NOTE.--No gage-height record Jan. 22-28.

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.--29 years, 651 cfs (471,600 acre-ft per year); median of yearly mean discharges, 570 cfs (413,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,700 cfs Jan. 24 (gage height, 18.89 ft); minimum daily, 22 cfs July 21.

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 water year 1970 are published in Part 2 of this report.

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	81	103	102	657	2,490	1,230	750	334	870	278	70	31
2	81	103	100	607	2,180	1,060	711	342	961	248	66	29
3	78	101	100	555	2,040	967	698	393	1,050	224	63	29
4	76	101	100	518	1,950	932	674	641	1,020	186	62	30
5	76	127	100	475	1,770	917	666	843	972	172	62	32
6	77	161	100	456	1,640	875	676	826	965	166	60	35
7	76	152	100	467	1,570	1,200	678	760	959	170	61	36
8	78	140	103	456	1,490	1,610	662	745	865	148	60	38
9	81	147	105	472	1,440	1,440	641	906	805	147	59	39
10	81	143	105	650	1,380	1,340	695	869	711	125	59	43
11	84	128	121	545	1,340	1,220	754	789	621	117	57	72
12	93	123	574	530	1,400	1,140	702	736	548	109	55	57
13	96	124	1,000	1,030	1,680	1,140	737	681	524	74	48	51
14	134	123	1,100	4,030	1,460	1,300	741	626	548	71	33	48
15	103	120	956	2,520	1,320	1,340	675	644	530	77	32	47
16	97	120	593	2,860	1,440	1,230	632	841	478	105	34	47
17	103	120	508	4,880	1,840	1,140	594	1,320	462	76	36	46
18	127	120	452	3,740	1,500	1,110	557	1,440	452	71	36	45
19	126	120	673	3,230	1,330	1,050	557	1,390	444	69	37	46
20	120	116	1,500	3,670	1,230	1,000	533	1,240	457	51	38	57
21	117	110	8,000	5,530	1,200	959	501	1,160	432	22	39	60
22	114	111	5,600	13,700	1,120	931	469	1,110	431	26	53	61
23	114	108	3,300	15,000	1,070	912	454	1,210	408	33	63	60
24	113	108	1,930	17,200	1,030	908	441	1,140	411	40	56	59
25	111	107	1,530	8,250	996	913	402	1,180	381	44	53	58
26	110	105	1,330	6,630	965	875	408	1,320	352	81	50	58
27	108	105	1,090	13,800	955	879	400	1,290	322	94	48	57
28	107	105	960	6,650	1,040	851	376	1,070	300	89	47	57
29	105	105	864	4,350	-----	832	376	935	326	83	46	57
30	105	103	771	3,430	-----	810	350	882	281	78	46	56
31	104	-----	708	2,880	-----	781	-----	845	-----	73	45	-----
TOTAL	3,076	3,559	34,575	129,768	40,866	32,892	17,510	28,508	17,886	3,347	1,574	1,441
MEAN	99.2	119	1,115	4,186	1,460	1,061	584	920	596	108	50.8	48.0
MAX	134	161	8,000	17,200	2,490	1,610	754	1,440	1,050	278	70	72
MIN	76	101	100	456	955	781	350	334	281	22	32	29
AC-FT	6,100	7,060	68,580	257,400	81,060	65,240	34,730	56,550	35,480	6,640	3,120	2,860
CAL YR 1969	TOTAL 305,587		MEAN 937		MAX 8,000	MIN 31		AC-FT 606,100				
WTR YR 1970	TOTAL 315,002		MEAN 863		MAX 17,200	MIN 22		AC-FT 624,800				

PEAK DISCHARGE (BASE, 2,300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	unknown	14.0	9,880	1-24	0615	18.89	20,700
1-14	unknown	--	unknown	1-27	1030	18.07	18,000
1-17	1000	11.55	5,280				

KLAMATH RIVER BASIN

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.--6,980 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.--32 years, 4,058 cfs (2,940,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 56,000 cfs Jan. 24 (gage height, 20.24 ft); minimum daily, 956 cfs July 22.

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 excellent. Flow considerably regulated by reservoirs and powerplants above station. Large diversions above station for irrigation. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

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	1,630	3,310	2,990	4,560	16,000	6,580	3,690	2,440	3,250	1,470	1,050	1,240
2	1,640	3,220	2,990	4,450	15,300	6,370	3,560	2,280	3,170	1,420	1,290	1,460
3	1,650	3,020	3,000	4,360	14,900	7,240	3,390	2,400	3,530	1,370	1,280	1,460
4	1,650	3,350	3,000	4,310	14,200	7,040	3,320	2,670	3,690	1,310	1,280	1,480
5	1,690	3,720	2,990	4,200	12,900	6,840	3,280	2,930	3,560	1,280	1,280	1,520
6	1,710	3,520	2,510	4,070	11,900	6,140	3,280	2,940	3,380	1,390	1,260	1,540
7	1,710	3,450	2,300	4,080	11,100	7,080	3,270	2,840	2,960	1,310	1,250	1,530
8	1,800	3,380	2,330	4,080	10,100	8,800	3,210	2,840	2,630	1,250	1,260	1,520
9	1,790	3,370	2,330	4,150	9,200	8,700	3,140	3,060	2,500	1,200	1,250	1,500
10	1,830	3,380	2,340	4,310	7,880	8,880	3,280	3,020	2,340	1,180	1,230	1,480
11	1,790	3,370	2,500	4,310	7,000	8,700	3,320	2,910	2,110	1,140	1,220	1,470
12	1,770	3,400	3,520	4,310	6,920	8,540	3,210	3,050	2,000	1,130	1,210	1,490
13	1,750	3,380	4,230	4,850	7,220	8,560	3,250	3,080	2,000	1,110	1,210	1,480
14	1,750	3,110	4,390	7,100	7,080	9,230	3,270	3,420	2,030	1,050	1,200	1,470
15	1,790	3,360	4,150	8,460	7,820	9,210	3,080	3,510	2,040	1,050	1,180	1,480
16	1,980	3,370	3,340	12,000	8,140	8,840	2,980	4,180	1,920	1,040	1,180	1,500
17	2,000	3,350	3,120	18,400	8,900	8,360	2,910	5,280	1,840	1,100	1,170	1,500
18	1,940	3,370	3,000	13,600	8,420	7,720	2,860	5,520	1,810	1,060	1,170	1,500
19	1,920	3,360	4,420	11,500	8,020	7,160	2,880	4,600	1,770	1,030	1,160	1,500
20	1,880	3,250	7,370	12,000	8,300	6,430	2,790	4,330	1,790	1,020	1,170	1,500
21	1,880	3,040	19,400	14,800	8,300	5,920	2,730	4,210	1,770	991	1,170	1,510
22	2,210	3,010	15,200	35,400	8,100	5,800	2,680	3,810	1,760	956	1,180	1,500
23	2,370	3,010	12,400	38,100	8,040	5,710	2,660	3,410	1,730	984	1,200	1,530
24	2,810	3,000	9,720	47,600	7,760	5,680	2,640	3,350	1,710	970	1,200	1,520
25	3,190	3,000	7,840	30,000	7,120	5,650	2,610	3,380	1,660	970	1,190	1,520
26	3,200	3,000	6,800	25,400	5,960	5,650	2,610	3,560	1,610	977	1,180	1,520
27	3,190	3,010	5,860	43,400	5,740	5,540	2,600	4,110	1,740	991	1,170	1,530
28	3,240	3,000	5,320	29,600	6,010	5,230	2,580	4,110	1,530	977	1,180	1,540
29	3,310	3,000	4,950	22,700	-----	5,140	2,550	3,910	1,540	977	1,180	1,560
30	3,310	2,990	4,760	19,600	-----	5,100	2,550	3,830	1,510	977	1,170	1,560
31	3,300	-----	4,690	17,600	-----	4,230	-----	3,520	-----	977	1,170	-----
TOTAL	67,680	97,100	163,760	463,300	258,330	216,070	90,180	108,500	66,880	34,657	37,290	44,910
MEAN	2,183	3,237	5,283	14,950	9,226	6,970	3,006	3,500	2,229	1,118	1,203	1,497
MAX	3,310	3,720	19,400	47,600	16,000	9,230	3,690	5,520	3,690	1,470	1,290	1,560
MIN	1,630	2,990	2,300	4,070	5,740	4,230	2,550	2,280	1,510	956	1,050	1,240
AC-FT	134,200	192,600	324,800	919,000	512,400	428,600	178,900	215,200	132,700	68,740	73,960	89,080
CAL YR 1969	TOTAL	1,594,130	MEAN	4,367	MAX	19,400	MIN	1,060	ACFT	3,162,000		
WAT YR 1970	TOTAL	1,648,657	MEAN	4,517	MAX	47,600	MIN	956	ACFT	3,270,000		

11521500 INDIAN CREEK NEAR HAPPY CAMP, CALIF.

LOCATION.--Lat 41°50'07", long 123°22'55", in SW¹/₄SW¹/₄ 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.--118 sq mi.

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.--16 years (1911-14, 1957-70), 430 cfs (311,500 acre-ft per year)

EXTREMES.--Current year: Maximum discharge, 10,800 cfs Jan. 26 (gage height, 12.83 ft); minimum daily, 36 cfs Sept. 30.

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 except for period of no gage-height record, which are fair. Small diversions above station for irrigation.

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	52	65	57	353	1,170	588	332	272	176	88	52	40
2	55	63	56	330	1,030	540	326	265	174	85	52	40
3	53	62	56	311	946	498	315	258	169	83	51	40
4	52	118	56	298	872	476	308	252	160	80	50	42
5	52	323	55	279	796	452	296	251	157	78	49	44
6	50	168	56	265	761	446	281	252	152	76	50	43
7	50	131	56	258	740	892	292	265	144	73	50	43
8	81	115	74	274	720	812	285	289	139	72	50	42
9	80	105	76	522	705	689	280	325	147	70	49	40
10	100	96	88	644	692	605	312	283	149	69	48	39
11	70	92	568	553	677	584	300	265	135	68	47	38
12	63	91	1,450	787	699	570	288	247	129	67	46	38
13	60	85	1,060	1,460	678	626	280	235	126	66	46	38
14	58	80	1,560	1,760	620	700	273	252	126	66	46	38
15	67	77	641	1,600	577	830	266	293	121	65	45	39
16	175	74	467	4,060	901	820	264	348	118	63	44	38
17	178	72	399	4,080	879	740	258	340	115	63	44	37
18	123	69	455	2,620	773	630	247	323	112	62	43	38
19	95	68	886	2,690	710	590	352	299	109	61	43	39
20	85	67	1,870	2,450	659	560	326	267	108	60	43	40
21	97	65	5,280	3,950	622	560	315	247	109	59	43	39
22	89	64	1,790	6,510	590	580	304	245	109	59	42	39
23	80	63	1,980	6,040	561	620	292	245	102	58	42	38
24	74	63	1,160	5,460	542	630	283	227	99	57	42	38
25	70	62	929	3,080	525	620	274	239	96	56	42	37
26	68	62	779	4,990	521	575	290	239	93	56	41	37
27	78	60	621	5,790	525	480	345	219	94	56	40	37
28	81	60	517	2,880	614	405	320	195	95	55	40	37
29	74	59	458	1,970	-----	370	300	186	91	54	40	37
30	68	58	415	1,560	-----	355	285	180	89	54	40	36
31	67	-----	379	1,320	-----	342	-----	172	-----	53	40	-----
TOTAL	2,445	2,637	24,294	69,144	20,105	18,185	8,889	7,975	3,743	2,032	1,400	1,171
MEAN	78.9	87.9	784	2,230	718	587	296	257	125	65.5	45.2	39.0
MAX	178	323	5,280	6,510	1,170	892	352	348	176	88	52	44
MIN	50	58	55	258	521	342	247	172	89	53	40	36
AC-FT	4,850	5,230	48,190	137,100	39,880	36,070	17,630	15,820	7,420	4,030	2,780	2,320

CAL YR 1969	TOTAL 181,250	MEAN 497	MAX 5,280	MIN 50	AC-FT 359,500
WTR YR 1970	TOTAL 162,020	MEAN 444	MAX 6,510	MIN 36	AC-FT 321,400

DATE	TIME	PEAK DISCHARGE (BASE, 2,000 CFS)			
		G.H.	DISCHARGE	DATE	TIME
12-14	0800	7.46	2,350	1-22	0915
12-21	0530	12.08	9,260	1-26	2215
1-17	0130	9.76	5,200		

NOTE.--No gage-height record Apr. 4 to May 7.

KLAMATH RIVER BASIN

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.--47 years, 1,755 cfs (1,271,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 51,900 cfs Jan. 22 (gage height, 20.21 ft), from rating curve extended above 19,000 cfs; minimum daily, 124 cfs Sept. 27, 28.
 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. Records of water temperatures for the water year 1970 are 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	226	244	1,510	5,170	2,570	1,620	1,020	2,100	576	265	162
2	200	219	237	1,380	4,300	2,320	1,520	1,260	2,320	576	260	162
3	197	216	234	1,280	3,890	2,200	1,490	1,860	2,350	560	260	162
4	194	316	234	1,240	3,690	2,120	1,430	2,480	2,200	525	255	162
5	191	1,400	232	1,140	3,360	2,060	1,650	2,480	2,090	515	250	175
6	188	794	230	1,090	3,230	2,040	1,500	2,150	2,040	545	260	175
7	186	547	230	1,060	3,110	4,080	1,410	1,840	1,900	505	260	175
8	340	445	292	1,040	3,010	4,690	1,380	2,130	1,700	470	255	170
9	340	432	343	1,160	2,950	3,860	1,550	2,860	1,650	445	250	162
10	333	379	312	1,300	2,910	3,410	2,000	2,290	1,410	420	235	154
11	267	359	583	1,280	2,820	3,190	1,700	1,860	1,200	410	225	150
12	252	355	3,990	1,370	2,940	3,040	1,500	1,660	1,100	390	220	150
13	232	352	3,350	2,330	2,970	3,210	1,410	1,500	1,010	365	210	146
14	227	343	4,600	5,470	2,730	4,080	1,300	1,520	1,010	365	210	146
15	255	333	2,760	5,410	2,570	3,960	1,240	1,860	968	360	205	150
16	652	335	1,760	9,120	2,940	3,600	1,190	3,090	932	350	200	146
17	758	324	1,590	15,900	3,720	3,400	1,180	3,890	939	350	195	146
18	402	305	1,480	10,900	3,260	3,040	1,270	3,630	953	335	195	150
19	321	296	2,760	9,600	2,990	2,790	1,600	3,230	968	330	190	158
20	306	284	5,400	9,930	2,830	2,560	1,200	2,860	1,020	315	180	158
21	330	272	19,900	19,300	2,680	2,430	1,090	2,650	1,020	310	180	158
22	356	264	7,320	40,800	2,530	2,360	1,060	2,650	992	310	175	150
23	321	266	7,170	41,000	2,430	2,310	1,040	2,880	918	300	180	146
24	308	266	5,060	40,200	2,430	2,290	1,040	2,570	876	305	175	142
25	283	266	3,970	23,600	2,290	2,310	1,150	2,830	771	290	175	142
26	265	264	3,550	22,000	2,200	2,280	1,400	3,140	702	315	175	138
27	263	260	2,860	36,400	2,200	2,210	1,110	2,890	764	315	170	124
28	270	256	2,390	17,500	2,440	2,140	968	2,290	771	310	175	124
29	253	250	2,020	10,400	-----	2,060	918	2,120	750	295	170	130
30	247	246	1,770	8,030	-----	2,000	932	2,070	624	265	170	127
31	237	-----	1,590	6,700	-----	1,800	-----	1,920	-----	270	170	-----
TOTAL	9,196	10,875	88,461	349,040	84,580	86,410	39,848	73,480	38,048	12,012	6,495	4,540
MEAN	297	363	2,854	11,260	3,021	2,787	1,328	2,370	1,268	387	210	151
MAX	758	1,400	19,900	41,000	5,170	4,690	2,000	3,890	2,350	576	265	175
MIN	186	216	230	1,040	2,200	1,800	918	1,020	624	265	170	124
AC-FT	13,240	21,570	175,500	692,300	167,800	171,400	79,040	145,700	75,470	23,830	12,880	9,010
CAL YR 1969	TOTAL	830,049	MEAN	2,274	MAX	19,900	MIN	183	ACFT	1,646,000		
WAT YR 1970	TOTAL	802,985	MEAN	2,200	MAX	41,000	MIN	124	ACFT	1,593,000		

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0900	15.87	32,400	1-22	0930	20.21	51,900
1-17	1130	11.94	17,300	1-27	0230	19.48	48,700

KLAMATH RIVER BASIN

469

11523000 KLAMATH RIVER AT ORLEANS, CALIF.

LOCATION.--Lat 41°18'13", long 123°32'00", in SW¼NE¼ 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, revised (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.--43 years, 7,888 cfs (5,715,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 175,000 cfs Jan. 24 (gage height, unknown); minimum daily, 1,540 cfs Aug. 1.
 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 loads for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,980	2,250	3,590	9,030	33,200	13,600	9,010	5,480	6,590	2,880	1,540	1,590
2	1,980	2,200	3,570	8,580	29,800	12,800	7,650	5,510	6,740	2,810	1,650	1,610
3	1,980	2,180	3,570	8,190	27,900	12,800	7,360	6,140	6,710	2,740	1,820	1,890
4	1,980	2,180	3,570	7,880	26,300	13,100	7,140	6,930	6,940	2,640	1,790	2,000
5	1,980	10,000	3,590	7,570	24,400	12,600	7,050	7,090	6,790	2,550	1,780	2,050
6	1,980	6,680	3,490	7,230	22,600	12,000	7,030	6,800	6,670	2,540	1,780	2,110
7	1,980	5,560	2,730	7,060	21,200	16,900	6,940	6,460	6,070	2,560	1,770	2,110
8	2,250	5,100	2,900	7,080	19,800	21,300	6,770	6,580	5,650	2,430	1,750	2,060
9	2,630	4,880	3,110	8,050	18,500	19,200	6,640	7,650	5,320	2,310	1,750	1,970
10	2,600	4,700	3,120	9,130	16,600	18,400	7,050	7,230	5,140	2,210	1,730	1,950
11	2,550	4,600	6,000	8,770	14,600	18,300	7,200	6,700	4,720	2,160	1,700	1,920
12	2,500	4,580	21,000	9,800	14,500	17,500	6,840	6,490	4,300	2,090	1,680	1,920
13	2,300	4,520	18,800	16,500	14,800	18,000	6,700	6,430	4,130	2,050	1,670	1,920
14	2,250	4,090	23,100	29,000	14,100	21,600	6,650	6,620	4,150	1,990	1,660	1,900
15	2,450	4,240	16,100	31,200	14,000	21,800	6,490	7,300	4,120	1,920	1,640	1,920
16	3,000	4,300	11,100	60,100	16,800	20,200	6,220	8,560	4,010	1,880	1,620	1,940
17	5,200	4,260	9,950	94,200	21,500	18,900	6,070	10,900	3,910	1,860	1,590	1,950
18	4,200	4,220	9,560	63,900	19,300	17,000	5,950	11,400	3,820	1,880	1,580	1,950
19	3,400	4,240	13,100	55,500	18,700	15,800	6,220	10,500	3,800	1,830	1,580	1,970
20	3,050	4,160	27,300	62,000	18,200	14,400	5,870	9,090	3,820	1,780	1,580	1,970
21	2,860	3,870	92,500	72,000	16,900	13,200	5,750	8,650	3,790	1,750	1,580	1,980
22	2,790	3,690	50,900	120,000	15,600	12,500	5,650	8,470	3,740	1,700	1,580	1,980
23	2,810	3,670	43,100	123,000	15,100	12,200	5,560	7,960	3,620	1,660	1,590	1,960
24	2,900	3,620	30,800	145,000	14,600	12,000	5,500	7,450	3,530	1,650	1,610	1,960
25	3,000	3,600	21,900	106,000	13,500	11,800	5,450	7,560	3,410	1,630	1,610	1,960
26	3,190	3,670	18,600	88,000	12,400	11,600	5,600	8,050	3,240	1,610	1,600	1,940
27	3,350	3,670	14,300	131,000	11,500	11,300	5,440	8,070	3,170	1,600	1,600	1,960
28	3,420	3,660	11,900	82,000	12,400	10,800	5,300	7,940	3,300	1,600	1,590	1,970
29	3,390	3,620	10,800	55,700	-----	10,200	5,230	7,410	3,090	1,590	1,580	1,970
30	3,340	3,590	9,980	43,900	-----	9,900	5,270	7,160	2,980	1,570	1,570	1,980
31	2,290	-----	9,490	37,500	-----	9,330	-----	6,890	-----	1,560	1,580	-----
TOTAL	85,580	125,600	503,520	1,514.9M	518,800	461,030	190,600	235,470	137,270	63,030	51,150	58,360
MEAN	2,761	4,187	16,240	48,870	18,530	14,870	6,353	7,596	4,576	2,033	1,650	1,945
MAX	5,200	10,000	92,500	145,000	33,200	21,800	8,010	11,400	6,940	2,880	1,820	2,110
MIN	1,980	2,180	2,730	7,060	11,500	9,330	5,230	5,480	2,980	1,560	1,540	1,590
AC-FT	169,700	249,100	998,700	3,005M	1,029M	914,500	378,100	467,100	272,300	125,000	101,500	115,800
CAL YR 1969	TOTAL	3,854,980	MEAN	10,560	MAX	92,500	MIN	1,450	ACFT	7,646,000		
WAT YR 1970	TOTAL	3,945,280	MEAN	10,810	MAX	145,000	MIN	1,540	ACFT	7,825,000		

PEAK DISCHARGE (BASE, 40,000 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1100	24.53	126,000	1-24	unknown	-	175,000
1-17	0915	22.26	105,000	1-27	unknown	-	156,000

NOTE.--No gage-height record Oct. 1 to Nov. 4, Jan. 20-28.

KLAMATH RIVER BASIN

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.--13 years, 419 cfs (303,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 13,600 cfs Dec. 21 (gage height, 10.70 ft); minimum daily, 28 cfs Sept. 11-13, 18.
 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 prior to Aug. 1 and fair thereafter. No regulation or diversion above station.

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	40	45	46	268	661	667	537	381	610	119	52	33
2	40	45	47	248	600	567	574	592	657	113	51	33
3	40	45	47	229	585	507	553	920	668	108	48	33
4	41	53	47	218	572	487	578	1,200	622	102	45	34
5	41	119	45	203	544	440	644	1,200	577	98	45	33
6	41	71	46	203	528	423	706	1,010	568	96	45	35
7	40	71	47	202	533	556	670	860	516	92	45	33
8	45	131	55	230	566	666	608	883	440	87	44	32
9	46	88	54	469	601	614	623	897	432	84	44	31
10	45	73	64	431	645	554	727	761	344	81	43	29
11	44	71	264	386	709	516	735	649	292	79	45	28
12	43	75	687	590	1,160	483	652	548	264	77	41	28
13	43	72	700	1,190	1,150	474	623	491	307	75	40	28
14	44	66	964	2,330	906	703	541	534	311	72	39	32
15	63	64	469	1,430	774	732	485	752	263	69	39	31
16	95	65	285	1,420	762	709	445	1,100	256	66	38	31
17	80	60	247	1,720	698	715	402	1,330	251	65	36	29
18	63	56	337	1,310	619	642	391	1,300	233	64	35	28
19	57	55	1,430	1,580	562	586	385	1,150	225	63	36	31
20	55	54	2,030	1,630	531	559	359	1,000	219	60	36	32
21	57	53	7,310	3,630	508	557	342	921	207	59	36	31
22	54	52	1,870	6,500	484	579	332	944	194	59	35	31
23	52	51	1,050	9,200	463	629	330	958	178	58	35	31
24	51	51	727	5,490	446	695	323	885	167	57	35	32
25	50	50	655	2,700	429	743	327	938	151	57	35	31
26	49	50	536	2,040	436	744	327	987	139	56	35	31
27	49	49	441	1,650	461	689	308	877	135	55	35	31
28	49	49	377	1,200	603	679	290	728	138	55	35	31
29	48	47	335	989	-----	657	278	665	133	54	33	31
30	46	47	307	850	-----	610	296	624	124	53	35	32
31	46	-----	285	744	-----	556	-----	584	-----	52	33	-----
TOTAL	1,557	1,878	21,804	51,280	17,536	18,738	14,391	26,669	9,621	2,285	1,229	936
MEAN	50.2	62.6	703	1,654	626	604	480	860	321	73.7	39.6	31.2
MAX	95	131	7,310	9,200	1,160	744	735	1,330	668	119	52	35
MIN	40	45	45	202	429	423	278	381	124	52	33	28
AC-FT	3,090	3,730	43,250	101,700	34,780	37,170	28,540	52,900	19,080	4,530	2,440	1,860
CAL YR 1969	TOTAL 213,252		MEAN 584		MAX 7,310		MIN 40		AC-FT 423,000			
WTR YR 1970	TOTAL 167,924		MEAN 460		MAX 9,200		MIN 28		AC-FT 333,100			

PEAK DISCHARGE (BASE, 1,900 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0630	10.70	13,600	1-17	0930	5.14	2,030
1-14	0730	5.89	2,880	1-23	1600	10.34	12,300

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, 2,498,000 acre-ft Jan. 28 (elevation, 2,373.02 ft); minimum, 1,854,000 acre-ft Dec. 9 (elevation, 2,330.63 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,902	1,880	1,858	2,053	2,493	2,445	2,429	2,336	2,380	2,340	2,160	1,972
2	1,900	1,880	1,858	2,054	2,489	2,444	2,428	2,333	2,382	2,337	2,154	1,968
3	1,897	1,878	1,857	2,056	2,485	2,442	2,428	2,332	2,383	2,333	2,148	1,962
4	1,895	1,879	1,857	2,057	2,480	2,443	2,425	2,332	2,384	2,328	2,142	1,957
5	1,892	1,880	1,856	2,058	2,476	2,443	2,422	2,333	2,386	2,323	2,135	1,952
6	1,890	1,880	1,855	2,059	2,473	2,443	2,420	2,333	2,386	2,318	2,129	1,949
7	1,888	1,881	1,855	2,059	2,470	2,446	2,418	2,332	2,387	2,313	2,123	1,944
8	1,886	1,882	1,855	2,061	2,469	2,448	2,420	2,331	2,388	2,307	2,117	1,941
9	1,884	1,882	1,854	2,066	2,466	2,448	2,422	2,330	2,387	2,301	2,111	1,937
10	1,882	1,882	1,855	2,071	2,463	2,447	2,420	2,332	2,386	2,295	2,106	1,933
11	1,879	1,881	1,858	2,076	2,460	2,445	2,418	2,333	2,385	2,289	2,100	1,930
12	1,876	1,880	1,868	2,082	2,461	2,443	2,416	2,333	2,383	2,283	2,094	1,926
13	1,876	1,879	1,875	2,095	2,462	2,441	2,414	2,332	2,381	2,278	2,088	1,922
14	1,876	1,878	1,884	2,117	2,462	2,440	2,411	2,332	2,379	2,272	2,082	1,917
15	1,878	1,877	1,888	2,132	2,461	2,440	2,407	2,333	2,378	2,266	2,076	1,916
16	1,879	1,876	1,890	2,150	2,464	2,440	2,403	2,337	2,376	2,260	2,070	1,912
17	1,880	1,875	1,892	2,168	2,464	2,438	2,399	2,342	2,375	2,254	2,063	1,909
18	1,880	1,874	1,894	2,181	2,463	2,436	2,396	2,347	2,373	2,249	2,057	1,906
19	1,880	1,873	1,908	2,198	2,461	2,435	2,392	2,351	2,371	2,243	2,050	1,903
20	1,880	1,872	1,930	2,216	2,459	2,434	2,388	2,354	2,370	2,237	2,044	1,901
21	1,880	1,870	1,994	2,255	2,458	2,433	2,384	2,357	2,368	2,230	2,038	1,898
22	1,880	1,869	2,011	2,317	2,458	2,433	2,380	2,360	2,366	2,224	2,032	1,895
23	1,880	1,868	2,022	2,394	2,457	2,433	2,375	2,363	2,364	2,218	2,025	1,892
24	1,880	1,867	2,028	2,442	2,454	2,433	2,370	2,365	2,362	2,212	2,018	1,889
25	1,880	1,865	2,035	2,462	2,458	2,434	2,365	2,368	2,360	2,206	2,012	1,886
26	1,880	1,864	2,039	2,482	2,446	2,434	2,361	2,372	2,357	2,200	2,006	1,883
27	1,880	1,863	2,043	2,495	2,443	2,433	2,356	2,374	2,354	2,193	2,000	1,881
28	1,880	1,862	2,046	2,498	2,445	2,433	2,350	2,376	2,352	2,187	1,994	1,878
29	1,880	1,861	2,048	2,498	-----	2,433	2,345	2,377	2,349	2,180	1,988	1,875
30	1,880	1,859	2,050	2,496	-----	2,432	2,340	2,378	2,346	2,174	1,982	1,872
31	1,880	-----	2,052	2,494	-----	2,430	-----	2,379	-----	2,167	1,977	-----
MAX	1,902	1,882	2,052	2,498	2,493	2,448	2,429	2,379	2,388	2,340	2,160	1,972
MIN	1,876	1,859	1,854	2,053	2,443	2,430	2,340	2,330	2,346	2,167	1,977	1,872
(a)	2,332.48	2,331.00	2,344.49	2,372.79	2,369.82	2,368.96	2,363.39	2,365.77	2,363.71	2,352.20	2,339.34	2,331.88
(b)	-25.0	-20.5	+192.6	+442.2	-49.4	-14.2	-90.0	+38.1	-33.0	-178.5	-190.2	-105.4
(c)	2,090	420	150	-	-	2,720	4,120	7,090	7,840	10,330	9,060	5,410

CAL YR 1969 MAX 2,480 MIN 1,346 b +705.2
 WAT YR 1970 MAX 2,498 MIN 1,854 b -33.3

a Elevation, in feet, at end of month.
 b Change in contents, in thousands of acre-feet.
 c Evaporation, in acre-feet.

KLAMATH RIVER BASIN

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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,190	0	373	490	1,790	2,610	2,410	3,730	1,960	3,010	3,020	2,020
2	1,090	0	389	401	2,510	2,900	2,630	3,400	1,950	3,010	3,020	2,010
3	1,000	0	399	399	3,170	2,560	2,470	3,730	1,940	3,010	3,020	2,010
4	995	0	396	399	3,280	2,280	3,290	3,410	1,950	3,010	3,020	2,010
5	1,010	0	404	384	3,060	2,140	3,690	3,480	1,900	3,010	3,020	2,010
6	977	0	358	348	3,400	2,050	3,740	3,270	1,900	2,870	2,880	2,020
7	971	0	248	632	2,730	2,010	3,800	3,250	1,900	2,990	2,880	2,010
8	993	3.0	380	362	2,320	2,210	181	3,320	1,910	2,870	2,870	1,960
9	1,030	12	391	371	2,790	3,120	1,170	3,400	1,930	3,010	2,890	1,910
10	1,020	650	339	374	3,460	3,730	3,360	1,960	1,920	3,010	2,870	1,780
11	1,060	533	364	378	3,910	3,400	3,360	1,960	1,910	3,020	2,870	1,400
12	1,060	528	493	439	3,840	3,730	3,560	1,880	1,900	3,020	2,880	1,380
13	141	477	495	789	3,800	3,730	3,520	2,020	1,900	3,020	2,880	1,230
14	0	531	420	341	3,590	3,230	3,460	2,040	1,910	2,940	3,030	1,380
15	0	570	450	379	2,600	2,470	3,530	1,930	1,900	2,920	2,920	1,420
16	0	603	452	403	2,870	3,170	3,530	1,940	1,910	3,020	2,880	1,400
17	0	613	418	681	2,930	3,730	3,180	1,490	1,900	3,020	2,880	1,410
18	0	633	422	538	3,120	3,400	3,160	2,030	1,900	3,020	2,880	1,420
19	0	617	408	401	3,410	2,760	3,280	1,930	1,900	3,020	2,880	1,020
20	0	705	395	587	3,380	2,770	3,380	1,930	1,900	3,020	2,880	1,010
21	0	570	463	782	2,690	2,760	3,380	1,960	2,010	3,020	2,880	1,390
22	0	614	488	655	1,680	2,310	3,380	1,930	1,900	3,020	2,880	1,340
23	0	604	396	761	2,670	2,290	3,350	1,870	1,900	3,020	2,880	1,380
24	0	647	331	396	3,730	2,260	3,610	1,930	1,900	2,950	2,880	1,380
25	0	582	335	380	3,730	2,260	3,730	1,920	1,910	3,050	2,880	1,380
26	0	627	345	318	3,460	2,370	3,670	1,940	1,890	3,150	2,960	1,010
27	0	574	405	368	3,490	2,790	3,800	1,940	1,900	3,050	2,880	1,020
28	0	571	376	1,290	2,320	2,680	3,730	1,950	1,890	3,020	2,880	1,380
29	0	588	403	3,070	-----	2,340	3,620	1,950	1,940	3,160	2,880	1,400
30	0	583	400	2,680	-----	2,410	3,640	1,940	1,970	3,050	2,880	1,410
31	0	-----	414	2,590	-----	2,490	-----	1,930	-----	3,020	2,020	-----
TOTAL	12,537	12,435.0	12,350	22,386	85,730	84,960	96,611	73,360	57,500	93,330	89,370	45,900
MEAN	404	415	398	722	3,062	2,741	3,220	2,366	1,917	3,011	2,883	1,530
MAX	1,190	705	495	3,070	3,910	3,730	3,800	3,730	2,010	3,160	3,030	2,020
MIN	0	0	248	318	1,680	2,010	181	1,490	1,890	2,870	2,020	1,010
AC-FT	24,870	24,660	24,500	44,400	170,000	168,500	191,600	145,500	114,100	185,100	177,300	91,040
CAL YR 1969	TOTAL	487,983.0	MEAN	1,337	MAX	3,870	MIN	0	ACFT	967,900		
WAT YR 1970	TOTAL	686,469.0	MEAN	1,881	MAX	3,910	MIN	0	ACFT	1,362,000		

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.--728 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).--59 years, 1,684 cfs (1,220,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,500 cfs Jan. 27 (gage height, 8.10 ft); minimum daily, 141 cfs July 27, 30.

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 excellent. 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 water year 1970 are published in Part 2 of this report.

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	223	245	174	155	2,860	148	157	160	150	153	153	180
2	223	242	151	155	2,610	153	157	160	148	153	153	198
3	223	245	155	155	2,130	155	155	157	148	153	150	198
4	220	252	155	155	1,780	155	157	157	148	153	150	198
5	220	248	151	155	1,710	153	157	157	150	153	150	198
6	220	245	149	155	1,230	153	155	157	150	155	153	198
7	217	242	149	157	1,030	155	153	160	150	155	153	198
8	214	245	155	160	707	153	150	162	153	155	153	198
9	217	242	158	160	607	155	157	162	150	157	153	198
10	223	242	158	160	694	153	157	160	150	157	153	198
11	220	245	160	160	574	153	155	160	150	157	153	198
12	220	245	170	160	306	153	155	160	150	155	153	198
13	252	245	160	160	259	153	155	157	150	155	153	195
14	256	245	162	160	256	155	155	157	150	155	153	198
15	259	223	160	162	256	157	155	157	153	155	153	195
16	256	211	158	167	362	160	155	155	153	155	153	195
17	256	211	155	164	655	157	157	157	153	155	153	198
18	252	211	155	162	607	155	157	155	153	155	153	198
19	252	211	155	164	525	157	157	155	153	153	153	198
20	252	211	160	164	465	157	160	153	153	153	153	198
21	252	211	164	170	291	157	157	153	153	153	153	198
22	252	211	158	167	245	157	157	153	153	153	153	198
23	252	211	162	177	203	157	157	153	153	153	155	198
24	248	211	158	534	174	157	157	153	153	153	155	198
25	248	209	158	3,590	174	155	155	153	153	230	155	198
26	248	206	158	4,700	174	155	155	153	153	172	157	198
27	248	209	158	6,020	162	155	153	153	153	141	155	198
28	248	206	158	5,590	148	155	155	150	155	150	155	198
29	248	203	158	2,890	-----	155	157	150	155	146	153	198
30	248	203	158	2,960	-----	155	157	150	155	141	153	198
31	248	-----	158	3,080	-----	155	-----	150	-----	153	155	-----
TOTAL	7,415	6,786	4,898	33,068	21,194	4,803	4,676	4,829	4,551	4,837	4,752	5,913
MEAN	239	226	158	1,067	757	155	156	156	152	156	153	197
MAX	259	252	174	6,020	2,860	160	160	162	155	230	157	198
MIN	214	203	149	155	148	148	150	150	148	141	150	180
AC-FT	14,710	13,460	9,720	65,590	42,040	9,530	9,270	9,580	9,030	9,590	9,430	11,730
MEAN a	271	303	3,691	8,978	2,929	2,709	1,928	3,257	1,646	429	87.2	47.2
AC-FT a	16,670	18,040	227,000	552,200	162,700	166,600	114,700	200,300	97,950	26,400	5,360	2,810

CAL YR 1969 TOTAL 78,562 MEAN 215 MAX 1,440 MIN 125 ACFT 155,800 MEAN a 2,585 AC-FT a 1,871,000
 WAT YR 1970 TOTAL 107,722 MEAN 295 MAX 6,020 MIN 141 ACFT 213,700 MEAN a 2,197 AC-FT a 1,591,000

a Adjusted for change in contents, diversion, and evaporation from Clair Engle Lake. Data furnished by Bureau of Reclamation.

KLAMATH RIVER BASIN

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.--15 years, 426 cfs (308,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,800 cfs Dec. 21 (gage height, 19.40 ft); minimum daily, 16 cfs Dec. 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. Records of suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

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	30	41	22	367	965	548	326	166	348	94	37	22
2	30	40	21	326	847	502	324	233	392	98	36	22
3	30	39	20	292	780	471	307	325	385	108	35	22
4	30	59	19	259	732	455	300	377	356	117	35	22
5	30	400	18	227	680	428	303	374	352	122	34	24
6	31	182	17	201	639	416	309	329	349	121	34	24
7	31	119	16	182	606	624	292	287	321	103	34	23
8	44	104	25	184	586	762	274	325	295	91	33	22
9	50	89	20	316	577	685	263	369	248	76	32	22
10	52	77	23	710	568	622	309	306	216	70	31	21
11	45	80	156	690	562	593	302	261	180	67	30	21
12	40	87	1,320	748	600	569	271	231	148	65	29	21
13	38	82	1,160	1,550	602	566	260	216	142	62	29	20
14	37	73	1,520	3,070	566	654	245	225	153	58	29	20
15	66	67	834	2,170	538	637	231	295	140	59	29	21
16	226	65	555	3,220	608	604	221	444	150	63	28	21
17	174	58	501	4,270	686	580	209	501	164	61	27	21
18	86	55	521	2,990	650	540	207	452	179	55	27	21
19	67	52	1,400	2,910	611	504	220	393	232	50	27	21
20	64	49	2,460	3,150	579	478	198	337	273	50	27	22
21	99	45	7,770	6,780	555	455	192	320	266	50	26	22
22	82	42	2,150	8,580	529	448	184	353	275	49	26	21
23	67	39	1,780	10,200	506	451	174	380	260	46	26	21
24	59	36	1,370	8,230	488	449	168	336	240	44	25	21
25	52	34	1,120	4,210	471	446	161	381	204	43	25	20
26	48	31	1,010	4,290	465	427	172	426	204	43	25	20
27	46	29	793	6,340	467	413	153	383	185	43	25	20
28	45	27	632	2,800	518	400	146	317	164	43	24	20
29	43	25	533	1,860	-----	385	141	300	132	43	23	20
30	43	24	463	1,410	-----	367	146	294	102	41	23	19
31	42	-----	409	1,140	-----	345	-----	303	-----	39	22	-----
TOTAL	1,827	2,150	28,658	83,672	16,981	15,824	7,008	10,239	7,055	2,074	893	637
MEAN	58.9	71.7	924	2,699	606	510	234	330	235	66.9	28.8	21.2
MAX	226	400	7,770	10,200	965	762	326	501	392	122	37	24
MIN	30	24	16	182	465	345	141	166	102	39	22	19
AC-FT	3,620	4,260	56,840	166,000	33,680	31,390	13,900	20,310	13,990	4,110	1,770	1,260
CAL YR 1969	TOTAL 211,229		MEAN 579	MAX 7,770	MIN 16	ACFT 419,000						
WAT YR 1970	TOTAL 177,018		MEAN 485	MAX 10,200	MIN 16	ACFT 351,100						

11527000 TRINITY RIVER NEAR BURNT RANCH, CALIF.

LOCATION.--Lat 40°47'20", long 123°26'20", in S₁ 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).--23 years, 2,264 cfs (1,640,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 33,600 cfs Jan. 27 (gage height, 19.74 ft); minimum daily, 198 cfs July 30.

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 fair. Flow regulated by Clair Engle Lake 64 miles upstream since November 1960 (see sta 11525400). Small diversions above station for mining and irrigation. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

REVISIONS.--WSP 1929: Drainage area.

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	307	446	382	1,480	7,980	2,140	1,290	860	1,070	538	274	233
2	307	442	368	1,370	7,020	1,930	1,220	920	1,100	538	267	245
3	307	436	328	1,290	6,390	1,820	1,180	1,070	1,110	554	264	283
4	307	443	328	1,200	5,620	1,800	1,280	1,210	1,110	582	268	280
5	310	894	325	1,120	5,110	1,870	1,270	1,250	1,080	574	268	286
6	310	792	322	1,090	4,460	1,740	1,270	1,190	1,080	510	268	292
7	310	637	316	1,040	3,970	2,060	1,250	1,110	1,070	451	268	292
8	325	612	364	1,040	3,440	3,280	1,210	1,100	980	426	268	289
9	343	648	490	1,370	3,080	2,910	1,170	1,110	970	412	268	289
10	343	572	1,300	2,720	2,870	2,770	1,190	1,110	865	388	265	286
11	353	546	2,500	2,610	2,950	2,520	1,250	1,090	780	384	259	283
12	343	547	5,610	2,510	2,680	2,400	1,190	1,050	720	367	253	280
13	336	550	6,060	3,530	2,650	2,300	1,160	990	686	352	248	277
14	378	537	4,740	7,400	2,470	2,400	1,160	965	720	340	248	280
15	438	523	3,850	6,760	2,280	2,400	1,100	1,010	706	322	248	283
16	673	494	2,800	9,720	2,530	2,270	1,070	1,100	702	364	245	286
17	823	456	2,380	12,500	4,140	2,190	1,040	1,110	694	316	243	286
18	595	440	2,100	10,000	3,750	2,060	1,010	1,110	778	301	243	286
19	525	432	1,990	8,620	3,320	1,940	1,040	1,110	780	283	240	286
20	499	424	3,050	9,200	3,010	1,860	985	1,110	760	280	240	286
21	516	418	12,800	14,200	2,750	1,780	970	1,110	725	277	240	289
22	533	415	9,600	18,500	2,420	1,730	950	1,100	700	254	240	289
23	510	411	7,650	23,200	2,260	1,700	920	1,110	715	248	238	286
24	494	407	6,300	28,500	2,110	1,690	905	1,110	755	239	238	284
25	482	404	5,100	17,400	1,990	1,690	895	1,110	760	236	238	282
26	474	399	4,050	16,400	1,930	1,670	900	1,110	740	262	238	281
27	466	392	3,350	28,400	1,900	1,610	890	1,110	735	250	238	281
28	460	392	2,550	19,000	1,920	1,560	870	1,100	678	228	238	279
29	456	389	2,140	12,600	-----	1,520	850	1,040	642	214	235	279
30	452	385	1,800	9,900	-----	1,470	845	1,040	566	198	233	278
31	449	-----	1,650	8,800	-----	1,320	-----	1,030	-----	280	230	-----
TOTAL	13,424	14,883	96,593	283,470	97,000	62,400	32,330	33,545	24,777	10,968	7,751	8,436
MEAN	433	496	3,116	9,144	3,464	2,013	1,078	1,082	826	354	250	281
MAX	823	894	12,800	28,500	7,980	3,280	1,290	1,250	1,110	582	274	292
MIN	307	385	316	1,040	1,900	1,320	845	860	566	198	230	233
AC-FT	26,630	29,520	191,600	562,300	192,400	123,800	64,130	66,540	49,150	21,760	15,370	16,730
GAL YR 1969	TOTAL 764,329		MEAN 2,094		MAX 15,000		MIN 253		AC-FT 1,516,000			
WTR YR 1970	TOTAL 685,577		MEAN 1,878		MAX 28,500		MIN 198		AC-FT 1,360,000			

KLAMATH RIVER BASIN

11528500 HAYFORK CREEK NEAR HYAMPOM, CALIF.

LOCATION.--Lat 40°37'34", long 123°26'01", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ 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.--17 years, 526 cfs (381,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 19,900 cfs Jan. 24 (gage height, 16.30 ft), from rating curve extended as explained below; minimum daily, 21 cfs Aug. 30, 31, Sept. 28.
 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 fair. No regulation; diversions for irrigation of about 700 acres above station. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1395: 1954(M). WSP 1929: Drainage area.

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	35	71	71	640	2,080	956	468	219	136	75	37	22
2	35	71	70	580	1,760	848	456	222	133	69	37	22
3	35	71	71	530	1,580	785	448	216	129	63	37	22
4	36	70	71	505	1,430	785	440	213	127	62	36	22
5	37	110	70	472	1,320	765	428	210	126	59	36	23
6	37	139	71	448	1,200	745	412	207	122	57	36	23
7	37	110	72	436	1,110	926	404	201	120	55	35	23
8	41	106	87	444	1,030	1,660	388	207	119	53	34	23
9	40	107	93	1,110	956	1,380	373	207	132	50	31	22
10	39	98	95	2,210	908	1,270	363	204	168	48	32	22
11	39	92	135	1,610	860	1,130	356	195	150	46	32	22
12	39	88	1,760	1,510	866	1,040	345	204	131	52	32	22
13	39	85	1,800	2,270	962	980	338	198	120	47	31	22
14	39	82	1,990	3,940	920	980	338	186	112	44	30	22
15	53	80	1,130	3,190	854	932	328	183	109	43	29	23
16	177	80	655	7,330	1,620	872	324	180	108	43	28	23
17	225	80	510	8,160	2,630	818	317	174	105	42	27	23
18	143	78	510	5,040	1,750	775	303	174	101	42	25	23
19	105	77	2,510	4,270	1,450	735	307	171	94	41	24	28
20	92	76	3,070	4,110	1,280	710	289	165	87	41	22	24
21	86	76	7,240	6,250	1,170	675	282	160	83	41	22	24
22	80	75	3,000	7,210	1,060	650	279	159	77	40	22	24
23	76	75	3,560	10,500	980	625	265	157	75	39	22	24
24	76	75	2,980	13,600	938	600	261	154	72	38	22	24
25	75	74	2,350	6,450	884	575	254	149	70	38	22	22
26	74	74	1,990	5,220	848	555	258	148	69	38	22	22
27	74	73	1,490	9,860	818	535	258	147	68	38	22	22
28	74	73	1,160	5,700	830	520	247	145	69	38	22	21
29	74	72	950	4,050	-----	500	237	143	75	38	22	22
30	74	71	795	3,000	-----	492	228	141	82	37	21	22
31	73	-----	710	2,470	-----	480	-----	139	-----	37	21	-----
TOTAL	2,159	2,509	41,066	123,115	34,094	25,299	9,994	5,578	3,169	1,454	871	683
MEAN	69.6	83.6	1,325	3,971	1,218	816	333	180	106	46.9	28.1	22.8
MAX	225	139	7,240	13,600	2,630	1,660	468	222	168	75	37	28
MIN	35	70	70	436	818	480	228	139	68	37	21	21
AC-FT	4,280	4,980	81,450	244,200	67,630	50,180	19,820	11,060	6,290	2,880	1,730	1,350
CAL YR 1969	TOTAL	336,660		MEAN	922	MAX	10,300	MIN	33	AC-FT	667,800	
WTR YR 1970	TOTAL	249,991		MEAN	685	MAX	13,600	MIN	21	AC-FT	495,900	

PEAK DISCHARGE (BASE, 4,000 CFS)							
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1100	12.89	11,000	1-24	0015	16.30	19,900
1-14	1200	9.10	4,430	1-27	0300	13.96	13,600
1-17	0630	12.02	9,240				

NOTE.--No gage-height record May 21 to Aug. 19.

11528700 SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CALIF.

LOCATION.--Lat 40°39'00", long 123°29'35", in NW¼SW¼ sec.10, T.3 N., R.6 E., Trinity County, Trinity National Forest, on left bank 0.3 mile downstream from Big Creek, 3.0 miles northeast of Hyampom, and 3.5 miles downstream from Hayfork Creek.

DRAINAGE AREA.--764 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 1,211.37 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 1,582 cfs (1,146,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 59,100 cfs Jan. 24 (gage height, 24.62 ft), from rating curve extended as explained below; minimum daily, 47 cfs Sept. 28-30.
 Period of record: Maximum discharge, 59,100 cfs Jan. 24, 1970 (gage height, 24.62 ft), from rating curve extended above 12,000 cfs on basis of flood-routing study at gage height 30.45 ft; minimum daily, 47 cfs Sept. 28-30, 1970.
 Flood of Dec. 22, 1964, reached a stage of 30.45 ft, from floodmarks (discharge, 88,000 cfs on basis of flood-routing study).

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures and suspended-sediment loads for the water year 1970 are published in Part 2 of this report.

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	147	140	140	1,780	4,740	2,640	1,090	616	328	173	80	56
2	142	140	138	1,650	4,170	2,350	1,060	590	311	162	81	57
3	136	138	140	1,550	3,780	2,160	1,040	565	307	154	81	57
4	132	154	140	1,460	3,470	2,170	1,010	545	300	150	80	58
5	130	540	140	1,380	3,200	2,060	980	492	292	144	78	59
6	130	515	138	1,300	2,900	1,980	952	510	284	140	77	60
7	130	351	138	1,250	2,630	2,600	938	501	276	136	76	58
8	146	321	188	1,290	2,440	4,350	889	469	268	130	76	58
9	154	293	208	2,930	2,240	3,450	868	540	320	124	73	57
10	154	259	241	6,630	1,990	3,140	868	535	400	116	72	56
11	148	238	469	4,730	1,830	2,790	840	530	370	113	70	57
12	138	214	5,850	4,340	1,860	2,540	810	600	330	118	70	56
13	132	203	5,220	6,630	2,140	2,390	810	575	295	113	68	58
14	130	190	4,790	13,300	2,040	2,450	816	560	285	107	66	56
15	183	180	3,140	10,100	1,860	2,330	798	530	275	107	65	57
16	952	178	1,950	22,800	3,650	2,210	786	501	268	105	64	58
17	1,040	178	1,540	25,700	6,140	2,090	768	478	263	102	62	59
18	575	169	1,540	14,000	4,070	1,980	750	469	247	100	60	60
19	383	165	6,340	10,800	3,710	1,880	822	465	232	100	59	68
20	265	165	8,300	9,950	3,270	1,800	756	451	217	97	58	64
21	205	165	23,400	18,500	2,960	1,700	744	438	205	94	55	56
22	190	156	8,460	22,200	2,720	1,610	732	424	198	94	56	55
23	173	156	9,460	30,400	2,560	1,540	708	411	185	94	55	54
24	165	156	7,890	42,600	2,460	1,480	696	403	178	92	56	56
25	156	152	5,920	21,200	2,350	1,420	690	379	173	87	57	51
26	152	152	4,990	17,600	2,270	1,350	714	379	169	84	56	49
27	152	150	3,860	27,100	2,210	1,300	714	371	167	84	56	48
28	152	148	3,020	14,900	2,290	1,250	684	363	171	84	56	47
29	150	148	2,500	11,100	-----	1,220	655	359	171	84	56	47
30	144	144	2,120	8,800	-----	1,180	638	351	176	83	53	47
31	140	-----	1,910	5,840	-----	1,140	-----	339	-----	80	54	-----
TOTAL	7,126	6,258	114,280	363,810	81,950	64,550	24,626	14,739	7,661	3,451	2,026	1,679
MEAN	230	209	3,686	11,740	2,927	2,082	821	475	255	111	65.4	56.0
MAX	1,040	540	23,400	42,600	6,140	4,350	1,090	616	400	173	81	68
MIN	130	138	138	1,250	1,830	1,140	638	339	167	80	53	47
AC-FT	14,130	12,410	226,700	721,600	162,500	128,000	48,850	29,230	15,200	6,850	4,020	3,330
CAL YR 1969	TOTAL 836,575	MEAN 2,292	MAX 33,800	MIN 90	AC-FT 1,659,000							
WTR YR 1970	TOTAL 692,156	MEAN 1,896	MAX 42,600	MIN 47	AC-FT 1,373,000							

PEAK DISCHARGE (BASE, 8,600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-12	1615	11.48	9,050	1-24	0230	24.62	59,100
12-21	1215	18.93	33,700	1-27	0345	19.49	36,000
1-14	1230	13.95	15,900	2-16	2400	11.45	8,980
1-17	0745	17.83	29,400				

KLAMATH RIVER BASIN

11529800 WILLOW CREEK NEAR WILLOW CREEK, CALIF.

LOCATION.--Lat 40°56'50", long 123°39'35", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.30, T.7 N., R.5 E., Humboldt County, on right bank 0.1 mile upstream from Boise Creek, 1.5 miles northwest of town of Willow Creek, and 1.8 miles upstream from mouth.

DRAINAGE AREA.--41.0 sq mi.

PERIOD OF RECORD.--August 1959 to current year. Prior to October 1960, published as "at Willow Creek."

GAGE.--Water-stage recorder. Datum of gage is 585.54 ft above mean sea level. Aug. 13, 1959, to Dec. 22, 1964, at site 1.4 miles downstream at datum 85.55 ft lower.

AVERAGE DISCHARGE.--11 years, 163 cfs (118,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,600 cfs Jan. 27 (gage height, unknown); minimum daily, 9.4 cfs Sept. 26-30.
 Period of record: Maximum discharge, 17,000 cfs Dec. 22, 1964 (gage height, 20.6 ft, present datum, from floodmarks); minimum daily, 6.8 cfs Sept. 28, 29, 1965.

REMARKS.--Records fair. No regulation; small diversion for irrigation of about 40 acres above station.

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	13	19	21	252	640	435	119	166	58	22	15	11
2	14	19	21	234	565	400	112	153	54	21	15	11
3	14	19	21	234	520	375	112	138	52	21	14	11
4	13	44	21	222	470	355	112	130	48	21	14	11
5	13	211	21	213	440	340	110	126	47	20	14	11
6	13	77	20	210	420	325	108	119	43	20	14	11
7	13	52	20	210	400	450	108	117	42	19	14	11
8	42	96	42	225	380	740	108	133	42	19	14	11
9	33	71	41	350	360	615	108	175	44	19	15	11
10	33	53	48	408	350	520	117	211	52	18	14	11
11	25	45	107	398	340	445	112	205	43	18	14	10
12	22	38	511	390	350	395	110	196	41	18	13	10
13	20	34	377	405	400	360	106	184	37	18	13	10
14	18	32	391	724	380	356	106	181	36	18	13	10
15	44	31	299	685	350	344	106	160	35	18	13	10
16	120	31	211	881	640	285	108	140	32	17	13	9.8
17	152	29	145	1,300	1,050	247	108	126	29	17	13	9.8
18	75	27	131	930	860	235	110	114	28	17	12	9.6
19	44	27	322	772	725	214	150	108	27	17	12	10
20	32	25	391	739	635	193	128	104	26	17	11	10
21	29	25	882	922	580	190	124	98	25	17	11	10
22	25	25	571	1,340	520	187	119	92	25	17	11	10
23	23	24	958	1,280	475	172	114	87	28	16	11	10
24	22	24	733	1,660	440	158	114	83	23	16	11	10
25	21	23	661	1,290	414	153	112	79	22	16	11	9.6
26	20	23	525	1,010	384	148	135	74	22	16	11	9.4
27	22	22	428	2,300	370	140	128	72	21	16	11	9.4
28	23	22	420	1,600	390	135	130	68	21	16	11	9.4
29	22	21	363	1,240	-----	133	135	68	21	16	11	9.4
30	21	21	313	896	-----	128	150	64	21	16	11	9.4
31	21	-----	270	735	-----	124	-----	60	-----	15	11	-----
TOTAL	1,002	1,210	9,285	24,055	13,848	9,297	3,519	3,831	1,045	552	391	305.8
MEAN	32.3	40.3	300	776	495	300	117	124	34.8	17.8	12.6	10.2
MAX	152	211	958	2,300	1,050	740	150	211	58	22	15	11
MIN	13	19	20	210	340	124	106	60	21	15	11	9.4
AC-FT	1,990	2,400	18,420	47,710	27,470	18,440	6,980	7,600	2,070	1,090	776	607

CAL YR 1969	TOTAL	73,642	MEAN	202	MAX	1,860	MIN	12	AC-FT	146,100
WTR YR 1970	TOTAL	68,340.8	MEAN	187	MAX	2,300	MIN	9.4	AC-FT	135,600

		PEAK DISCHARGE (BASE, 1,200 CFS)					
DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0945	6.19	1,410	1-27	unknown	-	2,600
1-17	1030	6.38	1,490	2-17	unknown	-	1,350
1-24	1330	7.08	1,820				

NOTE.--No gage-height record Jan. 25 to Mar. 13, June 18 to July 18.

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.--2,865 sq mi.

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, non-recording 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).--43 years (1911-13, 1916-18, 1931-70), 5,383 cfs (3,900,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 115,000 cfs Jan. 24 (gage height, 39.97 ft); minimum, 306 cfs Oct. 3, 5-7.
 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 loads for the water year 1970 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1565: 1913. Revised figures of discharge, in cubic feet per second, for the water year 1969, superseding those published in WRD Calif. 1969, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1969		1969-Con.		1969-Con.		1969-Con.	
Aug. 26	348	Sept. 4	342	Sept. 13	312	Sept. 22	390
27	348	5	342	14	306	23	378
28	348	6	336	15	306	24	366
29	342	7	330	16	312	25	354
30	342	8	330	17	306	26	342
31	336	9	324	18	348	27	330
Sept. 1	330	10	324	19	384	28	312
2	306	11	324	20	396	29	306
3	330	12	318	21	402	30	300

Month	Cfs-days	Maximum	Minimum	Mean	Acre-feet
August 1969	15,519	898	336	501	30,780
September	10,086	402	300	336	20,010
WTR YR 1969	2,271,059	56,100	300	6,222	4,505,000

KLAMATH RIVER BASIN

11530000 TRINITY RIVER AT HOOPA, CALIF.--Continued

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	306	793	687	5,960	21,700	6,530	3,910	3,070	2,000	994	533	416
2	318	777	679	5,540	17,900	5,800	3,850	3,060	2,050	957	518	416
3	306	761	628	5,160	15,400	5,380	3,810	3,060	2,130	934	513	436
4	312	813	602	4,850	13,400	5,310	3,740	3,070	2,040	937	521	466
5	306	1,630	593	4,510	12,200	5,510	3,710	3,130	1,940	939	504	474
6	306	1,880	586	4,240	11,100	5,180	3,680	3,040	1,890	932	498	482
7	306	1,310	582	4,060	9,920	6,840	3,660	2,820	1,850	917	498	466
8	450	1,230	738	4,050	8,990	12,200	3,580	2,840	1,740	866	498	466
9	520	1,220	946	6,090	8,100	10,700	3,520	3,170	1,790	826	490	474
10	500	1,120	970	12,700	7,580	9,590	3,530	3,180	1,740	736	484	466
11	474	1,040	1,150	11,500	7,340	8,360	3,580	2,960	1,580	754	490	458
12	426	994	10,900	10,400	7,060	7,840	3,500	2,930	1,450	746	490	450
13	396	1,000	17,700	14,000	7,620	7,380	3,440	2,800	1,350	730	474	442
14	390	1,000	13,000	27,000	7,240	7,840	3,460	2,780	1,330	722	458	440
15	490	970	11,700	27,900	6,550	7,880	3,370	2,740	1,350	706	458	442
16	1,170	946	6,560	37,500	7,820	7,220	3,310	2,860	1,300	674	450	450
17	2,340	923	5,320	59,300	16,800	6,710	3,310	3,130	1,290	674	440	450
18	1,600	879	4,750	45,600	12,200	6,320	3,250	3,110	1,270	674	436	458
19	1,150	845	9,260	34,500	10,900	5,920	3,430	2,880	1,270	658	436	458
20	1,020	825	20,900	32,400	9,370	5,650	3,290	2,680	1,340	642	432	461
21	986	813	49,200	46,700	8,500	5,380	3,170	2,500	1,390	626	432	466
22	786	798	32,700	70,700	7,480	5,200	3,060	2,440	1,370	618	432	461
23	938	788	28,200	75,700	6,840	4,990	2,960	2,500	1,350	618	424	450
24	938	772	25,100	98,800	6,430	4,840	2,900	2,440	1,310	586	424	450
25	905	760	17,800	61,100	5,990	4,730	2,870	2,350	1,260	586	420	442
26	877	746	15,900	50,400	5,720	4,620	3,040	2,450	1,180	586	420	432
27	867	727	12,500	81,700	5,540	4,490	3,080	2,460	1,160	618	420	428
28	859	716	9,970	56,000	5,650	4,330	3,080	2,270	1,150	534	424	428
29	835	711	8,350	40,400	-----	4,200	3,070	2,100	1,120	562	420	426
30	818	698	7,300	30,800	-----	4,120	3,070	2,050	1,070	546	420	426
31	805	-----	6,520	25,300	-----	4,030	-----	2,000	-----	546	412	-----
TOTAL	22,900	28,485	321,791	994,860	271,340	195,070	101,230	84,870	45,060	22,554	14,269	13,480
MEAN	739	950	10,380	32,090	9,691	6,293	3,374	2,738	1,502	728	460	449
MAX	2,340	1,880	49,200	98,800	21,700	12,200	3,910	3,180	2,130	994	533	482
MIN	306	698	582	4,050	5,540	4,030	2,870	2,000	1,070	546	412	416
AC-FT	45,420	56,500	638,300	1,973M	538,200	386,900	200,800	168,300	89,380	44,740	28,300	26,740
CAL YR 1969	TOTAL	2,370,091	MEAN	6,493	MAX	56,100	MIN	306	AC-FT	4,701,000		
WTR YR 1970	TOTAL	2,115,909	MEAN	5,797	MAX	98,800	MIN	306	AC-FT	4,197,000		

PEAK DISCHARGE (BASE, 22,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-12	2245	24.03	23,600	1-17	1730	31.99	64,900
12-21	1545	34.09	68,000	1-24	0600	39.97	115,000

11530300 BLUE CREEK NEAR KLAMATH, CALIF.

LOCATION.--Lat 41°27'00", long. 123°53'40", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ 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. Elevation of gage is 140.65 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 690 cfs (499,900 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 12,800 cfs Jan. 22 (gage height, unknown); minimum daily, 55 cfs Sept. 26-30.

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 5,500 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. Records of water temperatures for the water year 1970 are published in Part 2 of this report.

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	68	101	91	510	2,010	594	397	365	231	137	87	66
2	75	96	90	450	1,800	555	384	371	226	134	87	66
3	71	92	89	400	1,560	528	370	344	221	133	84	66
4	67	394	88	357	1,300	511	355	314	217	131	84	66
5	66	1,130	86	320	1,190	495	343	293	212	127	84	66
6	64	443	85	290	1,030	487	333	285	206	127	82	66
7	67	306	84	270	962	1,790	326	270	204	124	82	66
8	221	281	108	258	889	1,570	315	422	203	121	82	66
9	162	234	160	475	830	1,160	308	507	234	118	81	66
10	195	206	250	750	772	983	310	545	237	115	78	63
11	135	183	770	600	725	1,050	310	557	210	115	76	63
12	100	166	2,500	1,250	741	1,500	301	560	200	111	76	60
13	87	154	1,600	2,650	716	1,400	293	531	194	111	74	60
14	80	146	2,000	3,100	658	1,480	288	557	191	108	74	59
15	97	140	1,350	2,900	620	1,360	284	607	185	106	74	58
16	256	135	920	5,000	1,080	1,220	279	532	182	106	72	58
17	422	130	654	7,400	1,440	1,110	270	454	180	105	72	58
18	249	125	590	5,500	1,070	1,000	260	409	175	103	70	58
19	171	120	840	4,150	920	929	420	382	170	102	70	59
20	138	116	1,950	3,700	831	842	355	361	166	100	70	61
21	120	114	6,600	6,570	762	771	315	341	164	100	70	62
22	108	111	3,800	9,200	703	708	295	321	159	98	69	62
23	100	108	5,200	7,600	663	658	275	308	159	97	69	59
24	95	106	3,550	8,000	623	618	260	297	157	95	69	59
25	91	103	1,950	5,900	587	576	265	287	154	94	69	58
26	90	100	2,050	8,200	557	541	350	278	147	94	69	55
27	141	98	1,540	8,400	536	503	420	273	145	94	69	55
28	165	96	1,200	6,100	623	477	380	264	146	92	68	55
29	135	94	940	4,250	-----	456	325	255	145	91	68	55
30	119	92	720	3,150	-----	433	326	248	141	89	66	55
31	108	-----	620	2,350	-----	417	-----	239	-----	89	66	-----
TOTAL	4,063	5,720	42,475	110,050	26,198	26,722	9,712	11,777	5,561	3,367	2,311	1,826
MEAN	131	191	1,370	3,550	936	862	324	380	185	109	74.5	60.9
MAX	422	1,130	6,600	9,200	2,010	1,790	420	607	237	137	87	66
MIN	64	92	84	258	536	417	260	239	141	89	66	55
AC-FT	8,060	11,350	84,250	218,300	51,960	53,000	19,260	23,360	11,030	6,680	4,580	3,620

CAL YR 1969 TOTAL 252,404 MEAN 692 MAX 6,600 MIN 64 AC-FT 500,600
 WTR YR 1970 TOTAL 249,782 MEAN 684 MAX 9,200 MIN 55 AC-FT 495,400

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	unknown	-	9,200	1-22	unknown	-	12,800
1-17	unknown	-	8,500	1-26	unknown	-	11,500

NOTE.--No gage-height record Dec. 21 to Feb. 4.

KLAMATH RIVER BASIN

11530500 KLAMATH RIVER NEAR KLAMATH, CALIF.
(International Hydrological Decade Station)

LOCATION.--Lat 41°30'45", long 123°58'30", in SW¼ 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, approximately (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.--36 years, 17,110 cfs (12,400,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 331,000 cfs Jan. 24 (gage height, 36.24 ft); minimum daily, 2,220 cfs Aug. 31 to Sept. 2.
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 good. Flow considerably regulated by reservoirs and powerplants above station. Large diversions for irrigation above station. Records of chemical analyses and water temperatures for the water year 1970 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 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,880	4,730	4,850	18,700	77,200	24,900	16,200	9,140	10,200	4,630	2,420	2,220
2	2,910	4,680	4,850	17,100	67,300	23,900	14,500	9,380	9,980	4,480	2,360	2,220
3	2,920	4,630	4,830	16,000	60,300	22,200	13,700	9,660	9,980	4,350	2,520	2,400
4	2,910	4,650	4,800	15,300	55,400	22,300	12,100	10,700	10,200	4,230	2,580	2,480
5	2,910	10,200	4,800	14,600	49,900	22,100	12,000	11,300	10,000	4,100	2,580	2,540
6	2,910	10,100	4,800	13,600	44,800	21,200	12,100	11,200	9,700	4,000	2,540	2,600
7	2,920	7,880	4,530	12,800	40,800	27,200	12,000	10,800	9,340	4,030	2,540	2,640
8	3,370	7,190	4,240	12,200	37,700	37,900	11,900	10,800	8,610	3,900	2,520	2,700
9	3,830	6,800	4,730	16,400	35,000	37,500	11,700	12,500	8,300	3,730	2,520	2,800
10	3,740	6,550	4,930	20,700	32,300	34,500	11,900	13,300	8,190	3,550	2,520	2,780
11	3,710	6,280	6,080	23,300	29,600	33,300	12,300	12,700	7,700	3,450	2,500	2,780
12	3,410	6,130	18,800	21,400	28,300	31,800	11,900	12,800	7,040	3,330	2,460	2,780
13	3,240	6,080	38,700	31,000	29,100	31,200	11,400	12,300	6,550	3,250	2,420	2,780
14	3,150	5,950	33,800	49,100	28,200	33,600	11,300	12,100	6,300	3,180	2,380	2,740
15	3,200	5,600	35,600	67,300	26,600	36,500	11,300	12,500	6,340	3,050	2,380	2,720
16	4,020	5,750	20,800	86,800	29,600	34,900	10,800	13,200	6,240	2,930	2,340	2,720
17	6,350	5,680	16,400	159,000	48,400	33,400	10,500	15,400	6,090	2,900	2,320	2,720
18	5,480	5,580	13,800	141,000	43,200	31,700	10,200	17,000	5,940	2,900	2,260	2,740
19	4,200	5,530	14,700	103,000	37,900	29,800	11,100	16,300	5,850	2,900	2,260	2,800
20	3,900	5,500	39,100	109,000	35,300	27,800	10,600	14,400	5,820	2,800	2,260	2,850
21	3,990	5,380	90,100	132,000	32,600	25,500	10,100	13,200	5,820	2,760	2,260	2,850
22	3,950	5,130	110,000	237,000	30,000	24,000	9,820	12,700	5,820	2,700	2,240	2,850
23	4,040	5,050	82,800	244,000	28,400	22,100	9,420	12,500	5,790	2,640	2,240	2,880
24	4,060	5,000	75,100	304,000	27,300	21,200	9,260	11,900	5,580	2,580	2,240	2,830
25	4,260	4,980	52,600	212,000	25,600	20,400	9,140	11,400	5,460	2,560	2,240	2,800
26	4,650	4,930	48,600	172,000	23,900	19,800	9,620	11,700	5,190	2,540	2,240	2,780
27	4,780	4,900	40,400	266,000	21,900	19,100	9,820	11,900	4,980	2,540	2,240	2,780
28	4,900	4,900	33,100	191,000	22,100	18,700	9,340	11,800	5,100	2,540	2,240	2,830
29	4,830	4,850	27,500	133,000	-----	18,000	9,070	11,200	4,950	2,500	2,240	2,850
30	4,830	4,850	22,700	104,000	-----	17,700	8,960	10,900	4,800	2,460	2,240	2,830
31	4,780	-----	20,800	87,200	-----	17,100	-----	10,500	-----	2,440	2,220	-----
TOTAL	121,030	175,460	888,840	3,030.5M	1,048.7M	821,300	334,050	377,180	211,860	99,950	73,320	81,290
MEAN	3,904	5,849	28,670	97,760	37,450	26,490	11,140	12,170	7,062	3,224	2,365	2,710
MAX	6,350	10,200	110,000	304,000	77,200	37,900	16,200	17,000	10,200	4,630	2,580	2,880
MIN	2,880	4,630	4,240	12,200	21,900	17,100	8,960	9,140	4,800	2,440	2,220	2,220
AC-FT	240,100	348,000	1,763M	6,011M	2,080M	1,629M	662,600	748,100	420,200	198,300	145,400	161,200
CAL YR 1969	TOTAL	7,559,600	MEAN	20,710	MAX	157,000	MIN	2,610	ACFT	14,990,000		
WAT YR 1970	TOTAL	7,263,480	MEAN	19,900	MAX	304,000	MIN	2,220	ACFT	14,410,000		

PEAK DISCHARGE (BASE, 90,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	0500	23.13	134,000	1-24	1200	36.24	331,000
1-17	1930	26.86	182,000	1-27	1245	34.04	294,000

11532500 SMITH RIVER NEAR CRESCENT CITY, CALIF.

LOCATION.--Lat 41°47'20", long 124°03'20", in SW $\frac{1}{4}$ sec.10, T.16 N., R.1 E., Del Norte County, 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.--39 years, 3,767 cfs (2,729,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 116,000 cfs Jan. 22 (gage height, 35.18 ft); minimum daily, 203 cfs Sept. 25-30.

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 fair. No regulation or diversion above station. Records of chemical analyses and water temperatures for the water year 1970 are published in Part 2 of this report.

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	265	605	459	3,090	8,120	3,230	1,480	2,230	1,010	561	323	223
2	298	548	445	2,770	6,840	3,050	1,430	2,180	965	558	314	220
3	290	500	436	2,500	5,980	3,080	1,360	2,020	925	551	314	218
4	269	3,820	433	2,320	5,320	3,030	1,320	1,810	896	529	312	216
5	258	13,000	421	2,130	4,760	2,900	1,300	1,620	876	511	305	214
6	254	5,020	418	1,970	4,340	2,800	1,290	1,480	852	502	303	212
7	256	3,200	412	1,870	4,100	10,400	1,280	1,360	832	496	303	211
8	832	3,170	540	1,810	3,810	10,000	1,260	1,960	820	478	301	209
9	904	2,580	808	3,250	3,560	8,700	1,250	2,910	864	460	296	209
10	1,150	2,030	1,340	4,770	3,340	7,600	4,650	3,520	950	451	286	207
11	775	1,690	7,460	3,620	3,140	9,900	3,300	3,640	816	439	284	207
12	516	1,440	22,700	6,620	3,150	9,100	2,600	3,960	804	436	284	207
13	421	1,270	14,700	15,200	3,290	10,000	2,150	3,500	752	422	278	207
14	383	1,120	19,600	18,400	3,020	15,300	1,900	3,280	728	414	272	207
15	436	1,020	10,200	16,900	2,850	14,700	1,790	3,170	704	406	268	205
16	2,640	946	7,340	29,200	6,250	11,000	1,680	2,750	693	396	268	205
17	4,030	874	6,600	56,200	11,000	8,400	1,490	2,350	682	391	268	205
18	2,260	796	5,240	33,700	7,400	6,300	1,420	2,100	650	391	266	205
19	1,290	745	5,740	26,900	5,690	5,100	4,300	1,900	646	388	260	205
20	904	705	13,400	24,600	4,760	4,400	3,290	1,750	646	380	258	205
21	715	672	57,800	41,000	4,110	3,750	2,870	1,610	642	378	258	205
22	609	641	20,800	70,200	3,660	3,300	2,610	1,580	642	370	255	205
23	536	614	28,400	57,300	3,340	2,900	2,400	1,540	639	360	252	205
24	484	588	14,400	55,300	3,090	2,600	2,680	1,440	639	352	248	205
25	449	564	10,700	33,300	2,870	2,340	2,950	1,350	635	348	244	203
26	436	540	11,400	48,900	2,680	2,100	3,550	1,280	622	343	240	203
27	964	520	8,340	51,200	2,530	1,910	3,300	1,230	602	338	236	203
28	1,370	500	6,060	23,700	3,140	1,810	2,650	1,190	599	338	232	203
29	1,020	484	4,810	14,200	-----	1,710	2,300	1,130	596	336	229	203
30	814	473	4,000	10,800	-----	1,610	2,230	1,100	588	336	227	203
31	686	-----	3,450	8,940	-----	1,540	-----	1,050	-----	323	225	-----
TOTAL	26,513	50,675	288,852	672,660	126,140	174,560	68,080	63,990	22,315	12,982	8,409	6,235
MEAN	855	1,689	9,318	21,700	4,505	5,631	2,269	2,064	744	419	271	208
MAX	4,030	13,000	57,800	70,200	11,000	15,300	4,650	3,960	1,010	561	323	223
MIN	254	473	412	1,810	2,530	1,540	1,250	1,050	588	323	225	203
AC-FT	52,590	100,500	572,900	1,334M	250,200	346,200	135,000	126,900	44,260	25,750	16,680	12,370
CAL YR 1969	TOTAL	1,303,441	MEAN	3,571	MAX	57,800	MIN	232	AC-FT	2,585,000		
WTR YR 1970	TOTAL	1,521,411	MEAN	4,168	MAX	70,200	MIN	203	AC-FT	3,018,000		

PEAK DISCHARGE (BASE, 36,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0615	29.91	85,000	1-22	1000	35.18	116,000
1-17	1000	28.69	64,800	1-26	2230	33.79	105,000

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 floodflow 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 1970

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Salinas River basin						
11-1470.3	Cienega Creek near Templeton	Lat 35°31'39", long 120°51'23" in Asuncion Grant, San Luis Obispo County, 0.4 mile above mouth and 9.1 miles west of Templeton.	2.51	1967-70	10-17-69 11-25-69 12-15-69 1-21-70 2-25-70 4-09-70 5-19-70 7-07-70 8-10-70	0.18 .10 .08 8.38 .81 .70 .64 .15 .06
11-1470.5	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 above mouth and 8.1 miles west of Templeton.	1.35	1967-70	10-01-69 11-25-69 12-15-69 1-21-70 2-25-70 4-09-70 5-19-70 7-07-70 8-10-70	.10 .10 .10 1.78 .65 .84 .17 .12 .03
11-1470.6	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 above mouth and 6.0 miles west of Templeton.	3.02	1967-70	11-25-69 12-15-69 1-20-70 2-25-70 4-09-70 5-19-70 7-07-70 8-10-70	.02 .02 3.06 .30 .30 .22 .02 No flow.

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 11 during water year 1970

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Salinas River basin							
11-1470.3 ^{1/}	Cienega Creek near Templeton	Lat 35°31'39", long 120°51'23" in Asuncion Grant, San Luis Obispo County, 0.4 mile above mouth and 9.1 miles west of Templeton.	2.51	1967-70	1-16-70	56.18	130
Russian River basin							
11-4609.40	Russian River near Redwood Valley	Lat 39°19'10", long 123°13'20" in NW¼ 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	1964-68† 1969-70	1-23-70	8.64	2,350
11-4639.40	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 1963-68† 1969-70	1-23-70	6.42	2,320
Albion River basin							
11-4680.10	Albion River near Comptche	Lat 39°15'40", long 123°37'00" in SW¼ 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	1961-69† 1970	1-23-70	8.61	1,500
Jacoby Creek basin							
11-4800.	Jacoby Creek near Freshwater	Lat 40°47'30", long 124°00'10" in NW¼ sec.30, T.5 N., R.2 E., 3.7 miles northeast of Freshwater.	6.07	1954-64† 1966-70	1-23-70	5.02	897
Klamath River basin							
11-5223.	South Fork Salmon River near Forks of Salmon	Lat 41°13'20", long 123°15'00" in SE¼ sec.30, T.39 N., R.12 W., on left bank 100 ft downstream from Methodist Creek and 4.5 miles southeast of town of Forks of Salmon.	252	1958-66† 1967-70	1-22-70	13.68	12,700
11-5284.	Hayfork Creek near Hayfork	Lat 40°31'10", long 123°05'05" in SW¼ sec.23, T.31 N., R.11 W., 5.8 miles southwest of Hayfork.	86.7	1956-66† 1967-70	Not determined for 1970 water year		
Smith River basin							
11-5320.	South Fork Smith River near Crescent City	Lat 41°47'30", long 124°01'30" in SE¼ sec.11, T.16 N., R.1 E., 9.5 miles east of Crescent City.	295	1911-13† 1954-61† 1962-70	Not determined for 1970 water year		

1. Also a low-flow partial-record station.

† Operated as a continuous-record gaging station.

Measurements at miscellaneous sites

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 years)	Measurements	
					Date	Discharge (cfs)
Pajaro River basin						
Pacheco Creek	Pajaro River	Lat 36°56'38", long 121°23'02" in Ausaymas y San Felipe Grant, San Benito County, 40 ft downstream from Pacheco Highway bridge, and 1.5 miles northeast of Dunneville.	--	--	1-08-70	0.14
Pacheco Creek	Pajaro River	Lat 36°57'38", long 121°25'47" in Ausaymas y San Felipe Grant, San Benito County, at Lovers Lane bridge, 1.7 miles northeast of Dunneville.	--	--	1-08-70	No flow.
Pajaro River	Pacific Ocean	Lat 36°58'17", long 121°30'02" in San Ysidro Grant, on boundary between San Benito and Santa Clara Counties, 150 ft below Frazier Lake Road bridge, 2.3 miles east of Carnadero.	--	--	4-12-70	1.75
Llagas Creek	Pajaro River	Lat 36°58'34", long 121°30'40" in San Ysidro Grant, Santa Clara County, at Bloomfield Avenue bridge, 1.8 miles east of Carnadero.	--	--	4-13-70	19.3
Pajaro River	Pacific Ocean	Lat 36°56'08", long 121°31'35" on boundary between Juristac and Llano del Tequisquita Grants, on boundary between San Benito and Santa Clara Counties, 1.2 miles northeast of Corporal.	--	--	4-13-70	22.5
Carnadero Creek	Pajaro River	Lat 36°55'50", long 121°32'28" in Juristac Grant, Santa Clara County, 200 ft downstream from private road bridge, 200 ft upstream from Tar Creek, and 0.3 mile east of Corporal.	--	--	4-13-70	12.9
Tar Creek	Carnadero Creek	Lat 36°55'48", long 121°32'29" in Juristac Grant, Santa Clara County, 50 ft upstream from mouth and 0.3 mile east of Corporal.	--	--	4-13-70	1.78
Pajaro River	Pacific Ocean	Lat 36°55'03", long 121°32'48" on boundary between Juristac and Lomerias Muertas Grants, on boundary between San Benito and Santa Clara Counties, 100 ft upstream from bridge on U.S. Highway 101, 0.1 mile south of Sargent.	--	--	4-13-70	38.9
Pajaro River	Pacific Ocean	Lat 36°53'50", long 121°33'34" on boundary between Juristac and Lomerias Muertas Grants, on boundary between San Benito and Santa Clara Counties, 800 ft upstream from San Benito River, and 1.6 miles south of Sargent.	--	--	4-13-70	41.2
Tres Pinos Creek	San Benito River	Lat 36°47'20", long 121°19'38" in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.20, T.13 S., R.6 E., San Benito County, 200 ft downstream from Southside Road Bridge, 0.6 mile west of Tres Pinos.	--	1969	1-08-70	*.40
San Benito River	Pajaro River	Lat 36°48'07", long 121°22'42" San Justo Grant, San Benito County, 300 ft south of Blossom Lane, 1.3 miles upstream from Hospital Road, and 3.6 miles southwest of Hollister.	--	1969	1-08-70	8.17
San Benito River	Pajaro River	Lat 36°51'06", long 121°25'46" San Justo Grant, San Benito County, at bridge on State Highway 156, 1.4 miles west of Hollister.	--	1969	1-08-70 6-15-70	No flow. 20.6
San Benito River	Pajaro River	Lat 36°51'28", long 121°26'28" San Justo Grant, San Benito County, 800 ft north of north end of Sewage Plant road, 2.3 miles northwest of Hollister.	--	--	6-15-70	16.1
San Benito River	Pajaro River	Lat 36°51'36", long 121°27'00" San Justo Grant, San Benito County, 1,800 ft northeast of north end of Mitchell Road, 2.8 miles northwest of Hollister.	--	--	6-15-70	14.3

See footnotes at end of table.

Discharge measurements made at miscellaneous sites--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water year)	Measurements	
					Date	Discharge (cfs)
Pajaro River basin--Continued						
San Benito River	Pajaro River	Lat 36°51'44", long 121°27'37" San Justo Grant, San Benito County, just below temporary gravel irrigation dam, 4,400 ft northeast of north end of Flint Road, 3.5 miles northwest of Hollister.	--	--	6-15-70	22.4
San Benito River	Pajaro River	Lat 36°51'28", long 121°28'19" San Justo Grant, San Benito County, 1,600 ft north of north end of Flint Road, 4.0 miles northwest of Hollister.	--	--	6-15-70	No flow.
San Benito River	Pajaro River	Lat 36°53'16", long 121°33'30" in Las Aromitas y Agua Caliente Grant, San Benito County, 100 ft downstream from bridge on U.S. Highway 101, 2.6 miles southeast of Chittenden.	--	--	1-08-70 4-13-70	.01 .03
unnamed (right-bank)	Pajaro River	Lat 36°53'52", long 121°34'10" in Juristac Grant, Santa Clara County, 200 ft upstream from mouth, 1.9 miles east of Chittenden.	--	--	4-13-70	.11
Pescadero Creek	Pajara River	Lat 36°54'06", long 121°35'04" in sec.12, T.12 S., R.3 E., Santa Cruz County, 200 ft upstream from mouth, 1.4 miles east of Chittenden.	--	--	4-13-70	2.34
Klamath River basin						
Fall Creek	Klamath River	NE¼ sec.36, T.48 N., R.5 W., 1,500 ft upstream from mouth and 0.8 mile south of Fall Creek powerplant and Copco Post Office.	14.6	1928-59† 1964-69	9-01-70	*41.0
Bogus Creek	Klamath River	NE¼ sec.17, T.47 N., R.3 W., 0.5 mile downstream from Iron Gate Dam and 6.0 miles northeast of Hornbrook.	--	1965-69	9-01-70	*12.7
Beaver Creek	Klamath River	NE¼SW¼ sec.30, T.47 N., R.8 W., 1.9 miles upstream from mouth and 14.8 miles northwest of Yreka.	106	1953-58 1959-65† 1967-69	9-02-70	*25.7
South Fork Scott River	Scott River	SW¼SE¼ sec.20, T.40 N., R.8 W., opposite unnamed tributary, 1.1 miles southwest of Callahan and 1.5 miles above East Fork Scott River.	42.5	1958-60† 1964 1966-69	9-03-70	*.88
Moffett Creek	Scott River	SE¼NE¼ sec.27, T.44 N., R.8 W., 590 ft upstream from Soap Creek and 5.1 miles east of Fort Jones.	69.8	1958-67† 1969	9-08-70	No flow.
Elk Creek	Klamath River	NE¼ sec.36, T.16 N., R.7 E., 4.0 miles upstream from mouth and 4.0 miles south of Happy Camp.	90.4	1956-64† 1967-69	9-02-70	*29.4
Thompson Creek	Klamath River	SE¼ sec.17, T.17 N., R.8 W. (revised), 50 ft above highway bridge, 0.1 mile above mouth, and 6.0 miles northeast of Happy Camp.	--	1966 1968-69	9-02-70	*13.3
Coffee Creek	Trinity River	NW¼SW¼ sec. 2, T.37 N., R.8 W., 0.75 mile upstream from Little Boulder Creek, 3.2 miles upstream from mouth, and 8 miles northwest of new location of Trinity Center.	--	1957-66† 1968-69	8-31-70	*39.6
Deadwood Creek	Trinity River	SW¼NW¼ sec.17, T.33 N., R.8 W., 300 ft above mouth and 0.7 mile northeast of Lewiston.	--	1965-69	9-01-70	*.60
Weaver Creek	Trinity River	NE¼SE¼ sec.36, T.33 N., R.10 W., 0.2 mile downstream from highway bridge, and 1.3 miles north of Douglas City.	48.4	1958-69†	9-25-70	*1.09
Browns Creek	Trinity River	NE¼SE¼ sec.10, T.32 N., R.10 W., 2 miles upstream from mouth, and 2.1 miles west of Douglas City.	71.6	1957-67†	9-25-70	*5.77

† Operated as a continuous-record gaging station.

* Base flow.

SANTA ANA RIVER SEEPAGE INVESTIGATION-MENTONE TO RUBIDOUX, CALIF.

Three series of discharge measurements were made during the water year 1969, on Jan. 31, Mar. 6, and June 5, on the Santa Ana River, diversions and tributaries in California, to study channel gains and losses. The channel length for the study on the series of Jan. 31 and Mar. 6 was 19.3 miles and the study of June 5 was 11.6 miles in length. Tributary inflow was considered a contribution and not a gain; diversions were considered a deduction and not a loss.

The series of Jan. 31 was measured 6 days following the Jan. 25 flood.

The series of Mar. 6 was measured 9 days following the Feb. 25 flood.

The June 5 series was measured 31 days after no measurable precipitation. River miles were computed using the most downstream station as "zero."

No previous seepage investigations have been made in this reach.

Santa Ana River Miles	Stream	Location	Discharge, in cubic feet per second						
			Gain or Loss		Gain or Loss		Gain or Loss		
			Meas. Disch	Meas. Disch	Meas. Disch	Meas. Disch	Meas. Disch	Meas. Disch	
			Jan. 31, 1969	Mar. 6, 1969	June 5, 1969				
19.3	Santa Ana River	Gaging station (11-0515) nr Mentone	349	-	443	-	307	-	
19.3	Diversion	do (11-0516) nr Mentone	0	-	87	-	96	-	
18.8	Santa Ana River	NE $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.8, T.1 S., R.2 W., at Greenspot Road	-	-	356	0	207	-4	
17.7	Mill Creek	NE $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.1 S., R.2 W., nr Mentone	138	-	210	-	349	-	
14.2	Santa Ana River	NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.1 S., R.3 W., at Orange Street	-	-	-	-	402	-154	
12.7	do	SE $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.8, T.1 S., R.3 W., at Alabama Street	-	-	151	-415	289	-113	
12.4	City Creek	SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.8, T.1 S., R.3 W., at Alabama Street	8.1	-	256	-	.3	-	
11.7	Santa Ana River	Redlands Grant, T.1 S., R.3 W., at California Street	-	-	-	-	329	+40	
10.5	Mission Channel	SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.24, T.1 S., R.4 W., at Tippeconoe	0	-	0	-	0	-	
9.8	Santa Ana River	Gaging station (11-0562) at Waterman Ave	15.6	-479.5	270	-137	296	-33	
9.7	San Timoteo Creek	do (11-0575) at Interstate 10	.03	-	.3	-	.1	-	
9.1	Floodway	do (11-0590) 0.4 miles upstream from Mill Street	15	-	76	-	0	-	
9.1	Sewer Outfall	San Bernardino Grant, T.1 S., R.4 W., 0.4 miles NE of "E" Street	30	-	26	-	25.8	-	
8.7	Santa Ana River	Gaging station (11-0593) at "E" Street	60.6	0	403	+31	356	+34	
8.0	Warm Creek	San Bernardino Grant, T.1 S., R.4 W., at Fairway Drive	21.1	-	10	-	97.9	-	
7.7	Santa Ana River	San Bernardino Grant, T.1 S., R.4 W., at Mount Vernon Ave	-	-	-	-	316	-138	
6.0	do	San Bernardino Grant, T.1 S., R.4 W., at La Cadena Blvd	30.5	-51.2	266	-147	-	-	
0	do	Jurupa Grant, T.2 S., R.5 W., at Mission Blvd	0	-30.5	167	-99	-	-	
OVERALL NET GAIN OR LOSS				-561.2		-767		-368	

SANTA ANA RIVER SEEPAGE INVESTIGATION-MWD CROSSING TO PRADO DAM, CALIF.

A series of discharge measurements was made Sept. 10, 1970, on the Santa Ana River, diversions, and tributaries in California, to study channel gains and losses. The main channel length for the study was 15.1 miles.

Tributary inflow was considered a contribution and not a gain; diversions were considered a deduction and not a loss.

The measurements made were of base flow with the last measurable precipitation occurring Mar. 31, 1970. The base flow has a diurnal fluctuation and these measurements were made on the low point of that diurnal. The measurements of Temescal Creek at Prado Dam was made on Sept. 11, 1970 at 1000 hours and may not be representative of the water that was there during the low portion of the diurnal on Sept. 10, 1970, which occurred at 2200 hours.

Discharge in this reach of the river has been measured or recorded periodically for many years.

Discharge, in cubic feet per second

Santa Ana River Miles	Stream	Location Measuring Times	Meas. Disch.	Gain or Loss
15.1	Santa Ana River	Gaging station (11066460) at MWD Crossing, 0730 hrs	24.6	-
14.5	Riverside Water Quality Control Plant	Gaging station (11066480) near Riverside Narrows, 0820 hrs	23.5	-
13.9	Santa Ana River	Gaging station (11066500) at Riverside Narrows, 0850 hrs	47.2	-0.9
13.2	Hidden Valley Gun Club diversion	NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.26, T.2 S., R.6 W., near Riverside Narrows, 0945 hrs	14.5	-
13.1	Santa Ana River	SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.26, T.2 S., R.6 W., below Gun Club diversion, 0950 hrs	33.1	+0.4
11.3	Jurupa Water Quality Control Plant	SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ ec.27, T.2 S., R.6 W., near Mira Loma, 1240 hrs	1.7	-
9.5	Santa Ana River	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.32, T.2 S., R.6 W., near Gun Club return, 1345 hrs	24.4	-10.4
9.4	Hidden Valley Gun Club return flow	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ T.2 S., R.6 W., 2.2 miles above Hamner Avenue, 1400 hrs	4.6	-
7.2	Santa Ana River	NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.6, T.3 S., R.6 W., at Hamner Avenue, 1600 hrs	20.1	-8.9
4.4	Santa Ana River	SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.10, T.3 S., R.7 W., in Prado Park near Auburndale bridge, 1855 hrs	13.9	-6.2
3.0	Cucamonga Creek	near Santa Ana River	0	-
2.0	Chino Creek	near Santa Ana River	0	-
.5	Temescal Creek	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.20, T.3 S., R.7 W., at Prado Dam, 1000 hrs (9-11-70)	10.4	-
0	Santa Ana River	Gaging station (11074000) below Prado Dam, 2000 hrs to 2400 hrs	19.6	-4.7
		OVERALL NET GAIN OR LOSS		-30.7

INDEX

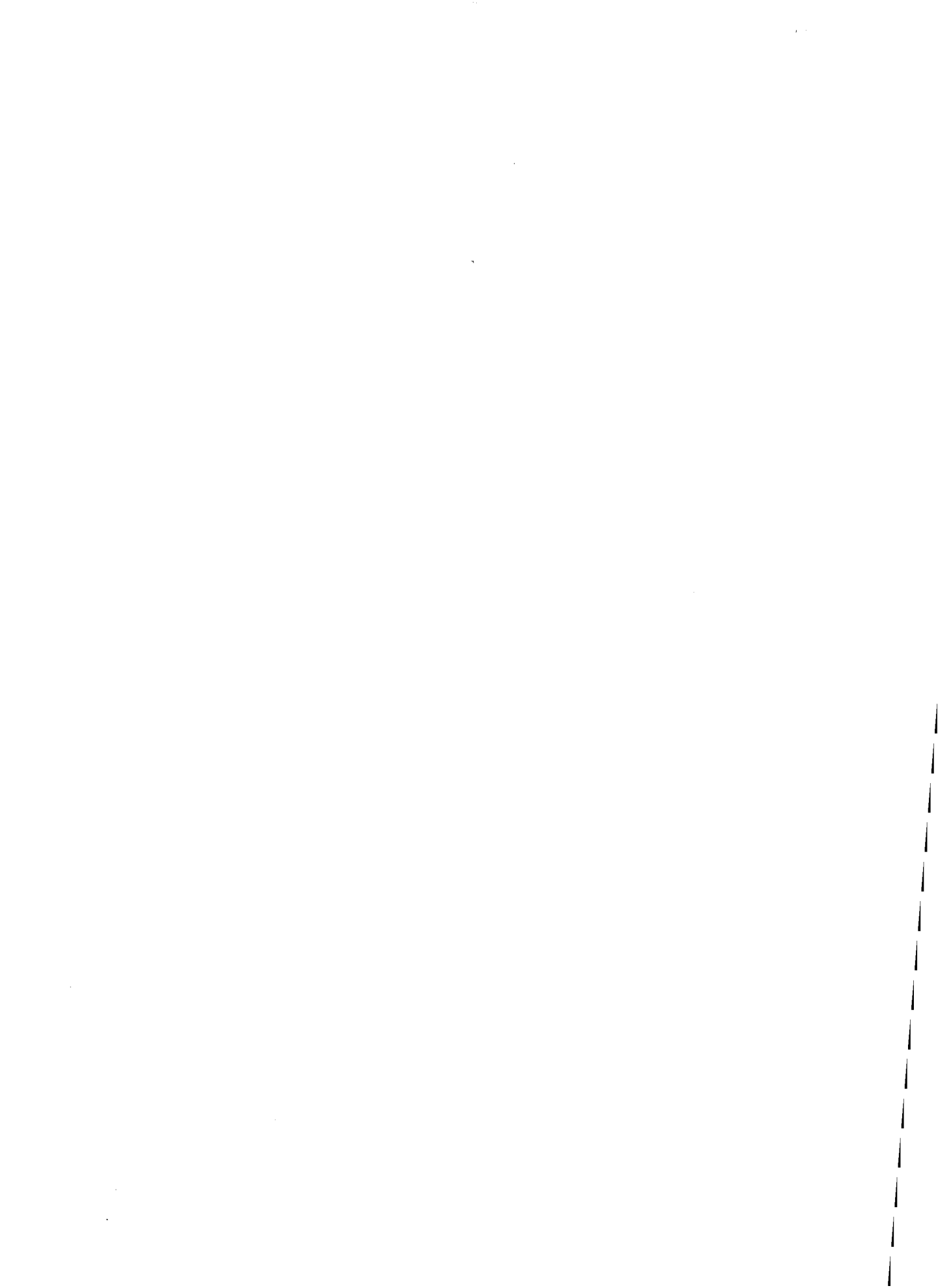
	Page		Page
Accuracy of data.....	8	Colma Creek at South San Francisco.....	355
Acre-foot, definition of.....	3	Colorado River, at Imperial Dam, Ariz.-Calif....	24
Agua Caliente Creek near Warner Springs.....	120	at Needles.....	14
Alameda Creek, at Union City.....	381	at northerly international boundary above	
near Niles.....	378	Morelos Dam, near Andrade.....	26
Alamitos Creek near New Almaden.....	361	at Palo Verde Dam, Ariz.-Calif.....	23
Alamo Creek near Nipomo.....	281	below Davis Dam, Ariz.-Nev.....	13
Alamo River near Niland.....	50	below Imperial Dam, schematic diagram of.....	37
Albion basin, crest-stage partial-record		below Parker Dam, Ariz.-Calif.....	20
station in.....	485	below Yuma Main Canal wasteway, at Yuma, Ariz.	25
Alisal Creek near Solvang.....	268	near Topock, Ariz.....	15
Aliso Canyon Creek near New Cuyama.....	279	Colorado River aqueduct near Parker Dam,	
Aliso Creek at El Toro.....	139	Ariz.-Calif.....	17
All-American Canal, below Pilot Knob wasteway..	30	Contents, definition of.....	3
near Imperial Dam, Ariz.-Calif.....	28	Control, definition of.....	3
Almaden Reservoir, contents of.....	363	Convict Creek near Mammoth Lakes.....	88
Amargosa River at Tecopa.....	40	Cooperation, record of.....	2
Anderson Lake, contents of.....	368	Copco Lake near Copco.....	457
Andreas Creek near Palm Springs.....	66	Corn Springs Wash near Desert Center.....	47
Antelope Creek near Tennant.....	455	Corralitos Creek, at Freedom.....	339
Aptos Creek at Aptos.....	340	near Corralitos.....	338
Arch Creek near Earp.....	21	Corte Madera Creek at Ross.....	396
Arroyo Corte Madera del Presidio at Mill Valley.	397	Cottonwood Creek (Koehn Lake basin) near Cantil.	86
Arroyo de la Cruz near San Simeon.....	297	Cottonwood Creek (Owens Lake basin) near Olancha	99
Arroyo de la Laguna near Pleasanton.....	377	Cottonwood Creek (Tijuana River basin) above	
Arroyo del Hambre at Martinez.....	387	Tecate Creek, near Dulzura.....	105
Arroyo del Rey at Del Rey Oaks.....	301	Cottonwood Creek (tributary to Antelope Valley)	
Arroyo Grande, above Phoenix Creek, near Arroyo		near Rosamond.....	83
Grande.....	290	Cottonwood Creek (tributary to Klamath River)	
at Arroyo Grande.....	294	at Hornbrook.....	459
Arroyo Hondo near San Jose.....	371	Cottonwood Wash near Cottonwood Spring.....	70
Arroyo Mocho, near Livermore.....	372	Coyote Creek basin, reservoirs in.....	368
near Pleasanton.....	373	Coyote Creek (tributary to Salton Sea) near	
Arroyo Seco (Los Angeles River basin) near		Borrego Springs.....	54
Pasadena.....	219	Coyote Creek (tributary to San Francisco Bay),	
Arroyo Seco (Salinas River basin), near		near Gilroy.....	367
Greenfield.....	321	near Madrone.....	369
near Soledad.....	322	Coyote Creek (tributary to San Gabriel River) at	
Arroyo Simi near Simi.....	232	Los Alamitos.....	210
Arroyo Trabuco near San Juan Capistrano.....	137	Coyote Creek (tributary to Ventura River) near	
Arroyo Valle, above Lang Canyon, near Livermore.	374	Oak View.....	250
at Pleasanton.....	376	near Ventura.....	252
near Livermore.....	375	Coyote Lake, contents of.....	368
Atascadero Creek near Goleta.....	256	Crest-stage partial-record stations, discharge	
		at.....	485
Ballona Creek near Culver City.....	229	Cubic foot per second, definition of.....	3
Bautista Creek near Valle Vista.....	178	Cucamonga Creek, near Mira Loma.....	188
Big Bear Lake near Big Bear Lake.....	142	near Upland.....	187
Big Pine Creek near Big Pine.....	92	Cushenbury Creek near Lucerne Valley.....	73
Big River, South Fork, near Comptche.....	418	Cuyama River, below Buckhorn Canyon, near Santa	
Big Rock Creek near Valyermo.....	81	Maria.....	280
Big Sulphur Creek near Cloverdale.....	407	below Twitchell Dam.....	283
Big Sur River near Big Sur.....	298	Darwin Creek near Darwin.....	39
Black Butte River near Covelo.....	432	Data, accuracy of.....	8
Blue Creek near Klamath.....	481	explanation of.....	5
Bodfish Creek near Gilroy.....	331	other data available.....	9
Boom Creek near Barstow.....	79	Day Creek near Etiwanda.....	173
Borrego Palm Creek near Borrego Springs.....	55	Deep Creek (Mojave River basin) near Hesperia..	74
Brea Creek below Brea Dam, near Fullerton.....	207	Deep Creek (Salton Sea basin) near Palm Desert..	67
Bull Creek near Weott.....	444	Definition of terms and abbreviations.....	3
Butano Creek near Pescadero.....	352	Devil Canyon Creek near San Bernardino.....	165
		Discharge, definition of.....	3
Cache Creek near Mojave.....	86	Downstream order and station numbers.....	4
Cajon Creek near Keenbrook.....	163	Drainage area, definition of.....	3
Calero Reservoir, contents of.....	363	Dry Creek (tributary to Alameda Creek) at Union	
Calleguas Creek at Camarillo State Hospital.....	233	City.....	379
Campo Creek near Campo.....	106	Dry Creek (tributary to Russian River), near	
Carbon Creek below Carbon Canyon Dam.....	190	Cloverdale.....	410
Carmel River, at Robles del Rio.....	299	near Geyserville.....	411
near Carmel.....	300	East Twin Creek near Arrowhead Springs.....	155
Carpinteria Creek near Carpinteria.....	255	Eel River, at Fort Seward.....	437
Caruthers Creek near Ivanpah.....	43	at Scotia.....	445
Cedar Creek near Bell Station.....	325	at Van Arsdale Dam, near Potter Valley.....	427
Cedar Gulch near Callahan.....	464	below Scott Dam, near Potter Valley.....	425
Cfs-day, definition of.....	3	East Branch, South Fork, near Garberville.....	442
Chesbro Reservoir, contents of.....	330	Middle Fork, above Black Butte River, near.	
China Spring Creek near Mountain Pass.....	42	Covelo.....	431
Chino Creek at Schaeffer Avenue, near Chino.....	186	near Dos Rios.....	435
Cholame Creek near Shandon.....	311	near Dos Rios.....	429
City Creek near Highland.....	150	North Fork, near Mina.....	436
Clair Engle Lake near Lewiston.....	471	South Fork, at Leggett.....	441
Cold Creek tributary near Elk Creek.....	423		
Collection and computation of data.....	5		

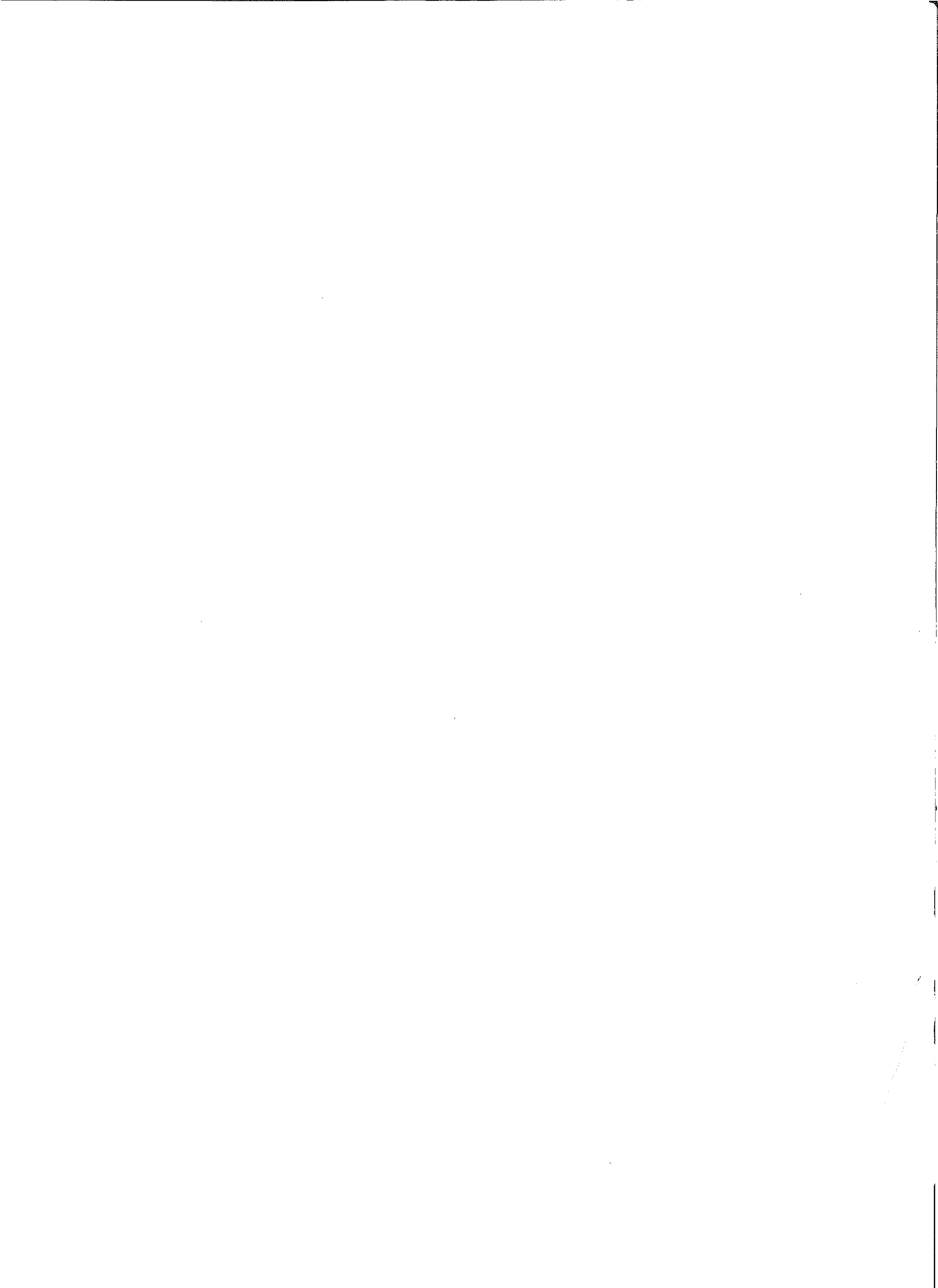
	Page		Page
Eel River, South Fork, near Branscomb.....	438	Lakes and reservoirs--Continued	
near Miranda.....	443	Ruth Reservoir near Forest Glen.....	449
El Toro Creek near Spreckels.....	324	San Antonio Reservoir near Bradley.....	317
Elder Creek near Branscomb.....	439	Santa Margarita Lake near Pozo.....	304
Elk Creek near Hearst.....	434	Stevens Creek Reservoir near Monte Vista.....	360
Estrella River near Estrella.....	312	Sutherland Reservoir.....	115
Explanation of surface-water data.....	5	Uvas Reservoir.....	330
Fish Creek near Duarte.....	198	Vail Lake.....	129
Forty-nine Palms Creek near Twentynine Palms.....	46	Las Flores Creek near Oceanside.....	134
Foxen Creek near Sisquoc.....	286	Lee Vining Creek near Lee Vining.....	103
Fullerton Creek, at Richman Avenue, near		Lexington Reservoir, contents of.....	363
Fullerton.....	209	Little Dalton Creek near Glendora.....	201
below Fullerton Dam, near Brea.....	208	Little River at Crannell.....	453
Gage height, definition of.....	3	Little Rock Creek near Little Rock.....	82
Gaging station, definition of.....	4	Little San Geronio Creek near Beaumont.....	153
Garcia River near Point Arena.....	416	Little Shasta River near Montague.....	461
Gaviota Creek near Gaviota.....	258	Little Tujunga Creek near San Fernando.....	216
Gibraltar Reservoir, contents of.....	261	Llagas Creek near Morgan Hill.....	327
Gila Gravity Main Canal at Imperial Dam,		Lone Pine Creek near Keenbrook.....	164
Ariz.,-Calif.....	27	Long Creek near Desert Hot Springs.....	62
Goler Gulch near Randsburg.....	85	Lopez Creek near Arroyo Grande.....	292
Guadalupe Reservoir, contents of.....	363	Los Angeles River, at Long Beach.....	228
Guadalupe River at San Jose.....	365	at Los Angeles.....	218
Guadalupe River basin, reservoirs in.....	363	at Sepulveda Dam.....	211
Gualala River, South Fork, near Annapolis.....	415	near Downey.....	220
Guejito Creek near San Pasqual.....	118	Los Angeles River basin, schematic diagram of... 195	
Hayfork Creek near Hyampom.....	476	Los Berros Creek near Nipomo.....	295
Hopper Creek near Piru.....	238	Los Gatos Creek (Guadalupe River basin) at	
Horse Thief Creek near Tecopa.....	41	Los Gatos.....	364
Huasna River near Arroyo Grande.....	282	Los Penasquitos Creek near Poway.....	114
Huerhuero Creek near Creston.....	310	Low-flow partial record stations, measurements	
Hydrologic bench-mark station.....	4	at.....	484
Hydrologic conditions.....	10	Lytle Creek, at Colton.....	166
Independence Creek below Pinyon Creek, near		near Fontana.....	161
Independence.....	95	Maacama Creek near Kellogg.....	408
Indian Creek near Happy Camp.....	467	Mad River, near Arcata.....	452
International Hydrological Decade (IHD) River		near Forest Glen.....	450
Stations.....	4	near Kneeland.....	451
Introduction.....	1	Majors Creek near Santa Cruz.....	347
Inyo Creek near Lone Pine.....	97	Malibu Creek at Crater Camp, near Calabasas.....	231
Iron Gate Reservoir near Hornbrook.....	457	Matadero Creek at Palo Alto.....	359
Jack Creek near Templeton.....	306	Matilija Creek, at Matilija Hot Springs.....	246
Jacoby Creek basin, crest-stage partial-record		North Fork, at Matilija Hot Springs.....	247
stations in.....	485	Mattole River near Petrolia.....	422
Jalama Creek near Lompoc.....	259	Mazourka Creek near Independence.....	96
Jameson Lake, contents of.....	260	Meeks and Daley Canal near Colton.....	160
Jamul Creek near Jamul.....	110	Mill Creek (Eel River basin) near Covelo.....	433
Judge Francis Carr powerplant near French Gulch.	472	Mill Creek (Santa Ana River basin) near Yucaipa.....	146
Klamath River, at Orleans.....	469	Mill Creek, North Fork near La Canada.....	213
below Iron Gate Dam.....	458	Miscellaneous sites, measurements at.....	486
below John C. Boyle powerplant, near Keno,		Mission Creek, below Whittier Narrows Dam.....	225
Oreg.....	456	near Desert Hot Springs.....	61
near Klamath.....	482	near Montebello.....	224
near Seiad Valley.....	466	Mojave River, at Afton.....	80
Klamath River basin, crest-stage partial-record		at Barstow.....	78
stations in.....	485	at lower narrows, near Victorville.....	76
discharge measurements at miscellaneous sites		at Wild Crossing, near Helendale.....	77
in.....	487	West Fork, near Hesperia.....	75
La Brea Creek near Sisquoc.....	285	Mono Lake near Mono Lake.....	101
Laguna Creek near Davenport.....	348	Murrieta Creek at Temecula.....	130
Laguna de Santa Rosa near Graton.....	413	Myer Creek tributary near Jacumba.....	51
Lakes and reservoirs:		Nacimiento Reservoir near Bradley.....	317
Almaden Reservoir.....	363	Nacimiento River, below Nacimiento Dam, near	
Anderson Lake.....	368	Bradley.....	314
Big Bear Lake near Big Bear Lake.....	142	near Bryson.....	313
Cachuma, Lake, near Santa Ynez.....	265	Napa River, near Napa.....	392
Calero Reservoir.....	363	near St. Helena.....	391
Chesbro Reservoir.....	330	Navarro River near Navarro.....	417
Clair Engle Lake near Lewiston.....	471	New River (Salton Sea basin) near Westmorland.....	52
Copco Lake near Copco.....	457	Ninemile Creek near Brown.....	87
Coyote Lake.....	368	Novato Creek at Novato.....	395
Elsman, Lake.....	363	Noyo River near Fort Bragg.....	419
Gibraltar Reservoir.....	261	Oak Creek near Mojave.....	91
Guadalupe Reservoir.....	365	Oso Creek at Crown Valley Parkway, near Mission	
Havasu, Lake, near Parker Dam, Ariz.,-Calif.....	18	Viejo.....	138
Hemet, Lake, near Idyllwild.....	175	Other data available.....	9
Iron Gate Reservoir near Hornbrook.....	457	Outlet Creek near Longvale.....	430
Jameson Lake.....	260	Owens River, at Keeler Bridge, near Lone Pine... 98	
Lexington Reservoir.....	363	near Big Pine.....	94
Mendocino Lake near Ukiah.....	403	Pacheco Creek near Dunneville.....	326
Mono Lake near Mono Lake.....	101	Pacoima Creek near San Fernando.....	212
Nacimiento Reservoir near Bradley.....	317	Pajaro River, at Chittenden.....	337
Pillsbury, Lake, near Potter Valley.....	424	near Gilroy.....	328
Piru, Lake, near Piru.....	236	Pajaro River basin, discharge measurements at	
Rodriguez Reservoir at Rodriguez Dam, Baja		miscellaneous sites in.....	486
California, Mexico.....	108	reservoirs in.....	330
		Palm Canyon Creek, near Palm Springs.....	65
		tributary near Anza.....	64
		Palo Verde Canal near Blythe.....	22

	Page		Page
Partial-record stations, definition of.....	4	Salinas River basin, crest-stage partial-record stations in.....	485
discharge at.....	484	discharge measurements at low-flow partial-record stations in.....	484
Patterson Creek at Union City.....	380	Salmon Creek at Bodega.....	400
Pauma Creek near Pauma Valley.....	122	Salmon River at Somes Bar.....	468
Perris Valley Storm Drain at Nuevo Road, near Perris.....	179	Salsipuedes Creek, near Lompoc.....	273
Pescadero Creek (tributary to Pacific Ocean) near Pescadero.....	351	near Pozo.....	303
Pescadero Creek (tributary to San Benito River) near Paicines.....	334	Salt Creek near Mecca.....	49
Pilarcitos Creek at Half Moon Bay.....	354	Salton Sea, inflow to.....	48
Pilot Knob powerplant and wasteway near Pilot Knob.....	29	near Westmorland.....	48
Pine Creek, at Bolinas.....	398	San Antonio Creek (Santa Ana River basin), below San Antonio Dam.....	185
at division box, near Bishop.....	90	near Claremont.....	183
Pine Tree Creek near Mojave.....	86	San Antonio Creek (tributary to Pacific Ocean) near Casmlia.....	277
Pinole Creek at Pinole.....	386	San Antonio Creek (Ventura River basin) at Casitas Springs.....	249
Pipes Creek near Yucca Valley.....	72	San Antonio Creek tributary near Casmlia.....	278
Piru Creek, above Lake Piru.....	235	San Antonio Reservoir near Bradley.....	317
near Piru.....	237	San Antonio River near Lockwood.....	316
Plunge Creek near East Highlands.....	148	San Benito River, near Hollister.....	336
Potter Valley powerhouse tailrace near Potter Valley.....	426	near Willow Creek School.....	333
Precipitation:		San Diego Creek near Irvine.....	140
Aliso Canyon Creek near New Cuyama.....	279	San Diego River near Santee.....	113
Arch Creek near Earp.....	21	San Dimas Creek below San Dimas Dam.....	200
Boom Creek near Barstow.....	79	San Felipe Creek, near Julian.....	53
Cache Creek near Mojave.....	86	near Westmorland.....	57
Cedar Gulch near Callahan.....	464	San Francisco Creek, at Stanford University.. below Ladera damsite, near Stanford University	358
China Spring Creek near Mountain Pass.....	42	San Gabriel River, above Whittier Narrows Dam.. at Pico.....	357
Colma Creek at South San Francisco.....	355	at Spring Street, near Los Alamitos.....	203
Corn Springs Wash near Desert Center.....	47	below Santa Fe Dam, near Baldwin Park.....	205
Cottonwood Wash near Cottonwood Spring.....	70	East Fork, near Camp Bonita.....	206
Darwin Creek near Darwin.....	39	West Fork, at Camp Rincon.....	199
Forty-nine Palms Creek near Twentynine Palms..	46	San Gabriel River basin, schematic diagram of... San Gorgonio River near White Water.....	196
Elder Creek near Branscomb.....	439	San Gregorio Creek at San Gregorio.....	197
Horse Thief Creek near Tecopa.....	71	San Jacinto River, near Elsinore.....	195
Inyo Creek near Lone Pine.....	97	near San Jacinto.....	59
Mission Creek near Desert Hot Springs.....	61	San Jose Creek (tributary to Pacific Ocean) near Goleta.....	353
Palm Canyon Creek tributary near Anza.....	64	San Jose Creek (tributary to San Gabriel River) near El Monte.....	180
Pine Creek at Bolinas.....	398	San Juan Creek near San Juan Capistrano.....	176
San Luis Rey River tributary near Pala.....	124	San Lorenzo Creek at San Lorenzo.....	257
Santa Rita Creek near Templeton.....	308	San Lorenzo Creek (Salinas River basin) below Bitterwater Creek, near King City.....	319
Sunflower Wash near Essex.....	44	San Lorenzo Creek (tributary to San Francisco Bay) at Hayward.....	382
Tar Spring Creek near Arroyo Grande.....	293	San Lorenzo River, at Big Trees.....	346
Temecula Creek at Vail Dam.....	129	near Boulder Creek.....	344
Vallecito Creek near Julian.....	56	San Luis Rey River, at Monserate Narrows, near Pala.....	125
Wildrose Creek near Wildrose Station.....	38	at Oceanside.....	127
Publications.....	9	near Bonsall.....	126
Putding Creek near Fort Bragg.....	420	tributary near Pala.....	124
Quail Wash near Joshua Tree.....	45	West Fork, near Warner Springs.....	121
Redwood Creek (tributary to Napa Creek) near Napa.....	393	San Ramon Creek, at San Ramon.....	388
Redwood Creek (tributary to Pacific Ocean) at Orick.....	454	at Walnut Creek.....	389
Redwood Creek (tributary to San Francisco Bay) at Redwood City.....	356	San Timoteo Creek near Loma Linda.....	154
Return surface flows below Imperial Dam, Ariz.-Calif.....	31	Santa Ageda Creek near Santa Ynez.....	267
Rheem Creek at San Pablo.....	385	Santa Ana Creek near Oak View.....	251
Rio Hondo, above Whittier Narrows Dam.....	222	Santa Ana River, at E Street, near San Bernardino.....	158
below Whittier Narrows Dam.....	226	at MWD Crossing, near Arlington.....	167
Flood-Flow Channel at Whittier Narrows Dam.. near Downey.....	204	at Riverside Narrows, near Arlington.....	172
near Downey.....	227	at Santa Ana.....	194
near Montebello.....	223	at Waterman Avenue, at San Bernardino.....	152
Riverside Narrows Water Quality Control Plant at Riverside Narrows, near Arlington.....	168	below Prado Dam.....	189
Rock Creek at Little Round Valley, near Bishop..	89	near Mentone.....	143
Rodriguez Reservoir at Rodriguez Dam, Baja California, Mexico.....	108	Santa Ana River basin, schematic diagram of....	141
Ross Creek at San Jose.....	362	Santa Ana River seepage investigation, Mentone to Rubidoux.....	488
Rush Creek above Grant Lake, near June Lake.....	102	MWD Crossing to Prado Dam.....	489
Russian River, East Fork, near Calpella.....	402	Santa Ana River spreading diversion near Mentone.....	145
East Fork, near Ukiah.....	404	Santa Anita Creek near Sierra Madre.....	221
near Cloverdale.....	406	Santa Clara River, at Los Angeles-Ventura County line.....	234
near Guerneville.....	414	at Montalvo.....	245
near Healdsburg.....	409	Santa Cruz Creek near Santa Ynez.....	264
near Hopland.....	405	Santa Margarita Lake near Pozo.....	304
near Ukiah.....	401	Santa Margarita River, at Ysidora.....	133
Russian River basin, crest-stage partial-record stations in.....	485	near Fallbrook.....	132
Ruth Reservoir near Forest Glen.....	449	near Temecula.....	131
Salinas River, above Pilitos Creek, near Santa Margarita.....	305	Santa Maria Creek near Ramona.....	119
at Paso Robles.....	309	Santa Maria River at Guadalupe.....	289
at Soledad.....	320	Santa Paula Creek near Santa Paula.....	242
near Bradley.....	318	Santa Rita Creek, near Templeton.....	308
near Pozo.....	302	tributary near Templeton.....	307
near Spreckels.....	323		

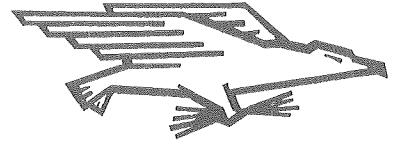
	Page		Page
Santa Rosa Creek (Russian River basin) near Santa Rosa.....	412	Temescal Creek near Corona.....	181
Santa Rosa Creek (tributary to Pacific Ocean) near Cambria.....	296	Tennile Creek near Laytonville.....	440
Santa Ynez River, above Gibraltar Dam, near Santa Barbara.....	261	Tennile River, Middle Fork, near Fort Bragg.....	421
at Cooper's Reef, near Lompoc.....	272	Tepusquet Creek near Sisquoc.....	287
at Jameson Lake, near Montecito.....	260	Terms and abbreviations, definition of.....	3
at narrows, near Lompoc.....	274	Tijuana River, near Dulzura.....	107
at Pine Canyon, near Lompoc.....	276	near Nestor.....	109
at Solvang.....	269	Tomki Creek near Willits.....	428
at 13th Street, near Lompoc.....	275	Topanga Creek near Topanga Beach.....	230
below Gibraltar Dam, near Santa Barbara.....	262	Tres Pinos Creek near Tres Pinos.....	335
below Los Laureles Canyon, near Santa Ynez.....	263	Trinity River, above Coffee Creek, near Trinity Center.....	470
near Buellton.....	271	at Hoopa.....	479
near Santa Ynez.....	266	at Lewiston.....	473
Santa Ysabel Creek, at Sutherland Dam.....	115	near Burnt Ranch.....	475
near Ramona.....	116	North Fork, at Helena.....	474
near San Pasqual.....	117	South Fork, below Hyampom.....	477
Santiago Creek, at Modjeska.....	191	Tujunga Creek, below Hansen Dam.....	217
at Santa Ana.....	193	below Mill Creek, near Colby Ranch.....	214
at Santiago Dam, near Villa Park.....	192	near Sunland.....	215
San Vincente Creek near Davenport.....	349	Upper Penitencia Creek at San Jose.....	370
Saratoga Creek at Saratoga.....	366	Uvas Creek, above Uvas Reservoir, near Morgan Hill.....	329
Saticoy diversion near Saticoy.....	243	near Gilroy.....	332
Scott Creek above Little Creek, near Davenport..	350	Uvas Reservoir, contents of.....	330
Scott River, East Fork, at Callahan.....	463	Vail Lake, contents of.....	129
near Fort Jones.....	465	Vallecito Creek near Julian.....	56
Selected references.....	11	Van Duzen River, near Bridgeville.....	447
Sespe Creek, near Fillmore.....	240	near Dinsmores.....	446
near Wheeler Springs.....	239	Ventura River, near Meiners Oaks.....	248
Shasta River near Yreka.....	462	near Ventura.....	253
Silver Canyon Creek near Laws.....	91	Walker Creek near Tomales.....	399
Sisquoc River, near Garey.....	288	Walnut Creek (Pacheco Creek basin) at Concord...	390
near Sisquoc.....	284	Warm Creek, floodway at San Bernardino.....	157
Smith River basin, crest-stage partial-record stations in.....	485	near San Bernardino.....	159
Smith River near Crescent City.....	483	Wasteway No. 1 near Mecca.....	71
Snow Creek near White Water.....	60	Waterman Canyon Creek near Arrowhead Springs...	156
Sonoma Creek at Agua Caliente.....	394	Whitewater River, at Indio.....	68
Soquel Creek, at Soquel.....	343	at White Water.....	58
near Soquel.....	342	near Mecca.....	69
West Branch, near Soquel.....	341	Wildcat Creek at Richmond.....	384
Special networks and programs.....	4	Wildrose Creek near Wildrose Station.....	38
Spencer Canyon Creek near Fairmont.....	83	Willow Creek near Willow Creek.....	478
Stage-discharge relation, definition of.....	4	Wilson Creek tributary near Dulzura.....	104
Stevens Creek Reservoir near Monte Vista.....	360	Wittenberg Creek near Arroyo Grande.....	291
Sunflower Wash near Essex.....	44	WRD, definition of.....	4
Sutherland Reservoir, contents of.....	115	WSP, definition of.....	4
Sweetwater River near Descanso.....	111	Yager Creek near Carlotta.....	448
Tar Spring Creek near Arroyo Grande.....	293	Zaca Creek near Buellton.....	270
Temecula Creek, at Vail Dam.....	129	Zayante Creek at Zayante.....	345
near Aguanga.....	128		
Temescal Creek, at Corona.....	182		







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