

Water-Supply Paper 831

## PART 11

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**CALIFORNIA**

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# CONTENTS

	Page
Scope of work.....	1
Definition of terms.....	1
Explanation of data.....	1
Accuracy of field data and computed results.....	2
Publications.....	3
Records of discharge collected by agencies other than the Geological Survey.....	8
Cooperation.....	8
Division of work.....	9
Gaging-station records.....	10
Tia Juana River Basin.....	10
Cottonwood Creek at Morena Dam, Calif.....	10
Cottonwood Creek near Dulzura, Calif.....	10
Cottonwood Creek above Tecate Creek, near Dulzura, Calif.....	11
Tia Juana River near Dulzura, Calif.....	12
Tia Juana River near Nestor, Calif.....	13
Campo Creek near Campo, Calif.....	14
Otay River Basin.....	15
Otay River at Savage Dam, Calif.....	15
Sweetwater River Basin.....	15
Sweetwater River at Sweetwater Dam, Calif.....	15
San Diego River Basin.....	16
San Diego River at El Capitan Dam, near Lakeside, Calif.....	16
San Diego River near Santee, Calif.....	17
Boulder Creek at Cuyamaca Reservoir, near Julian, Calif.....	19
San Vicente Creek at Foster, Calif.....	20
San Dieguito River Basin.....	21
Santa Ysabel Creek near Mesa Grande, Calif.....	21
San Dieguito River at Lake Hodges, Calif.....	22
San Luis Rey River Basin.....	22
San Luis Rey River at Lake Henshaw, near Mesa Grande, Calif.....	23
San Luis Rey River at Monserate Narrows, near Pala, Calif.....	23
San Luis Rey River near Bonsall, Calif.....	24
San Luis Rey River at Oceanside, Calif.....	25
Santa Margarita River Basin.....	26
Temecula Creek at Nigger Canyon, near Temecula, Calif.....	26
Temecula Creek at Railroad Canyon, near Temecula, Calif.....	28
Santa Margarita River near Fall Brook, Calif.....	30
Santa Margarita River at Ysidora, Calif.....	32
Marrieta Creek at Temecula, Calif.....	34
O'Neill Ditch near Ysidora, Calif.....	36
San Juan Creek Basin.....	38
San Juan Creek near San Juan Capistrano, Calif.....	38
Trabuco Creek near San Juan Capistrano, Calif.....	39
Aliso Creek Basin.....	40
Aliso Creek at El Toro, Calif.....	40
Santa Ana River Basin.....	41
Santa Ana River near Mentone, Calif.....	41
Santa Ana River near San Bernardino, Calif.....	43
Santa Ana River at Riverside Narrows, near Arlington, Calif.....	44
Santa Ana River at Hammer Avenue, near Corona, Calif.....	45
Santa Ana River at Auburndale Bridge, near Corona, Calif.....	46
Santa Ana River at Atchison, Topeka & Santa Fe Railway Bridge, near Prado, Calif.....	47
Santa Ana River near Prado, Calif.....	48
Santa Ana River at Santa Ana, Calif.....	49
Southern California Edison Co.'s canal and Greenspot pipe line near Mentons, Calif.....	50
Mill Creek near Craftonville, Calif.....	52
Mill Creek power canals 2 and 3, near Craftonville, Calif.....	54
Mill Creek power canal 1 near Craftonville, Calif.....	55
Plunge Creek near East Highlands, Calif.....	56
San Timoteo Creek near Redlands, Calif.....	57
Warm Creek near Colton, Calif.....	58
Strawberry Creek near Arrowhead Springs, Calif.....	60
Waterman Canyon Creek near Arrowhead Springs, Calif.....	61
City Creek near Highland, Calif.....	62
City Creek Water Co.'s canal near Highland, Calif.....	64
Devil Canyon Creek near San Bernardino, Calif.....	65
Lytle Creek near Fontana, Calif.....	66
Fontana pipe line near Fontana, Calif.....	68
Lytle Creek (east channel) at San Bernardino, Calif.....	69
Lytle Creek (west channel) at Colton, Calif.....	69
Cajon Creek near Keenbrook, Calif.....	70
Lone Pine Creek near Keenbrook, Calif.....	71
Meeks & Daley Canal near Colton, Calif.....	72
Day Creek near Etiwanda, Calif.....	73
Cucamonga Creek near Upland, Calif.....	74
San Jacinto River near San Jacinto, Calif.....	75
San Jacinto River near Elsinore, Calif.....	76
Elsinore Lake at Elsinore, Calif.....	77
Temescal Creek near Corona, Calif.....	78
Chino Creek near Prado, Calif.....	79
San Antonio Creek near Claremont, Calif.....	80
Southern California Edison Co.'s canal near Claremont, Calif.....	82
Santiago Creek near Villa Park, Calif.....	83

## Gaging-station records—Continued.

Santa Ana River Basin—Continued.	Page
Santiago Creek at Santa Ana, Calif.	84
Irvine ranch drainage canal near Tustin, Calif.	85
San Gabriel River Basin.	86
San Gabriel River near Camp Bonita, Calif.	86
San Gabriel River near Azusa, Calif.	88
West Fork of San Gabriel River at Camp Rincon, Calif.	89
Azusa Canal near Azusa, Calif.	90
Rogers Creek near Azusa, Calif.	91
Fish Creek near Duarte, Calif.	92
Sawpit Creek near Monrovia, Calif.	93
Monrovia pipe line near Monrovia, Calif.	94
San Dimas Creek near San Dimas, Calif.	95
Dalton Creek near Glendora, Calif.	96
San Jose Creek near Whittier, Calif.	97
Brea Creek at Fullerton, Calif.	98
Carbon Creek at Olinde, Calif.	99
Los Angeles River Basin.	100
Los Angeles River near Downey, Calif.	100
Los Angeles River at Long Beach, Calif.	101
Pacoma Creek near San Fernando, Calif.	102
Tujunga Creek near Colby Ranch, Calif.	103
Tujunga Creek near Sunland, Calif.	104
Fox Creek near Colby Ranch, Calif.	105
Little Tujunga Creek near San Fernando, Calif.	106
Haines Creek near Tujunga, Calif.	107
Arroyo Seco near Pasadena, Calif.	108
Santa Anita Creek near Sierra Madre, Calif.	109
Little Santa Anita Creek near Sierra Madre, Calif.	110
Eaton Creek near Pasadena, Calif.	111
Rio Hondo near Montebello, Calif.	112
Rio Hondo near Downey, Calif.	113
Rio Hondo Slough near Montebello, Calif.	114
Ballona Creek Basin.	115
Ballona Creek near Culver City, Calif.	115
Topanga Creek Basin.	116
Topanga Creek near Topanga Beach, Calif.	116
Malibu Creek Basin.	117
Malibu Creek at Crater Camp, near Calabasas, Calif.	117
Santa Clara River Basin.	118
Santa Clara River near Saugus, Calif.	118
Piru Creek near Piru, Calif.	119
Sespe Creek near Fillmore, Calif.	120
Santa Paula Creek near Santa Paula, Calif.	121
Ventura River Basin.	122
Matilija Creek at Matilija, Calif.	122
Ventura River near Ventura, Calif.	123
Coyote Creek near Ventura, Calif.	124
Santa Ynez River Basin.	125
Santa Ynez River at Juncal Reservoir, near Montecito, Calif.	125
Santa Ynez River near Santa Barbara, Calif.	125
Santa Ynez River below Gibraltar Dam, near Santa Barbara, Calif.	126
Santa Ynez River near Santa Ynez, Calif.	127
Santa Ynez River at Solvang, Calif.	128
Santa Ynez River near Lompoc, Calif.	129
Santa Maria River Basin.	130
Cuyama River near Santa Maria, Calif.	130
Huasna River near Santa Maria, Calif.	131
Salinas River Basin.	132
Salinas River near Santa Margarita, Calif.	132
Salinas River near Spreckels, Calif.	133
San Antonio River at Pleyto, Calif.	134
Arroyo Seco near Soledad, Calif.	135
Pajaro River Basin.	136
Uvas Creek near Morgan Hill, Calif.	136
San Lorenzo River Basin.	137
San Lorenzo River at Big Trees, Calif.	137
San Francisquito Creek Basin.	138
San Francisquito Creek at Stanford University, Calif.	138
San Francisquito Creek at Palo Alto, Calif.	139
Los Trancos Creek at Stanford University, Calif.	140
Los Trancos Canal near Stanford University, Calif.	141
Lagunita Canal at Stanford University, Calif.	142
Stevens Creek Basin.	143
Stevens Creek near Cupertino, Calif.	143
Guadalupe Creek Basin.	144
Guadalupe Creek at Guadalupe, Calif.	144
Guadalupe Creek at San Jose, Calif.	145
Alamitos Creek near Edenvale, Calif.	146
Los Gatos Creek at Los Gatos, Calif.	147
Campbell Creek at Saratoga, Calif.	148
Coyote Creek Basin.	149
Coyote Creek near Madrone, Calif.	149
Coyote Creek near Edenvale, Calif.	150
Alameda Creek Basin.	151
Alameda Creek near Niles, Calif.	151

Gaging-station records—Continued.

	Page
Kern River Basin.....	152
Kern River near Kernville, Calif.....	152
Kern River near Bakersfield, Calif.....	154
Kern River No. 3 Canal near Kernville, Calif.....	155
Borel Canal at Tilley Creek, Calif.....	156
South Fork of Kern River near Onyx, Calif.....	157
South Fork of Kern River at Isabella, Calif.....	158
Tulare Lake Basin.....	159
Tule River near Porterville, Calif.....	159
South Fork of Tule River near Success, Calif.....	180
Kaweah River near Three Rivers, Calif.....	181
North Fork of Kaweah River at Kaweah, Calif.....	182
Kings River near Hume, Calif.....	183
Kings River above North Fork, Calif.....	184
Kings River at Piedra, Calif.....	185
North Fork of Kings River near Cliff Camp, Calif.....	186
North Fork of Kings River below Rancheria Creek, Calif.....	187
Dinkey Creek at mouth, Calif.....	188
Los Gatos Creek near Coalinga, Calif.....	189
San Joaquin River Basin.....	170
San Joaquin River and tributaries above Fresno River.....	170
Florence Lake near Big Creek, Calif.....	170
South Fork of San Joaquin River near Florence Lake, Calif.....	171
San Joaquin River above Big Creek, Calif.....	172
San Joaquin River below Kerckhoff power house, Calif.....	173
San Joaquin River near Friant, Calif.....	174
San Joaquin River near Newman, Calif.....	175
San Joaquin River near Vernalis, Calif.....	176
Ward Tunnel at intake, Calif.....	178
Ward Tunnel at outlet, Calif.....	179
Bear Creek near Vermilion Valley, Calif.....	180
Mono Creek near Vermilion Valley, Calif.....	181
Huntington Lake near Big Creek, Calif.....	182
Big Creek below Huntington Lake, Calif.....	183
Shaver Lake near Big Creek, Calif.....	184
Fine Gold Creek near Friant, Calif.....	185
Fresno River Basin.....	186
Fresno River near Knowles, Calif.....	186
Chowchilla River Basin.....	187
Chowchilla River at Buchanan dam site, Calif.....	187
Merced River Basin.....	188
Merced River at Happy Isles Bridge, near Yosemite, Calif.....	188
Merced River at Pohono Bridge, near Yosemite, Calif.....	189
Merced River at Kittridge, Calif.....	190
Lake McClure at Exchequer, Calif.....	191
Merced River at Exchequer, Calif.....	192
Merced River near Livingston, Calif.....	193
Tenaya Creek near Yosemite, Calif.....	194
Orestimba Creek Basin.....	195
Orestimba Creek near Newman, Calif.....	195
Tuolumne River Basin.....	196
Hetch Hetchy Reservoir at Hetch Hetchy, Calif.....	196
Tuolumne River near Hetch Hetchy, Calif.....	197
Don Pedro Reservoir near La Grange, Calif.....	198
Tuolumne River above La Grange Dam, near La Grange, Calif.....	199
Falls Creek near Hetch Hetchy, Calif.....	200
Cherry Creek near Hetch Hetchy, Calif.....	201
Lake Eleanor near Hetch Hetchy, Calif.....	202
Eleanor Creek near Hetch Hetchy, Calif.....	203
South Fork of Tuolumne River near Oakland Recreation Camp, Calif.....	204
Middle Tuolumne River near Buck Meadows, Calif.....	205
Woods Creek near Jacksonville, Calif.....	206
Modesto Canal near La Grange, Calif.....	207
Turlock Canal near La Grange, Calif.....	208
Stanislaus River Basin.....	209
Middle Fork of Stanislaus River at Sand Bar Flat, near Avery, Calif.....	209
Melones Reservoir at Melones Dam, Calif.....	212
Stanislaus River below Melones power house, Calif.....	213
North Fork of Stanislaus River near Avery, Calif.....	214
South San Joaquin Canal near Knights Ferry, Calif.....	215
Oakdale Canal near Knights Ferry, Calif.....	216
Calaveras River Basin.....	217
Calaveras River at Jenny Lind, Calif.....	217
Cosgrove Creek near Valley Springs, Calif.....	218
Mokelumne River Basin.....	219
Salt Springs Reservoir near West Point, Calif.....	219
North Fork of Mokelumne River below Salt Springs Dam, Calif.....	220
Mokelumne River near Mokelumne Hill, Calif.....	221
Mokelumne River at Lancha Plana, Calif.....	222
Mokelumne River near Clements, Calif.....	223
Mokelumne River at Woodbridge, Calif.....	224
Tiger Creek power-house conduit below Salt Springs Dam, Calif.....	225
Cold Creek near Mokelumne Peak, Calif.....	226
Bear River at Pardoe Camp, Calif.....	227
Middle Fork of Mokelumne River at West Point, Calif.....	228
South Fork of Mokelumne River near West Point, Calif.....	229



## Gaging-station records--Continued.

## San Joaquin River Basin--Continued.

## Mokelumne River Basin--Continued.

	Page
Woodbridge Canal at Woodbridge, Calif.....	230
Sutter Creek near Sutter Creek, Calif.....	231
North Fork of Cosumnes River near El Dorado, Calif.....	232
Cosumnes River at Michigan Bar, Calif.....	233
Goose Lake Basin.....	234
Drew Creek near Lakeview, Oreg.....	234
Cottonwood Creek near Lakeview, Oreg.....	236
Sacramento River Basin.....	237
Sacramento River main stem.....	237
Sacramento River at Antler, Calif.....	237
Sacramento River at Kennett, Calif.....	238
Sacramento River near Red Bluff, Calif.....	239
Sacramento River at Butte City, Calif.....	240
Sacramento River at Colusa, Calif.....	241
Sacramento River below Wilkins Slough, Calif.....	242
Sacramento River at Knights Landing, Calif.....	243
Sacramento River at Verona, Calif.....	244
Pit River Basin.....	245
Pit River near Canby, Calif.....	245
Pit River at Fall River Mills, Calif.....	246
Pit River below Pit No. 4 Dam, Calif.....	247
Pit River at Big Bend, Calif.....	248
Pit River near Ydallpam, Calif.....	249
South Fork of Pit River near Likely, Calif.....	250
Hat Creek near Hat Creek, Calif.....	251
McCloud River near McCloud, Calif.....	252
McCloud River at Baird, Calif.....	253
Mill Creek Basin.....	254
Mill Creek near Los Molinos, Calif.....	254
Elder Creek Basin.....	255
Elder Creek near Henleyville, Calif.....	255
Thomas Creek Basin.....	256
Thomas Creek at Paskenta, Calif.....	256
Deer Creek Basin.....	257
Deer Creek near Vina, Calif.....	257
Chico Creek Basin.....	258
Chico Creek near Chico, Calif.....	258
Stony Creek Basin.....	259
Stony Creek above Stony Gorge Reservoir, Calif.....	259
Grindstone Creek near Elk Creek, Calif.....	260
Butte Creek Basin.....	261
Butte Creek near Chico, Calif.....	261
Feather River Basin.....	262
Lake Almanor near Prattville, Calif.....	262
North Fork of Feather River near Prattville, Calif.....	263
North Fork of Feather River at Big Bar, Calif.....	264
Feather River near Oroville, Calif.....	265
Feather River at Nicolaus, Calif.....	266
Butt Creek above Tunnel No. 1, near Prattville, Calif.....	267
Indian Creek near Crescent Mills, Calif.....	268
Spanish Creek at Keddie, Calif.....	269
Bucks Creek storage reservoir near Bucks ranch, Calif.....	270
Grizzly Creek near Storrie, Calif.....	271
West Branch of Feather River near Yankee Hill, Calif.....	272
Concow Creek near Yankee Hill, Calif.....	273
Spring Valley Ditch near Yankee Hill, Calif.....	274
Middle Fork of Feather River near Clito, Calif.....	275
Middle Fork of Feather River at Bidwell Bar, Calif.....	276
South Fork of Feather River at Enterprise, Calif.....	277
Lost Creek near Clipper Mills, Calif.....	278
Forbestown Ditch near Clipper Mills, Calif.....	279
Palermo Canal at Enterprise, Calif.....	280
Middle Fork of Yuba River at Milton, Calif.....	281
Middle Fork of Yuba River near North San Juan, Calif.....	282
Yuba River at Smartville, Calif.....	283
Milton-Bowman Tunnel at outlet, Calif.....	284
Oregon Creek near North San Juan, Calif.....	285
North Fork of Yuba River near Sierra City, Calif.....	286
North Fork of Yuba River below Goodyears Bar, Calif.....	287
Bowman Lake near Graniteville, Calif.....	288
Canyon Creek below Bowman Lake, Calif.....	289
Bowman-Spaulding Canal at intake, Calif.....	290
Deer Creek near Smartville, Calif.....	291
Bear River near Wheatland, Calif.....	292
Bear River Canal near Colfax, Calif.....	293
American River Basin.....	294
North Fork of American River near Colfax, Calif.....	294
North Fork of American River at Rattlesnake Bridge, Calif.....	295
American River at Fair Oaks, Calif.....	296
American River at Sacramento, Calif.....	297
Middle Fork of American River near Auburn, Calif.....	298
South Fork of American River near Kyburz, Calif.....	299
South Fork of American River near Camino, Calif.....	300

## Gaging-station records—Continued.

## Sacramento River Basin—Continued.

## American River Basin—Continued.

	Page
South Fork of American River at Coloma, Calif.....	301
Echo Lake flume near Vade, Calif.....	302
Medley Lakes outlet near Vade, Calif.....	303
Silver Lake outlet near Kirkwood, Calif.....	304
Seepage from Silver Lake near Kirkwood, Calif.....	305
Silver Fork of South Fork of American River near Kyburz, Calif.....	306
Twin Lakes outlet near Kirkwood, Calif.....	307
El Dorado Canal near Kyburz, Calif.....	308
Alder Creek near Whitehall, Calif.....	309
Plum Creek near Riverton, Calif.....	310
Silver Creek at Union Valley, Calif.....	311
Silver Creek near Placerville, Calif.....	312
South Fork of Silver Creek near Ice House, Calif.....	313
Finnon Reservoir outlet near Placerville, Calif.....	314
American River flume near Camino, Calif.....	315
Cache Creek Basin.....	316
Clear Lake at Lakeport, Calif.....	316
Cache Creek at Yolo, Calif.....	317
North Fork of Cache Creek near Lower Lake, Calif.....	318
Putah Creek Basin.....	319
Putah Creek near Guenoc, Calif.....	319
Putah Creek near Winters, Calif.....	320
Napa River Basin.....	321
Conn Creek near St. Helena, Calif.....	321
Eel River Basin.....	322
Lake Pillsbury at Hullville, Calif.....	322
Eel River at Hullville, Calif.....	323
Eel River at Van Arsdale, Dam, near Potter Valley, Calif.....	324
Eel River at Scotia, Calif.....	325
Potter Valley power-house tailrace near Potter Valley, Calif.....	326
Klamath River Basin.....	327
Williamson River below Sprague River, near Chiloquin, Oreg.....	327
Upper Klamath Lake near Klamath Falls, Oreg.....	328
Link River at Klamath Falls, Oreg.....	329
Klamath River at Keno, Oreg.....	330
Klamath River below Fall Creek, near Copco, Calif.....	331
Klamath River at Somesbar, Calif.....	332
Sprague River near Chiloquin, Oreg.....	333
Fourmile Lake Reservoir near Odessa, Oreg.....	334
Cascade Canal near Fish Lake, Oreg.....	335
"A" Canal at Klamath Falls, Oreg.....	336
Keno Canal at Klamath Falls, Oreg.....	337
Lost River Diversion Canal near Olene, Oreg.....	338
Diversion from Klamath River to Lost River near Olene, Oreg.....	339
Fall Creek at Copco, Calif.....	340
Hyatt Prairie Reservoir near Ashland, Oreg.....	341
Keene Creek Canal near Ashland, Oreg.....	342
Shasta River near Yreka, Calif.....	343
Salmon River at Somesbar, Calif.....	344
Trinity River at Lewiston, Calif.....	345
Trinity River near Burnt Ranch, Calif.....	346
Trinity River near Hoopa, Calif.....	347
Smith River Basin.....	348
Smith River near Crescent City, Calif.....	348
Miscellaneous discharge measurements.....	349
Index.....	353

## ILLUSTRATION

Plate 1. Typical river-measurement stations.....	Page 2
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## SURFACE WATER SUPPLY OF PACIFIC SLOPE BASINS IN CALIFORNIA, 1937

### SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made on streams in the United States during the water year ending September 30, 1937. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of stream flow have been made at about 7,200 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1937, 3,380 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 7.

### DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-foot" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel when the cross-sectional area is 1 square foot and the average velocity is 1 foot per second.

"Second-foot per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

"Run-off in inches" is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on its surface. It is used for comparing run-off with rainfall, which is usually expressed in inches.

An "acre-foot", equivalent to 43,560 cubic feet, is the quantity required to cover an acre to the depth of 1 foot. The term is commonly used in connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours.

"Stage-discharge relation" is an abbreviation for the term "relation of gage height to discharge."

"Control" is a term used to designate the natural section or reach of the channel or artificial structure below the gage which determines the stage-discharge relation at the gage.

### EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either

from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical gaging stations, equipped with water-stage recorder and measuring cable and car, are shown on plate 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily gage height to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

The data presented for each gaging station in the area covered by this report usually comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off. Skeleton rating tables are published except for those stations whose daily discharge for the greater part of the year was determined by shifting-control method or by use of slope or other special methods.

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Information under "Extremes" gives the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation, and also the minimum discharge if useful; and the minimum gage height except when it is of no importance. Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum represents the lowest discharge unless otherwise qualified.

The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once daily or the mean of twice-daily readings of the gage. For stations equipped with water-stage recorders the table gives the discharge corresponding to the mean daily gage height except for stations on streams subject to sudden or rapid fluctuation. For stations subject to such fluctuation the mean daily gage height may not indicate the true mean daily discharge, which must be obtained by averaging the discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining the mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the discharge given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the discharge when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" is the average flow in cubic feet per second during the month.

#### ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanency of the stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are accurate within



A. ARTIFICIAL CONTROL, RECORDER HOUSE, AND MEASURING CABLE ON OLENTANGY RIVER, DELAWARE, OHIO.



B. RECORDER HOUSE AND MEASURING CABLE ON KAWEAH RIVER, THREE RIVERS, CALIF.

TYPICAL RIVER-MEASUREMENT STATIONS.

5 percent; "good", within 10 percent; "fair", within 15 percent; and "poor", within 20 percent or more.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and depth in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and the discharge recorded does not show the water supply available for further development, as prior appropriations below the station must first be satisfied.

The table of monthly discharge gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with increased data and use of improved equipment.

#### PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

- Part 1. North Atlantic slope basins (St. John River to York River).  
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).  
3. Ohio River Basin.  
4. St. Lawrence River Basin.  
5. Hudson Bay and upper Mississippi River basins.  
6. Missouri River Basin.  
7. Lower Mississippi River Basin.  
8. Western Gulf of Mexico basins.  
9. Colorado River Basin.  
10. The Great Basin.  
11. Pacific slope basins in California.  
12. Pacific slope basins in Washington and upper Columbia River Basin.  
13. Snake River Basin.  
14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the Geological Survey containing data in regard to the water resources of the United States may be obtained or consulted as indicated below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.
2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.
3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey as follows:

Augusta, Maine, Statehouse.  
Boston, Mass., 945 Post Office Building.  
Hartford, Conn., 203 Federal Building.  
Albany, N. Y., 528 Federal Building.  
Trenton, N. J., 228 Federal Building.

Harrisburg, Pa., 490 Education Building.  
 Charlottesville, Va., University of Virginia.  
 South Charleston, W. Va., Naval Ordnance Plant.  
 Asheville, N. C., 220 Post Office Building.  
 Columbia, S. C., 119 United States Courthouse.  
 Atlanta, Ga., Georgia School of Technology.  
 Ocala, Fla., Post Office Building.  
 Montgomery, Ala., Post Office Building.  
 Chattanooga, Tenn., 442 Post Office Building.  
 Louisville, Ky., Federal Building.  
 Columbus, Ohio, Engineering Experiment Station, Ohio State University.  
 Indianapolis, Ind., 319 Federal Building.  
 Urbana, Ill., 14 Post Office Annex.  
 Madison, Wis., 337N State Capitol.  
 St. Paul, Minn., 603 New Post Office Building.  
 Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.  
 St. Louis, Mo., 906 Customhouse, 1114 Market Street.  
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.  
 Topeka, Kans., 305 Federal Building.  
 Fort Smith, Ark., Post Office Building.  
 Austin, Tex., State Highway Building.  
 Santa Fe, N. Mex., 3 United States Courthouse.  
 Tucson, Ariz., 210 Post Office Building.  
 Denver, Colo., 230 Customhouse.  
 Salt Lake City, Utah, 303 Federal Building.  
 Idaho Falls, Idaho, 228 Federal Building.  
 Boise, Idaho, 429 Federal Building.  
 Helena, Mont., 412 Federal Building.  
 Tacoma, Wash., 406 Federal Building.  
 Portland, Oreg., 606 Post Office Building.  
 San Francisco, Calif., 208 Federal Office Building.  
 Los Angeles, Calif., 512 Eighth and Figueroa Building.  
 Honolulu, Hawaii, 225 Federal Building.

A list of the Geological Survey publications may be obtained by applying to the Director, Geological Survey, Washington, D. C.

Records of flow of streams in the United States have been published in the reports tabulated as follows:

Stream-flow data in reports of the Geological Survey  
 (A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.....	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to Sept. 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93).....	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.	1893-94.
16th A, pt. 2	Descriptive information only.....	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28.....	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)....	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.	1900.
22d A, pt. 4.	Monthly discharge.....	1900.
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.	1901.
W 75.....	Monthly discharge.....	1901.

Note.- The reports which contain records after 1901 are given in the table on page 5.

Numbers of water-supply papers containing results of stream measurements, 1899-1937

(For basins included see p. 3)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b 35, 36	36	36	36	c 36, 37	37	37	d 37, 38	38, e 38	38, f 39	39	39	39
1900 g...	47, h	48, i	48, j	48, k	48, l	48, m	48, n	48, o	48, p	48, q	48, r	48, s	48, t	48, u
1901 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1902 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1903 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1904 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1905 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1906 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1907-9...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1909 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1910 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1911 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1912 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1913 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1914 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1915 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1916 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1917 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1918 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1919 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1920 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1921 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1922 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1923 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1924 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1925 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1926 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1927 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1928 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1929 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1930 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1931 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1932 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1933 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1934 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1935 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1936 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57
1937 g...	56, 56	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57	57, 57

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply

Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.

b James River only.

c Gallatin River.

d Green and Gunnison Rivers and Colorado River above Gunnison River.

e McJannet River only.

f Kings and Kern Rivers and south Pacific slope basins.

g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation,

well, and irrigation in California and Utah contained in Water-Supply Paper 52.

h Rating tables and index to Water-Supply Papers 53-57, part 4.

i Wasekaton and Schuykill Rivers to James River.

j Scioto River.

k Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.

l Tributaries of Mississippi River from east.

m Lake Ontario and tributaries to St. Lawrence River proper.

n Hudson Bay only.

o New England rivers only.

p Hudson River to Delaware River, inclusive.

q Susquehanna River to York River, inclusive.

r Platte and Kansas Rivers.

s The Great Basin in California, except Truckee and Carson River Basins.

t Below Junction with Sacramento River.

u Rogue, Umpqua, and Siletz Rivers only.



The foregoing table gives, by years and drainage basins, the numbers of the papers on surface water supply published from 1899 to 1937. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data from 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report in the same relative order as the regular gaging stations. An index of the records obtained prior to 1904 has been published in Water-Supply Paper 119.

From time to time reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following table gives the numbers and titles of these reports, arranged in alphabetical order by States and drainage basins.

Reports containing compilation of discharge by States and drainage basins

Water-Supply Paper	Year ending	State or drainage basin and title
<b>STATE</b>		
107	1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific coast river basins.
447	1918	California, Surface water supply of the southern Pacific slope of.
597e	1927	California, Surface water supply of Sacramento River Basin.
636d	1927	California, Surface water supply of San Joaquin River Basin.
636e	1927	California, Surface water supply of Pacific slope basins in.
637a	1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1900	Colorado, Water resources of.
197	1905	Georgia, Water resources of.
415	1915	Massachusetts, Surface waters of.
230	1906	Nebraska, Surface water supply of.
370	1910	Oregon, Surface water supply of.
424	1916	Vermont, Surface waters of.
492	1919	Washington, Summary of hydrometric data in.
469	1921	Wyoming, Surface waters of, and their utilization.
<b>DRAINAGE BASIN</b>		
395	1914	Colorado River (Colo., Utah, etc.) and its utilization, 1916.
617	1927	Colorado River, upper (Colo., Utah), and its utilization, 1929.
517	1920	Great Salt Lake Basin, Water powers of, 1924.
618	1926	Green River (Wyo., Utah) and its utilization, 1930.
198	1906	Kennebec River Basin (Maine), Water resources of, 1907.
		Milk River. (See St. Mary and Milk Rivers.)
536	1920	New-Kanawha River Basin (W. Va., Va., N. C.), Surface water supply of, 1925.
279	1909	Penobscot River Basin (Maine), Water resources of, 1912.
192	1906	Potomac River Basin (W. Va., Va., Md., etc.), 1907.
358	1913	Rio Grande Basin (N. Mex., Tex., etc.), Water resources of, 1888-1913.
491	1917	St. Mary and Milk Rivers (Mont. and Canada), Water supply of, 1920.
109	1904	Susquehanna River Basin (Pa., Md.), Hydrography of, 1905.

In addition to the records noted above, records of discharge have been published in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports.

## State reports containing compilation of records of discharge

State	Year ending	Report	Issued by
Alabama....	1915	Bull. 17, Water powers of Alabama....	Geological Survey of Alabama.
Arkansas....	1928	Stream gaging report 1.....	Arkansas Geological Survey.
Georgia....	1920	Bull. 38, Water powers of Georgia....	Geological Survey of Georgia.
Illinois....	1937	Stream flow data of Illinois.....	Division of Waterways
Do.....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Indiana....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	<sup>a</sup> 1930	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	<sup>b</sup> 1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Kansas....	<sup>c</sup> 1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	<sup>d</sup> 1924	.....do.....	Do.
Do.....	<sup>e</sup> 1928	.....do.....	Do.
Kentucky...	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Minnesota..	1912	Water resources investigation of Minnesota.	State Drainage Commission.
Missouri...	1926	Reports of Bureau of Geology and Mines, Vol. 20, 2d series, Water Resources of Missouri.	Missouri Bureau of Geology and Mines
Nebraska...	1914	1st hydrographic report.....	Bureau of Water Power, Irrigation and Drainage.
Do.....	<sup>e</sup> 1928	2d hydrographic report.....	Do.
New Jersey..	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	<sup>f</sup> 1934	Special Report 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico..	1925	Surface water supply of New Mexico....	Office of the State Engineer.
North Carolina.	1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Oregon.....	1914 <sup>g</sup>	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	<sup>h</sup> 1924	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	<sup>i</sup> 1930	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	<sup>j</sup> 1936	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	<sup>k</sup> 1932	Stream-flow records of Pennsylvania...	Department of Forests and Waters.
Tennessee..	1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	<sup>l</sup> 1930	Bull. 40, Surface waters of Tennessee.	Do.
Utah.....	1905	5th Biennial Report, State Engineer...	Office of the State Engineer.
Virginia....	1927	Bull. 31, Water resources of Virginia.	Conservation and Development Commission.
Washington..	1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin...	1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	<sup>m</sup> 1923	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

<sup>a</sup> Includes records for the years 1927-30.

<sup>b</sup> Includes records for the years 1895-1919.

<sup>c</sup> Includes records for the years 1919-24.

<sup>d</sup> Includes records for the years 1924-28.

<sup>e</sup> Includes records for the years 1914-28.

<sup>f</sup> Includes records for the years 1928-34.

<sup>g</sup> Includes records for the years 1914-24.

<sup>h</sup> Includes records for the years 1924-30.

<sup>i</sup> Includes records for the years 1930-36.

<sup>j</sup> Includes records for the years 1928-32.

<sup>k</sup> Includes average weekly discharge for the years 1920-30.

<sup>l</sup> Includes records for the years 1914-23.

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Idaho, Indiana, Missouri, Montana, Nebraska, New Mexico, New York (also New York City Board of Water Supply), North Dakota, Oregon, Pennsylvania, Utah, Washington, and Wyoming.

## RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of daily discharge were collected during the year ending September 30, 1936, by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey.

Records of daily discharge collected by agencies other than the Geological Survey

River	Location	Period
Alhambra Wash.....	Short Street, Wilmar, Calif.....	*1929-37
Ballona Creek.....	Sawtelle Blvd., Los Angeles, Calif.....	**1936-37
Benedict Canyon Creek...	Wesley Street, near Palms, Calif.....	†1934-37
Centinela Creek.....	Centinela Boulevard, near Culver City, Calif.....	*1932-37
Clear Lake Reservoir (elevation and discharge).	Sec. 8, T. 47 N., R. 8 E., in California, near Langell Valley, Oreg.	†1910-24 1924-37
Compton Creek.....	Rosecrans Avenue, Compton, Calif.....	*1928-37
Do.....	Cressy Street bridge, Los Angeles, Calif.....	**1936-37
Coyote Creek.....	Above Pacific Electric Railway bridge near Artesia, Calif.†	*1928-37
Devils Canyon Creek.....	3 miles above San Gabriel Dam No. 2, Calif.....	*1933-37
Dume (Zuma) Creek.....	Roosevelt Highway bridge, Calif.....	*1930-37
Eaton Wash.....	Sunset Avenue, near El Monte, Calif.....	*1930-37
Gerber Reservoir (elevation and discharge).	Sec. 12, T. 39 S., R. 13 E., near Lorella, Oreg....	†1926-37
"J" Canal.....	Intake, near SE. corner of sec. 7, T. 41 S., R. 11 E., Oreg.	†1923-37
Little Santa Anita Creek	270 feet below flood-control dam at Sierra Madre, Calif.†	*1929-37
Live Oak Creek.....	½ mile below flood-control dam near La Verne, Calif.	†1928-37
Los Angeles River.....	Van Nuys Boulevard, near Van Nuys, Calif.....	†1928-37
Do.....	Vineland Avenue, near Universal City, Calif.....	*1930-37
Do.....	Stewart & Gray Road bridge, Los Angeles, Calif.....	**1936-37
Do.....	Figueras-Dayton bridge, Los Angeles, Calif.....	*1936-37
Lost River.....	Below diversion dam near corner of sec. 7, T. 41 S. R. 11 E., Oreg.	†1913-37
Do.....	Stone bridge below diversion dam near corner of secs. 7, 8, 17, 18, T. 41 S., R. 11 E., near Merrill, Oreg.	†1923-37
Monrovia Creek.....	Above junction with Sawpit Creek, near Monrovia, Calif.	*1927-37
Monrovia Storm Drain...	Peck Road, Monrovia, Calif.....	*1932-37
Montebello Storm Drain...	Mines Avenue, Montebello, Calif.....	*1932-37
Pacoma Wash.....	Parthenia Street, near Van Nuys, Calif.....	*1928-37
Puddingstone Creek.....	Below flood-control dam near San Dimas, Calif.....	*1927-37
Rio Hondo.....	Lower Azusa Road, 1½ miles north of El Monte, Calif.	*1932-37
Rubio Wash.....	Glendon Way, near San Gabriel, Calif.....	*1928-37
San Antonio Creek.....	Mouth of canyon near Claremont, Calif.....	*1931-37
San Gabriel River.....	Foothill Boulevard, near Azusa, Calif.....	*1932-37
Do.....	Elliot Street, near El Monte, Calif.....	*1937
Do.....	Spring Street, near Long Beach, Calif.....	*1928-37
Do.....	Telegraph Road, near Santa Fe Springs, Calif.....	*1934-37
Santa Anita Creek.....	700 feet above junction with Little Santa Anita Creek, near Arcadia, Calif.	*1927-37
Santa Anita Wash.....	Below Arrow Highway, near Arcadia, Calif.....	*1932-37
Sepulveda Creek.....	Charnock Road, Alhambra City, Calif.....	*1932-37
Sycamore Storm Drain...	Adams Square, Glendale, Calif.....	*1927-37
Tujunga Wash.....	Stonehurst Avenue, near San Fernando, Calif.....	*1932-37
Tujunga Wash (east and west channels).	Magnolia Boulevard, North Hollywood, Calif.....	*1930-37
Verdugo Storm Drain....	Don Carlos Avenue, Glendale, Calif.....	*1928-37
Walnut Wash.....	Covina Boulevard, at Baldwin Park, Calif.....	*1928-37
West Fork of San Gabriel River.	½ mile below flood-control dam no. 2, Calif.....	*1934-37

\*Station operated by Los Angeles County Flood Control District. Records are available at the office of Los Angeles County Flood Control District in Los Angeles, Calif., or in its published reports.

†Unpublished records collected by Bureau of Reclamation.

‡Station moved a short distance during water year ending Sept. 30, 1937. Records equivalent to those at former location.

\*\*Station operated by Corps of Engineers, U. S. Army, in conjunction with Los Angeles County Flood Control District. Records are unpublished.

## COOPERATION

In California the work was done under cooperative agreement with the State Department of Public Works, Earl Lee Kelly, director, and Edward Hyatt, State engineer. Work was also done under cooperative agreements with the East Bay Municipal Utility District;

Stanford University; Santa Clara Valley Water Conservation District; San Bernardino, Riverside, Orange, Los Angeles, and Ventura Counties; and the cities of San Diego, Santa Barbara, San Luis Obispo, and Santa Cruz. In Oregon the work was done under cooperative agreement with the State of Oregon, Chas. E. Stricklin, State engineer.

The entire expense of the stream-flow investigations in the Tuolumne River Basin for the Hetch Hetchy project and for Alameda Creek near Niles was paid by the city and county of San Francisco.

Assistance in collecting records was also rendered by the United States Forest Service, National Park Service, and the following organizations: In California, by the Southern California Edison Co., Ltd., San Joaquin Light & Power Corporation, Pacific Gas & Electric Co., City of Sacramento, Merced Irrigation District, Emma Rose & Hobart Estate Co., Thermalito and Table Mountain Irrigation Districts, all permittees and licensees of the Federal Power Commission; in Oregon by The California Oregon Power Co.

#### DIVISION OF WORK

The data for stations in California (except the stations on Fall Creek and Klamath River near Copco) were collected and prepared for publication under the supervision of H. D. McGlashan, district engineer; in Oregon (also stations in California on Fall Creek and Klamath River near Copco) under the supervision of G. H. Canfield, district engineer. The work in Oregon was done in collaboration with Charles E. Stricklin, State engineer.

## TIA JUANA RIVER BASIN

Cottonwood Creek at Morena Dam, Calif.

Location.- Lat.  $32^{\circ}41'00''$ , long.  $116^{\circ}32'55''$ , in SW $\frac{1}{4}$  sec. 14, T. 17 S., R. 4 E.,  $1\frac{1}{2}$  miles above junction with Hauser Creek, at Morena Dam. Altitude, top of spillway gates, 3,045 feet.

Drainage area.- 120 square miles.

Records available.- January 1916, October 1936 to September 1937.

Remarks.- Inflow into reservoir computed on basis of records of storage, release, evaporation, and rainfall. Records furnished by city of San Diego.

Monthly discharge, 1936-37

Month	Mean (second-feet)	Run-off in acre-feet
October.....	3.63	223
November.....	1.61	96
December.....	16.7	1,030
January.....	24.4	1,500
February.....	333	18,520
March.....	158	9,710
April.....	120	6,060
May.....	48.2	2,960
June.....	24.8	1,480
July.....	14.3	881
August.....	10.1	619
September.....	7.56	450
Water year 1936-37..	60.1	43,530

Cottonwood Creek near Dulzura, Calif.

Location.- Lat.  $32^{\circ}40'45''$ , long.  $116^{\circ}40'20''$ , NW $\frac{1}{4}$  sec. 22, T. 17 S., R. 3 E., at Barrett dam about one mile below junction with Pine Valley Creek and about 17 miles northeast of Dulzura. Altitude, top of flash gates 1,615 feet.

Drainage area.- 250 square miles.

Records available.- January 1906 to December 1915, October 1936 to September 1937.

Remarks.- Regulation at Morena Dam, about 9 miles upstream. Inflow into Barrett Reservoir computed on basis of records of storage, release, evaporation and rainfall. Records furnished by city of San Diego.

Monthly discharge, 1936-37

Month	Mean (second-feet)	Run-off in acre-feet
October.....	1.24	76
November.....	1.23	73
December.....	15.2	932
January.....	32.3	1,990
February.....	473	26,290
March.....	221	13,570
April.....	155	9,220
May.....	62.4	3,830
June.....	25.1	1,490
July.....	9.87	607
August.....	9.89	608
September.....	4.92	293
Water year 1936-37..	51.5	58,980

Cottonwood Creek above Tecate Creek, near Dulzura, Calif.

Location.- Water-stage recorder, lat.  $32^{\circ}34'10''$ , long.  $116^{\circ}45'40''$ , in sec. 27, T. 18 S., R. 2 E., half a mile above junction with Tecate Creek and  $5\frac{1}{2}$  miles south of Dulzura.

Drainage area.- 316 square miles.

Records available.- October 1936 to September 1937.

Extremes.- Maximum discharge during year, 2,775 second-feet Feb. 7 (gage height, 9.65 feet); no flow for several months.

Remarks.- Record good. Regulation at Barrett and Morena Reservoirs, 10 and 18 miles, respectively, above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	49	8	56	283	35	15	5.5	1.2	
2			0	22	6.5	53	223	36	12	5.5	.9	
3			0	14	5.5	48	138	36	11	5.5	.7	
4			0	9	5	41	104	36	11	5	.5	
5			0	7	4.5	39	119	36	11	5	.3	
6			0	19	239	37	123	36	10	5	.1	
7			0	43	1,450	36	132	34	10	5	.1	
8			0	51	305	32	67	34	10	4.8	.1	
9			0	34	194	29	54	34	9.5	4.5	0	
10			0	22	146	27	47	34	9.5	3.9	0	
11			0	18	130	24	42	33	8.5	3.5	0	
12			0	16	118	48	40	32	8	3.5	0	
13			0	36	110	144	39	31	8	3.2	0	
14			0	30	341	94	37	29	8	2.8	0	
15			0	22	234	75	36	27	7.5	2.8	0	
16			0	19	176	126	37	25	7.5	2.8	0	
17			0	17	148	114	41	22	6	2.8	0	
18			0	14	126	120	56	21	8	2.8	0	
19			0	16	100	96	87	20	7.5	2.5	0	
20			0	17	60	75	132	17	7.5	2.5	0	
21			0	15	66	65	136	13	7	2.8	0	
22			0	10	58	114	146	12	7	2.5	0	
23			0	10	64	158	112	13	7	2.5	0	
24			0	9	52	102	99	13	7	3.0	0	
25			0	8	79	153	67	13	6.5	2.5	0	
26			0	7	133	126	61	16	6.5	2.1	0	
27			.5	7	89	110	60	16	6.5	1.9	0	
28			28	6.5	62	128	58	14	6.5	2.1	0	
29			23	6.5	-	120	48	14	6	2.5	0	
30			7.5	7	-	298	39	16	6	2.1	0	
31			90	9.5	-	331	-	14	-	1.4	0	
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						149.0	90	0	4.81	296		
Calendar year .....												
January.....						569.5	51	6.5	18.4	1,130		
February.....						4,519.5	1,450	4.5	161	8,960		
March.....						2,999	331	24	96.7	5,950		
April.....						2,663	283	36	88.8	5,280		
May.....						755	35	12	24.4	1,500		
June.....						251.5	13	6	8.58	499		
July.....						103.9	5.5	1.4	3.56	206		
August.....						3.9	1.2	0	.13	7.7		
September.....						0	0	0	0	0		
Water year 1936-37 .....						12,014.3	1,450	0	32.9	23,830		

## Tia Juana River near Dulzura, Calif.

Location.- Water-stage recorder, lat. 32°33'50", long. 116°46'25", in sec. 33, T. 18 S., R. 2 E., half a mile below junction of Cottonwood and Tecate Creeks and 5½ miles south of Dulzura.

Drainage area.- 478 square miles (62 square miles in Mexico).

Records available.- October 1936 to September 1937.

Extremes.- Maximum discharge during year, 4,700 second-feet Feb. 7 (gage height, 6.50 feet); no flow at times.

Remarks.- Records good except those for Feb. 6 to Mar. 22. Discharge for July 24 to Aug. 1, Aug. 7-25 computed on basis of records for stations on nearby streams.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	70	11	108	446	64	18	5.5	1.2	
2			0	31	9	104	360	62	15	5.5	1.0	
3			0	18	8	93	230	57	14	5.5	1.0	
4			0	11	7.5	88	168	57	14	5.5	.7	
5			0	8	7	80	180	57	13	5.5	.6	
6			0	32	313	80	180	55	13	5.5	.4	
7			0	73	2,180	73	180	53	13	4.9	.4	
8			0	87	406	68	113	53	13	5.5	.3	
9			0	53	285	64	94	53	13	4.9	.3	
10			0	37	216	62	88	53	13	4.2	.2	
11			0	28	190	64	80	50	13	3.4	.2	
12			0	27	182	97	77	48	13	3.4	.1	
13			0	55	190	191	72	44	12	3.4	.1	
14			0	48	474	160	70	37	11	3.4	.1	
15			.2	36	357	130	72	34	10	3.2	.1	
16			.1	31	266	197	75	28	10	3.1	.1	
17			.1	26	236	192	80	25	10	3.4	.1	
18			0	21	205	190	88	22	10	3.4	.1	
19			0	26	180	170	120	21	9	2.7	.1	
20			0	26	153	146	168	18	8	2.5	.1	
21			0	20	133	135	172	15	8	2.5	.1	
22			0	15	120	172	184	16	7	2.5	.1	
23			0	13	108	277	138	17	7.5	2.3	.1	
24			0	12	95	188	124	18	7	2.2	.1	
25			.1	10	126	295	94	19	6.5	2.1	.1	
26			.1	8.5	190	235	85	25	6	2.0	0	
27			.3	8	141	168	91	27	6	1.9	0	
28			16	8	120	235	98	25	6.5	1.8	0	
29			24	8.5	-	212	88	21	6	1.7	0	
30			6	10	-	409	74	24	5.5	1.5	0	
31			113	15	-	502	-	22	-	1.4	0	
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						159.9	113	0	5.16	317		
Calendar year .....												
January.....						869.0	87	8	28.0	1,720		
February.....						5,898.5	2,180	7	246	13,680		
March.....						5,205	502	62	168	10,320		
April.....						4,099	446	70	136	8,110		
May.....						1,120	64	15	36.1	2,280		
June.....						311.0	18	5.5	10.4	617		
July.....						105.7	5.5	1.4	3.44	212		
August.....						7.7	1.2	0	.25	15		
September.....						0	0	0	0	0		
Water year 1936-37.....						18,766.8	2,180	0	51.4	37,210		

## Tia Juana River near Nestor, Calif.

Location.- Water-stage recorder, lat. 32°32'55", long. 117°05'15", on line between secs. 3 and 4, T. 19 S. R. 2 W., 1½ miles south of Nestor and 3 miles above mouth.

Drainage area.- 1,668 square miles (1,198 square miles in Mexico).

Records available.- January to September 1915, October 1936 to September 1937.

Extremes.- Maximum discharge during year 17,700 second-feet Feb. 7 (gage height, 8.20 feet); no flow during part of each year.

Remarks.- Records good. Flow subject to regulation by storage in Morena and Barrett Reservoirs, operated by city of San Diego, and Rodriguez Reservoir, operated by government of Mexico.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	74	7	190	410	85	14			
2			0	21	6.5	171	340	78	14			
3			0	1.0	5	151	308	68	12			
4			0	1.0	4.0	182	226	65	12			
5			0	0	4.0	105	192	59	10			
6			0	1.0	15	98	195	54	8.5			
7			0	67	9,710	94	220	53	8.5			
8			0	148	1,880	88	165	48	6.5			
9			0	92	937	80	127	46	6			
10			0	45	483	76	113	46	5.5			
11			0	25	290	74	108	45	5.5			
12			0	20	220	85	100	40	4.6			
13			0	92	188	179	97	58	4.6			
14			0	80	630	201	95	33	3.9			
15			0	45	1,320	174	90	33	3.1			
16			0	30	695	171	85	29	2.4			
17			0	22	469	537	78	27	2.3			
18			0	18	287	245	78	26	2.0			
19			0	15	235	271	90	24	1.3			
20			0	20	206	218	127	25	.5			
21			0	19	176	184	148	22	.2			
22			0	18	158	223	165	22	.1			
23			0	12	149	729	148	21	0			
24			0	8	142	454	119	20	0			
25			0	6.5	171	466	108	20	0			
26			0	5.5	337	510	88	22	0			
27			0	3.1	328	565	95	22	0			
28			0	3.1	229	359	102	20	0			
29			0	2.8	-	370	105	20	0			
30			0	2.4	-	566	95	20	0			
31			15	6.5	-	446	-	19	-			
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0		0	0	0	0			
November.....				0		0	0	0	0			
December.....				15		15	0	.48	30			
Calendar year .....												
January.....				901.9		148	0	29.1	1,790			
February.....				19,259.5		9,710	4.0	688	28,200			
March.....				7,688		729	74	248	15,260			
April.....				4,415		410	78	147	9,760			
May.....				1,148		85	19	37.0	2,280			
June.....				127.5		14	0	4.24	252			
July.....				0		0	0	0	0			
August.....				0		0	0	0	0			
September.....				0		0	0	0	0			
Water year 1936-37.....				35,554.7		9,710	0	91.9	66,560			



## Campo Creek near Campo, Calif.

Location.- Water-stage recorder, lat. 32°35'20", long. 116°31'35", in sec. 24, T. 18 S., R. 4 E., on State highway about 3½ miles southwest of Campo.

Drainage area.- 84 square miles (80 square miles in United States and 4 square miles in Mexico).

Records available.- October 1936 to September 1937.

Extremes.- Maximum discharge during year, 1,470 second-feet Feb. 6 (gage height, 3.80 feet) from curve extended above 45 second-feet; no flow during October.

Remarks.- Records good.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.1	0.1	1.4	1.2	15	20	9	4.8	0.9	0.3	0.1
2		.1	.1	.9	1.1	14	23	9	3.8	1.0	.3	.1
3		.1	.1	.4	1.1	13	24	9	3.8	.8	.2	.1
4		.1	.1	.4	1.1	11	20	9	2.8	.8	.2	.1
5		.1	.1	.3	1.1	13	18	9	2.8	.9	.3	.1
6		.1	.1	2.8	103	12	17	9	2.8	.8	.3	.1
7		.1	.1	1.5	492	11	15	8	3.3	.6	.3	.1
8		.1	.1	2.8	42	11	14	8	2.8	.6	.2	.1
9		.1	.1	.8	26	9.5	14	7.5	2.2	.6	.2	.1
10		.1	.1	.4	18	9.5	14	7.5	1.8	.5	.3	.1
11		.1	.1	.4	15	9.5	14	6.5	2.2	.5	.2	.1
12		.1	.1	.4	13	17	14	6.5	2.8	.5	.2	.1
13		.1	.1	.8	14	29	14	6	3.3	.5	.2	.1
14		.1	.1	1.8	82	17	14	6.5	1.8	.5	.2	.1
15		.1	.4	.9	33	15	13	4.3	2.8	.5	.2	.1
16		.1	.3	.7	25	21	13	4.3	2.2	.5	.3	.1
17		.1	.3	.6	21	18	13	3.3	1.8	.5	.3	.1
18		.1	.2	.6	18	20	11	3.8	2.2	.5	.2	.1
19		.1	.2	1.5	18	15	11	4.3	1.8	.4	.2	.1
20		.1	.2	1.6	18	13	11	3.8	1.8	.4	.2	.1
21		.1	.2	1.1	17	13	11	3.8	1.8	.4	.2	.1
22		.1	.2	.8	13	37	11	3.8	1.8	.4	.2	.1
23		.1	.2	.8	13	37	11	4.3	1.6	.9	.2	.1
24		.1	.2	.8	11	26	10	5.5	1.4	.7	.2	.1
25		.1	.3	.8	24	44	9.5	6	1.4	.4	.2	.1
26		.1	.3	.8	36	28	9.5	7.5	1.3	.4	.2	.1
27		.1	1.3	.8	20	25	15	7.5	1.3	.4	.1	.1
28		.1	1.6	.8	16	33	18	6	1.2	.4	.1	.1
29		.1	.8	.9	-	26	16	5.5	1.2	.5	.1	.1
30		.1	.5	.9	-	22	12	7	1.1	.3	.1	.1
31		-	6	1.8	-	21	-	6.5	-	.3	.1	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						3.0	.1	.1	.10	6.0		
December.....						14.6	6	.1	.47	29		
Calendar year .....												
January.....						38.5	8	.3	1.24	76		
February.....						1,093.6	492	1.1	39.1	2,170		
March.....						605.5	44	9.5	19.5	1,200		
April.....						430	24	9.5	14.3	863		
May.....						196.7	9	3.3	6.35	390		
June.....						67.7	4.8	1.1	2.26	134		
July.....						17.4	1.0	.3	.66	35		
August.....						6.5	.3	.1	.21	13		
September.....						3.0	.1	.1	.10	6.0		
Water year 1936-37 .....						2,476.5	492	0	6.78	4,910		

## Otay River at Savage Dam, Calif.

Location.- Lat. 32°36'40", long. 118°55'40", NW¼ sec. 18, T. 18 S., R. 1 E., at Savage Dam, at Lower Otay Reservoir. Altitude, top of spillway gates 491 feet.

Drainage area.- 98 square miles.

Records available.- October 1936 to September 1937.

Remarks.- Inflow into reservoir computed from records of storage, release, evaporation, and rainfall. Records furnished by city of San Diego. Original dam destroyed Jan. 27, 1916, present structure commissioned Mar. 13, 1922.

Monthly discharge, water year October 1936 to September 1937

Month	Mean (second-feet)	Run-off in acre-feet
October.....	1.89	116
November.....	.50	30
December.....	15.5	954
January.....	50.2	3,090
February.....	342	19,020
March.....	94.1	5,790
April.....	29.2	1,740
May.....	11.6	709
June.....	11.8	700
July.....	7.01	431
August.....	8.95	550
September.....	0	0
Water year 1936-37...	45.7	33,130

## SWEETWATER RIVER BASIN

## Sweetwater River at Sweetwater Dam, Calif.

Location.- At dam on Sweetwater Reservoir, in La Nacion grant, 6 miles east of National City, San Diego County, and about 8 miles above mouth. Altitude, about 200 feet.

Drainage area.- 161 square miles.

Records available.- December 1867 to September 1937.

Remarks.- Records of run-off in acre-feet computed by California Water & Telephone Co. from storage, release, and rainfall records.

Monthly discharge, water year October 1936 to September 1937

Month	Mean (second-feet)	Run-off in acre-feet
October.....	1.56	96
November.....	1.65	98
December.....	4.67	287
January.....	38.8	2,384
February.....	618	34,310
March.....	218	13,410
April.....	133	7,915
May.....	40.7	2,500
June.....	17.4	1,036
July.....	.98	60
August.....	0	0
September.....	0	0
Water year 1936-37...	85.8	62,100

San Diego River at El Capitan Dam, near Lakeside, Calif.

Location.- Lat.  $32^{\circ}53'00''$ , long.  $116^{\circ}48'40''$ , in NE $\frac{1}{4}$  sec. 7, T. 15 S., R. 2 E., at El Capitan Dam, one mile below mouth of Chocolate Creek and 7 miles east of Lakeside. Altitude of spillway crest, 750 feet.

Drainage area.- 190 square miles.

Records available.- October 1936 to September 1937.

Remarks.- Partial regulation at Cuyamaca Reservoir. Records of discharge represent flow into El Capitan Reservoir, computed on basis of records of storage, release, evaporation, and rainfall. Records furnished by city of San Diego.

Monthly discharge, water year October 1936 to September 1937

Month	Mean (second-feet)	Run-off in acre-feet
October.....	2.63	162
November.....	1.31	78
December.....	54.7	3,360
January.....	64.8	3,980
February.....	781.64	45,410
March.....	315.55	19,390
April.....	161.1	9,590
May.....	54.89	3,380
June.....	41.98	2,500
July.....	17.40	1,070
August.....	9.66	594
September.....	13.68	814
Water year 1936-37.	122	88,320

## San Diego River near Santee, Calif.

Location.- Water-stage recorder, lat. 32°49'20", long. 117°03'25", in the Ex Mission San Diego grant, in Mission Gorge, 6 miles west of Santee, San Diego County.  
Altitude, about 205 feet.

Drainage area.- 380 square miles.

Records available.- May 1912 to September 1937 (incomplete).

Average discharge.- 22 years (1912-15, 1917-19, 1920-37), 37.5 second-feet.

Extremes.- Maximum discharge during water year 1935-36, 1,240 second-feet Feb. 16 (gage height, 3.08 feet); no flow at times during summer months. Maximum discharge during year ending Sept. 30, 1937, 14,200 second-feet Feb. 7 (gage height, 9.4 feet); no flow at times during summer months.  
1912-37: Maximum discharge, 70,200 second-feet Jan. 27, 1918 (gage height, 25.1 feet); practically no flow for several months of each year except for a small amount of ground water that was forced to surface.

Remarks.- Records good. Discharge for Oct. 1, 1935, to Feb. 1, 1936, May 3, 1936 to Dec. 16, 1936, June 19, 1937 to Sept. 30, 1937, estimated. Discharge for Feb. 7-16, 1937, computed on a basis of records for nearby stations. Diversions for irrigation above station.

## Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0.6	10	5	0.9				
2					1.5	9	3.6	.9				
3					.6	9.5	3.3	.8				
4					.4	7	4.5	.8				
5					.2	6	4.2	.8				
6												
7					.2	5.5	3.0	.7				
8					.2	5	2.4	.7				
9					.2	4.5	2.1	.6			*0.04	
10					.1	4.5	2.1	.5				
					.1	4.2	1.8	.4				
11					.6	3.9	1.5	.4				
12					1.2	3.6	1.6	.4				
13					4.5	3.3	1.4	.4				
14					3.9	3.0	1.4	.3				
15					350	3.0	1.4	.2				
16												
17					575	3.0	1.3	.2				
18					162	3.0	1.3	.2				
19					129	3.0	1.3	.2				
20					156	2.7	1.2	.2				
					77	2.7	1.2	.2				
21												
22					45	3.3	1.1	.2				
23					27	3.3	1.1	.2				
24					56	3.0	1.2	.2				
25					75	3.6	1.1	.2				
					45	3.9	1.0	.2				
26												
27					24	3.0	1.0	.3				
28					18	2.7	1.0	.4				
29					14	2.4	1.0	.3				
30				*0.5	11	2.4	1.0	.2				
					-	2.7	.9	.2				
31					-	9.5	-	.2				

\*Discharge measurement.

Discharge, in second-feet, of San Diego River near Santee, Calif., 1935-37--Continued

1936-37												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				215	6	87.0	119	18	4.2			
2				82	5.5	75	117	16	2.4			
3				39	5.5	65	115	14	1.4			
4				23	5	52	98	14	1.3			
5				19	5	43	82	14	1.3			
6				100	1,880	41	75	11	1.1			
7				134	2,000	41	68	9.5	.9			
8				117	700	39	58	9	.9			
9			+0.2	48	370	39	56	9.5	.9			
10				29	220	37	52	8.5	.9			
11				21	150	35	52	8.5	.9			
12				37	130	52	48	6	.9			
13				103	180	196	48	3.9	.9			
14				60	1,100	140	45	2.7	.9			
15				41	460	100	43	2.7	.8			
16				31	340	283	43	2.1	.7			
17			.3	26	224	299	39	2.1	.6			
18			.2	19	183	234	34	1.8	.6			
19		*0.1	.2	16	159	180	31	1.5	.6			
20			.2	14	134	145	29	1.4	.5			
21	*0.2		.2	11	124	124	27	1.5	.5			
22			.2	9.5	105	400	27	2.1	.4			
23			.2	9	96	445	24	5.5	.4			
24			.2	8.5	87	279	20	6	.3			
25			.2	7.5	132	367	19	6.5	.3			
26			.3	7.5	206	267	19	9	.2			
27			.6	6.5	117	213	31	8.5	.2			
28			11	6	98	220	32	5.5	.2			
29			16	6.5	-	168	24	6	.2			
30			5.5	6	-	145	19	9	.2			
31			275	6.5	-	129	-	8.5	-			
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October 1935						0	0	0	0	0		
November						1.50	-	-	.05	3.0		
December						3.1	-	-	.1	6.1		
Calendar year 1935..						1,767.67	439	0	4.84	3,500		
January 1936						9.3	-	-	.3	18		
February						1,776.0	575	.1	61.2	3,520		
March						135.2	10	2.4	4.36	268		
April						55.9	5	.9	1.86	111		
May						12.4	.9	.2	.40	25		
June						4.50	-	-	.15	8.9		
July						3.1	-	-	.10	6.1		
August						1.55	-	-	.05	3.1		
September						3.0	-	-	.10	6.0		
Water year 1935-36						2,005.55	575	0	5.48	3,980		
October 1936						6.2	-	-	0.2	12		
November						6.0	-	-	.2	12		
December						313.5	275	-	10.1	622		
Calendar year 1936						2,326.65	575	-	6.36	4,610		
January 1937						1,256.5	213	6	40.5	2,490		
February						9,222.0	2,000	5	329	18,290		
March						4,940	445	35	159	9,800		
April						1,494	119	19	49.8	2,960		
May						224.3	18	1.4	7.24	445		
June						25.6	4.2	.2	.85	51		
July						6.2	-	-	.2	12		
August						6.2	-	-	.2	12		
September						6.0	-	-	.2	12		
Water year 1936-37						17,806.5	2,000	-	48.0	34,720		

†Estimated.

\*Discharge measurement.

Boulder Creek at Cuyamaca Reservoir, near Julian, Calif.

Location.- Lat.  $32^{\circ}59'15''$ , long.  $116^{\circ}35'10''$ , in NE $\frac{1}{4}$  sec. 8, T. 14 S., R. 4 E., at Cuyamaca Reservoir, 7 miles south of Julian. Altitude, 4,677 feet.

Drainage area.- 12.0 square miles.

Records available.- October 1935 to September 1937 (inflow to Cuyamaca Reservoir). June 1912 to September 1926 (outflow from Cuyamaca Reservoir).

Remarks.- Discharge was computed on basis of records of rainfall, evaporation, storage, overflow, and release for Cuyamaca Reservoir furnished by La Mesa, Lemon Grove, and Spring Valley Irrigation District. Cuyamaca Reservoir was built in 1886 and enlarged in 1894. Its present storage capacity is 11,400 acre-feet.

Monthly discharge, 1935-37

Month	Mean (second-feet)	Run-off in acre-feet
October 1935.....	0.85	52
November.....	1.26	75
December.....	.91	56
January 1936.....	.16	10
February.....	32.7	1,880
March.....	15.2	932
April.....	17.5	1,040
May.....	.85	52
June.....	2.96	176
July.....	3.04	187
August.....	1.92	113
September.....	1.14	68
Water year 1935-36..	6.41	4,650
October 1936.....	2.08	128
November.....	1.13	67
December.....	11.3	694
January 1937.....	15.9	975
February.....	147	8,160
March.....	29.6	1,820
April.....	15.5	925
May.....	6.34	390
June.....	7.13	424
July.....	5.63	346
August.....	2.85	175
September.....	1.75	104
Water year 1936-37..	19.6	14,210

## SAN DIEGO RIVER BASIN

## San Vicente Creek at Foster, Calif.

Location.- Water-stage recorder, lat.  $32^{\circ}54'40''$ , long.  $116^{\circ}55'35''$ , in sec. 31, T. 14 S., R. 1 E., half a mile north of Foster.

Drainage area.- 75 square miles.

Records available.- January to April 1915, October 1936 to September 1937.

Extremes.- Maximum discharge during year, 9,400 second-feet Feb. 7 (gage height, 6.80 feet); no flow during part of each year.

Remarks.- Records fair. Discharge Oct. 16-18, Dec. 15-18, 27-30, Mar. 1-12 and Apr. 4 to July 31 computed on basis of 20 discharge measurements and records for stations on nearby streams.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	56	8	72	96	23	*5.5	0.3		
2	0		0	13	8	66	103	20	5.5	.3		
3	0		0	6	8	*61	87	*17	5	.3		
4	0		0	2.6	7.5	58	64	17	*4.9	.3		
5	0		0	1.7	7	54	75	17	4.5	.3		
6	0		0	42	1,640	50	71	16	4.2	.2		
7	0		0	70	2,940	47	64	16	3.8	.2		
8	0		0	70	478	43	56	16	*3.5	.2		
9	0		0	38	262	40	*50	16	3.2	.2		
10	0		0	25	166	*36	48	*16	2.8	.2		
11	0		0	19	125	33	46	13	*2.6	.2		
12	0		0	27	110	80	44	*10	2.4	.2		
13	0		0	44	125	196	42	9.5	2.2	.2		
14	0		0	27	870	103	40	9	1.9	.2		
15	0		.3	20	270	91	39	8.5	*1.8	.2		
16	.1		.2	18	172	250	*37	8	1.6	.1		
17	.1		.1	16	141	141	36	8	1.4	.1		
18	.1		.1	16	133	150	34	7.5	1.3	.1		
19	.4		0	20	125	115	32	7	1.1	.1		
20	.1		0	18	110	105	*31	*6.5	.9	.1		
21	.1		0	14	98	101	29	7	*.8	.1		
22	0		0	11	85	325	*28	7.5	.7	.1		
23	0		0	9	70	188	28	8.5	.6	.1		
24	0		0	9	63	125	27	*9	.6	.1		
25	0		0	9	115	202	27	9	.5	.1		
26	0		0	9	153	141	27	9	.5	.1		
27	0		.1	8.5	96	131	27	*8.5	.4	.1		
28	0		.5	8.5	78	135	26	8	.4	.1		
29	0		.1	11	-	118	26	7.5	.3	.1		
30	0		.1	11	-	105	*26	7	*.3	.1		
31	0		141	14	-	98	-	6.5	-	.1		
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						.9	0.4	0	0.03	1.8		
November.....						0	0	0	0	0		
December.....						142.5	141	0	4.60	283		
Calendar year .....												
January.....						662.3	70	1.7	21.4	1,310		
February.....						8,453.5	2,940	7	302	16,770		
March.....						3,458	325	33	112	6,860		
April.....						1,389	103	26	46.3	2,760		
May.....						348.5	25	8.5	11.2	691		
June.....						65.2	5.5	.3	2.17	129		
July.....						5.1	.3	.1	.16	10		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						14,525.0	2,940	0	39.8	28,810		

\*Discharge measurement.

## Santa Ysabel Creek near Mesa Grande, Calif.

Location.- Water-stage recorder, lat. 33°07'15", long. 116°48'30", in NE¼ sec. 20, T. 12 S., R. 2 E., 4½ miles southwest of Mesa Grande and half a mile above junction with Black Canyon Creek.

Drainage area.- 58 square miles.

Records available.- October 1936 to September 1937. December 1912 to September 1928, at site 1 mile upstream. Records equivalent.

Extremes.- Maximum discharge during year, 6,100 second-feet Feb. 7 (gage height, 6.50 feet); no flow at times.  
1912-24, 1936-37; Maximum discharge, 21,100 second-feet Jan. 27, 1916, by slope-area method; no flow at times.

Remarks.- Records good.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.2	0.8	123	36	128	138	60	27	6.5	4.5	1.1
2	0	1.0	.7	51	34	118	235	54	27	6.5	3.1	1.0
3	0	.5	.6	29	34	103	148	51	26	7.5	2.6	.9
4	0	.3	1.6	22	32	94	133	51	26	7.5	2.6	.8
5	0	.3	2.3	19	32	86	123	49	24	6.5	2.4	.7
6	0	.4	1.2	148	1,760	92	123	46	22	6.5	2.3	.8
7	0	.4	1.0	72	2,440	76	113	44	22	6	2.2	.4
8	0	.4	.9	65	650	68	98	42	20	4.8	1.8	.4
9	0	.4	.9	46	402	66	86	42	20	5	1.6	.4
10	0	.4	.9	40	240	65	79	40	19	6	.8	.4
11	0	.4	.6	40	169	57	76	38	19	4.1	1.2	.4
12	0	.4	.8	79	155	128	76	36	17	4.1	.8	.3
13	0	.4	.8	133	219	309	72	34	17	6	.7	.4
14	0	.4	.8	90	1,580	148	68	32	17	6	.7	.3
15	0	.4	14	82	755	169	66	32	16	6.5	.8	.3
16	0	.4	26	79	440	254	66	32	15	6	1.2	.3
17	0	.4	11	72	305	148	63	32	14	4.5	.9	.3
18	0	.4	5.5	60	219	269	60	30	13	4.8	1.2	.4
19	0	.4	2.9	72	191	176	60	30	13	4.5	1.1	.5
20	.1	.4	2.2	54	169	143	54	30	13	4.5	1.2	.6
21	0	.4	1.9	46	148	128	49	29	13	4.5	1.2	.7
22	0	.7	1.8	42	133	350	49	27	13	4.5	1.2	.7
23	0	.7	1.8	40	138	402	49	26	13	4.8	1.3	.9
24	0	.7	1.7	40	143	269	49	24	12	5	1.2	.8
25	0	.7	2.8	36	269	425	49	24	12	7	1.2	.8
26	0	.6	5	34	276	290	51	34	10	5.5	1.2	.7
27	0	.6	20	34	176	235	82	29	9.5	4.5	1.1	.8
28	0	.7	131	32	143	283	76	27	9	6	1.0	.9
29	0	.8	46	40	-	155	76	29	9	7.5	1.0	1.0
30	0	.8	24	42	-	133	63	34	8	7.5	1.2	1.1
31	.1	-	640	60	-	133	-	29	-	4.8	1.2	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0.2	0.1	0	0.006	0.4		
November.....						15.0	1.0	.2	.60	30		
December.....						1,011.9	640	.7	32.6	2,010		
Calendar year .....												
January.....						1,820	148	19	58.7	3,610		
February.....						11,268	2,440	32	402	22,350		
March.....						5,486	425	57	177	10,880		
April.....						2,528	233	49	84.3	5,010		
May.....						1,117	60	24	36.0	2,280		
June.....						495.5	27	8	16.5	965		
July.....						175.4	7.5	4.1	5.86	348		
August.....						46.5	4.5	.7	1.5	92		
September.....						18.9	1.1	.3	.63	37		
Water year 1936-37 .....						23,982.4	2,440	0	65.7	47,570		



## SAN DIEGUITO RIVER BASIN

San Dieguito River at Lake Hodges, Calif.

Location.- Lat.  $33^{\circ}02'55''$ , long.  $117^{\circ}07'25''$ , in NW $\frac{1}{4}$  sec. 18, T. 13 S., R. 2 W., at Lake Hodges Dam,  $5\frac{1}{2}$  miles southwest of Escondido.

Drainage area.- 299 square miles.

Records available.- January 1916 to September 1937.

Remarks.- Diversions for irrigation in San Pasqual Valley above Lake Hodges. Some pumping from wells along river. Gaging station formerly maintained at dam site was abandoned in 1919, when Lake Hodges dam was completed. Discharge in second-feet and run-off in acre-feet converted by Geological Survey from records in millions of gallons as computed by city of San Diego from records of storage, draft, leakage and spill, and evaporation.

## Monthly discharge, 1935-37

Month	1935-36		1936-37	
	Mean in second-feet	Run-off in acre-feet	Mean in second-feet	Run-off in acre-feet
October.....	0	0	18.0	1,110
November.....	1.29	77	1.11	66
December.....	1.95	120	110	6,740
January.....	1.61	99	166	10,200
February.....	89.7	5,160	1,300	72,160
March.....	25.4	1,560	773	47,560
April.....	66	3,930	304	18,100
May.....	.48	29.5	82.9	5,100
June.....	0	0	30.8	1,830
July.....	1.25	77	0	0
August.....	0	0	0	0
September.....	0	0	0	0
Water year..	15.2	11,050	225	162,900

Note.- Calendar year 1935: Mean discharge, 10.2 second-feet, run-off 7,420 acre-feet. Calendar year 1936: Mean discharge, 25.9 second-feet; run-off, 18,770 acre-feet.

## SAN LUIS REY RIVER BASIN

San Luis Rey River at Lake Henshaw, near Mesa Grande, Calif.

Location.- Lat.  $33^{\circ}14'15''$ , long.  $116^{\circ}45'50''$ , in NW $\frac{1}{4}$  sec. 10, T. 11 S., R. 2 E., at Henshaw Dam, 5 miles north of Mesa Grande.

Drainage area.- 209 square miles at former site, 1 mile below dam.

Records available.- October 1911 to September 1937.

Average discharge.- 26 years, 43.8 second-feet.

Remarks.- No diversions above station. Lake Henshaw Reservoir was completed in 1923 and station formerly maintained 1 mile below dam was abandoned. Discharge in second-feet computed by Geological Survey from records furnished by San Diego County Water Co.

## Monthly discharge, water year October 1936 to September 1937

Month	Mean (second-feet)	Run-off in acre-feet
October.....	4.44	273
November.....	2.39	142
December.....	76.1	4,677
Calendar year 1936.....	25.1	16,774
January.....	89.3	5,488
February.....	788	43,760
March.....	357	21,990
April.....	138	8,224
May.....	44.4	2,729
June.....	18.6	1,106
July.....	8.29	510
August.....	4.63	283
September.....	6.75	400
Water year 1936-37.....	123.7	89,577

## San Luis Rey River at Monserate Narrows, near Pala, Calif.

Location.-- Water-stage recorder, lat. 33°20'20", long. 117°08'20", in Monserate grant, 4 miles southwest of Pala, San Diego County.

Drainage area.-- 383 square miles.

Records available.-- December 1935 to September 1937.

Remarks.-- Records good. Discharge for Dec. 1-9, Apr. 1-5, computed on basis of records for station at Bonsall. Records not obtained during periods of flood.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	6	4.4				340	68	43	9.5	4.3	2.4
2	.4	6.5	4.5				400	67	38	8	5.5	2.4
3	.4	4.9	4.5				390	63	37	9	5.5	2.8
4	.4	4.9	4.6				320	58	35	9	4.9	2.8
5	.5	4.3	4.7				280	58	34	9.5	4.9	2.8
6	.4	3.3	4.8				204	60	32	9	4.9	2.8
7	.4	3.3	5				171	60	28	8	4.9	2.8
8	.4	3.3	5				152	58	25	8	4.3	2.8
9	.4	3.3	5				144	58	22	7.5	3.8	2.8
10	.4	3.3	5.5				136	53	21	6.5	3.8	2.8
11	.4	3.3	5.5				126	49	21	6.5	3.8	2.8
12	.4	3.8	6				121	48	20	6.5	3.8	2.8
13	.4	3.8	6.5				114	45	20	6.5	3.8	2.4
14	.5	3.8	6.5				112	45	20	5.5	3.8	2.4
15	.5	4.3	33				117	43	19	6	3.8	2.4
16	25	4.3	61				123	40	18	5.5	4.3	2.4
17	30	4.3	40				123	39	18	6	3.8	2.4
18	14	4.3	27				121	37	16	6.5	3.3	2.4
19	18	3.8	22				117	36	15	6	3.3	2.4
20	14	3.8	19				116	35	16	6	3.3	2.8
21	9.5	3.8	16				110	34	15	4.9	3.3	2.8
22	7.5	3.8	15				105	36	14	4.9	3.3	2.8
23	6.5	3.8	15				90	36	14	3.8	3.3	2.8
24	5.5	3.8	14				85	40	13	3.8	3.8	2.8
25	4.9	3.3	13				78	39	12	3.3	3.3	4.3
26	4.3	3.8	19				78	46	12	3.3	3.3	7.5
27	3.8	3.8	34				90	44	11	3.3	3.3	6.5
28	3.3	3.8	151				86	39	11	3.3	2.8	6.5
29	2.8	3.8	123				81	44	10	5.5	2.8	6.5
30	2.4	4.3	67				71	49	9	3.8	2.4	6.5
31	3.3	-	-				-	46	-	4.3	2.4	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						161.1	30	0.4	5.80	380		
November.....						120.6	6.5	3.3	4.02	239		
December 1-30.....						741.5	-	-	-	1,470		
Calendar year .....												
January.....												
February.....												
March.....												
April.....						4,601	400	71	153	9,130		
May.....						1,473	68	34	47.5	2,980		
June.....						619	43	9	20.6	1,230		
July.....						189.2	9.5	3.3	6.10	378		
August.....						117.8	5.5	2.4	3.80	234		
September.....						101.4	7.5	2.4	3.38	201		
Water year .....												

## SAN LUIS REY RIVER BASIN

San Luis Rey River near Bonsall, Calif.

Location.- Water-stage recorder, lat.  $33^{\circ}15'05''$ , long.  $117^{\circ}14'55''$ , in NE $\frac{1}{4}$  sec. 1, T. 11 S., R. 4 W., three-quarters of a mile below highway bridge on Fallbrook-Escondido Road 3 miles southwest of Bonsall. Altitude, about 120 feet.

Drainage area.- 514 square miles.

Records available.- April 1912 to September 1918, December 1929 to September 1937.

Extremes.- Maximum discharge during year, 16,700 second-feet Feb. 7 (gage height, 12.95 feet); no flow during part of year.  
1912-18, 1929-37: Maximum discharge, that of Feb. 7, 1937; maximum stage for flood of January 1916 not known, as all equipment was destroyed; no flow during part of each year.

Remarks.- Records good. Discharge for periods of missing gage heights, Mar. 31 to Apr. 7, June 25 to Aug. 20, computed on basis of three discharge measurements and records for stations on nearby streams. Storage at Lake Henshaw, and numerous diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1.4	1.0	582	46	257	410	83	47	5	0.1	
2	0	1.3	1.0	176	42	225	380	76	39	4.5	.1	
3	0	1.1	1.0	105	40	171	370	74	34	4.0	.1	
4	0	1.0	1.2	71	40	154	310	74	33	3.8	.1	
5	0	1.0	1.1	64	40	152	300	72	33	3.4	.1	
6	0	1.0	1.1	162	2,290	148	250	71	32	3.1	.1	
7	0	1.0	1.0	296	7,780	138	230	64	31	2.7	.1	
8	0	1.0	1.0	165	1,330	128	220	61	27	2.2	.1	
9	0	1.0	1.1	104	805	120	211	66	23	1.8	.1	
10	0	1.0	1.0	83	576	114	199	66	22	1.5	.1	
11	0	1.0	1.0	77	460	111	196	58	21	1.2	.1	
12	0	1.0	1.0	83	385	205	184	50	20	.9	.1	
13	0	.9	1.0	136	413	668	170	42	19	.8	.1	
14	0	.9	1.2	98	3,240	406	162	42	17	.7	.1	
15	0	.9	5	78	1,750	290	170	36	16	.7	.1	
16	66	1.0	4.6	77	906	2,970	184	36	15	.7	.1	
17	16	1.0	9	71	695	1,180	178	35	14	.6	.1	
18	3.7	.9	8.5	67	588	960	159	32	14	.6	.1	
19	3.7	.7	7	67	526	765	153	32	13	.6	.1	
20	3.0	.6	6	64	496	625	143	32	13	.5	.1	
21	2.4	.6	5	58	452	552	133	32	12	.5	0	
22	2.0	.7	5	55	444	895	123	39	12	.4	0	
23	1.8	.7	5	51	440	810	104	48	11	.3	0	
24	1.5	.6	5	49	440	616	89	50	9	.2	0	
25	1.3	.6	9	46	444	780	89	61	8	.1	0	
26	1.3	.7	8	44	436	745	89	53	7.5	.1	0	
27	1.2	.7	20	43	320	614	117	58	7	.1	0	
28	1.1	.9	192	43	278	646	119	45	6.5	.1	0	
29	1.1	.9	160	46	-	530	104	53	6	.1	0	
30	1.1	1.0	76	47	-	480	87	67	5.5	.1	0	
31	1.6	-	1,060	49	-	460	-	58	-	.1	0	
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						108.8	66	0	3.51	216		
November.....						27.1	1.4	.6	.90	54		
December.....						1,599.8	1,060	1.0	51.6	3,170		
Calendar year 1936.....						4,528.7	1,060	0	12.4	8,990		
January.....						3,157	582	43	102	6,260		
February.....						25,704	7,780	40	918	50,980		
March.....						16,915	2,970	111	546	33,550		
April.....						5,633	410	87	188	11,170		
May.....						1,666	83	32	53.4	3,280		
June.....						567.5	47	5.5	18.8	1,130		
July.....						41.4	5	.1	1.34	82		
August.....						2.0	.1	0	.06	4.0		
September.....						0	0	0	0	0		
Water year 1936-37.....						55,411.6	7,780	0	152	109,900		

## San Luis Rey River at Oceanside, Calif.

Location.- Water-stage recorder, lat. 33°12'40", long. 117°22'40", in NW¼ sec. 23, T. 11 S., R. 5 W., half a mile above State highway bridge at Oceanside. Altitude, about 20 feet.

Records available.- April 1912 to September 1914, January 1916, December 1929 to September 1937.

Extremes.- Maximum discharge during year, 16,500 second-feet Feb. 7 (gage height, 12.00 feet); no flow during part of year.

1912-14, 1916, 1929-37: Maximum discharge, 95,600 second-feet Jan. 12, 1916; no flow for several months of each year.

Remarks.- Records good. Storage at Lake Henshaw, and numerous diversions above station.

Discharge on Feb. 8-12, 16-21, Mar. 14-18 computed on basis of records for station near Bonsall.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	450	34	335	408	97	40			
2			0	190	31	278	373	81	37			
3			0	102	29	234	371	78	34			
4			0	67	29	194	345	78	33			
5			0	52	28	185	330	78	34			
6			0	75	1,150	178	296	78	33			
7			0	216	7,930	172	270	76	31			
8			0	143	1,000	168	253	76	26			
9			0	95	800	159	225	76	22			
10			0	69	600	149	206	78	19			
11			0	60	500	143	195	74	16			
12			0	57	450	163	181	65	14			
13			0	90	404	585	161	57	13			
14			0	82	2,570	420	151	51	14			
15			0	64	1,890	300	154	49	13			
16			0	59	1,000	2,700	168	43	11			
17			0	55	700	1,000	168	40	11			
18			0	52	570	900	157	38	9.5			
19			0	51	500	740	151	34	8			
20			0	48	460	729	148	32	6			
21			0	45	400	696	145	32	5.5			
22			0	42	380	778	140	37	4.8			
23			0	38	384	815	137	47	4.1			
24			0	37	387	690	115	51	2.6			
25			0	35	390	746	102	47	1.6			
26			0	34	390	685	97	47	.9			
27			0	32	387	655	109	48	.5			
28			0	32	352	576	134	49	.3			
29			0	31	-	551	134	49	.1			
30			1.3	32	-	495	115	50	0			
31			700	34	-	459	-	52	-			-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0		0	0	0	0			
November.....				0		0	0	0	0			
December.....				701.3		700	0	22.6	1,390			
Calendar year 1936.....				1,475.0		700	0	4.03	2,930			
January.....				2,469		450	31	79.6	4,900			
February.....				23,746		7,930	28	848	47,100			
March.....				16,976		2,700	143	544	35,470			
April.....				5,939		408	97	198	11,780			
May.....				1,786		97	32	57.6	3,540			
June.....				445.2		40	0	14.6	883			
July.....				0		0	0	0	0			
August.....				0		0	0	0	0			
September.....				0		0	0	0	0			
Water year 1936-37.....				51,961.5		7,930	0	142	103,100			

## SANTA MARGARITA RIVER BASIN

Temecula Creek at Nigger Canyon, near Temecula, Calif.

Location.- Water-stage recorder, lat. 33°29'40", long. 116°59'00", in Pauba grant, at upper end of Nigger Canyon, a quarter of a mile below junction with Arroyo Seco and 10 miles east of Temecula, Riverside County. Altitude, about 1,350 feet.

Drainage area.- 319 Square miles.

Records available.- January 1923 to September 1937.

Average discharge.- 14 years, 14.0 second-feet.

Extremes.- Maximum discharge during water year 1935-36, 170 second-feet Feb. 15 (gage height, 2.80 feet); minimum, 0.9 second-foot Aug. 5 and 6.

Maximum discharge during water year 1936-37, 12,800 second-feet Feb. 6 (gage height, 8.90 feet); minimum, 1.0 second-foot Oct. 1, 2, 7-15.

1923-37: Maximum discharge, 17,100 second-feet Feb. 16, 1927 (gage height, 19.5 feet); minimum, 0.6 second-foot Aug. 17, 1934.

Remarks.- Records poor. Discharge Dec. 27-29, 1935, Apr. 12-24, Sept. 20-23, Oct. 14-18, Dec. 23-25, 1936, Feb. 1, 8-19, Mar. 17 to Apr. 12, Sept. 2-30, 1937 computed on basis of 10 discharge measurements and records for stations on nearby streams. No diversions above station. Results of some discharge measurements furnished by Santa Margarita ranch.

Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	2.6	3.0	3.2	4.3	10	24	2.6	2.0	1.5	1.4	1.2
2	2.4	2.6	3.0	3.2	21	9	19	2.6	2.0	1.5	1.4	1.2
3	2.4	2.6	3.0	3.4	19	8.5	16	2.8	2.0	1.5	1.2	1.4
4	2.4	2.8	2.8	3.4	10	8	62	2.6	2.0	1.5	1.2	1.4
5	2.6	3.0	2.8	3.2	6	7	53	2.8	2.0	1.5	1.0	1.4
6	2.6	3.0	2.8	3.4	6.5	7	34	3.2	1.6	1.5	1.0	1.2
7	2.8	3.0	2.8	3.4	5.5	7	21	3.0	1.6	1.5	1.4	1.2
8	2.6	3.0	2.8	3.4	5	6	17	2.8	1.6	1.5	1.7	1.0
9	2.6	3.0	2.8	3.4	5	5.5	14	2.8	1.8	1.5	1.5	1.0
10	2.6	3.0	3.0	3.2	4.8	5.5	12	2.6	1.8	1.5	1.4	1.2
11	2.6	3.2	3.0	3.2	6	4.8	10	2.6	1.7	1.5	1.4	1.4
12	2.4	3.2	3.0	3.2	38	4.3	9	2.4	1.5	1.5	1.2	1.4
13	2.6	3.2	3.0	3.2	54	4.1	7.5	2.4	1.5	1.4	1.2	1.4
14	2.8	3.2	3.0	3.2	41	3.6	6.5	2.4	1.5	1.4	1.2	1.4
15	2.8	3.4	3.0	3.2	122	3.6	6	2.4	1.7	1.4	1.2	1.2
16	2.8	3.6	3.0	3.2	82	3.6	6	2.4	1.7	1.4	1.2	1.2
17	2.8	3.8	3.0	3.2	43	3.4	5.5	2.4	1.5	1.4	1.0	1.2
18	2.8	4.1	3.2	3.2	42	3.2	5	2.4	1.5	1.5	1.2	1.2
19	2.6	4.1	3.2	3.4	46	3.2	5	2.4	1.4	1.4	1.4	1.2
20	2.6	4.1	3.2	3.4	35	3.2	4.5	2.2	1.4	1.4	1.2	4.2
21	2.4	4.1	3.0	3.4	29	3.4	4.2	2.0	1.4	1.2	1.4	1.6
22	2.4	3.8	3.0	3.4	24	3.4	4.0	2.0	1.4	1.2	1.5	1.5
23	2.4	3.6	3.2	3.4	32	3.4	3.8	2.0	1.2	1.2	1.4	1.3
24	2.4	3.2	3.2	3.4	29	4.6	3.6	2.0	1.2	1.2	1.4	1.2
25	2.6	3.2	3.0	3.4	22	11	3.2	2.2	1.2	1.2	1.2	1.2
26	2.6	3.2	3.0	3.4	17	8.5	3.2	2.2	1.2	1.2	1.0	1.2
27	2.6	3.2	3.0	3.4	14	7	3.0	2.4	1.2	1.4	1.2	1.2
28	2.6	3.6	3.0	3.4	12	6.5	3.0	2.4	1.4	1.4	1.4	1.2
29	2.6	3.4	3.5	3.6	11	6	3.0	2.2	1.4	1.4	1.4	1.0
30	2.6	3.0	3.2	3.8	-	5.5	2.8	2.0	1.5	1.4	1.2	1.0
31	2.6	-	3.2	3.6	-	32	-	2.0	-	1.4	1.2	-

Discharge, in second-feet, of Temecula Creek at Nigger Canyon, near Temecula, Calif. 1935-37--Contd.

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	2.2	2.0	151	25	66	145	31	15	3.8	3.3	2.2
2	1.0	2.0	1.8	60	22	63	140	30	12	3.8	3.3	2.2
3	1.2	2.2	2.0	40	23	65	130	28	12	4.2	3.3	2.4
4	1.2	2.0	2.2	37	23	66	120	28	12	3.8	2.9	2.4
5	1.2	2.0	2.2	37	23	67	110	27	12	4.9	2.9	2.6
6	1.2	2.0	2.2	219	2,230	63	100	26	13	3.8	2.9	2.6
7	1.0	1.8	2.2	83	1,400	57	90	23	12	3.3	2.9	2.7
8	1.0	2.0	1.8	64	200	57	80	22	11	2.9	2.5	2.8
9	1.0	2.0	1.8	49	150	63	70	24	11	4.2	2.5	2.8
10	1.0	1.8	1.8	51	120	66	60	23	11	2.9	3.3	2.8
11	1.0	1.8	2.0	58	100	63	60	24	10	3.5	2.9	2.8
12	1.0	1.8	2.0	71	90	139	55	22	10	2.9	2.2	3.0
13	1.0	2.0	2.0	76	80	280	51	21	10	3.5	2.9	3.0
14	1.0	1.8	2.2	56	500	84	49	20	10	2.9	2.2	2.9
15	1.0	1.8	41	51	180	148	48	18	8.5	3.3	2.2	2.9
16	5	1.7	56	49	160	930	46	16	8	3.3	2.9	2.8
17	4.5	1.8	20	49	140	300	48	16	8	3.3	1.9	2.8
18	3.7	1.8	9.5	45	130	280	48	14	8	2.9	2.5	2.7
19	3.4	1.8	6.5	43	106	250	48	14	8	2.9	1.9	2.7
20	2.6	1.8	5.5	37	84	240	48	14	8	4.2	1.9	2.7
21	2.4	1.8	4.0	35	73	220	46	14	7	4.2	1.6	2.7
22	2.0	1.8	3.1	30	84	200	46	16	6.5	4.8	1.9	2.6
23	2.2	1.8	2.8	26	66	200	44	18	6.5	5.5	2.5	2.6
24	2.0	1.8	2.8	26	65	200	43	16	6.5	5.5	1.9	2.6
25	1.8	2.0	3.0	23	92	220	40	16	5.5	4.2	2.5	2.6
26	1.8	2.0	3.4	23	84	200	36	16	5.5	3.8	1.9	2.6
27	1.8	2.0	85	23	66	190	40	16	4.8	2.9	1.9	2.6
28	1.8	1.8	505	22	63	180	32	14	4.8	2.2	1.9	2.6
29	1.8	1.8	82	20	-	170	31	14	3.8	2.9	1.6	2.6
30	2.0	1.8	59	26	-	160	31	14	3.8	3.8	1.6	2.6
31	2.2	-	11.60	27	-	150	-	14	-	3.8	1.9	-
Month	Second-foot-days					Maximum	Minimum	Mean	Run-off in acre-feet			
October 1935	80.0					2.8	2.4	2.58	159			
November	98.8					4.1	2.6	3.29	196			
December	95.7					3.5	2.6	3.02	186			
Calendar year 1935	2,212.8					69	1.1	6.06	4,390			
January 1936	103.8					3.8	3.2	3.35	206			
February	788.1					122	4.3	27.2	1,560			
March	201.8					32	3.2	6.51	400			
April	370.8					62	2.8	12.4	735			
May	75.2					5.2	2.0	2.43	149			
June	47.5					2.0	1.2	1.58	94			
July	43.5					1.5	1.2	1.40	86			
August	39.7					1.7	1.0	1.28	79			
September	40.4					4.2	1.0	1.35	80			
Water year 1935-36	1,983.3					122	1.0	5.42	3,930			
October 1936	56.8					5	1.0	1.83	113			
November	56.7					2.2	1.7	1.89	112			
December	1,876.8					1,160	1.8	60.5	3,720			
Calendar year 1936	3,701.1					1,160	1.0	10.1	7,330			
January 1937	1,612					219	20	52.0	3,200			
February	6,377					2,230	22	228	12,650			
March	5,425					930	57	175	10,760			
April	1,935					145	31	64.5	3,840			
May	609					31	14	19.6	1,210			
June	262.2					13	3.8	8.74	520			
July	113.4					5.5	2.2	3.66	225			
August	74.5					3.3	1.6	2.40	148			
September	79.9					3.0	2.2	2.66	159			
Water year 1936-37	18,478.3					2,230	1.0	50.6	36,660			

## Temecula Creek at Railroad Canyon, near Temecula, Calif.

Location.- Water-stage recorder, lat. 33°28'25", long. 117°08'35", in Temecula grant, an eighth of a mile below junction with Murrieta Creek, at upper end of Temecula or Railroad Canyon, 1½ miles south of Temecula, Riverside County. Altitude, about 950 feet.

Drainage area.- 592 square miles.

Records available.- January 1923 to September 1937.

Average discharge.- 14 years, 23.0 second-feet.

Extremes.- Maximum discharge during water year 1935-36, 2,870 second-feet Feb. 15 (gage height, 4.50 feet); minimum, 2.2 second-feet July 21.  
Maximum discharge during water year 1936-37, 16,400 second-feet Feb. 7 (gage height, 10.70 feet); minimum, 3.2 second-feet Oct. 1.  
1923-37: Maximum discharge, about 27,600 second-feet Feb. 16, 1927 (gage height, 15.00 feet); minimum, 0.4 second-foot July 16, 1925.

Remarks.- Records fair. Discharge Aug. 16, 1936, Feb. 8, 15, 16, Mar. 14, 15, 17-26, June 1, July 12, 13, 1937 interpolated or computed on basis of records for stations on nearby streams. Pumping diversions affect flow considerably during irrigation season. Gage-height record and results of discharge measurements furnished by Santa Margarita ranch.

## Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	5.5	7	7.5	11	10	15	6.5	4.3	3.2	2.7	2.8
2	4.8	6	7.5	7.5	32	10	10	6	4.5	3.2	2.7	3.0
3	4.7	5.5	7	7.5	23	10	10	6	4.5	3.2	2.6	3.3
4	4.8	5.5	7	8	15	10	17	6	4.3	3.0	2.6	3.3
5	4.7	5.5	7	8	10	10	13	6	4.3	3.0	2.7	3.2
6	4.7	5.6	7	8	8.5	10	11	6	4.2	2.8	2.5	2.7
7	4.7	6	7.5	8	8.5	9.5	9.5	5	4.0	2.8	2.7	2.7
8	4.7	6	7.5	8	8	9.5	9	4.8	4.0	3.0	2.8	2.7
9	4.7	6	7.5	8	8	9.5	8.5	4.7	3.8	3.0	3.0	2.7
10	4.5	6	7.5	8	8	9.5	8.5	4.3	3.7	3.0	3.0	2.7
11	4.5	5.5	7.5	7.5	13	9.5	8	4.2	3.7	3.2	3.0	3.0
12	4.8	6	7.5	7.5	26	9.5	8	4.0	3.5	3.2	2.8	3.2
13	4.8	6	7.5	7.5	91	9.5	8	3.8	3.5	3.0	2.8	3.2
14	5	6	7.5	8	28	9.5	7.5	3.8	3.5	3.0	2.6	3.2
15	5	6	7	8	764	9.5	7.5	3.8	3.5	2.7	2.8	3.3
16	4.8	6	7	8	148	9.5	7.5	3.8	3.5	2.6	2.5	3.5
17	4.3	8	7.5	8	52	9.5	7.5	4.0	3.3	2.6	2.5	3.3
18	4.2	9.5	7.5	8	47	9.5	7.5	4.5	3.5	2.6	2.7	3.3
19	4.7	7	7.5	8	34	9.5	7.5	4.5	3.5	2.6	2.8	3.5
20	4.7	7	8	8	26	9	7.5	4.2	3.5	2.4	2.8	3.7
21	4.7	7	8	8	22	9.5	7.5	4.2	3.5	2.3	3.2	3.8
22	4.7	7	8	8	17	10	7.5	4.2	3.3	2.3	3.2	3.8
23	4.5	7	8	8	17	9.5	7.5	4.0	3.3	2.3	3.0	3.7
24	4.3	7	8	8	17	10	7.5	4.0	3.2	2.3	2.8	3.8
25	4.5	7	7.5	8	14	11	7.5	4.3	2.8	2.6	2.8	4.2
26	5	7	7.5	8	13	9.5	7	4.5	2.8	2.7	2.7	4.0
27	5	7	8	8	12	9	7	4.5	3.0	2.8	2.7	4.0
28	5	7	8	8	11	8.5	7	4.5	3.3	2.8	2.8	3.7
29	6	6.5	9.5	11	11	9.5	7	4.2	3.5	2.8	2.8	3.7
30	5.5	6.5	9	9	-	9	7	4.2	3.3	2.7	2.8	3.3
31	5.5	-	8	8	-	24	-	4.3	-	2.7	2.8	-

Discharge, in second-feet, of Temecula Creek at Railroad Canyon, near Temecula, Calif., 1935-37--Con.

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	9	7	99	25	62	124	32	12	7.5	7.5	7
2	3.8	7	7	36	21	61	121	31	11	7.5	7	6.5
3	4.0	6.5	7	21	17	53	114	31	11	7.5	6.5	6.5
4	4.2	6	7.5	18	14	47	103	27	11	7.5	6	6.5
5	4.2	6	7.5	16	13	49	101	26	10	7.5	7	6.5
6	4.0	6.5	7.5	297	2,790	41	98	24	11	7.5	6.5	6.5
7	3.8	7	7.5	126	4,700	40	91	23	11	7.5	6.5	6.5
8	3.8	6.5	7.5	52	346	40	84	22	11	7.5	6.5	6.5
9	3.8	6.5	7.5	32	212	40	79	23	11	8.5	6.5	6
10	3.8	6.5	7.5	24	140	40	68	23	11	8.5	6.5	6
11	3.8	6.5	7.5	20	106	40	63	21	11	8.5	6.5	6
12	3.8	6.5	7.5	32	82	221	57	20	10	8	7	5.5
13	4.0	6.5	7.5	101	89	1,000	56	18	10	8	7	6
14	4.0	6.5	8	44	1,860	240	57	17	11	7.5	6.5	6
15	4.3	6.5	22	28	717	230	57	15	10	7	6.5	6
16	22	6	17	24	278	3,360	54	13	9.5	7	6.5	5.5
17	16	6	12	20	176	700	49	12	9	7	6.5	5.5
18	9.5	6	10	18	137	400	45	13	9.5	7.5	6.5	6
19	9.5	6	9	18	103	370	40	13	9.5	7.5	6.5	6.5
20	8	6.5	8.5	17	98	340	41	12	9.5	7.5	6.5	6.5
21	7	6.5	8.5	16	94	320	38	11	9.5	7	6.5	7
22	6.5	6.5	8.5	14	82	490	39	12	9.5	7	6.5	7.5
23	6	6.5	8.5	14	86	390	39	13	9	7.5	6.5	7
24	6	6.5	8.5	13	101	320	36	14	9	7.5	6.5	7
25	6	6.5	9.5	12	114	530	32	15	9	7	7	7
26	6	6.5	9	12	108	280	32	17	9	7.5	6.5	7.5
27	6	6.5	66	12	77	189	39	16	9.5	7	7	8
28	6	6.5	305	13	70	198	35	15	9.5	7	6.5	7.5
29	6	7	53	14	-	162	33	16	8.5	8.5	7	7
30	6.5	7	25	14	-	134	33	16	7.5	7.5	7	7.5
31	10	-	1,890	30	-	130	-	14	-	7.5	7	-
October 1935 .....						147.5	5.5	4.2	4.76	293		
November .....						193.5	9.5	5.5	6.45	384		
December .....						236.5	9.5	7	7.63	469		
Calendar year 1935 .....						3,191.0	137	2.7	8.74	6,340		
January 1936 .....						249.0	11	7.5	8.03	494		
February .....						1,495	764	8	51.6	2,970		
March .....						311.0	24	8.5	10.0	617		
April .....						260.5	17	7	8.68	517		
May .....						142.8	6.5	3.8	4.61	283		
June .....						108.6	4.5	2.8	3.62	215		
July .....						86.4	3.2	2.3	2.79	171		
August .....						86.0	3.2	2.5	2.77	171		
September .....						100.3	4.2	2.7	3.34	199		
Water year 1935-36 .....						3,417.1	764	2.3	9.34	6,780		
October 1936 .....						195.6	22	3.3	6.31	388		
November .....						196.5	9	6	6.55	390		
December .....						2,574	1,890	7	83.0	5,110		
Calendar year 1936 .....						5,805.7	1,890	2.3	15.9	11,520		
January 1937 .....						1,207	297	12	38.9	2,390		
February .....						12,656	4,700	13	452	25,100		
March .....						10,487	3,360	40	338	20,800		
April .....						1,868	124	32	61.9	3,690		
May .....						573	32	11	18.5	1,140		
June .....						299	12	7.5	9.97	593		
July .....						233	8.5	7	7.52	462		
August .....						208.5	7.5	6	6.66	410		
September .....						197.5	8	5.5	6.68	392		
Water year 1936-37 .....						30,683.1	4,700	3.3	84.1	60,860		



## SANTA MARGARITA RIVER BASIN

Santa Margarita River near Fall Brook, Calif.

Location.— Water-stage recorder, lat. 33°24'05", long. 117°15'10", in sec. 12, T. 9 S., R. 4 W., 2 miles north of Fall Brook. Altitude, about 350 feet.

Drainage area.— 645 square miles.

Records available.— November 1924 to September 1937.

Average discharge.— 12 years, 30.3 second-feet.

Extremes.— Maximum discharge during water year 1935-36, 2,180 second-feet Feb. 15 (gage height, 4.06 feet); minimum daily discharge, 0.8 second-foot July 23, 24; minimum gage height, 2.45 feet July 23.

Maximum discharge during water year 1936-37, 17,000 second-feet Feb. 6 (gage height, 7.90 feet); minimum, 1.9 second-feet Oct. 1 (gage height, 2.61 feet).

1924-37: Maximum discharge, about 33,100 second-feet Feb. 18, 1927 (gage height, 15.6 feet); minimum, 0.1 second-foot Aug. 30, 1925, Sept. 4, 1926, Sept. 6, 1928, July 22-26, Aug. 4, 5, 8-14, 1929.

Remarks.— Records fair. Discharge Oct. 1, 2, 4-6, 1935, Jan. 6, Mar. 20, July 10, 1936, Feb. 8, 1937, interpolated. Several diversions from tributary streams in Temecula Valley, and some diversions by pumping above station. Results of discharge measurements furnished by Santa Margarita ranch.

Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	4.9	6	8.5	11	15	28	6.5	3.5	1.4	1.1	1.2
2	4.3	5.5	6.5	8.5	26	14	18	6.5	3.8	1.4	1.1	1.2
3	4.6	6	7	8	33	15	17	6.5	3.7	1.3	1.0	1.3
4	4.6	6	7	8	18	12	23	6	3.7	1.3	.9	1.4
5	4.6	6	7.5	8	13	12	24	6	3.5	1.2	.8	1.6
6	4.5	5.5	7.5	8.5	11	13	17	5.5	3.5	1.2	.7	1.6
7	4.5	6	7	8.5	11	12	14	5	3.5	1.0	.7	1.4
8	4.4	6	7	8.5	10	12	13	4.7	3.4	.8	1.2	1.4
9	4.4	6	7	8	9.5	12	12	4.2	3.1	.8	1.5	1.4
10	4.2	6	7	8	8.5	12	11	4.0	3.0	1.2	1.6	1.5
11	4.1	5.5	7	8	12	11	10	4.0	2.8	1.4	1.4	1.5
12	4.2	5.5	7	8	25	11	10	3.8	2.8	1.5	1.3	1.5
13	4.4	6	7	8	190	11	9.5	3.8	2.7	1.4	1.3	1.6
14	4.5	6	7	8	63	11	8.5	3.7	2.6	1.2	1.4	1.7
15	4.6	6	7	8	626	11	9	3.8	2.3	.9	1.5	1.9
16	4.6	6.5	7	8	222	11	9	3.8	2.0	1.0	1.5	1.9
17	4.4	7	7	8	73	10	8.5	4.0	1.8	1.0	1.4	1.9
18	4.1	9	7	8	52	10	8	4.0	1.9	1.0	1.2	1.9
19	4.1	9	7	8	57	9	7.5	3.8	1.9	1.2	1.2	2.0
20	4.2	7.5	7	8	40	9	7	3.5	1.9	1.1	1.2	2.2
21	4.4	7	7.5	8	30	9	6.5	3.5	1.9	.8	1.3	2.3
22	4.5	7	8	8	25	11	7	3.8	1.8	.7	1.5	2.3
23	4.4	7	7.5	8	26	11	7	3.7	1.4	.6	1.3	2.3
24	4.1	7	7.5	8	27	12	7	3.7	1.3	.6	1.2	2.3
25	4.0	7	7.5	8	21	13	7	4.0	1.2	.7	1.2	2.3
26	4.1	6.5	7.5	8	15	11	6.5	4.0	1.2	1.0	1.2	2.3
27	4.1	6.5	7.5	8	17	9.5	6.5	4.0	1.2	1.3	1.2	2.3
28	4.2	6.5	8	8	17	9	6.5	4.2	1.2	1.3	1.2	2.2
29	4.5	6.5	9	9	16	9	7.5	4.2	1.3	1.3	1.2	2.1
30	4.8	6	10	11	-	10	7	3.8	1.3	1.3	1.2	2.1
31	4.8	-	9	9	-	45	-	3.7	-	1.2	1.2	-

Discharge, in second-feet, of Santa Margarita River near Fall Brook, Calif., 1935-37--Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	12	6.5	218	34	105	220	43	18	10	7.5	6.5
2	2.1	9	6.5	68	26	95	240	40	18	9	7	6.5
3	2.3	7	7	46	20	86	210	38	17	9	6.5	6.5
4	2.6	6.5	9.5	34	19	74	181	37	18	9	6.5	6
5	2.7	5.5	9	31	18	80	163	37	18	9.5	7	5.5
6	2.8	6.5	7.5	361	3,560	70	141	37	17	9	6.5	5
7	2.7	7	7.5	220	4,730	70	138	37	17	9	6	5.5
8	2.4	6.5	7.5	88	500	68	122	34	15	9.5	6	5.5
9	2.2	6.5	7.5	55	302	67	101	36	15	8.5	5.5	5
10	2.4	6.5	7.5	41	326	64	104	34	15	8	6.5	4.8
11	2.4	6.5	7.5	38	245	61	101	31	15	8	6	4.8
12	2.4	6.5	7.6	46	175	280	96	26	16	8	6.5	5
13	2.6	6.5	7.5	135	185	917	96	23	15	8	6.5	4.8
14	2.7	6.5	7.5	67	2,640	357	96	23	15	8.5	6.5	4.8
15	3.0	6.5	27	46	973	266	85	19	14	9	6.5	4.8
16	29	6.5	25	46	526	3,730	83	19	14	9	7	4.6
17	35	6.5	17	41	322	960	76	19	14	9	7	4.4
18	18	6.5	14	37	261	580	67	17	13	8.5	7	4.6
19	18	6.5	12	31	225	446	65	19	13	8.5	6	5
20	18	6	11	30	191	422	59	19	13	8.5	6.5	5.5
21	8.5	6	10	28	174	404	57	19	12	9	6.5	6
22	7.5	6.5	9.15	25	148	620	54	19	13	8	6.5	6.5
23	7.5	6.5	9	25	141	484	52	22	13	7.5	6.5	6.5
24	6.5	6.5	9	24	135	440	52	23	12	7	6	6
25	6.5	6.5	10	23	216	641	50	24	12	7	6	6
26	6	6.5	10	25	191	392	48	29	12	6.5	5.5	6
27	6	6.5	32	23	136	368	55	30	12	6.5	6	7
28	6	6.5	221	24	130	339	52	26	12	7	6.5	8
29	6	6.5	108	24	-	296	48	26	12	8	6.5	8
30	6.5	6.5	34	26	-	280	44	24	11	10	6.5	8
31	11	-	1,680	37	-	255	-	22	-	8	6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1935	135.3	4.9	4.0	4.36	268
November	192.9	9	4.9	6.43	383
December	228.5	10	6	7.37	453
Calendar year 1935	3,609.1	174	1.1	9.89	7,160
January 1936	255.5	11	8	8.24	507
February	1,705.0	626	8.5	58.8	3,380
March	380.5	45	9	12.3	755
April	332.5	28	6.5	11.1	660
May	135.7	6.5	3.5	4.38	269
June	71.2	3.8	1.2	2.37	141
July	34.1	1.5	.6	1.1	68
August	37.7	1.6	.7	1.22	75
September	54.6	2.3	1.2	1.82	108
Water year 1935-36	3,563.5	626	.6	9.74	7,070
October 1936	228.3	35	2.0	7.36	453
November	202.0	12	5.5	6.73	401
December	2,344.5	1,680	6.5	75.6	4,650
Calendar year 1936	5,781.6	1,680	.6	15.8	11,470
January 1937	1,963	361	23	63.3	3,890
February	16,561	4,730	18	591	32,830
March	13,326	3,750	61	430	26,430
April	2,958	240	44	98.5	5,860
May	852	43	17	27.5	1,690
June	431	18	11	14.4	855
July	260.0	10	6.5	8.39	516
August	199.0	7.5	5.5	6.42	395
September	173.1	8	4.4	5.77	343
Water year 1936-37	39,485.9	4,730	2.0	108	78,310

## Santa Margarita River at Ysidora, Calif.

Location.- Water-stage recorder, lat. 33°14'40", long. 117°22'50", in Santa Margarita y Las Flores grant, about 2 miles above mouth and one mile below Ysidora, San Diego County. Altitude, about 15 feet.

Drainage area.- 740 square miles.

Records available.- February 1923 to September 1929, October 1930 to September 1937.

Extremes.- Maximum discharge during water year 1935-36, 2,580 second-feet Feb. 15 (gage height, 5.40 feet); minimum, 1.2 second-foot Sept. 1.  
Maximum discharge during water year 1936-37, 23,000 second-feet Feb. 7 (gage height, 10.50 feet); no flow.  
1923-29, 1930-37: Maximum discharge, about 33,600 second-feet Feb. 18, 1927; no flow during part of most years.

Remarks.- Records good except those for May to August 1937, which are fair. Considerable water diverted above station for irrigation on Pauba and Santa Margarita ranches. (See record for O'Neill Ditch near Ysidora, Calif.). Gage-height record and results of discharge measurements furnished by Santa Margarita ranch.

## Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.3	2.3	2.9	3.7	32	58	4.4	4.6	4.6	2.4	1.2
2	2.7	2.4	2.3	2.7	4.5	30	39	4.2	4.4	3.2	2.6	1.3
3	2.6	2.4	2.4	2.7	4.1	28	29	4.2	3.6	2.7	2.4	1.4
4	2.4	2.2	2.5	2.7	3.3	26	39	4.2	4.0	3.2	2.3	1.3
5	2.4	2.0	2.5	2.6	3.0	25	68	4.0	4.2	3.0	2.2	1.5
6	2.4	1.9	2.5	2.6	2.7	24	44	3.6	3.6	2.4	2.1	1.7
7	2.3	1.7	2.5	2.6	2.7	24	33	3.4	3.8	3.0	2.2	1.7
8	2.2	2.0	2.5	2.6	2.9	22	26	3.4	5	4.6	2.2	2.1
9	2.2	2.2	2.5	2.6	2.9	22	25	3.2	4.4	4.6	2.0	2.0
10	2.0	2.3	2.2	2.4	2.9	21	22	3.2	4.4	5	1.7	2.1
11	1.9	2.0	2.2	2.4	3.7	19	20	2.7	4.8	4.6	1.7	1.8
12	2.1	2.4	2.3	2.6	4.3	19	18	3.3	4.6	3.0	1.7	1.7
13	2.2	2.5	2.4	2.6	52	18	18	2.8	4.4	2.4	1.7	1.7
14	2.3	2.5	2.4	2.6	111	18	18	3.2	4.0	2.4	1.7	1.7
15	2.5	2.4	2.3	2.6	1,140	17	16	4.8	5	1.8	1.7	1.7
16	2.4	2.6	2.2	2.6	877	16	15	4.8	5.5	1.8	1.7	1.7
17	2.3	2.9	2.2	2.5	440	16	11	4.8	4.0	1.8	1.7	1.7
18	2.2	3.1	2.3	2.4	206	16	9	4.6	3.8	2.8	1.7	1.7
19	2.3	2.9	2.4	2.4	179	15	8.5	5	4.2	3.2	1.7	1.7
20	2.3	2.6	2.6	2.5	119	14	7	5.5	4.6	3.2	1.7	1.5
21	2.3	2.7	2.6	2.4	91	10	6	5	5	3.2	1.7	1.4
22	2.3	2.6	2.7	2.3	72	9.5	6	5	4.8	3.2	1.7	1.3
23	1.9	2.7	2.7	2.2	72	9	6	5.5	6	3.2	1.6	1.3
24	2.0	2.6	2.7	2.0	72	8.5	6	5	4.4	3.2	1.5	1.4
25	2.0	2.6	2.7	2.2	60	8	6	4.8	3.6	3.3	1.6	1.5
26	2.0	2.7	2.7	2.3	52	7.5	5.5	4.6	2.6	3.2	1.5	1.5
27	2.0	2.6	2.6	2.4	46	7	5	4.4	2.1	3.2	1.4	1.4
28	1.8	2.5	2.7	2.6	41	6.5	4.8	4.4	2.7	3.2	1.4	1.4
29	1.9	2.4	3.0	3.1	37	6	4.8	4.8	3.4	3.0	1.4	1.4
30	2.0	2.4	2.9	3.1	-	6	4.4	4.4	2.7	2.6	1.4	1.4
31	2.2	-	2.7	2.9	-	34	-	4.6	-	2.7	1.3	-

Discharge, in second-feet, of Santa Margarita River at Ysidora, Calif., 1935-37--Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	3.2	2.2	764	78	200	330	58	25	0.7	0.3	
2	1.4	2.8	2.2	300	54	180	311	57	22	.4	.1	
3	1.4	2.7	2.4	172	45	166	280	56	20	.4	0	
4	1.3	2.6	2.8	103	42	138	250	55	20	.4	0	
5	1.4	2.8	2.7	75	41	128	228	52	20	.4	.1	
6	1.4	2.8	2.6	227	1,980	122	203	48	19	.4	0	
7	1.4	2.6	2.6	443	10,200	115	192	46	18	.3	0	
8	1.4	2.1	2.7	235	1,620	110	180	47	17	.2	0	
9	1.4	2.2	3.0	141	875	113	164	48	16	.1	0	
10	1.3	2.6	3.0	101	500	103	156	49	16	0	0	
11	1.4	2.6	2.8	91	430	100	148	44	16	0	0	
12	1.4	2.4	2.8	90	340	220	141	40	16	0	0	
13	1.6	2.4	2.8	162	320	1,420	138	36	16	0	0	
14	1.7	2.4	2.8	170	3,680	626	134	35	16	0	.3	
15	1.8	2.4	8	115	2,590	495	127	54	10	0	.4	
16	4.6	2.4	23	96	940	4,830	120	33	5.5	.1	.6	
17	4.6	2.4	22	85	626	1,520	114	33	5	.2	.8	
18	3.8	2.4	16	78	525	812	106	28	5	.7	1.5	
19	5	2.3	12	69	469	677	100	23	5.5	1.2	1.5	
20	3.6	2.2	10	63	405	594	95	25	5.5	1.0	3.2	
21	3.0	2.1	9	58	362	578	90	27	6	.7	2.0	
22	2.7	2.1	8.5	53	312	686	86	20	5.5	.3	1.0	
23	2.6	2.1	8	50	259	650	82	13	4.8	0	.4	
24	2.3	2.0	7.5	48	220	430	78	6	6.5	0	0	
25	2.2	2.0	9	46	456	659	74	5.5	8	.8	0	
26	2.2	2.0	12	44	411	548	70	5	6.5	1.5	0	
27	2.4	2.3	29	42	302	450	71	5	4.5	1.0	0	
28	2.3	2.4	39	42	196	443	72	5	1.0	.6	0	
29	2.4	2.4	224	44	-	351	74	68	1.0	.9	0	
30	2.4	2.4	83	46	-	350	66	40	1.1	1.2	0	
31	3.4	-	2,280	67	-	340	-	30	-	.7	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1935 .....	68.7	2.7	1.8	2.22	136
November.....	73.1	3.1	1.7	2.44	145
December.....	77.3	3.0	2.2	2.49	153
Calendar year 1935 .....	6,196.6	325	1.7	17.0	12,290
January 1936 .....	79.1	3.1	2.0	2.55	157
February.....	3,706.7	1,140	2.7	128	7,350
March.....	534	34	6	17.2	1,060
April.....	579	68	4.4	19.3	1,150
May.....	131.8	5.5	2.7	4.25	261
June.....	124.4	6	2.1	4.15	247
July.....	97.7	5	1.8	3.15	194
August.....	55.6	2.6	1.3	1.79	110
September.....	47.2	2.1	1.2	1.57	94
Water year 1935-36 .....	5,574.6	1,140	1.2	15.2	11,060
October 1936 .....	71.1	5	1.3	2.29	141
November.....	72.1	3.2	2.0	2.40	143
December.....	2,897.4	2,280	2.2	93.5	5,750
Calendar year 1936 .....	8,396.1	2,280	1.2	22.9	16,660
January 1937 .....	4,120	764	42	133	8,170
February.....	28,058	10,200	41	1,002	55,650
March.....	18,152	4,850	100	586	36,000
April.....	4,331	330	66	143	8,490
May.....	1,071.5	68	5	34.6	2,130
June.....	338.4	25	1.0	11.3	671
July.....	14.2	1.5	0	.46	28
August.....	12.2	3.2	0	.39	24
September.....	0	0	0	0	0
Water year 1936-37 .....	59,086.9	10,200	0	162	117,200

## SANTA MARGARITA RIVER BASIN

Murrieta Creek at Temecula, Calif.

Location.- Water-stage recorder, lat. 33°29'00", long. 117°08'50", on Temecula grant, 100 feet above junction with Temecula Creek and 1 mile south of Temecula, Riverside County. Altitude, about 1,050 feet.

Drainage area.- 220 square miles.

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge during water year 1935-36, 2,580 second-feet Feb. 15 (gage height, 6.00 feet); minimum, 0.2 second-foot at times.  
Maximum discharge during water year 1936-37, 7,080 second-feet Feb. 6 (gage height, 8.23 feet); minimum, 0.3 second-foot at times.  
1930-37: Maximum discharge, 7,500 second-feet Feb. 16, 1932 (gage height, 7.76 feet); minimum, 0.2 second-foot at times during 1931, 1933, 1934, and 1935.

Remarks.- Records good. Discharge Oct. 4-6, 8-31, 1935, Oct. 18, 20, 1936, Mar. 13-18, Apr. 1, 3-5, June 15, 16, 22, 23, 1937, interpolated or computed on basis of records for stations on nearby streams. Gage-height record and several measurements furnished by Santa Margarita ranch.

Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.3	0.4	0.6	1.4	1.7	4.9	0.7	0.5	0.3	0.3	0.3
2	.3	.3	.4	.6	6.5	1.7	2.9	.6	.5	.3	.3	.3
3	.2	.3	.4	.6	5	1.6	2.2	.6	.5	.3	.3	.3
4	.2	.3	.4	.6	2.0	1.6	5.5	.6	.6	.3	.3	.3
5	.2	.3	.4	.6	1.5	1.4	3.5	.6	.4	.3	.3	.3
6	.2	.3	.4	.6	1.3	1.4	2.5	.6	.4	.3	.3	.3
7	.2	.3	.4	.6	1.2	1.4	1.8	.6	.4	.3	.3	.3
8	.2	.3	.4	.6	1.1	1.4	1.5	.5	.4	.3	.3	.3
9	.2	.3	.4	.5	1.1	1.4	1.3	.5	.4	.3	.3	.3
10	.2	.3	.4	.5	1.0	1.3	1.1	.5	.3	.3	.3	.3
11	.2	.3	.4	.6	2.0	1.3	1.1	.4	.3	.3	.3	.3
12	.2	.3	.4	.6	12	1.2	1.0	.4	.3	.3	.3	.3
13	.2	.3	.5	.6	90	1.2	1.0	.4	.3	.3	.3	.3
14	.2	.3	.5	.6	21	1.2	1.0	.4	.3	.3	.3	.3
15	.2	.3	.5	.6	568	1.2	1.0	.4	.3	.3	.3	.3
16	.3	.3	.5	.6	119	1.2	1.0	.4	.3	.3	.3	.3
17	.3	.4	.4	.6	30	1.2	.9	.4	.3	.3	.3	.3
18	.3	.5	.5	.6	38	1.2	.9	.4	.3	.3	.3	.3
19	.3	.4	.5	.6	18	1.1	.9	.4	.3	.3	.3	.3
20	.3	.4	.5	.6	10	1.1	.8	.4	.3	.3	.3	.3
21	.3	.4	.5	.6	6	1.0	.8	.4	.3	.3	.3	.3
22	.3	.4	.5	.6	5	1.2	.8	.4	.3	.3	.3	.3
23	.3	.4	.5	.5	4.9	1.1	.8	.4	.3	.3	.3	.3
24	.3	.4	.5	.5	4.9	1.3	.7	.4	.3	.3	.3	.3
25	.3	.4	.5	.5	3.6	1.7	.7	.4	.3	.3	.3	.3
26	.3	.4	.5	.5	2.8	1.5	.7	.4	.3	.3	.3	.3
27	.3	.4	.5	.5	2.2	1.2	.7	.4	.3	.3	.3	.3
28	.3	.4	.5	.5	2.1	1.1	.7	.4	.3	.3	.3	.3
29	.3	.4	.8	.7	1.9	1.0	.8	.4	.3	.3	.3	.3
30	.3	.4	.8	.7	-	1.4	.7	.4	.3	.3	.3	.3
31	.3	-	.7	.7	-	56	-	.5	-	.3	.3	-

Discharge, in second-feet, of Murrieta Creek at Temecula, Calif., 1935-37--Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	1.1	0.5	55	12	9.5	19	2.0	1.3	1.0	0.7	0.6
2	.3	.7	.5	14	5.5	7	22	1.9	1.3	1.0	.7	.6
3	.3	.5	.5	6.5	3.2	6	20	1.8	1.2	.9	.7	.6
4	.3	.5	.5	2.9	2.0	4.5	17	1.7	1.3	.9	.7	.6
5	.3	.5	.5	2.2	1.5	4.2	15	1.7	1.3	.9	.6	.6
6	.3	.5	.6	202	1,440	4.2	12	1.8	1.2	.9	.6	.6
7	.3	.4	.6	100	1,360	3.8	12	1.7	1.2	.9	.6	.6
8	.3	.4	.6	24	84	2.9	10	1.6	1.2	.9	.6	.6
9	.3	.4	.6	12	33	2.4	9	1.7	1.2	.8	.6	.6
10	.3	.4	.5	6.5	25	2.2	8.5	1.8	1.2	.8	.6	.6
11	.3	.4	.5	4.5	21	2.0	8.5	1.9	1.2	.9	.6	.6
12	.3	.4	.5	12	19	109	8	1.6	1.1	.9	.7	.6
13	.3	.4	.5	77	24	650	7	1.4	1.1	.8	.7	.6
14	.3	.4	.5	23	823	150	7	1.4	1.1	.8	.7	.6
15	.3	.4	5	17	212	70	6.5	1.3	1.1	.8	.7	.6
16	3.1	.4	3.3	11	73	1,800	6	1.3	1.2	.8	.7	.6
17	2.9	.4	2.2	7	39	150	4.9	1.3	1.2	.8	.7	.6
18	2.0	.4	1.4	5.5	27	100	3.4	1.3	1.2	.8	.6	.6
19	1.1	.4	1.0	5.5	23	51	2.9	1.3	1.1	.8	.6	.6
20	.8	.4	.9	4.3	19	38	2.7	1.2	1.0	.8	.6	.6
21	.6	.4	.8	3.6	15	31	2.3	1.3	1.0	.8	.6	.6
22	.6	.4	.8	3.0	13	296	2.1	1.3	1.0	.8	.6	.7
23	.5	.4	.8	2.8	12	119	2.1	1.4	1.1	.8	.6	.7
24	.5	.4	.8	2.7	11	54	2.1	1.4	1.1	.7	.6	.7
25	.4	.4	1.0	2.5	24	271	2.1	1.4	1.1	.7	.6	.7
26	.4	.4	1.0	2.4	30	58	2.1	1.6	1.1	.7	.5	.7
27	.4	.5	40	2.4	15	37	2.1	1.6	1.0	.7	.6	.7
28	.4	.5	152	2.3	12	35	2.1	1.6	1.0	.7	.6	.7
29	.4	.5	34	2.4	-	26	2.1	1.6	1.0	.8	.6	.7
30	.4	.5	9.5	2.4	-	22	2.1	1.6	1.0	.9	.6	.8
31	1.1	-	1,470	24	-	20	-	1.4	-	.8	.6	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October 1935					8.0	0.3	0.2	0.26	16			
November					10.5	.5	.3	.35	21			
December					15.0	.8	.4	.48	30			
Calendar year 1935					830.1	106	.2	2.27	1,650			
January 1936					18.1	.7	.5	.58	36			
February					963.5	568	1.0	33.2	1,910			
March					95.2	56	1.0	3.07	189			
April					44.2	5.5	.7	1.47	88			
May					14.2	.7	.4	.46	28			
June					10.3	.5	.3	.34	20			
July					9.3	.3	.3	.30	18			
August					9.3	.3	.3	.30	18			
September					9.0	.3	.3	.30	18			
Water year 1935-36					1,206.6	568	.2	3.30	2,390			
October 1936					20.1	3.1	.3	.65	40			
November					13.8	1.1	.4	.46	27			
December					1,731.9	1,470	.5	55.9	3,440			
Calendar year 1936					2,939.9	1,470	.3	8.03	5,830			
January 1937					642.7	202	2.2	20.7	1,270			
February					4,333.2	1,440	1.5	157	8,690			
March					4,135.7	1,800	2.0	133	8,200			
April					222.6	22	2.1	7.42	442			
May					47.8	2.0	1.2	1.54	95			
June					34.1	1.3	1.0	1.14	68			
July					25.6	1.0	.7	.83	51			
August					19.6	.7	.6	.63	39			
September					19.0	.8	.6	.63	38			
Water year 1936-37					11,296	1,800	.3	30.9	22,400			

## O'Neill Ditch near Ysidora, Calif.

Location.- Water-stage recorder, lat. 33°19'40", long. 117°19'45", 100 feet above discharge into O'Neill Reservoir and 8 miles northeast of Ysidora.

Records available.- October 1930 to September 1937.

Remarks.- Records good. Discharge Dec. 15-17, 27-31, 1936, Jan. 1-8, Feb. 6-20, 1937, computed on basis of reservoir records. Gage-height record and results of discharge measurements furnished by Santa Margarita ranch. This ditch diverts water from Santa Margarita River.

Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	3.5	6.1	8.9	4.0	0	0.4	7.6	2.8	0.3	0.1	0
2	2.6	4.2	6.2	8.3	0	0	0	7.0	2.9	.3	.1	0
3	2.6	4.3	6.5	8.5	0	0	0	6.5	2.9	.3	.1	0
4	2.6	4.3	6.9	8.3	0	0	0	6.0	2.7	.3	.1	0
5	2.6	4.0	6.9	8.3	0	0	0	5.5	2.7	.2	.1	0
6	2.5	3.9	6.9	8.3	0	0	0	5.7	2.3	.2	.1	0
7	2.5	3.8	6.9	8.3	0	0	0	5.1	2.2	.1	.1	0
8	2.6	4.0	7.0	8.3	0	0	0	4.8	2.1	.2	.1	0
9	2.4	4.5	7.0	8.3	0	0	0	4.3	1.8	.2	.1	0
10	2.4	4.6	6.9	8.2	0	0	0	4.0	1.6	.2	.1	0
11	2.2	4.5	6.9	8.2	0	0	0	3.7	1.5	.2	.1	0
12	2.4	4.3	6.9	8.0	0	0	0	4.0	1.2	.2	.1	0
13	2.6	4.4	7.0	7.9	0	0	0	3.8	1.2	.2	.1	0
14	2.9	4.6	6.9	7.9	0	0	0	3.5	1.2	.2	.1	0
15	3.5	4.6	6.9	8.0	0	0	0	3.1	1.1	.1	.1	0
16	3.2	4.6	6.9	8.0	0	0	7.3	2.9	.9	.1	.1	0
17	2.8	7.1	7.0	8.2	0	0	11.9	2.9	.8	.1	.1	0
18	2.4	8.3	7.0	8.2	0	0	11.7	3.2	.8	.1	.1	0
19	2.2	8.8	6.6	8.2	0	0	11.3	3.1	.7	.1	.1	0
20	2.4	8.0	7.0	8.2	0	4.1	10.7	3.1	.6	.1	.1	0
21	2.5	7.0	7.4	7.9	0	10.1	9.9	3.1	.6	.1	.1	.1
22	2.8	7.0	7.7	7.9	0	11.9	9.5	3.1	.5	.1	.1	0
23	2.6	6.9	7.4	7.8	0	12.4	8.7	2.9	.5	.1	.1	0
24	2.0	6.8	7.3	7.6	0	12.2	8.4	2.8	.4	.1	.1	0
25	2.0	6.8	7.3	7.6	0	12.0	8.2	3.2	.4	.1	.1	.1
26	2.0	6.6	7.3	7.7	0	11.8	7.8	4.1	.4	.1	.1	.1
27	2.1	6.8	7.7	7.8	0	11.6	7.8	4.1	.4	.1	0	0
28	2.3	6.7	7.7	7.9	0	10.8	7.8	3.7	.4	.1	0	0
29	2.8	6.4	9.4	9.5	0	10.8	8.9	3.1	.3	.1	0	0
30	3.2	6.2	10.3	9.7	-	12.2	7.8	2.8	.3	.1	0	0
31	3.4	-	10.2	9.7	-	18.2	-	2.8	-	.1	0	-

Discharge, in second-feet, of O'Neill Ditch near Ysidora, Calif., 1935-37--Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	10	0		0	0.1	0	8.3	5.2	4.4
2	.1		0		0		0	0	0	8.0	5.1	4.1
3	.1		0		0		0	0	0	7.9	4.9	4.0
4	.1		0		0		0	0	0	7.9	4.7	3.7
5	.2		0		0		0	0	0	8.2	4.3	3.3
6	.5		0	12			0	0	0	7.7	4.5	3.4
7	.8		0				0	0	0	7.6	4.2	3.5
8	.6		0				0	0	0	7.7	4.3	3.7
9	.4		0				0	0	0	7.5	4.0	3.6
10	.3		0				0	0	0	7.0	4.2	3.1
11	.3		0	0	12		0	0	0	6.7	4.1	3.2
12	.4		0	0			0	0	0	6.8	4.4	2.9
13	.5		0	0			0	0	0	6.6	5.0	2.8
14	.6		0	0			0	0	0	6.4	4.8	2.9
15	.8		0	0			0	0	6.3	6.3	4.8	3.2
16	1.5	10	0	0			0	0	13.8	6.3	5.0	3.1
17	.1		0	0			0	0	13.8	6.6	5.4	2.9
18	0		0	0			0	0	13.4	6.3	4.9	3.1
19	0		0	0			0	0	12.9	6.2	4.7	3.5
20	0		0	0			0	1.0	12.6	6.1	4.7	3.9
21	0		0	0	0		0	7.9	12.3	6.1	4.6	4.4
22	0		0	0	0		0	28	12.6	5.6	4.1	5.2
23	0		0	0	0		0	32	12.4	5.2	3.9	5.6
24	0		0	0	0		0	36	11.5	5.2	3.9	5.3
25	0		0	0	0		0	33	10.7	4.7	4.0	5.2
26	0		0	0	0		.2	33	10.2	4.9	4.3	5.2
27	0		0	0	0		.4	32	9.9	4.9	4.5	5.7
28	0		0	0	0		.2	29	9.6	4.7	4.8	6.2
29	0	10	0	-	-		.2	20	9.3	6.2	4.2	5.9
30	0		0	-	-		.1	0	8.7	7.9	4.1	5.9
31	0		0	-	-		-	0	-	6.2	4.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1935 .....	79.4	3.5	2.0	2.56	157
November.....	167.5	8.8	3.5	5.58	332
December.....	226.1	10.3	6.1	7.29	448
Calendar year 1935 .....	1,086.6	17	0	2.98	2,150
January 1936 .....	255.4	9.7	7.6	8.24	507
February.....	4.0	4.0	0	.14	7.9
March.....	138.1	18.2	0	4.45	274
April.....	138.1	11.9	0	4.60	274
May.....	125.5	7.6	2.8	4.05	249
June.....	38.2	2.9	.3	1.27	76
July.....	4.8	.3	.1	.15	9.5
August.....	2.6	.1	0	.08	5.2
September.....	.3	.1	0	.01	.6
Water year 1935-36 .....	1,180	18.2	0	3.22	2,340
October 1936 .....	7.3	1.5	0	.24	14
November.....	0	0	0	0	0
December.....	80	-	0	2.58	159
Calendar year 1936 .....	794.3	-	0	2.17	1,580
January 1937 .....	80	-	0	2.58	159
February.....	180	-	0	6.43	357
March.....	0	0	0	0	0
April.....	1.1	.4	0	.04	2.2
May.....	251.0	35	0	8.10	498
June.....	180.0	13.8	0	6.00	357
July.....	203.4	8.3	4.7	6.56	403
August.....	139.7	5.4	3.9	4.51	277
September.....	122.9	6.2	2.8	4.10	244
Water year 1936-37 .....	1,245.4	-	0	3.41	2,470



## SAN JUAN CREEK BASIN

San Juan Creek near San Juan Capistrano, Calif.

Location.-- Water-stage recorder, lat. 33°30'50", long. 117°37'40", in Mission Viejo grant on Ortega State highway bridge, 2½ miles east of San Juan Capistrano, Orange County. Altitude, about 150 feet.

Drainage area.-- 117 square miles, at former site, 2½ miles downstream.

Records available.-- October 1928 to September 1937.

Extremes.-- Maximum discharge during year, 8,300 second-feet Feb. 6; no flow during Oct. 1-15, 1929-37: Maximum discharge, that of Feb. 6, 1937; no flow at times during most summers.

Remarks.-- Records poor. Daily discharge computed on basis of 48 discharge measurements and records for stations on Trabuco and Santiago Creeks.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1.6	0.2	*78	21	120	120	35	12	4.0	2.0	1.5
2	0	1.5	.2	*20	116	115	115	34	12	3.5	2.0	1.5
3	0	1.5	.2	15	15	*112	112	33	*12	3.5	2.0	1.5
4	0	1.5	.2	*10	14	109	107	32	11	3.5	2.0	1.5
5	0	1.4	.2	5	*12	105	*102	*30	11	3.5	2.0	1.5
6	0	1.4	.2	20	*2,000	102	98	29	11	3.0	2.0	1.5
7	0	1.4	.2	*75	3,200	100	92	28	10	3.0	2.0	1.5
8	0	1.4	.2	30	500	98	87	26	10	3.0	2.0	*1.5
9	0	1.0	.1	18	*375	97	82	25	9.5	3.0	2.0	1.5
10	0	.6	.1	12	300	96	78	24	*9	3.0	1.5	1.5
11	0	.6	*.1	15	220	95	75	22	9	3.0	1.5	1.5
12	0	*.6	.1	20	*166	*94	72	21	8.5	3.0	1.5	2.0
13	0	.5	.1	35	700	98	69	20	8.5	*3.0	1.5	2.0
14	0	.5	.2	30	1,600	100	*67	19	8	3.0	1.5	2.0
15	0	.5	*3.0	28	800	130	64	18	8	3.0	1.5	2.0
16	2.5	.4	2.5	*25	*504	*550	62	17	7.5	3.0	1.5	2.0
17	*1.4	.4	2.0	24	350	380	58	16	7.5	2.5	1.5	2.0
18	1.4	.4	1.9	24	*298	*320	54	15	7	2.5	1.5	2.0
19	1.5	.3	1.9	*23	250	240	48	15	*6.5	2.5	1.5	2.0
20	1.5	.3	1.8	20	220	200	*45	*14	6.5	2.5	1.5	2.5
21	1.6	.3	1.8	18	200	180	43	14	6	2.5	1.5	2.5
22	1.7	.3	1.8	*15	180	*350	42	13	6	2.5	1.5	2.5
23	1.7	.3	1.8	15	*155	270	41	13	5.5	2.5	1.5	2.5
24	*1.8	.2	1.8	15	150	255	41	13	5.5	2.0	1.5	2.5
25	1.8	.2	1.7	14	*200	238	40	14	5.5	2.0	1.5	2.5
26	1.8	.2	1.7	*14	180	*232	40	16	*5.5	2.0	1.5	2.5
27	1.8	.2	1.7	14	150	200	39	*18	5	2.0	1.5	*2.5
28	*1.8	.2	*90	15	130	180	*39	14	5	2.0	1.5	2.5
29	1.7	.2	18	15	-	150	38	13	4.5	2.0	1.5	2.0
30	1.7	.2	8	15	-	*128	37	13	4.5	*2.0	1.5	2.0
31	1.6	-	300	24	-	125	-	13	-	2.0	1.5	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					27.3	2.5	0	0.88	54			
November.....					20.1	1.6	.2	.67	40			
December.....					443.7	300	.1	14.3	880			
Calendar year 1936.....					1,455.7	300	0	3.98	2,890			
January.....					701	78	5	22.6	1,390			
February.....					12,906	3,200	12	461	25,600			
March.....					5,569	550	94	180	11,050			
April.....					2,007	120	37	66.9	3,980			
May.....					627	35	13	20.2	1,240			
June.....					237.5	12	4.5	7.92	471			
July.....					84.5	4.0	2.0	2.73	168			
August.....					51.0	2.0	1.5	1.65	101			
September.....					59.0	2.5	1.5	1.97	117			
Water year 1936-37.....					22,733.1	3,200	0	62.3	45,090			

\*Discharge measurement made.

## Trabuco Creek near San Juan Capistrano, Calif.

Location.- Water-stage recorder, lat. 33°31'30", long. 117°40'15", in SW $\frac{1}{4}$  sec. 25, T. 7 S., R. 8 W., on State Highway bridge, 1 $\frac{1}{2}$  miles north of San Juan Capistrano.

Drainage area.- 36.5 square miles.

Records available.- October 1930 to September 1937.

Extremes of discharge.- Maximum discharge during year, 9,240 second-feet Feb. 6 (gage height, 6.80 feet), by slope-area method; no flow during part of year.  
1930-37: Maximum discharge, that of Feb. 6, 1937; no flow during part of each year.

Remarks.- Record furnished by Orange County Flood Control District, through M.N. Thompson, chief engineer.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	30	10	60.0	52	15	6			
2			0	1.0	7	50	49	14	5			
3			0	0	6	43	46	13	4.0			
4			0	0	3.0	40	43	12	3.7			
5			0	0	4.0	37	40	12	3.4			
6			0	8	1,820	34	37	12	3.2			
7			0	25	2,600	31	34	11	3.0			
8			0	10	387	28	32	11	2.8			
9			0	7	300	25	31	10	2.6			
10			0	3.0	250	23	30	10	2.4			
11			0	0	200	20	29	9	2.2			
12			0	3.0	150	30	23	9	2.0			
13			0	23	700	60	27	9	1.8			
14			0	13	719	70	26	9	1.6			
15			0	10	246	90	24	9	1.5			
16			0	8	220	120	23	9	1.5			
17			0	6	190	106	22	9	1.4			
18			0	4.0	170	100	21	9	1.4			
19			0	3.0	140	90	20	9	1.3			
20			0	2.0	120	80	19	9	1.2			
21			0	0	100	70	18	9	1.2			
22			0	0	73	209	18	9	1.1			
23			0	0	70	100	17	9	1.0			
24			0	0	65	78	17	9	.9			
25			0	0	89	75	16	10	.8			
26			0	0	90	72	16	14	.6			
27			2.0	0	80	69	19	12	.4			
28			115	0	70	66	18	10	.2			
29			50	0	-	63	17	9	.1			
30			1.0	0	-	60	16	8	0			
31			244	17	-	56	-	7	-			
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0	0	0	0	0			
November.....					0	0	0	0	0			
December.....					412.0	244	0	13.3	817			
Calendar year 1936.....					608.7	244	0	1.66	1,210			
January.....					173.0	30	0	5.58	343			
February.....					8,977	2,600	3.0	317	17,610			
March.....					2,055	209	20	66.3	4,080			
April.....					805	52	16	26.8	1,600			
May.....					316	15	7	10.2	627			
June.....					58.3	6	0	1.94	116			
July.....					0	0	0	0	0			
August.....					0	0	0	0	0			
September.....					0	0	0	0	0			
Water year 1936-37.....					12,696.3	2,600	0	34.8	25,190			

## Aliso Creek at El Toro, Calif.

Location.- Water-stage recorder, lat. 33°37'15", long. 117°41'20", in Canada de Los Alisos grant, on Second Street bridge, at El Toro, Orange County.

Drainage area.- 8.5 square miles.

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge during year, 1,950 second-feet Feb. 6 (gage height, 11.20 feet); no flow for several months.

1930-37: Maximum discharge, that of Feb. 6, 1937; minimum, no flow during most of each year.

Remarks.- Record furnished by Orange County Flood Control District, through M. N. Thompson, chief engineer.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	0.1	0	0	0.3					
2	0		0	0	0	0	.2					
3	0		0	0	0	0	0					
4	0		1.0	0	0	0	0					
5	0		0	18	.1	0	0					
6	0		0	55	521	0	0					
7	0		0	12	60	0	0					
8	0		0	.9	22	0	0					
9	0		0	0	2.0	0	0					
10	0		0	0	1.0	0	0					
11	0		0	0	.1	0	0					
12	0		0	7.5	.1	.2	0					
13	0		0	1.0	28	.4	0					
14	0		.1	.1	98	.2	0					
15	0		1.0	0	17	10	0					
16	0		0	0	10	5.5	0					
17	0		0	0	4.0	.5	0					
18	0		0	0	4.0	.1	0					
19	0		0	0	3.0	0	0					
20	0		0	0	2.0	0	0					
21	0		0	0	1.0	0	0					
22	0		0	0	.3	21	0					
23	0		0	0	0	2.0	0					
24	0		0	0	.1	3.0	0					
25	0		1.3	0	1.0	1.0	0					
26	0		.1	0	.5	1.0	0					
27	0		20	0	.1	1.0	0					
28	0		10	0	0	.5	0					
29	0		.1	0	-	.5	0					
30	.1		56	4.9	-	.5	0					
31			94	.1	-	.5	-					
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				0.1	0.1	0	0.003	0.2				
November.....				0	0	0	0	0				
December.....				183.6	94	0	5.92	364				
Calendar year 1936.....				361.5	94	0	.99	717				
January.....				99.6	55	0	3.21	198				
February.....				795.3	521	0	28.4	1,580				
March.....				47.9	21	0	1.55	95				
April.....				.5	.3	0	.02	1.0				
May.....				0	0	0	0	0				
June.....				0	0	0	0	0				
July.....				0	0	0	0	0				
August.....				0	0	0	0	0				
September.....				0	0	0	0	0				
Water year 1936-37.....				1,127.0	521	0	3.09	2,240				

## Santa Ana River near Mentone, Calif.

Location.- Water-stage recorder, lat. 34°06'40", long. 117°06'00", in SW¼ sec. 4, T. 1 S., R. 2 W., near mouth of canyon, 0.4 miles above Southern California Edison Co.'s Mentone power plant and 3¼ miles northeast of Mentone. Altitude, about 1,900 feet.

Drainage area.- 189 square miles.

Records available.- July 1896 to September 1937.

Average discharge.- 39 years (1896-1909, 1910-15, 1916-37), 38.2 second-feet. Average combined discharge of Santa Ana River and canals, 36 years (1896-98, 1902-15, 1916-37), 89.6 second-feet.

Extremes.- Maximum discharge during year 13,000 second-feet Feb. 6 (gage height, 7.10 feet); no flow for several months.  
1896-37: Maximum discharge, 29,100 second-feet Jan. 27, 1916, by slope-area method; no flow during part of 1932-36.

Remarks.- Records good. Storage at Bear Valley Reservoir, and diversions above station. Sum of discharge in river, in Mentone power plant tailrace, and in Greenspot pipe line given in table on next page.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	4.6	0	127	20	119	217	139	94	41	5	1.5
2	0	1.1	0	83	17	116	234	139	91	38	4.8	1.4
3	0	.2	0	50	14	113	217	144	91	36	4.8	1.4
4	0	0.1	0	15	10	103	213	153	88	36	4.8	1.4
5	0	0	0	11	8	100	213	156	90	38	4.4	1.4
6	0	0	0	33	2,410	103	221	182	85	35	4.0	1.2
7	0	0	0	20	2,610	108	213	178	80	32	3.5	1.4
8	0	0	0	16	598	110	199	172	79	31	3.1	1.2
9	0	0	0	12	451	116	202	178	78	27	3.1	1.0
10	0	0	0	10	289	140	213	178	78	25	3.1	1.2
11	0	0	0	9	197	150	217	153	78	23	2.6	1.2
12	0	0	0	8.5	134	289	221	160	74	23	2.0	1.4
13	0	0	0	36	146	408	221	172	79	22	2.0	1.5
14	0	0	0	40	2,340	218	246	185	76	21	2.2	1.4
15	0	0	212	28	1,040	201	286	192	72	20	2.2	1.2
16	0	0	177	23	493	910	295	185	69	18	2.2	1.0
17	0	0	91	18	352	618	264	175	67	18	2.2	1.0
18	0	0	29	16	284	572	246	169	65	16	2.2	1.0
19	1.1	0	1.5	15	236	425	238	156	60	15	2.2	1.2
20	.1	0	.2	13	198	345	242	147	59	13	2.2	1.2
21	0	0	.1	11	174	305	242	139	59	12	2.2	1.2
22	0	0	.1	9	167	315	238	136	58	8.5	2.2	1.2
23	0	0	.1	15	160	305	209	128	56	8	2.2	1.2
24	0	0	.1	7.5	147	282	192	118	56	8	2.0	1.2
25	0	0	.2	7	190	282	192	116	53	8	2.0	1.2
26	0	0	1.5	7	154	254	195	123	48	8	1.9	1.0
27	0	0	36	7	137	246	206	105	51	7	1.7	1.0
28	0	0	70	7.5	122	250	175	101	51	6.5	1.7	1.0
29	4.1	0	53	10	-	238	150	103	48	6	1.5	1.0
30	2.5	0	49	21	-	221	141	103	43	5.5	1.5	1.0
31	12	-	289	28	-	217	-	97	-	5.5	1.5	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						19.8	12	0	0.64	39		
November.....						6.0	4.6	0	.20	12		
December.....						1,009.8	289	0	32.6	2,000		
Calendar year 1936.....						4,975.9	585	0	13.6	9,860		
January.....						713.5	127	7	23.0	1,420		
February.....						13,098	2,610	8	468	25,980		
March.....						8,175	910	100	264	16,210		
April.....						6,558	296	141	219	13,010		
May.....						4,582	192	97	148	9,090		
June.....						2,076	94	43	69.2	4,120		
July.....						611.0	41	5.5	19.7	1,210		
August.....						83.0	5	1.5	2.68	165		
September.....						36.2	1.5	1.0	1.21	72		
Water year 1936-37.....						36,968.3	2,610	0	101	73,330		

## SANTA ANA RIVER BASIN

Combined discharge, in second-feet, of Santa Ana River and canals near Mentone, Calif., for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	38	27	150	55	200	256	222	183	150	88	64
2	42	30	27	106	50	197	273	222	180	127	88	58
3	43	26	27	74	47	194	254	227	180	125	88	60
4	42	24	33	38	47	184	252	236	177	125	88	64
5	42	24	26	34	50	184	252	231	179	127	87	60
6	40	22	26	56	2,500	184	260	265	174	124	87	58
7	42	22	26	42	2,610	189	252	222	169	121	86	64
8	43	20	26	38	598	191	275	222	168	120	78	66
9	43	20	26	17	451	197	282	228	167	116	78	64
10	43	22	27	15	289	221	293	224	167	114	86	64
11	43	22	26	14	231	234	297	236	167	112	86	60
12	43	22	27	14	171	332	301	243	163	112	85	66
13	43	22	27	41	180	406	301	255	168	111	85	72
14	42	20	26	45	2,340	298	326	268	165	110	77	66
15	39	20	217	33	1,040	281	366	275	161	109	71	58
16	41	20	182	28	530	926			158	107	77	60
17	44	22	110	23	418	650	375	268	156	107	77	60
18	31	24	71	21	345	604	326	252	154	105	85	60
19	38	24	40	20	317	458	318	239	149	98	77	60
20	29	26	35	48	254	380	322	230	148	96	71	62
21	27	26	31	16	235	342	325	222	148	95	71	62
22	26	27	26	14	248	352	321	219	147	98	71	76
23	24	33	23	20	241	344	292	211	145	97	71	58
24	24	29	27	12	228	323	275	201	145	97	67	58
25	24	29	27	12	271	321	275	205	142	97	67	57
26	24	27	28	12	235	292	278	212	137	97	67	57
27	27	27	62	12	213	285	289	194	140	96	67	54
28	27	29	92	12	203	289	258	190	140	96	67	54
29	30	27	76	15	-	277	233	192	137	95	64	57
30	34	27	72	26	-	260	224	192	132	94	64	59
31	60	-	312	59	-	256	-	186	-	94	64	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					1,143	60	24	36.9	2,270			
November.....					751	38	20	25.0	1,490			
December.....					1,808	512	23	58.3	3,590			
Calendar year 1936.....					20,039	585	20	54.8	39,750			
January.....					1,067	150	12	34.4	2,120			
February.....					14,397	2,610	47	514	28,560			
March.....					9,851	926	184	318	19,540			
April.....					8,695	375	224	290	17,250			
May.....					7,047	275	186	227	13,980			
June.....					4,746	183	132	158	9,410			
July.....					3,352	130	94	108	6,650			
August.....					2,385	88	64	76.9	4,750			
September.....					1,838	76	54	61.3	3,650			
Water year 1936-37.....					57,080	2,610	12	156	113,200			

## Santa Ana River near San Bernardino, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}04'50''$ , long.  $117^{\circ}15'25''$ , in San Bernardino grant, a quarter of a mile upstream from Tippencano Street bridge and  $2\frac{1}{2}$  miles south-east of San Bernardino, San Bernardino County. Altitude, about 1,040 feet.

Records available.- October 1928 to September 1937.

Extremes.- Maximum discharge during year, 11,200 second-feet Feb. 6; no flow during most of year.

1928-37: Maximum discharge, that of Feb. 6, 1937; no flow during most of each year.

Remarks.- Records poor. Storage at Bear Valley reservoir. During irrigation season Bear Valley Mutual Water Co. and associated companies divert entire flow of Santa Ana River and Mill Creek. At times Gage Canal diverts directly above station. During periods of high water the Water Conservation Association diverts at Mentone for the purpose of spreading the flow for groundwater recharge.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	5	0	20	165	180	120	22		
2	0		0	0	0	14	170	180	115	20		
3	0		0	0	0	16	170	180	110	18		
4	0		0	0	0	20	165	170	105	10		
5	0		0	0	0	30	165	170	100	5		
6	0		0	0	1,300	45	165	170	95	0		
7	0		0	0	2,900	55	160	170	90	0		
8	0		0	0	100	69	160	160	85	0		
9	0		0	0	5	70	165	190	80	0		
10	0		0	0	1.0	75	170	200	80	0		
11	0		0	0	0	80	180	210	75	0		
12	0		0	0	0	60	200	215	75	0		
13	0		0	0	0	85	220	225	70	0		
14	0		0	0	2,400	50	240	230	65	0		
15	0		100	0	900	2.0	250	240	60	0		
16	0		55	0	40	1,500	250	240	55	0		
17	0		2.0	0	20	900	240	230	50	0		
18	0		0	0	0	400	230	220	50	0		
19	0		0	0	0	250	220	215	52	0		
20	0		0	0	0	180	210	210	52	0		
21	0		0	0	0	170	200	200	54	0		
22	0		0	0	0	160	200	195	54	0		
23	0		0	0	0	150	200	190	54	0		
24	0		0	0	0	150	200	180	55	0		
25	0		0	0	20	180	200	170	48	0		
26	0		0	0	20	149	200	160	42	0		
27	0		0	0	16	149	200	150	38	0		
28	0		31	0	20	148	200	145	34	0		
29	0		5	0	-	147	190	140	25	0		
30	0		2.0	0	-	150	190	130	24	0		
31	20		120	0	-	160	-	125	-	0		
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						20	20	0	0.65	40		
November.....						0	0	0	0	0		
December.....						315.0	120	0	10.2	625		
Calendar year 1936.....						1,581.0	344	0	4.32	3,140		
January.....						5	5	0	.16	10		
February.....						7,742	2,900	0	276	15,360		
March.....						5,624.0	1,500	2.0	181	11,180		
April.....						5,875	250	160	196	11,650		
May.....						5,810	240	125	187	11,520		
June.....						2,015	120	24	67.2	4,000		
July.....						75	22	0	2.42	149		
August.....						.0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						27,481.0	2,900	0	75.3	54,610		

## Santa Ana River at Riverside Narrows, near Arlington, Calif.

Location.— Water-stage recorder, lat. 33°58'00", long. 117°28'30", in Jurupa grant, half a mile below Union Pacific Railroad bridge and 3 miles north of Arlington, Riverside County. Altitude, 690 feet.

Records available.— January 1929 to September 1937.

Extremes.— Maximum discharge during year, 12,000 second-feet (estimated) Feb. 7; minimum, 20 second-feet Aug. 3.

1929-37: Maximum discharge, that of Feb. 7, 1937; minimum, that of Aug. 3, 1937.

Remarks.— Records fair except those for periods of high water, which are poor. Discharge for Dec. 12-16, Dec. 27 to Jan. 1, Jan. 27 to Feb. 8, Feb. 14 to Mar. 5, Mar. 17-31, May 6-11, computed on basis of 13 discharge measurements and records for stations on nearby streams. Numerous diversions. See Santa Ana River at San Bernardino, Calif.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	30	27	290	38	50	114	35	34	25	24	27
2	27	30	26	42	37	49	172	29	32	25	23	27
3	27	28	26	38	36	47	148	31	31	25	21	26
4	27	28	34	38	35	46	125	31	31	25	22	25
5	27	28	30	39	34	45	116	43	31	25	22	24
6	27	28	30	72	3,000	40	114	45	30	25	22	23
7	27	27	29	40	7,200	39	114	48	29	25	23	23
8	27	27	28	37	400	43	115	49	29	26	23	23
9	28	28	28	37	58	51	139	49	29	26	23	23
10	28	27	28	38	75	56	145	51	30	26	24	23
11	28	27	28	40	69	64	143	53	30	27	24	23
12	28	27	28	63	66	162	140	55	30	28	24	23
13	28	27	28	88	70	359	161	66	29	28	24	23
14	29	26	28	38	3,200	80	162	66	28	28	25	22
15	30	26	60	37	1,500	65	178	86	29	28	25	22
16	46	26	70	36	310	1,100	245	80	30	27	25	22
17	35	27	26	36	85	650	267	82	30	26	25	22
18	34	27	25	36	84	550	230	85	30	25	25	23
19	31	27	25	36	83	350	227	72	29	24	25	23
20	29	27	24	36	81	220	206	60	28	23	24	23
21	29	27	24	35	79	160	165	50	27	23	24	24
22	29	30	24	34	77	220	140	45	28	23	23	24
23	27	29	24	34	75	210	104	51	27	23	23	24
24	27	28	25	35	74	170	94	42	26	23	22	23
25	26	28	29	34	70	165	84	39	25	23	22	23
26	24	28	26	34	57	160	79	52	26	23	22	23
27	23	27	150	34	55	150	111	53	26	23	23	24
28	24	27	350	35	52	135	79	34	26	24	24	24
29	35	27	100	36	-	120	60	43	26	24	25	23
30	20	27	45	37	-	117	45	56	26	24	26	23
31	49	-	1,400	40	-	115	-	47	-	23	27	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						965	80	23	31.1	1,910		
November.....						826	30	26	27.5	1,640		
December.....						2,825	1,400	24	31.1	5,600		
Calendar year 1936.....						14,948	1,400	23	40.8	29,640		
January.....						1,495	290	34	48.2	2,970		
February.....						17,031	7,200	34	608	33,780		
March.....						5,788	1,100	39	187	11,480		
April.....						4,220	267	43	141	8,370		
May.....						1,628	96	29	52.5	3,230		
June.....						862	54	25	26.7	1,710		
July.....						773	28	23	24.9	1,530		
August.....						734	27	21	23.7	1,460		
September.....						705	27	22	23.5	1,400		
Water year 1936-37.....						37,850	7,200	21	104	75,080		

Santa Ana River at Hammer Avenue, near Corona, Calif.

Location.— Water-stage recorder, lat. 33°56'50", long. 117°33'00", in Jurupa grant, one mile above Hammer Avenue and 5 miles north of Corona, Riverside County.

Records available.— May 1930 to November 1937 (irrigation seasons only).

Remarks.— Records good. Discharge Sept. 5-7 computed on basis of records for stations on nearby streams.

Discharge, in second-feet, 1936-37

Day	Oct.	Nov.				May	June	July	Aug.	Sept.	Oct.	Nov.
1	22	30				38	36	22	18	22	18	25
2	20	30				37	30	21	20	18	20	24
3	22	25				36	27	22	20	21	20	23
4	22	30				36	31	22	20	22	18	25
5	23	32				44	30	22	20	21	18	25
6	21	30				48	29	24	20	20	18	25
7	19	31				51	27	22	21	19	20	25
8	18	27				50	27	24	23	18	20	25
9	18	27				51	27	24	21	17	18	25
10	17	26				60	26	23	21	18	21	23
11	16	27				67	27	24	21	17	21	25
12	17	25				68	26	25	18	20	22	26
13	18	25				76	26	24	17	21	20	27
14	18	25				78	26	25	20	21	18	26
15	19	23				88	26	25	20	18	20	26
16	34	26				92	26	26	21	17	24	26
17	35	27				92	25	24	18	17	23	27
18	30	23				98	24	24	16	17	23	27
19	36	24				96	23	22	17	18	22	26
20	27	22				75	23	21	17	18	24	27
21	25	22				65	23	20	16	17	23	27
22	26	31				65	23	20	16	18	23	27
23	24	29				64	23	20	16	20	22	30
24	22	29				56	23	20	17	20	23	31
25	22	30				47	23	17	17	20	24	32
26	23	26				54	23	17	18	20	25	34
27	22	29				59	24	16	21	20	26	37
28	20	29				47	23	16	21	20	26	37
29	23	27				48	22	16	22	18	25	36
30	63	30				53	23	16	20	17	26	34
31	37	-				50	-	18	18	-	31	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
1936						759	63	16	24.5	1,510		
October.....						817	32	22	27.2	1,620		
November.....												
1937						1,881	98	36	60.7	3,730		
May.....						771	36	22	25.7	1,550		
June.....						662	26	16	21.4	1,310		
July.....						591	23	16	19.1	1,170		
August.....						568	22	17	18.9	1,130		
September.....						680	31	18	21.9	1,360		
October.....						829	37	23	27.6	1,640		
November.....												
The period.....										11,860		



## SANTA ANA RIVER BASIN

Santa Ana River at Auburndale Bridge, near Corona, Calif.

Location.- Water-stage recorder, lat. 33°55'30", long. 117°35'40", in Jurupa grant, at Auburndale Bridge, 4 miles northwest of Corona, Riverside County.

Records available.- May 1930 to November 1937 (irrigation seasons only).

Remarks.- Records good. Discharge May 3-5 computed on basis of records for stations at Hammer Avenue and at Atchison, Topeka &amp; Santa Fe Railway bridge.

## Discharge, in second-feet, 1936-37

Day	Oct.	Nov.				May	June	July	Aug.	Sept.	Oct.	Nov.
1	37	67				84	54	35	30	30	33	47
2	33	58				79	43	35	30	26	29	42
3	37	49				72	42	36	26	26	35	42
4	34	50				67	45	35	29	26	32	47
5	36	53				68	46	37	26	24	32	43
6	32	48				69	43	37	26	26	32	47
7	37	52				71	40	37	24	26	30	47
8	33	47				71	42	33	26	27	29	47
9	34	48				75	40	35	27	26	27	45
10	33	46				82	40	33	27	27	30	40
11	33	47				86	38	30	27	26	32	42
12	34	48				77	38	32	26	27	27	43
13	35	48				79	37	33	27	30	27	40
14	35	47				91	38	33	26	29	32	47
15	37	52				101	38	35	26	30	35	45
16	50	50				106	38	33	29	27	35	45
17	62	50				106	37	32	26	24	38	45
18	55	54				111	35	33	26	29	35	43
19	58	48				101	37	33	27	32	37	45
20	46	52				96	37	33	26	30	38	43
21	47	50				84	35	30	26	32	38	45
22	48	59				75	37	29	24	33	38	45
23	42	54				82	37	30	24	30	37	45
24	44	53				77	35	32	24	30	38	45
25	46	47				71	37	30	23	33	37	53
26	41	50				69	35	32	24	30	40	56
27	46	45				67	37	30	26	32	37	56
28	40	47				65	35	27	26	33	43	58
29	42	47				62	37	29	29	32	45	54
30	91	46				69	35	32	27	30	45	54
31	74	-				65	-	30	26	-	49	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
1936												
October.....						1,351	91	32	43.6	2,680		
November.....						1,511	67	45	50.4	3,000		
1937												
May.....						2,478	111	62	79.9	4,920		
June.....						1,167	54	35	38.9	2,310		
July.....						1,010	37	27	32.6	2,000		
August.....						816	30	23	26.3	1,620		
September.....						863	33	24	28.8	1,710		
October.....						1,090	49	27	35.2	2,160		
November.....						1,396	58	40	46.5	2,770		
The period.....										17,490		

Santa Ana River at Atchison, Topeka & Santa Fe Railway Bridge, near Prado, Calif.

Location.— Water-stage recorder, lat. 33°52'50", long. 117°38'30", in La Sierra grant, half a mile below Atchison, Topeka & Santa Fe Railway bridge and 1½ miles southwest of Prado, Riverside County.

Records available.— May 1930 to November 1937 (irrigation seasons only).

Remarks.— Records good.

Discharge, in second-feet, 1936-37

Day	Oct.	Nov.				May	June	July	Aug.	Sept.	Oct.	Nov.
1	42	90				95	86	55	39	47	45	65
2	41	78				88	77	51	39	45	47	64
3	43	71				61	70	48	36	51	49	65
4	43	67				83	70	45	37	43	49	69
5	45	69				85	72	45	36	36	49	69
6	45	66				93	72	49	36	35	49	69
7	43	69				91	70	44	39	35	49	67
8	41	65				93	67	45	39	35	48	65
9	39	66				98	72	44	37	36	47	67
10	41	66				106	72	47	39	36	47	65
11	38	66				110	70	48	41	37	48	62
12	39	66				108	70	47	41	36	49	64
13	39	66				105	69	48	40	35	48	65
14	41	66				111	69	47	40	37	45	67
15	42	66				120	69	47	43	37	49	69
16	57	66				130	69	47	44	37	54	69
17	71	66				132	69	48	43	36	54	69
18	65	65				136	69	45	41	37	55	69
19	69	62				127	67	45	37	36	52	67
20	63	62				115	60	43	37	40	52	69
21	60	63				105	62	43	36	40	55	69
22	59	67				101	64	44	35	43	51	69
23	56	72				105	58	44	36	45	52	65
24	52	69				103	62	45	37	45	52	67
25	52	67				95	62	39	40	44	55	67
26	52	66				103	58	39	39	44	58	70
27	53	65				106	54	41	43	43	60	73
28	52	65				91	55	36	44	45	61	72
29	63	66				90	57	39	43	45	61	72
30	119	69				93	55	41	44	45	62	69
31	101	-				96	-	41	44	-	67	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
1936												
October.....						1,662	119	38	53.6	3,300		
November.....						2,027	90	62	67.6	4,020		
1937												
May.....						3,195	136	81	103	6,540		
June.....						1,926	86	54	68.5	3,960		
July.....						1,390	55	36	44.8	2,760		
August.....						1,225	44	35	39.5	2,430		
September.....						1,206	51	35	40.2	2,390		
October.....						1,619	67	45	52.2	3,210		
November.....						2,028	73	62	67.6	4,020		
The period.....										25,110		

## Santa Ana River near Prado, Calif.

Location.- Water-stage recorder, lat. 33°52'05", long. 117°40'20", in Lomas de Santiago grant, at Riverside-Orange county line in lower Santa Ana canyon, 3 miles below Rincon bridge and 3 miles southwest of Prado, Riverside County.

Records available.- January 1919 to September 1937.

Average discharge.- 18 years, 142 second-feet.

Extremes.- Maximum discharge during year, 11,700 second-feet Feb. 7 (gage height, 11.45 feet); minimum, 26 second-feet Sept. 9 (gage height, 0.92 foot).  
1919-37: Maximum discharge, about 18,000 second-feet Feb. 16, 1927 (gage height, 11.5 feet); minimum, 25 second-feet Aug. 18, 1929, Aug. 24, 1936.

Remarks.- Records good. Diversions and regulation above station. Discharge Feb. 11-13 computed on basis of records for stations on nearby streams.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	78	64	429	119	179	172	104	88	47	34	40
2	35	70	62	229	111	177	226	99	74	45	36	40
3	35	63	64	174	106	166	247	92	69	44	33	44
4	36	62	70	137	104	162	209	88	72	41	34	37
5	35	64	70	119	104	162	195	66	72	41	32	34
6	37	64	68	179	3,340	164	201	90	70	45	36	30
7	34	62	71	160	7,720	158	198	90	70	44	34	31
8	34	60	70	126	1,080	160	191	92	64	44	38	31
9	34	59	73	113	362	166	229	94	65	42	34	29
10	35	60	68	113	292	172	259	104	64	41	36	29
11	37	59	65	110	250	172	268	106	64	44	40	30
12	35	59	65	121	220	209	277	99	62	44	38	30
13	37	57	65	200	210	411	300	94	60	42	38	31
14	37	58	66	134	4,060	257	282	104	60	40	37	31
15	38	59	139	122	1,980	240	300	116	57	42	37	32
16	48	56	144	117	515	883	358	130	57	44	39	31
17	59	56	111	113	326	585	358	130	57	42	36	32
18	55	56	91	113	338	454	305	141	55	41	37	30
19	60	55	86	113	338	423	266	138	49	42	34	32
20	59	55	85	111	302	368	268	116	49	39	36	31
21	56	57	83	110	287	384	241	104	51	39	33	32
22	55	59	85	108	257	514	220	102	51	40	32	36
23	55	64	86	108	226	412	198	99	45	39	33	36
24	51	62	85	106	197	350	167	99	49	39	36	34
25	50	63	90	106	242	392	160	97	48	37	33	34
26	51	64	91	108	255	272	144	97	47	37	34	37
27	51	62	195	108	195	232	170	102	48	36	36	38
28	50	63	554	108	181	237	170	90	47	33	37	38
29	57	62	229	111	-	219	136	88	48	34	40	38
30	91	65	172	117	-	185	122	97	51	34	37	38
31	79	-	1,710	150	-	181	-	99	-	37	39	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						1,460	91	34	47.1	2,900		
November.....						1,833	78	55	61.1	3,640		
December.....						4,977	1,710	62	161	9,870		
Calendar year 1936.....						28,657.0	1,710	25	78.8	57,240		
January.....						4,275	429	106	138	8,480		
February.....						23,707	7,720	104	847	47,020		
March.....						9,046	883	158	292	17,940		
April.....						6,857	358	122	229	13,600		
May.....						3,187	141	86	103	6,320		
June.....						1,763	88	45	58.8	3,500		
July.....						1,259	47	33	40.6	2,500		
August.....						1,109	40	32	35.8	2,200		
September.....						1,016	44	29	33.9	2,015		
Water year 1936-37.....						60,489	7,720	29	166	120,000		

## Santa Ana River at Santa Ana, Calif.

Location.- Water-stage recorder, lat. 33°45'00", long. 117°54'20", in Las Bolsas land grant, one-eighth of a mile above Fifth Street Bridge in Santa Ana, Orange County and 2 miles below junction with Santiago Creek. Altitude, about 80 feet.

Records available.- January 1923 to September 1937.

Average discharge.- 14 years, 15.1 second-feet.

Extremes.- Maximum discharge during year, 9,500 second-feet Feb. 7; no flow for several months.

1923-37: Maximum discharge, about 25,000 second-feet Feb. 16, 1927; no flow for several months of each year.

Remarks.- Records poor. During irrigation season two canals, that of the Anaheim Union Co. and that of the Santa Ana Valley Irrigation Co., divert entire flow of river near Olive, at points about 22 miles and about 28 miles above station respectively. For storage and other diversions see record for Santa Ana River near San Bernardino.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	60	2.0	0.1	78					
2			0	2.0	0	0	75					
3			0	0	0	0	83					
4			0	0	0	0	82					
5			0	0	0	0	54					
6			0	4.0	1,840	0	56					
7			0	.2	5,300	0	20					
8			0	.1	1,320	0	63					
9			0	.1	60	0	15					
10			0	0	20	0	14					
11			0	0	10	0	13					
12			0	0	2.0	0	13					
13			0	0	222	57	12					
14			0	0	3,140	160	12					
15			0	0	1,710	120	11					
16			0	0	292	959	11					
17			0	0	128	964	10					
18			0	0	13	400	9					
19			0	0	2.9	350	9					
20			0	0	1.0	292	8					
21			0	0	.2	276	4.0					
22			0	15	.1	370	2.0					
23			0	5	.1	270	1.0					
24			0	5	.1	220	1.0					
25			0	3.0	70	210	0					
26			0	5	13	175	0					
27			65	2.0	6.5	155	0					
28			100	10	.5	140	0					
29			20	10	-	115	0					
30			1.0	12	-	100	0					
31			500	4.0	-	90	-					
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0		0	0	0	0			
November.....				0		0	0	0	0			
December.....				686.0		500	0	22.1	1,360			
Calendar year 1936.....				1,642.5		500	0	4.49	3,260			
January.....				137.4		60	0	4.43	275			
February.....				15,153.4		6,300	0	541	30,060			
March.....				5,403.1		964	0	174	10,720			
April.....				686.0		84	0	22.9	1,360			
May.....				0		0	0	0	0			
June.....				0		0	0	0	0			
July.....				0		0	0	0	0			
August.....				0		0	0	0	0			
September.....				0		0	0	0	0			
Water year 1936-37.....				22,065.9		6,300	0	60.5	43,770			

Southern California Edison Co.'s canal and Greenspot pipe line near Mentone, Calif.

Location.- At Southern California Edison Co.'s power plant at mouth of canyon, lat. 34° 06'20", long. 117°05'55", in SW¼ sec. 4, T. 1 S., R. 2 W., 3 miles northeast of Mentone.

Records available.- 1896 to September 1937.

Average discharge.- Southern California Edison Co.'s canal, 35 years (1896-98, 1904-37), 50.6 second-feet. Greenspot pipe line, 28 years (1911-37), 5.57 second-feet.

Extremes.- 1896-1937: Maximum daily discharge of canal, 97 second-feet Mar. 16, 1905; no flow during short periods of nearly every year.

Remarks.- Intake of this canal is in sec. 34, T. 1 N., R. 2 W., at Southern California Edison Co.'s power plant 2, which is 2½ miles above the Mentone plant. Water is diverted from forebay of Mentone plant by Greenspot pipe line. Discharge of canal below forebay is computed from record of output of power plant in kilowatts. Discharge of pipe line is computed from record of weir at forebay. The sum of the discharge of canal and that of pipe line in the following tables gives the total flow of canal above forebay.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	28	22	17.5	30	81	39	74	80	80	74	54
2	34	24	22	17.5	28	81	39	74	80	80	74	48
3	35	21	22	19.2	28	81	37	74	80	80	74	50
4	34	19.2	28	17.5	32	81	39	74	80	80	74	54
5	34	19.2	21	17.5	37	84	39	66	80	80	74	50
6	32	17.5	21	17.5	80	81	39	74	80	80	74	48
7	34	17.5	21	17.5	0	81	39	35	80	80	74	54
8	35	15.5	21	17.5	0	81	76	41	80	80	66	56
9	35	15.5	21	0	0	81	80	41	80	80	66	54
10	35	17.5	22	0	0	81	80	37	80	80	74	54
11	35	17.5	21	0	34	84	80	74	80	80	74	50
12	35	17.5	22	0	37	43	80	74	80	80	74	56
13	35	17.5	22	0	34	0	80	74	80	80	74	62
14	34	15.5	21	0	0	80	80	74	80	80	66	56
15	30	15.5	0	0	0	80	80	74	80	80	60	48
16	32	15.5	0	0	37	15.5	80	74	80	80	66	50
17	35	17.5	13.7	0	66	32	80	74	80	80	66	50
18	22	19.2	37	0	61	32	80	74	80	80	74	50
19	32	19.2	34	0	81	35	80	74	80	74	66	50
20	24	21	30	30	56	35	80	74	80	74	60	52
21	22	21	26	0	61	37	74	74	80	74	60	52
22	21	22	21	0	81	37	74	74	80	80	60	66
23	19.2	28	17.5	0	81	39	74	74	80	80	60	48
24	19.2	24	22	0	81	41	74	74	80	80	56	48
25	19.2	24	22	0	81	39	74	80	80	80	56	48
26	19.2	22	21	0	81	38	74	80	80	80	56	48
27	22	22	21	0	76	39	74	80	80	80	56	45
28	22	24	17.5	0	81	39	74	80	80	80	56	45
29	21	22	17.5	0	-	39	74	80	80	80	54	48
30	26	22	17.5	0	-	39	74	80	80	80	54	50
31	43	-	17.5	26	-	39	-	80	-	80	54	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						910.8	43	19.2	29.4	1,810		
November.....						601.8	28	15.5	20.1	1,190		
December.....						642.2	37	0	20.7	1,270		
Calendar year 1936.....						12,774.8	81	0	34.9	25,330		
January.....						197.7	30	0	6.38	392		
February.....						1,264	81	0	45.1	2,510		
March.....						1,675.5	84	0	54.0	3,320		
April.....						2,047	80	37	68.2	4,060		
May.....						2,186	80	35	70.5	4,340		
June.....						2,400	80	80	80	4,760		
July.....						2,462	80	74	79.4	4,880		
August.....						2,026	74	54	65.4	4,020		
September.....						1,544	66	45	51.5	3,060		
Water year 1936-37.....						17,957.0	84	0	49.2	35,610		

Discharge, in second-feet, of Greenspot Pipe Line near Mentone, Calif., for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	5.0	5.0	5.0	5.0		0	9.0	9.0	9.0	9.0	9.0
2	8.0	5.0	5.0	5.0	5.0		0	9.0	9.0	9.0	9.0	9.0
3	8.0	5.0	5.0	5.0	5.0		0	9.0	9.0	9.0	9.0	9.0
4	8.0	5.0	5.0	5.0	5.0		0	9.0	9.0	9.0	9.0	9.0
5	8.0	5.0	5.0	5.0	5.0		0	9.0	9.0	9.0	9.0	9.0
6	8.0	5.0	5.0	5.0	5.0		0	9.0	9.0	9.0	9.0	9.0
7	8.0	5.0	5.0	5.0	5.0		0	9.0	9.0	9.0	9.0	9.0
8	8.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
9	8.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
10	8.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
11	8.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
12	8.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
13	8.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
14	8.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
15	9.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
16	9.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
17	9.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
18	9.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
19	5.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
20	5.0	5.0	5.0	5.0	0		0	9.0	9.0	9.0	9.0	9.0
21	5.0	5.0	5.0	5.0	0		9.0	9.0	9.0	9.0	9.0	9.0
22	5.0	5.0	5.0	5.0	0		9.0	9.0	9.0	9.0	9.0	9.0
23	5.0	5.0	5.0	5.0	0		9.0	9.0	9.0	9.0	9.0	9.0
24	5.0	5.0	5.0	5.0	0		9.0	9.0	9.0	9.0	9.0	9.0
25	5.0	5.0	5.0	5.0	0		9.0	9.0	9.0	9.0	9.0	8.0
26	5.0	5.0	5.0	5.0	0		9.0	9.0	9.0	9.0	9.0	8.0
27	5.0	5.0	5.0	5.0	0		9.0	9.0	9.0	9.0	9.0	8.0
28	5.0	5.0	5.0	5.0	0		9.0	9.0	9.0	9.0	9.0	8.0
29	5.0	5.0	5.0	5.0	-		9.0	9.0	9.0	9.0	9.0	8.0
30	5.0	5.0	5.0	5.0	-		9.0	9.0	9.0	9.0	9.0	8.0
31	5.0	-	5.0	5.0	-		-	9.0	-	9.0	9.0	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						213.0	9.0	5.0	6.87	422		
November.....						150.0	5.0	5.0	5.0	298		
December.....						155.0	5.0	5.0	5.0	307		
Calendar year 1936.....						2,307.0	9.0	0	6.30	4,680		
January.....						155.0	5.0	5.0	5.0	307		
February.....						30.0	5.0	0	1.07	60		
March.....						0	0	0	0	0		
April.....						90.0	9.0	0	3.0	179		
May.....						279	9.0	9.0	9.0	553		
June.....						270	9.0	9.0	9.0	536		
July.....						279.0	9.0	9.0	9.0	553		
August.....						279.0	9.0	9.0	9.0	553		
September.....						264.0	9.0	8.0	8.8	524		
Water year 1936-37.....						2,164.0	9.0	0	5.93	4,290		

## Mill Creek near Craftonville, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}05'15''$ , long.  $117^{\circ}02'25''$ , in NE $\frac{1}{4}$  sec. 13, T. 1 S., R. 2 W., at mouth of canyon, below bridge on Redlands-Bear Valley highway, 5 miles northeast of Craftonville.

Records available.- January 1919 to September 1937.

Average discharge.- 18 years, 12.1 second-feet. Average combined discharge, river and canals, 18 years, 35.9 second-feet.

Extremes.- Maximum discharge during year, 2,390 second-feet Feb. 6 (gage height, 5.70 feet); no flow for several months.

1919-37: Maximum discharge (estimated), 4,500 second-feet Feb. 18, 1927 (gage height, 5.5 feet); all water diverted into Mill Creek power canal no. 1 at times.

Remarks.- Records poor. Discharge for Jan. 4-7, Feb. 16-18, Aug. 31 to Sept. 10, Sept. 17, 18, 24-30 computed on basis of records for stations on nearby streams. Mill Creek power canals nos. 1, 2, and 3 divert from points just above, 3 miles above, and 6 miles above station, respectively. Combined discharge is sum of flow in creek and three canals.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	14	0	74	107	111	96	30	2.7	0.1
2	0		0	5.6	0	68	111	113	96	29	2.7	.1
3	0		0	2.6	0	70	111	115	95	36	2.3	.1
4	0		0	1.0	0	75	107	122	91	28	1.6	.1
5	0		0	.2	0	79	109	129	89	20	1.3	.1
6	0		0	.1	451	80	104	132	86	24	1.3	.1
7	0		0	.1	473	75	91	127	82	35	1.3	.1
8	0		0	0	206	68	87	129	80	33	1.1	.1
9	0		0	0	132	64	89	134	79	30	1.1	.1
10	0		0	0	86	52	98	136	75	30	.7	.1
11	0		0	0	47	58	102	139	72	24	.3	2.8
12	0		0	0	35	109	109	146	68	16	.2	6
13	0		0	0	74	144	104	156	67	10	.2	1.9
14	0		0	0	592	98	113	162	62	6.5	1.3	.2
15	0		143	0	402	82	127	164	60	8.5	1.3	.1
16	.2		48	0	250	232	129	178	58	11	1.3	.1
17	3.2		18	0	200	215	124	180	58	6	1.1	.1
18	2.0		7	0	150	221	122	172	56	1.6	1.9	.1
19	10		2.0	0	109	186	122	144	54	1.6	1.9	.1
20	1.5		.1	0	100	164	122	146	56	1.6	1.9	.1
21	.5		0	0	86	162	127	151	54	2.7	1.3	.1
22	0		0	0	104	162	132	146	56	1.1	1.3	.1
23	0		0	0	111	156	129	146	56	1.1	1.3	.1
24	0		0	0	111	154	127	146	54	1.1	1.3	.1
25	0		.4	0	122	151	129	146	54	1.1	1.3	.1
26	0		0	0	104	136	132	141	53	.9	.7	.1
27	0		16	0	89	124	132	127	54	3.8	.6	.1
28	0		20	0	77	127	122	134	47	11	.7	.1
29	6		4.7	0	-	118	115	136	36	8.5	.9	.1
30	.2		13	2.2	-	104	111	120	28	5	.3	.1
31	0		62	.1	-	102	-	100	-	3.2	.2	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				23.6		10	0	0.76	47			
November.....				0		0	0	0	0			
December.....				334.2		143	0	10.8	663			
Calendar year 1936.....				1,687.0		359	0	4.61	3,340			
January.....				25.8		14	0	.83	51			
February.....				4,091		592	0	146	8,110			
March.....				3,760		282	52	121	7,460			
April.....				3,444		132	87	115	6,830			
May.....				4,328		180	100	140	8,580			
June.....				1,972		96	28	65.7	3,910			
July.....				421.3		36	.9	13.6	836			
August.....				37.4		2.7	.2	1.21	74			
September.....				13.5		6	.1	.45	27			
Water year 1936-37.....				18,450.8		592	0	50.6	36,590			

Combined discharge, in second-feet, of Mill Creek and canals near Craftonville, Calif., for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19.0	14.1	18.2	26	21	107	155	165	151	87	60	38
2	19.0	16.4	18.5	19.4	23	101	159	167	148	83	59	38
3	19.5	16.0	18.1	21	23	99	150	168	144	82	57	36
4	18.7	15.5	19.8	21	25	104	140	173	145	78	55	36
5	18.1	14.8	19.0	21	25	109	140	180	147	73	53	36
6	17.9	14.2	18.5	21	453	110	139	185	143	74	52	36
7	17.9	14.0	15.5	20	460	109	143	184	139	79	52	35
8	18.0	13.6	13.3	20	214	112	143	184	136	76	50	35
9	17.9	13.9	19.0	19.1	140	111	143	188	135	72	50	36
10	17.7	13.9	18.3	18.9	94	104	148	189	130	70	48	35
11	17.3	13.9	18.2	19.2	59	110	161	190	127	66	46	39
12	17.7	13.9	18.0	21	54	154	155	196	123	64	45	44
13	17.6	13.9	17.9	21	93	166	154	204	122	63	44	42
14	17.4	13.9	17.8	19.3	592	133	163	209	116	64	44	45
15	16.9	13.9	14.9	19.7	407	135	177	213	114	62	44	40
16	22	13.9	63	20	260	301	184	221	111	60	43	39
17	28	13.4	38	19.7	224	242	180	216	111	58	43	38
18	22	13.1	24	19.9	174	254	176	212	109	58	44	38
19	29	13.1	15.4	22	139	214	175	197	107	57	44	38
20	19.3	13.3	14.2	22	131	193	174	188	108	55	44	36
21	15.2	13.7	13.6	21	128	195	179	196	105	53	43	36
22	13.5	16.6	12.8	19.4	126	196	181	193	107	54	44	42
23	13.3	15.7	12.6	19.8	131	192	177	191	106	54	44	40
24	13.3	14.6	12.6	19.9	128	193	175	187	103	52	42	39
25	13.1	14.8	14.9	19.9	140	193	176	184	102	52	41	38
26	14.2	14.8	13.8	19.4	124	181	175	178	100	51	40	38
27	16.2	14.6	30	19.4	117	168	189	164	100	56	40	36
28	16.2	14.1	35	21	110	170	178	171	95	69	38	36
29	23	16.9	20	20	-	158	169	173	90	68	38	36
30	17.1	19.2	29	20	-	154	165	168	85	64	39	36
31	19.1	-	72	19.2	-	150	-	157	-	61	39	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						565.1	29	13.1	18.2	1,120		
November.....						437.7	19.2	13.1	14.6	868		
December.....						820.0	149	12.6	26.5	1,630		
Calendar year 1936.....						10,200.2	373	12.6	26.5	1,630		
January.....						630.2	28	18.9	20.3	1,260		
February.....						4,635	592	21	166	9,190		
March.....						4,918	301	99	169	9,760		
April.....						4,913	189	139	164	9,740		
May.....						5,791	221	157	187	11,490		
June.....						3,559	151	85	119	7,060		
July.....						2,015	97	51	65.0	4,000		
August.....						1,425	60	38	46.0	2,830		
September.....						1,135	44	35	37.8	2,250		
Water year 1936-37.....						30,844.0	592	12.6	34.5	61,190		



## Mill Creek power canals 2 and 3 near Craftonville, Calif.

Location.- At Southern California Edison Co.'s power plant, lat. 34°03'10", long. 117°02'25", in NE¼ sec. 13, R. 1 S., R. 2 W., near Redlands-Bear Valley highway, 5 miles northeast of Craftonville.

Records available.- January 1919 to September 1937.

Average discharge.- 18 years, 21.0 second-feet.

Extremes.- 1919-37: Maximum daily discharge, 36 second-feet Nov. 19, 1923, June 7, 1924; no flow May 27, 1923, Feb. 14, 1937.

Remarks.- Discharge computed from weir records at tailrace of power plant. Mill Creek power canal 2 diverts from Mill Creek in sec. 8, T. 1 S., R. 1 W. Headworks of canal 3 are in sec. 13, T. 1 S., R. 1 W., about 3 miles above intake for canal 2. The canals serve power plants 2 and 3, which discharge into a common tailrace. Records furnished by Southern California Edison Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18.5	13.2	17.6	12.2	19.1	7.8	32	32	32	32	32	32
2	18.5	14.7	17.3	11.4	18.9	7.8	32	32	32	32	32	32
3	19.0	14.7	17.3	13.3	18.7	7.8	16.8	32	32	25	32	31
4	18.2	14.5	18.5	14.5	21	7.8	7.8	32	32	30	32	31
5	17.6	14.0	17.6	17.1	21	7.8	7.8	32	32	32	32	31
6	17.4	13.4	17.3	17.2	18.4	7.8	14.6	32	32	32	32	31
7	17.4	13.1	14.8	15.6	6.8	12.4	32	32	32	34	32	30
8	17.4	12.8	12.8	16.5	7.8	26	32	32	32	34	32	31
9	17.2	13.1	17.6	15.8	8.2	25	32	32	32	32	32	32
10	17.0	13.1	17.3	15.8	8.2	32	32	32	32	32	32	31
11	16.5	13.1	17.3	16.4	8.0	32	32	32	32	32	32	31
12	17.0	13.1	17.3	17.3	8.0	25	32	32	32	32	32	32
13	17.0	13.1	17.3	17.4	11.8	16.7	32	32	32	32	32	32
14	16.8	13.1	17.3	16.0	0	19.4	32	31	32	32	32	32
15	16.4	13.0	6.4	16.4	4.6	27	32	32	32	32	32	32
16	21	13.0	14.8	16.8	10.0	13.2	32	32	32	32	32	32
17	24	12.4	20	16.6	24	17.8	32	32	32	32	32	32
18	19.1	12.2	16.8	16.8	24	21	32	32	32	32	32	32
19	18.0	12.2	13.2	18.4	30	21	32	32	32	32	32	32
20	17.2	12.4	14.0	18.2	31	20	32	32	32	32	32	31
21	14.6	12.7	13.5	17.6	32	20	32	32	32	32	32	31
22	13.4	15.3	12.8	16.4	11.2	20	32	32	32	32	32	32
23	13.2	14.4	12.5	17.0	8.2	20	32	32	32	32	32	32
24	13.2	13.7	12.5	17.2	7.3	20	32	32	32	32	32	32
25	13.0	13.6	14.4	17.2	7.2	20	32	32	32	32	32	32
26	14.1	13.6	13.4	16.8	7.8	20	32	32	32	32	32	32
27	16.1	13.4	13.8	16.8	7.8	20	32	32	32	32	32	31
28	16.1	13.1	15.4	18.3	7.8	20	32	32	32	32	32	31
29	16.6	15.4	14.4	18.9	-	20	32	32	32	32	32	31
30	16.6	17.8	14.2	18.1	-	32	32	32	32	32	32	31
31	18.7	-	9.9	19.1	-	32	-	32	-	32	32	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						526.8	24	13.0	17.0	1,040		
November.....						407.2	17.8	12.2	13.6	808		
December.....						469.3	20	6.4	15.1	931		
Calendar year 1936.....						7,902.0	33	6.4	21.6	15,870		
January.....						513.1	19.1	11.4	16.6	1,020		
February.....						388.8	32	0	13.9	771		
March.....						599.3	32	7.8	19.3	1,190		
April.....						879.0	32	7.8	29.3	1,740		
May.....						991	32	31	32.0	1,970		
June.....						960	32	32	32.0	1,900		
July.....						987	34	25	31.8	1,960		
August.....						992	32	32	32.0	1,970		
September.....						945	32	30	31.5	1,870		
Water year 1936-37.....						8,658.5	34	0	23.7	17,170		

## Mill Creek power canal 1 near Craftonville, Calif.

Location.— Water-stage recorder, lat. 34°05'10", long. 117°02'25", just above weir, in NE $\frac{1}{4}$  sec. 13, T. 1 S., R. 2 W., a quarter of a mile below intake on Mill Creek and 5 miles northeast of Craftonville.

Records available.— January 1919 to September 1937.

Average discharge.— 18 years, 2.93 second-feet.

Remarks.— Records good. Discharge determined from weir formula except for Mar. 3-19, Apr. 19-21, for which periods it was obtained from records of power company. This canal diverts from Mill Creek in NE $\frac{1}{4}$  sec. 13, T. 1 S., R. 2 W., just above station on Mill Creek near Craftonville. After going through Mill Creek power house 1 water is distributed for irrigation.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.9	0.6	0	1.7	25	16.6	22	23	25.0	25	6.0
2	.5	1.7	1.2	2.5	4.0	25	15.6	22	20	22.0	24	5.8
3	.5	1.3	.8	5.3	4.0	21	22	21	17.3	21.0	23	5.2
4	.5	1.0	1.3	5.1	4.0	21	25	19.4	22	20.0	21	5.1
5	.5	.8	1.4	4.1	4.3	22	23	16.5	26	21.0	20	4.7
6	.5	.8	1.2	3.9	3.8	22	20	21	25	16.2	18.8	4.5
7	.5	.9	.7	4.3	0	22	20	25	25	9.8	18.8	4.5
8	.6	.8	.5	3.8	0	17.5	24	23	24	9.5	17.1	4.3
9	.7	.8	1.4	3.3	0	22	22	22	24	10.5	16.5	4.1
10	.7	.8	1.0	3.1	0	20	18.5	21	23	8.4	14.8	4.1
11	.8	.8	.9	2.8	4.3	20	16.8	19.4	23	10.2	13.5	4.9
12	.7	.6	.7	3.4	10.7	20	14.4	17.9	23	16.5	12.7	6.4
13	.6	.8	.6	3.6	7.5	5.0	17.6	15.6	23	21.0	11.7	8.1
14	.6	.8	.5	3.3	.4	15.4	17.6	15.6	22	25	10.5	10.7
15	.5	.9	0	3.3	0	26	17.6	17.1	22	21	10.2	8.4
16	.5	.9	0	3.3	0	5.6	23	10.7	21	17.1	10.0	7.1
17	.4	1.0	0	3.1	0	9.3	24	3.8	21	19.7	9.5	6.4
18	.7	.9	0	3.1	0	11.6	22	8.5	21	24	10.2	8.8
19	.8	.9	.2	3.4	0	7.1	21	21	21	23	10.5	5.4
20	.6	.9	.1	3.3	0	8.6	20	10.5	20	21	10.0	5.2
21	.1	1.0	.1	3.1	9.6	12.9	20	12.7	19.4	18.2	9.8	5.4
22	.1	1.3	0	3.0	11.1	13.5	17.3	15.0	19.1	21	10.2	9.8
23	.1	1.3	.1	2.8	11.7	15.9	16.2	13.0	18.5	21	10.2	7.9
24	.1	.9	.1	2.7	10.2	19.0	15.9	9.3	17.3	18.8	9.1	6.9
25	.1	1.2	.1	2.7	11.2	22	15.3	6.4	16.5	18.8	8.1	6.2
26	.1	1.2	.4	2.6	12.2	25	11.2	5.4	14.8	18.5	7.3	5.8
27	.1	1.2	.1	2.6	20	24	25	5.4	13.5	20	7.1	5.1
28	.1	1.0	0	2.8	25	23	24	5.4	15.6	26	5.6	5.4
29	.2	1.5	1.1	1.2	-	19.7	22	5.1	22	27	5.4	5.2
30	.3	1.4	.9	0	-	17.6	22	15.5	25	27	6.6	4.9
31	.4	-	0	0	-	16.5	-	25	-	26	6.4	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						13.4	0.8	0.1	0.43	27		
November.....						30.5	1.7	.8	1.02	60		
December.....						16.0	1.4	0	.52	32		
Calendar year 1936.....						612.6	12.2	0	1.67	1,220		
January.....						91.5	5.3	0	2.95	181		
February.....						155.7	25	0	5.56	309		
March.....						555.2	26	5.0	17.9	1,100		
April.....						588.6	25	11.2	19.6	1,170		
May.....						473.2	25	3.8	15.3	939		
June.....						628.0	26	13.5	20.9	1,260		
July.....						606.2	27	8.4	19.6	1,200		
August.....						593.6	25	5.4	12.7	761		
September.....						179.3	10.7	4.1	5.98	366		
Water year 1936-37.....						3,731.2	27	0	10.2	7,400		

## Plunge Creek near East Highlands, Calif.

Locations.- Water-stage recorder, lat.  $34^{\circ}07'10''$ , long.  $117^{\circ}08'30''$ , in NE $\frac{1}{4}$  sec. 1, T. 1 S., R. 3 W., at mouth of canyon at crossing of North Fork Ditch siphon, 2 miles northeast of East Highlands. Altitude, about 1,625 feet.

Drainage area.- 16.9 square miles.

Records available.- January 1919 to September 1937.

Average discharge.- 18 years, 6.18 second-feet.

Extremes.- Maximum discharge during year, 725 second-feet Feb. 6 (gage height, 3.90 feet); no flow for several months.

1919-37: Maximum discharge, 1,420 second-feet Feb. 16, 1927 (gage height, 3.80 feet); no flow for several months of each year.

Remarks.- Records good. Irrigation diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.5	0.2	33	23.0	46	66	16	2.9	0.3		
2	0	1.6	.1	16	20.0	45	66	15	2.1	.5		
3	0	.8	.1	12	18.0	41	60	14	1.5	.3		
4	0	.5	.4	10	16.0	39	55	11	1.3	.2		
5	0	.5	.4	9	18.0	39	54	10	1.6	.1		
6	0	.4	.2	48	256.0	38	54	9.5	1.5	.1		
7	0	.3	.1	25	398.0	38	52	9	1.2	.1		
8	0	.3	.1	18	186.0	38	49	8.5	1.1	.1		
9	0	.2	.1	14	82.0	39	49	8.5	.7	.1		
10	0	.2	.1	10	68.0	38	49	8.5	.4	0		
11	0	.3	.1	9	60.0	38	46	8	.4	0		
12	0	.3	.1	13	58.0	67	45	5.5	.4	0		
13	0	.3	.1	15	82.0	90	43	5	.3	0		
14	0	.2	.1	13	316.0	61	43	4.3	.3	0		
15	0	.2	22	13	188.0	66	43	4.0	.3	0		
16	0	.2	36	12	119.0	191	40	3.7	.2	0		
17	0	.3	8.5	12	95.0	121	34	3.5	.2	0		
18	0	.2	4.3	10	76.0	142	29	3.2	.2	0		
19	0	.2	3.2	10	66.0	105	26	3.2	.2	0		
20	0	.2	2.6	9.5	60.0	90	24	2.7	.2	0		
21	0	.2	2.3	8.5	54.0	80	24	2.6	.2	0		
22	0	.2	1.8	8	50.0	85	24	2.7	.2	0		
23	0	.2	1.0	8	49.0	85	23	3.2	.1	0		
24	0	.2	.8	8	48.0	86	21	2.9	.1	0		
25	0	.1	1.6	8	76.0	93	20	2.9	.1	0		
26	0	.1	1.8	7.5	61.0	80	20	4.6	.1	0		
27	0	.1	22.0	8	54.0	76	24	3.5	.1	0		
28	0	.1	54.0	7.5	49.0	76	20	3.2	.1	0		
29	.1	.1	20.0	10	-	70	19	3.5	.1	0		
30	.1	.1	18.0	18	-	67	17	4.9	.1	0		
31	6.5	-	119.0	33	-	66	-	5	-	0		

month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....					6.7	6.5	0	0.22	13
November.....					11.1	2.5	.1	.37	22
December.....					321.1	119	.1	10.4	637
Calendar year 1936.....					2,348.4	156	0	6.42	4,650
January.....					436.0	48	7.5	14.1	865
February.....					2,646	398	16	94.5	5,250
March.....					2,256	191	38	72.1	4,440
April.....					1,139	66	17	38.0	2,260
May.....					192.1	16	2.6	6.20	331
June.....					18.2	2.9	.1	.61	56
July.....					1.8	.5	0	.06	3.6
August.....					0	0	0	0	0
September.....					0	0	0	0	0
Water year 1936-37.....					7,008.0	398	0	19.2	13,910

## San Timoteo Creek near Redlands, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}01'55''$ , long.  $117^{\circ}12'30''$ , in NW  $\frac{1}{4}$  sec. 4, T. 2 S., R. 3 W., 2 miles southeast of Redlands. Altitude, about 1,260 feet.

Drainage area.- 118 square miles, at former location.

Records available.- October 1926 to September 1937.

Average discharge.- 11 years, 1.95 second-feet.

Extremes.- Maximum discharge during year, 3,600 second-feet Feb. 6 (gage height, 5.50 feet); no flow for several months.

1926-37: Maximum discharge, that of Feb. 6, 1937; no flow during several months each year.

Remarks.- Records fair. Entire flow is diverted above station except during high water.

Discharge for Oct. 31, Jan. 3-5, 7, 9, 10, 26-29, Feb. 1-5, 7-12, 15-24, Feb. 26 to Mar. 2, Mar. 27 to Apr. 2, April 3, 11-18, 20-22, 28, 29, July 6, 7, 9-12 computed from estimates of discharge made by engineers on their weekly (except during summer) or more frequent trips to the gage and on basis of recorded range of stage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	8.5	0.1	0.3	0.1			0		
2	0		0	.6	.1	.3	1.1			0		
3	0		0	.5	.1	.3	.1			0		
4	0		0	.4	.1	.3	0			0		
5	0		0	.3	.1	.4	0			0		
6	0		0	4.2	1,010	.5	0			.1		
7	0		0	.3	10	.3	0			.3		
8	0		0	0	.5	.4	0			.4		
9	0		0	.5	.4	.5	0			.3		
10	0		0	.2	.3	.4	0			.2		
11	0		0	0	.2	.2	.1			.1		
12	0		0	.6	.2	8.5	.2			.1		
13	0		0	1.2	.5	66	.3			0		
14	0		0	.2	308	3.4	.3			0		
15	0		1.0	.3	5	.5	.3			0		
16	0		0	.4	.3	266	.3			0		
17	0		0	.4	.2	2.5	.3			0		
18	0		0	.3	.2	.6	.3			0		
19	0		0	.2	.2	.6	.4			0		
20	0		0	.1	.2	.9	.3			0		
21	0		0	.1	.2	.4	.2			0		
22	0		0	.4	.2	40	.2			0		
23	0		0	.9	.2	5.5	.2			0		
24	0		0	1.2	.2	1.2	.2			0		
25	0		0	1.9	.7	.5	.3			0		
26	0		0	.1	.5	.3	.3			0		
27	0		35	.1	.3	.2	.4			0		
28	0		61	.1	.3	.2	.2			0		
29	0		0	.1	-	.1	.1			0		
30	0		9.5	.3	-	.1	0			0		
31	.6		413	21	-	.1	-			0		
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0.5	0.5	0	0.16	1.0			
November.....					0	0	0	0	0			
December.....					519.5	413	0	16.8	1,030			
Calendar year 1936 .....					811.7	413	0	2.22	1,610			
January.....					45.4	21	0	1.46	90			
February.....					1,345.6	1,010	.1	48.1	2,670			
March.....					401.5	266	.1	13.0	796			
April.....					6.2	1.1	0	.21	12			
May.....					0	0	0	0	0			
June.....					0	0	0	0	0			
July.....					1.5	.4	0	.05	3.0			
August.....					0	0	0	0	0			
September.....					0	0	0	0	0			
Water year 1936-37.....					2,320.2	1,010	0	6.36	4,600			

## Warm Creek near Colton, Calif.

Location.- Water-stage recorder, lat. 34°04'00", long. 117°18'30", San Bernardino grant, at Colton Avenue bridge, 1½ miles east of Colton, San Bernardino County.

Records available.- August 1920 to September 1937.

Average discharge.- 17 years, 47.4 second-feet. Average combined discharge of Warm Creek and Meeks & Daley Canal, 17 years, 57.8 second-feet.

Extremes.- Maximum discharge during year, 1,520 second-feet Feb. 6 (gage height, 7.40 feet); minimum daily discharge, 3.9 second-feet Oct. 1, 2, and 4.  
1920-37: Maximum discharge, 2,780 second-feet Dec. 21, 1921; minimum, 2.0 second-feet Sept. 8, 1936.

Remarks.- Records good. Sewage-disposal plant of city of San Bernardino discharged 3,550 acre-feet during year into Warm Creek above station. See records for Meeks & Daley Canal which diverts above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	18	6.5	45	39	42	83	20	12	5.5	5.5	4.8
2	3.9	17	6.5	41	38	42	97	22	11	6	6	5
3	4.2	17	6.5	38	38	42	63	21	11	6	6.5	6
4	3.9	17	11	37	38	42	75	21	9.5	6	6	6
5	4.4	17	7	38	38	42	73	20	10	6	6	5
6	4.4	17	6.5	76	691	42	71	17	8.6	7	8	5
7	4.1	18	7	42	600	42	69	17	8	6.5	6	5.5
8	4.1	16	6.5	40	74	42	67	20	7.5	6	5	4.9
9	4.0	16	6.5	37	55	42	66	17	7	6	5.5	4.5
10	4.3	17	6.5	37	50	42	64	20	6	6	6	4.9
11	4.2	17	6	36	42	41	82	20	6.5	5.5	6	5
12	4.7	17	6.5	47	40	70	60	16	7.5	6	5.5	5
13	4.7	17	6	40	52	196	60	10	5.5	5.5	6	5
14	4.7	18	6	38	660	59	59	9.5	7	5.5	6	4.8
15	5	13	6.8	37	186	64	57	9.5	7.5	5.5	6	4.9
16	28	7	35	37	64	368	51	8.5	7.5	5.5	6	5
17	8	6.5	29	35	52	141	48	9.5	7.5	5.5	6	5.5
18	21	6.5	27	36	48	110	45	9.5	7.5	5.5	6	5
19	15	6.5	22	34	48	94	48	9.5	7.5	5.5	6	4.8
20	12	6.5	20	35	45	88	47	9.5	7.5	5	6	5.5
21	12	6.5	21	35	44	66	40	9.5	7.5	4.9	6	5.5
22	12	6.5	21	35	44	172	36	10	6.5	5.5	4.9	5.5
23	13	7	21	34	44	102	29	10	7	5.5	5.5	5.5
24	13	6.5	22	35	47	104	25	11	7	5.5	5.5	5
25	14	6.5	27	35	65	117	20	11	7	5.5	5.5	5
26	15	6.5	25	34	47	94	19	12	7	5.5	5.5	4.8
27	16	6.5	140	34	44	87	34	11	8	5.5	5.5	5
28	16	6.5	216	34	42	102	28	11	6.5	5.5	6	5
29	50	6.5	38	43	-	86	24	15	6.5	5	5.5	5
30	30	6.5	49	52	-	85	20	12	5.5	5	6	5.5
31	64	-	396	38	-	84	-	12	-	5.5	5.5	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				403.5		64	3.9	13.0	800			
November.....				350.5		18	6.5	11.7	695			
December.....				1,292.0		396	6	41.7	2,560			
Calendar year 1936.....				6,474.7		396	3.6	17.7	12,830			
January.....				1,205		76	33	38.9	2,390			
February.....				3,095		660	38	111	6,140			
March.....				2,760		358	41	89.0	5,470			
April.....				1,560		97	19	52.0	3,090			
May.....				431.0		22	8.5	15.9	855			
June.....				228.5		12	6	7.62	455			
July.....				174.9		7	4.9	5.64	347			
August.....				179.4		6.5	4.9	5.79	356			
September.....				153.9		6	4.5	5.13	305			
Water year 1936-37.....				11,833.7		660	3.9	32.4	23,460			

Combined discharge, in second-feet, of Warm Creek and Meeks & Daley Canal near Colton, Calif.,  
for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16.8	19.9	23	45	39	42	83	39	32	23	21	22
2	17.5	18.6	22	41	38	42	97	39	30	24	21	23
3	18.3	18.4	22	38	38	42	83	37	30	24	21	25
4	18.2	18.3	27	37	39	42	75	37	28	24	20	25
5	18.5	18.2	22	38	40	42	73	35	29	24	20	23
6	18.6	18.1	23	76	593	42	71	35	26	25	19.6	23
7	18.8	19.0	23	42	504	42	69	37	27	24	19.7	24
8	18.0	17.8	23	40	74	42	67	39	26	24	18.7	23
9	17.9	18.5	23	39	55	42	67	36	26	23	19.4	22
10	11.9	19.5	23	40	50	42	67	38	26	23	21	22
11	12.4	19.8	23	39	42	41	64	37	26	23	21	23
12	13.2	19.9	23	49	40	70	63	33	26	22	21	23
13	13.1	19.9	23	40	52	198	60	28	24	21	22	23
14	12.8	21	24	58	662	59	59	29	26	21	22	23
15	15.3	21	90	37	186	64	58	29	27	21	21	24
16	36	24	37	37	64	358	56	28	27	21	19.9	25
17	9.6	24	30	35	52	141	53	29	26	21	21	26
18	23	23	29	36	48	110	50	29	26	21	21	25
19	16.9	23	24	36	48	94	50	29	26	21	21	25
20	13.0	23	23	37	45	86	48	29	26	20	23	26
21	12.6	23	25	37	44	86	45	28	25	19.6	25	26
22	12.5	22	24	37	44	172	45	29	25	21	23	25
23	13.3	23	24	37	44	102	46	28	25	22	23	25
24	13.1	22	24	36	47	104	42	30	25	22	23	24
25	14.1	22	30	36	85	118	38	30	24	20	24	24
26	15.1	22	26	37	47	94	37	31	25	21	24	23
27	16.1	22	142	37	44	87	53	30	24	20	24	23
28	16.1	22	216	37	42	102	45	31	25	20	25	23
29	50	23	38	45	-	86	41	33	24	20	24	23
30	32	23	49	52	-	85	37	33	23	20	24	23
31	66	-	398	38	-	84	-	31	-	21	24	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				600.7		66	9.6	19.4	1,190			
November.....				628.9		24	17.8	21.0	1,250			
December.....				1,553		398	22	50.1	3,080			
Calendar year 1936.....				10,667.1		398	9.6	29.1	21,170			
January.....				1,249		76	35	40.3	2,480			
February.....				3,106		662	38	111	6,160			
March.....				2,761		358	41	89.1	5,460			
April.....				1,742		97	37	88.1	3,460			
May.....				1,006		39	23	32.5	2,000			
June.....				783		32	23	26.1	1,550			
July.....				678.6		25	19.6	21.8	1,340			
August.....				677.3		25	18.7	21.8	1,340			
September.....				714		26	22	23.8	1,420			
Water year 1936-37.....				15,497.5		662	9.6	42.5	30,750			

## Strawberry Creek near Arrowhead Springs, Calif.

Location.- Water-stage recorder, lat. 34°10'45", long. 117°15'55", in SE¼ sec. 11, T. 1 N., R. 4 W., above Del Rosa Water Co.'s lower diversion dam and half a mile south of Arrowhead Springs. Altitude, about 1,650 feet.

Drainage area.- 8.6 square miles.

Records available.- December 1919 to September 1937.

Average discharge.- 17 years (1920-37), 3.98 second-feet.

Extremes.- Maximum discharge during year, 492 second-feet Feb. 6 (gage height, 4.15 feet); minimum, 0.1 Oct. 2-4.

1919-37: Maximum discharge, that of Feb. 6, 1937; practically no flow at times during 1929 and 1931-35.

Remarks.- Records good. Discharge for July 25, July 28 to Aug. 2, computed on basis of records for stations on nearby streams. During the year Del Rosa Water Co. diverted about 272 acre-feet above station. There is also another small diversion for domestic supply above station. Results of discharge measurements furnished by city of San Bernardino.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	2.0	0.4	26	11	18	25	10	6	2.9	1.8	1.1
2	.1	1.0	.4	12	8	17	25	9.5	6	2.6	1.9	.9
3	.1	.5	.6	8	7.5	17	23	9.5	5	2.5	1.9	.7
4	.1	.4	.9	6	6.5	16	21	9.5	6	2.6	2.0	.7
5	.3	.4	.8	7.5	6.5	14	20	9	6.5	3.1	1.7	.7
6	.4	.4	.6	38	166	14	19	9	6	2.4	1.4	.7
7	.4	.4	.6	18	161	13	18	9	5.5	2.2	1.4	.9
8	.3	.4	.6	12	63	12	18	8.5	5.5	2.2	1.3	.7
9	.2	.4	.6	8.5	33	12	18	9	5.5	2.2	1.2	.7
10	.4	.4	.6	7.5	25	11	17	9	5	2.3	1.1	.6
11	.4	.4	.6	6.5	21	11	17	8	5	2.3	1.1	.6
12	.4	.4	.6	8.5	19	19	17	7.5	5	2.3	.9	.6
13	.3	.2	.6	9	35	41	16	7	4.7	2.3	.9	.6
14	.3	.6	.7	8	144	22	15	7	4.9	2.3	.9	.7
15	.4	.9	9	7.5	74	40	14	7	4.9	2.3	1.0	.7
16	.5	1.0	11	7	46	73	14	7	5	2.3	1.1	.8
17	.6	1.0	4.1	6.5	39	34	14	6.5	5	2.1	1.0	.5
18	.5	.9	2.5	6	32	48	13	6.5	4.7	2.1	1.0	.6
19	.6	.4	1.6	6	27	30	13	7	4.0	2.0	1.0	.6
20	.5	.2	1.5	5.5	24	29	12	6.5	3.8	1.9	1.0	.6
21	.5	.4	1.4	4.7	21	28	12	6.5	3.8	2.0	1.0	.7
22	.7	.4	1.3	4.4	19	30	12	7	3.8	2.0	1.0	1.0
23	.5	.6	1.3	4.2	17	30	11	7.5	4.0	1.8	1.0	.9
24	.5	.6	1.4	4.1	18	32	11	7.5	3.8	1.9	1.0	.8
25	.4	.3	1.5	4.1	27	37	11	7.5	3.6	1.9	1.2	.6
26	.2	.3	1.4	3.6	23	33	11	8	3.4	1.9	.9	.6
27	.2	.4	16	3.5	21	31	13	7	3.4	1.6	.8	.8
28	.2	.4	30	3.5	20	31	12	6.5	3.4	1.7	.9	.8
29	.7	.4	9	6	-	30	11	7	3.1	1.7	.9	1.2
30	.5	.4	13	14	-	27	11	7.5	2.9	1.8	.9	.9
31	7.5	-	81	18	-	26	-	6.5	-	1.8	.9	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						19.0	7.5	0.1	0.61	58		
November.....						16.5	2.0	.2	.65	33		
December.....						195.6	81	.4	6.31	368		
Calendar year 1936.....						1,053.3	81	.1	2.88	2,090		
January.....						284.1	38	3.5	9.16	564		
February.....						1,117.5	166	6.5	39.9	2,220		
March.....						826	73	11	26.6	1,640		
April.....						454	25	11	15.5	920		
May.....						240.5	10	6.5	7.76	477		
June.....						139.2	6.5	2.9	4.64	276		
July.....						66.9	3.1	1.6	2.16	133		
August.....						36.1	2.0	.9	1.16	72		
September.....						22.3	1.2	.5	.74	44		
Water year 1936-37.....						3,427.7	166	.1	9.39	6,800		

## Waterman Canyon Creek near Arrowhead Springs, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}11'35''$ , long.  $117^{\circ}16'35''$ , in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2, T. 1 N., R. 4 W., 600 feet above old tollhouse and 1 mile northwest of Arrowhead Springs. Altitude, about 2,125 feet.

Drainage area.- 4.55 square miles.

Records available.- November 1911 to October 1914, December 1919 to September 1937.

Average discharge.- 19 years (1912-14, 1920-37), 2.63 second-feet.

Extremes.- Maximum discharge during year, 390 second-feet Feb. 6 (gage height, 4.10 feet); minimum, less than 0.1 second-foot during part of October.  
1920-37: Maximum discharge, that of Feb. 6, 1937; no flow at times during summers of 1924-26, 1928-29, 1931, 1934.

Remarks.- Records good. Discharge Feb. 20 to Mar. 1 computed on basis of records for Strawberry Creek near Arrowhead Springs, Calif. Small diversion for domestic supply above station. Results of several discharge measurements furnished by city of San Bernardino.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		1.7	0.5	14	5.5	11	16	5.5	3.4	1.7	1.0	0.4
2		1.3	.5	10	4.8	11	15	5.5	3.2	1.7	1.0	.4
3		1.0	.7	6	4.8	11	15	5.5	3.1	1.5	.8	.4
4		1.0	1.1	4.3	4.5	11	14	5.5	3.4	1.5	.8	.3
5		.7	.7	5.5	4.8	10	13	5.5	3.6	1.7	.7	.3
6		.5	.5	12	97	10	13	5.5	3.6	1.5	.7	.3
7		.4	.4	11	44	10	12	5.5	3.2	1.7	.7	.4
8	0.07	.3	.3	8.5	20	10	12	5.5	3.1	1.9	.7	.4
9		.3	.3	6.5	15	10	11	5.5	3.1	1.7	.7	.3
10		.3	.3	5.5	11	10	11	5.5	2.9	1.9	.8	.3
11		.3	.3	4.8	11	9	11	5	2.9	1.9	1.0	.3
12		.2	.3	4.8	9	14	11	4.8	2.9	1.9	.8	.3
13		.2	.3	4.3	15	22	11	4.5	2.9	1.5	.8	.3
14		.2	.3	3.8	70	22	11	4.5	2.9	1.1	.8	.3
15		.2	.8	3.6	46	34	11	4.3	2.9	1.1	.8	.3
16	.4	.3	3.8	3.6	27	88	11	4.3	2.9	1.1	.8	.3
17	.3	.3	1.7	3.6	22	42	10	4.0	2.9	1.1	.8	.3
18	.8	.3	1.1	3.6	18	24	9	4.0	2.7	1.1	.8	.3
19	.8	.3	1.0	3.4	16	17	8.5	4.0	2.7	1.1	.8	.3
20	.5	.4	.8	3.2	15	16	8.5	4.0	2.5	1.0	.8	.4
21	.5	.7	.8	3.1	14	15	8.5	4.0	2.3	.8	.7	.5
22	.4	1.0	.8	3.1	13	22	8	4.3	2.3	.8	.7	.7
23	.3	.7	.7	3.1	12	20	8	4.0	2.3	.8	.7	.5
24	.3	.5	.7	3.1	12	18	7	4.0	2.3	.7	.7	.4
25	.3	.4	1.3	2.9	18	17	7	4.3	2.1	.7	.5	.3
26	.3	.4	1.1	2.7	14	13	6.5	4.5	2.1	.8	.4	.3
27	.2	.3	25	2.7	13	13	8	3.8	2.1	.8	.4	.4
28	.2	.3	15	2.7	12	14	6.5	3.8	2.1	.8	.4	.4
29	1.1	.4	5	3.6	-	13	6.5	4.0	2.1	1.1	.4	.5
30	1.0	.5	22	4.3	-	14	6.5	4.0	1.9	1.1	.4	.5
31	6	-	62	6	-	16	-	3.8	-	1.1	.4	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						14.45	6	-	0.47	29		
November.....						15.4	1.7	.2	.51	31		
December.....						157.3	62	.3	5.07	312		
Calendar year 1936.....						602.46	62	-	1.65	1,200		
January.....						159.3	14	2.7	5.14	316		
February.....						568.4	97	4.5	20.3	1,130		
March.....						567	88		18.3	1,120		
April.....						306.5	16	6.5	10.2	608		
May.....						142.9	5.5	3.8	4.61	283		
June.....						82.4	5.5	1.9	2.75	163		
July.....						39.2	1.9	.7	1.26	78		
August.....						21.8	1.0	.4	.70	43		
September.....						11.1	.7	.3	.37	22		
Water year 1936-37.....						2,085.75	97	-	5.71	4,140		



## City Creek near Highland, Calif.

Location.— Water-stage recorder, lat. 34°08'20", long. 117°11'25", in NW¼ sec. 27, T. 1 N., R. 3 W., 1¼ miles northeast of Highland. Altitude, about 1,520 feet.

Drainage area.— 19.8 square miles.

Records available.— October 1919 to September 1937.

Average discharge.— 18 years, 8.31 second-feet.

Extremes.— Maximum discharge during year, 1,040 second-feet Feb. 6 (gage height, 10.20 feet); no flow for several months.

1919-37: Maximum discharge, 2,360 second-feet Apr. 5, 1926; no flow for several months during each year except 1923.

Remarks.— Records good. Discharge Oct. 29, 30 computed on basis of records for nearby stations. Combined discharge of City Creek and City Creek Water Co.'s canal is given on next page.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	5.5	0	36	18	53	77	25	9	0.9		
2	0	3.5	0	21	16	51	77	22	8	.9		
3	0	.9	0	16	14	49	71	20	7.5	.9		
4	0	.1	2.4	14	14	48	67	20	8	.9		
5	0	.1	3.7	16	16	46	64	16	9.5	1.0		
6	0	.1	3.3	46	346	43	62	16	9	1.0		
7	0	.1	3.1	29	363	41	58	15	7.5	1.0		
8	0	.1	2.8	23	153	40	55	14	8	1.0		
9	0	.1	2.2	19	87	39	52	14	7.5	.5		
10	0	.1	2.0	17	67	38	51	14	6.5	.1		
11	0	.1	2.0	16	55	37	50	14	6.5	.1		
12	0	.1	2.0	18	49	71	48	12	6	.1		
13	0	0	2.0	19	92	120	47	12	6	0		
14	0	0	2.0	18	372	80	46	12	6	0		
15	0	0	24	18	240	80	44	12	6	0		
16	0	0	33	18	160	217	43	12	6	0		
17	.7	0	14	16	116	130	41	12	6	0		
18	.5	0	8.5	15	96	149	41	12	6	0		
19	.5	0	6.5	14	83	115	41	12	5.5	0		
20	0	0	4.6	13	71	100	40	12	5	0		
21	0	.1	3.9	11	63	92	38	12	4.6	0		
22	0	.9	3.7	11	58	98	38	12	4.6	0		
23	0	.6	3.5	10	52	92	38	12	2.8	0		
24	0	0	3.5	9.5	49	93	36	12	1.3	0		
25	0	0	4.6	8.5	75	98	34	12	1.2	0		
26	0	0	4.6	7.5	62	87	33	13	1.2	0		
27	0	0	43	7.5	58	86	37	11	1.1	0		
28	0	0	74	7	56	90	35	10	1.1	0		
29	5	0	36	10	-	86	31	11	1.1	0		
30	3.5	0	33	20	-	82	27	11	.9	0		
31	13	-	162	26	-	79	-	10	-	0		
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				23.2	13	0	0.75	46				
November.....				12.4	5.5	0	.41	25				
December.....				489.9	162	0	15.8	972				
Calendar year 1936.....				2,329.4	162	0	6.36	4,620				
January.....				530.0	46	7	17.1	1,050				
February.....				2,901	372	14	104	5,750				
March.....				2,530	217	37	81.6	5,020				
April.....				1,422	77	27	47.4	2,820				
May.....				424	25	10	13.7	841				
June.....				159.4	9.5	.9	5.31	316				
July.....				8.4	1.0	0	.27	17				
August.....				0	0	0	0	0				
September.....				0	0	0	0	0				
Water year 1936-37.....				8,500.3	372	0	23.3	16,860				

Combined discharge, in second-feet, of City Creek and canal near Highland, Calif., for water year  
October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	5.5	1.7	36	18.4	55	77	29	16.7	7.1	4.2	2.9
2	.2	3.5	1.8	21	16.3	53	77	26	15.6	6.6	4.2	2.9
3	.1	1.7	1.8	16	14.3	51	71	24	14.9	6.6	3.8	2.9
4	.1	1.4	3.0	14	14.2	50	67	26	15.6	6.3	3.3	2.7
5	.1	1.3	3.7	16	16.3	49	64	22	17.3	6.4	3.2	2.6
6	.2	1.3	3.3	46	34.7	45	62	23	16.4	6.0	3.3	2.6
7	.1	1.3	3.1	29	36.3	43	58	24	14.7	5.9	3.2	2.6
8	.1	1.1	2.9	23	15.4	42	55	23	15.2	6.2	3.1	2.6
9	.1	1.1	2.4	19	8.9	41	52	23	14.7	5.7	3.0	2.4
10	.1	1.3	2.2	17	6.8	40	52	23	13.6	5.3	2.9	2.1
11	.1	1.3	2.2	16	5.6	40	50	23	13.6	5.4	3.0	2.1
12	.1	1.5	2.2	18	5.0	73	48	20	13.0	5.8	3.1	2.3
13	.1	1.6	2.2	19	9.2	120	48	20	12.8	5.5	3.0	2.4
14	.1	1.7	2.1	18	37.4	80	46	20	12.7	5.7	3.0	2.3
15	.1	1.7	2.4	18	24.1	81	44	20	12.6	5.6	3.0	2.0
16	.1	1.8	3.3	18	16.0	217	43	20	12.6	5.6	3.0	1.8
17	.8	1.8	1.4	16	11.6	133	41	19.8	12.6	5.7	3.0	1.7
18	1.2	1.6	8.5	15	9.6	150	41	20	12.3	5.6	3.0	1.9
19	2.5	1.7	6.6	14	8.3	116	41	19.8	11.6	5.2	2.8	2.5
20	1.7	1.6	4.8	13	7.1	102	41	19.7	11.0	4.8	2.9	2.1
21	1.5	1.7	4.1	11	6.3	94	40	19.6	10.1	4.7	2.8	2.3
22	.8	1.8	3.8	11	5.8	100	40	20	10.5	4.6	2.8	2.8
23	.8	1.7	3.6	10	5.2	94	39	19.8	9.6	4.8	2.8	3.0
24	.7	1.9	3.6	9.5	5.0	95	37	19.8	8.5	4.9	2.9	2.4
25	.7	1.8	4.7	8.5	7.6	100	35	20	8.6	4.5	2.8	2.1
26	.7	1.7	4.6	7.5	6.3	90	34	22	8.3	4.4	2.4	1.8
27	.6	1.8	4.3	7.5	6.0	89	38	19.5	8.4	3.9	2.4	1.9
28	.5	1.7	7.4	7.0	5.8	92	36	18.5	8.3	3.6	2.7	2.1
29	5.7	1.8	3.6	10.9	-	86	32	19.7	8.2	4.4	2.7	2.5
30	3.6	-	3.3	2.0	-	82	30	19.5	7.6	4.7	2.9	2.9
31	13.1	1.8	16.2	2.6	-	79	-	18.1	-	4.2	2.9	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						36.7	13.1	0.1	1.18	73		
November.....						53.7	5.5	1.1	1.78	108		
December.....						497.9	162	1.7	16.1	988		
Calendar year 1936.....						2,868.0	162	.1	7.84	5,690		
January.....						530.9	46	7	17.1	1,060		
February.....						2,919.5	374	14.2	104	5,790		
March.....						2,581	217	40	33.3	5,120		
April.....						1,439	77	30	48.0	2,850		
May.....						661.8	29	18.1	21.3	1,310		
June.....						367.6	17.3	7.6	12.3	729		
July.....						165.9	7.1	3.8	5.35	329		
August.....						94.1	4.2	2.4	3.04	187		
September.....						71.2	3.0	1.7	2.37	141		
Water year 1936-37.....						9,419.1	374	.1	25.8	18,670		

City Creek Water Co.'s canal near Highland, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}08'35''$ , long.  $117^{\circ}11'25''$  in NW $\frac{1}{4}$  sec. 27, T. 1 N., R. 3 W.,  $1\frac{1}{2}$  miles northeast of Highland.

Records available.- May 1924 to September 1937.

Average discharge.- 13 years (1924-37), 1.90 second-feet.

Extremes.- Maximum daily discharge during year, 8.8 second-feet May 7-10 (gage height, 8.53 feet); no flow at various times.

1924-37: Maximum discharge, 10 second-feet May 30, 1927; no flow at various times.

Remarks.- Records good. Discharge for Dec. 3-7, Dec. 24 to Jan. 13, Feb. 10-23, May 7-9 computed on basis of records of City Creek near Highland, Calif. This canal diverts from City Creek a quarter of a mile above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0	1.7	0	0.4	1.9	0	3.6	7.7	6.2	4.2	2.9
2	.2	0	1.8	0	.3	1.9	0	3.7	7.6	5.9	4.2	2.9
3	.1	.8	1.8	0	.3	1.8	0	4.5	7.4	5.7	3.8	2.9
4	.1	1.3	.6	0	.2	1.7	0	6.1	7.6	5.4	3.5	2.7
5	.1	1.2	0	0	.3	1.7	0	6.1	7.8	5.4	3.2	2.6
6	.2	1.2	0	0	.8	1.9	0	7.3	7.4	5.0	3.3	2.6
7	.1	1.2	0	0	.2	1.9	0	8.8	7.2	4.9	3.2	2.6
8	.1	1.0	.1	0	1.5	1.8	.3	8.8	7.2	5.2	3.1	2.6
9	.1	1.0	.2	0	2.0	2.0	.5	8.8	7.2	5.2	3.0	2.4
10	.1	1.2	.2	0	1.0	2.4	.5	8.8	7.1	5.2	2.9	2.1
11	.1	1.2	.2	0	.7	2.6	.5	8.7	7.1	5.3	3.0	2.1
12	.1	1.4	.2	0	.6	1.7	.5	8.5	7.0	5.7	3.1	2.3
13	.1	1.6	.2	0	.5	.2	.5	8.2	6.8	5.5	3.0	2.4
14	.1	1.7	.1	0	2.0	.5	.4	8.0	6.7	5.7	3.0	2.3
15	.1	1.7	0	0	.8	1.3	.4	8.0	6.6	5.6	3.0	2.0
16	.1	1.8	0	0	.3	.2	.4	8.0	6.6	5.6	3.0	1.8
17	.1	1.8	0	0	.2	2.9	.4	7.8	6.6	5.7	3.0	1.7
18	.7	1.6	0	0	.1	.7	.4	8.0	6.3	5.6	3.0	1.9
19	2.0	1.7	.1	0	.1	1.5	.4	7.8	6.1	5.2	2.8	2.5
20	1.7	1.6	.2	0	.1	2.4	.8	7.7	6.0	4.8	2.9	2.1
21	1.5	1.6	.2	0	.1	2.5	1.9	7.6	5.5	4.7	2.8	2.3
22	.8	.9	.1	0	.1	1.7	1.9	8.0	5.9	4.6	2.8	2.8
23	.8	1.1	.1	0	.1	1.7	.9	7.8	6.8	4.8	2.8	3.0
24	.7	1.9	.1	0	1.5	2.4	1.1	7.8	7.2	4.9	2.9	2.4
25	.7	1.8	.1	0	1.0	2.2	1.1	8.1	7.4	4.5	2.8	2.1
26	.7	1.7	0	0	.9	3.1	1.1	8.5	7.1	4.4	2.4	1.8
27	.6	1.8	0	0	1.9	3.1	1.2	8.5	7.3	3.9	2.4	1.9
28	.5	1.7	0	0	2.0	2.0	1.2	8.5	7.2	3.6	2.7	2.1
29	.7	1.8	0	.9	-	0	1.1	8.7	7.1	4.4	2.7	2.5
30	.1	1.8	0	.2	-	0	2.8	8.5	6.7	4.7	2.9	2.9
31	.1	-	.5	.4	-	0	-	8.1	-	4.2	2.9	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					13.5	2.0	0.1	0.44	27			
November.....					41.1	1.9	0	1.37	82			
December.....					8.5	1.8	0	.27	17			
Calendar year 1936.....					540.7	6.0	0	1.48	1,070			
January.....					1.5	.9	0	.05	3.0			
February.....					20.0	2.0	.1	.71	40			
March.....					51.9	3.1	0	1.67	103			
April.....					20.3	2.8	0	.68	40			
May.....					237.3	8.8	3.6	7.65	471			
June.....					208.2	7.8	5.5	6.94	413			
July.....					157.5	6.2	3.6	5.08	312			
August.....					94.1	4.2	2.4	3.04	187			
September.....					71.2	3.0	1.7	2.37	141			
Water year 1936-37.....					925.1	8.8	0	2.53	1,840			

## Devil Canyon Creek near San Bernardino, Calif.

Location.- Water-stage recorder, lat. 34°12'05", long. 117°20'10", in Mascupiahe grant, 7.3 miles northwest of San Bernardino, San Bernardino County. Altitude, about 1,800 feet.

Drainage area.- 6.16 square miles.

Records available.- November 1911 to September 1912, October 1913 to September 1914, December 1919 to September 1937.

Average discharge.- 18 years (1913-14, 1920-37), 2.06 second-feet.

Extremes.- Maximum discharge during year, 146 second-feet Feb. 6 (gauge height, 3.17 feet); no flow for several months.

1913-14, 1919-37: Maximum discharge, 220 second-feet Apr. 7, 1926; no flow for several months during summers of 1924-37.

Remarks.- Records good. Discharge Aug. 4 to Sept. 30 computed on basis of gage heights and two field estimates of discharge. City of San Bernardino diverted 1,800 acre-feet above gage during year for city water supply and to spread over canyon floor for purpose of groundwater recharge. Results of several discharge measurements furnished by city of San Bernardino.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	8	3.4	9.5	12	2.3	0.3	0.3	0.1	0.1
2			0	3.8	2.8	8	14	2.0	.3	.3	.1	.1
3			0	2.3	2.2	7.5	13	1.8	.3	.3	.1	.1
4			0	1.7	1.9	6.5	12	1.5	.3	.3	.1	.1
5			0	3.0	1.7	6	11	1.4	.3	.3	.1	.1
6			0	11	45	6	9.5	1.3	.3	.3	.1	.1
7			0	5.5	54	5.5	8.5	1.1	.3	.3	.1	.1
8			0	3.6	24	5	6	1.1	.3	.3	.1	.1
9			0	2.6	18	5	7.5	1.0	.3	.3	.1	.1
10			0	2.2	14	4.6	7.5	1.0	.3	.3	.1	.1
11			0	2.1	11	4.3	6.5	.9	.3	.2	.1	.1
12			0	2.1	9.5	10	6	.9	.3	.2	.1	.1
13			0	2.0	15	22	6	.9	.3	.2	.1	.1
14			0	1.7	65	15	5.5	.8	.3	.2	.1	.1
15			0	1.6	45	14	5	.8	.3	.2	.1	.1
16			0	1.6	30	23	5	.8	.3	.2	.1	.1
17			0	1.5	23	18	4.8	.7	.3	.2	.1	.1
18			0	1.4	20	18	4.3	.7	.3	.2	.1	.1
19			0	1.4	18	16	3.4	.5	.3	.2	.1	.1
20			0	1.3	16	15	3.1	.5	.3	.2	.1	.1
21			0	1.0	14	14	3.1	.4	.3	.2	.1	.1
22			0	.9	12	17	2.9	.4	.3	.1	.1	.1
23			0	.8	10	16	2.9	.4	.3	.1	.1	.1
24			0	.8	9.5	17	2.8	.4	.3	.1	.1	.1
25			0	.6	15	18	2.6	.3	.3	.1	.1	.1
26			0	.6	12	17	2.6	.3	.3	.1	.1	.1
27			0	.6	11	16	2.6	.3	.3	.1	.1	.1
28		.6	.6	.6	11	16	4.0	.3	.3	.1	.1	.1
29		.1	.6	-	-	15	4.1	.3	.3	.1	.1	.1
30		2.7	2.5	-	-	14	3.1	.3	.3	.1	.1	.1
31			25	5.5	-	14	-	.3	-	.1	.1	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						28.4	25	0	.92	56		
Calendar year 1936.....						163.0	25	0	.45	323		
January.....						74.9	11	.6	2.42	149		
February.....						514.0	65	1.7	18.4	1,020		
March.....						392.9	23	4.3	12.7	779		
April.....						183.3	14	2.6	6.11	364		
May.....						25.7	2.3	.3	.83	51		
June.....						9.0	.3	.3	.30	18		
July.....						6.2	.3	.1	.20	12		
August.....						3.1	.1	.1	.10	6.1		
September.....						3.0	.1	.1	.10	6.0		
Water year 1936-37.....						1,240.5	65	0	3.40	2,460		

## Lytle Creek near Fontana, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}12'05''$ , long.  $117^{\circ}26'50''$ , in NW $\frac{1}{4}$  sec. 6, T. 1 N., R. 5 W. (unsurveyed), a quarter of a mile below Lytle Creek power plant of Southern California Edison Co. and  $7\frac{1}{2}$  miles north of Fontana.

Drainage area.- 47.9 square miles.

Records available.- October 1918 to September 1921, October 1922 to September 1937.

Average discharge.- 13 years (1919-20, 1925-37), 3.90 second-feet. Average combined discharge of creek and Fontana pipe line, 16 years (1919-20, 1922-37), 29.7 second-feet.

Extremes.- Maximum discharge during year, 1,250 second-feet Feb. 6 (gage height, 5.10 feet); no flow during most of year.

1918-21, 1922-37: Maximum discharge, about 5,300 second-feet Feb. 16, 1927 (gage height, 5.40 feet), by slope-area method; no flow during most of each year.

Remarks.- Records poor. Daily discharge computed mainly on basis of discharge measurements and records furnished by Fontana Union Water Co. Water is diverted about 3 miles above gage for Lytle Creek power plant and is then carried across creek to headworks of Fontana pipe line, which serves Fontana power plant  $4\frac{1}{2}$  miles downstream.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	0	0	32	66	22	15	13	1.0	
2	0		0	0	0	28	62	21	15	12	.7	
3	0		0	0	0	22	60	21	16	12	36	
4	0		0	0	0	20	56	20	17	11	.4	
5	0		0	0	0	20	54	19	17	11	.3	
6	0		0	0	118	20	50	19	18	10	.2	
7	0		0	0	347	20	48	18	18	10		
8	0		0	0	80	16	45	18	19	9.5	.1	
9	0		0	0	27	12	43	17	19	9	.1	
10	0		0	0	16	8	41	17	20	8.5	0	
11	0		0	0	12	8	40	16	21	8	0	
12	0		0	0	8	305	38	16	22	7.5	0	
13	0		0	0	82	314	36	15	22	7	0	
14	0		0	0	435	138	34	15	22	7	0	
15	0		55	0	150	228	32	14	22	6.5	0	
16	0		30	0	90	341	34	13	21	6	0	
17	0		2.0	0	80	140	34	12	20	6	0	
18	0		0	0	72	110	35	11	19	5.5	0	
19	0		0	0	65	100	35	11	18	5.5	0	
20	0		0	0	54	97	36	11	18	5	0	
21	0		0	0	46	95	36	11	17	5	0	
22	0		0	0	40	160	65	11	17	4.5	0	
23	0		0	0	34	110	37	11	16	4.5	0	
24	0		0	0	70	100	36	12	16	4.0	0	
25	0		0	0	50	90	36	12	15	3.5	0	
26	0		0	0	40	85	35	12	15	3.5	0	
27	0		50	0	32	100	34	13	14	3.0	0	
28	0		60	0	32	120	32	13	14	2.5	0	
29	0		0	0	-	100	30	14	14	2.5	0	
30	0		32	2.1	-	72	25	14	13	2.0	0	
31	2.0		89	.5	-	68	-	14	-	1.5	0	
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						2.0	2.0	0	0.06	4.0		
November.....						0	0	0	0	0		
December.....						318.0	89	0	10.3	631		
Calendar year 1936.....						943.5	113	0	2.58	1,870		
January.....						2.6	2.1	0	.08	5.2		
February.....						2,278	435	0	81.4	4,520		
March.....						3,079	341	8	99.3	6,110		
April.....						1,245	66	25	41.5	2,470		
May.....						463	22	11	14.9	918		
June.....						530	22	13	17.7	1,050		
July.....						206.5	13	1.5	6.66	410		
August.....						38.9	36	0	1.25	77		
September.....						0	0	0	0	0		
Water year 1936-37.....						8,163.0	433	0	22.4	16,200		

Combined discharge, in second-feet, of Lytle Creek and Fontana pipe line near Fontana, Calif., for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17.2	19.3	23	48	38	82	116	72	79	94	80	66
2	17.8	17.9	23	38	36	78	112	71	81	92	80	64
3	17.8	17.3	23	32	35	72	110	71	83	89	80	64
4	17.6	17.2	23	29	34	70	106	70	84	90	81	64
5	17.4	16.8	22	34	34	70	106	68	84	91	82	64
6	17.1	16.6	22	45	465	70	100	68	85	92	80	64
7	17.1	16.2	22	41	378	70	98	69	87	91	79	63
8	17.2	16.1	22	34	113	64	95	74	87	90	78	63
9	17.2	15.9	21	30	77	62	95	73	90	90	78	62
10	17.3	15.9	21	30	66	58	91	74	91	90	77	61
11	17.4	16.0	21	30	61	58	90	73	87	89	77	61
12	17.6	16.0	21	33	58	355	88	74	86	84	76	60
13	17.5	16.0	21	34	131	364	92	73	88	84	73	60
14	17.6	16.0	21	33	480	187	84	73	89	84	76	60
15	18.0	15.8	93	32	196	278	82	72	95	84	75	60
16	19.1	15.8	51	32	137	387	84	71	95	84	74	60
17	25	15.6	34	32	130	190	84	73	96	84	74	59
18	23	15.7	28	32	122	160	85	76	96	82	72	59
19	23	16.0	25	32	115	150	85	76	95	82	72	59
20	20	17.0	23	32	104	147	86	80	95	83	71	59
21	18.6	17.4	21	32	96	145	86	82	94	83	70	58
22	17.1	18.6	21	32	90	210	86	81	94	86	70	58
23	16.8	17.2	22	32	84	160	87	82	93	82	68	57
24	16.8	21	21	32	120	149	86	74	93	80	65	57
25	16.9	21	22	31	100	140	86	77	93	82	66	56
26	16.6	17.1	22	31	90	135	85	80	94	78	67	55
27	16.2	18.5	90	32	82	150	83	80	93	81	67	55
28	16.0	22	107	32	82	170	82	80	89	78	67	55
29	16.4	22	36	34	-	150	80	81	86	80	67	55
30	17.4	22	66	40	-	118	75	81	89	81	65	54
31	26	-	131	46	-	118	-	81	-	80	67	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				566.7		26	16.0	18.3	1,120			
November.....				525.9		22	15.6	17.5	1,040			
December.....				1,121		131	21	36.2	2,220			
Calendar year 1936.....				10,042.7		148	15.6	27.4	19,910			
January.....				1,057		48	29	34.1	2,100			
February.....				3,554		480	34	127	7,050			
March.....				4,617		387	58	149	9,160			
April.....				2,723		116	75	90.8	5,400			
May.....				2,530		82	68	75.2	4,620			
June.....				2,591		96	79	89.7	5,340			
July.....				2,640		94	78	85.2	5,240			
August.....				2,274		82	65	73.4	4,510			
September.....				1,792		66	54	59.7	3,550			
Water year 1936-37.....				25,891.6		480	15.6	70.9	51,350			

## Fontana pipe line near Fontana, Calif.

Location.- Water-stage recorders, lat. 34°12'05", long. 117°27'05", in sec. 6, T. 1 N., R. 5 W., at weirs of Fontana Union Water Co., 8 miles north of Fontana. Prior to October 1936 record computed on basis of power output of Fontana power plant.

Records available.- October 1918 to September 1921, October 1922 to September 1937.

Average discharge.- 18 years, 26.6 second-feet.

Extremes.- 1918-21, 1922-37: Maximum daily discharge, 82 second-feet July 9 and August 5, 1937; no flow Apr. 8, 1935, and Feb. 13 and 27, 1936.

Remarks.- Canal diverts practically entire flow of Lytle Creek in NW¼ sec. 6, T. 1 N., R. 5 W. In addition the water diverted in sec. 26, T. 2 N., R. 6 W., to supply plant of Southern California Edison Co. is carried across creek to headworks of Fontana pipe line, which serves Fontana power plant about 5 miles downstream. Records of daily discharge of Fontana pipe line, determined from a series of three weirs, furnished by Fontana Union Water Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17.2	19.3	23	48	38	50	50	50	64	81	79	66
2	17.8	17.9	23	38	36	50	50	50	66	80	79	64
3	17.8	17.3	23	32	35	50	50	50	67	77	44	64
4	17.6	17.2	23	29	34	50	50	50	67	79	81	64
5	17.4	16.8	22	34	34	50	52	49	67	80	82	64
6	17.1	16.6	22	45	47	50	50	49	67	82	80	64
7	17.1	16.2	22	41	31	50	50	51	69	81	79	63
8	17.2	16.1	22	34	33	48	50	56	68	81	78	63
9	17.2	15.9	21	30	50	50	50	56	71	81	78	62
10	17.3	15.9	21	30	50	50	50	57	71	81	77	61
11	17.4	16.0	21	30	49	50	50	57	56	81	77	61
12	17.6	16.0	21	33	50	50	50	58	64	77	76	60
13	17.5	16.0	21	34	49	50	56	58	66	77	73	60
14	17.6	16.0	21	33	47	49	50	58	67	77	76	60
15	18.0	15.8	38	32	46	50	50	58	73	78	75	60
16	19.1	15.8	21	32	47	46	50	58	74	78	74	60
17	25	15.6	32	32	50	50	50	61	76	78	74	59
18	23	15.7	28	32	50	50	50	65	77	77	72	59
19	23	16.0	25	32	50	50	50	65	77	77	72	59
20	20	17.0	23	32	50	50	50	69	77	78	71	59
21	18.6	17.4	21	32	50	50	50	71	77	78	70	58
22	17.1	18.6	21	32	50	50	21	70	77	81	70	58
23	16.8	17.2	22	32	50	50	50	71	77	78	68	57
24	16.8	21	21	32	50	49	50	62	77	76	65	57
25	16.9	21	22	31	50	50	50	65	78	78	66	56
26	16.6	17.1	22	31	50	50	50	68	79	75	67	55
27	16.2	18.5	40	32	50	50	49	67	79	78	67	55
28	16.0	22	47	32	50	50	50	67	75	75	67	55
29	16.4	22	36	34	-	50	50	67	72	77	67	55
30	17.4	22	36	38	-	46	50	67	76	79	65	54
31	24	-	42	46	-	50	-	67	-	79	67	-
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
October.....							564.7	25	16.0	18.2	1,120	
November.....							525.9	22	15.6	17.5	1,040	
December.....							803	47	21	25.9	1,590	
Calendar year 1936.....							9,099.7	50	0	24.9	18,040	
January.....							1,055	48	29	34.0	2,090	
February.....							1,276	50	31	45.6	2,530	
March.....							1,538	50	46	49.6	3,050	
April.....							1,478	56	21	49.3	2,930	
May.....							1,867	71	49	60.2	3,700	
June.....							2,161	79	64	72.0	4,290	
July.....							2,435	82	75	78.5	4,830	
August.....							2,236	82	65	72.1	4,440	
September.....							1,792	66	54	59.7	3,550	
Water year 1936-37.....							17,731.6	82	15.6	48.6	35,160	

## Lytle Creek (east channel) at San Bernardino, Calif.

Location.- Water-stage recorder, lat. 34°05'50", long. 117°19'05", in San Bernardino grant, near Atchison, Topeka & Santa Fe Ry. bridge, a quarter of a mile upstream from Mt. Vernon Street bridge, at San Bernardino, San Bernardino County. Altitude, about 1,050 feet.

Records available.- January 1929 to September 1937.

Extremes.- Maximum discharge during year, 1,060 second-feet Feb. 14; no flow during most of year.

1929-37: Maximum discharge that of Feb. 14, 1937; no flow during most of each year.

Remarks.- Records poor. Water diverted above station for irrigation by Fontana pipe line and to spread on debris cone for purpose of groundwater recharge.

Discharge, in second-feet, water year October 1936 to September 1937

Dec. 15	20	Feb. 6	310	Feb. 16	0.8	Mar. 19	0.1
Dec. 16	15	Feb. 7	159	Mar. 12	10	Mar. 22	40
Dec. 27	42	Feb. 8	28	Mar. 13	70	Mar. 23	10
Dec. 28	116	Feb. 9	17	Mar. 14	5	Mar. 24	5
Dec. 29	2	Feb. 10	9	Mar. 15	2.0	Mar. 25	15
Dec. 31	180	Feb. 11	.5	Mar. 16	100	Mar. 26	3
Jan. 6	5	Feb. 14	521	Mar. 17	1.5	Mar. 27	2
Jan. 7	.3	Feb. 15	14	Mar. 18	.3	Mar. 28	5

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	375	180	0	12.1	744
Calendar year 1936 .....	561.7	180	0	1.53	1,110
January.....	5.3	5	0	.17	11
February.....	1,039.3	521	0	37.1	2,060
March.....	268.9	100	0	8.67	533
April.....	0	0	0	0	0
May.....	0	0	0	0	0
June.....	0	0	0	0	0
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1936-37.....	1,688.5	521	0	4.63	3,350

Note.- No flow during water year 1936-37 except for days given above.

## Lytle Creek (west channel) at Colton, Calif.

Location.- Water-stage recorder, lat. 34°04'00", long. 117°19'15", in San Bernardino grant, at Colton, San Bernardino County, on F Street near Colton Avenue. Altitude, about 980 feet.

Records available.- January 1929 to September 1937.

Extremes.- Maximum discharge during year, 16 second-feet Feb. 6 (gage height, 1.75 feet); no flow during most of year.

1929-37: Maximum discharge (estimated), 20 second-feet Jan. 5, 1935; no flow during most of each year.

Remarks.- Records fair. Water diverted to spread on debris cone above Foothill Boulevard for purpose of groundwater recharge and, by Fontana pipe line, for irrigation. See records for Fontana pipe line near Fontana, Calif.

Discharge, in second-feet, water year October 1936 to September 1937

Dec. 30	0.7	Jan. 12	0.1
Dec. 31	1.4	Jan. 30	.1
Jan. 6	.1	Feb. 6	4.0

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	2.1	1.4	0	.07	4.2
Calendar year 1936.....	8.1	5	0	.02	16
January.....	.3	.1	0	.01	.6
February.....	4.0	4.0	0	.14	7.9
March.....	0	0	0	0	0
April.....	0	0	0	0	0
May.....	0	0	0	0	0
June.....	0	0	0	0	0
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1936-37.....	6.4	4.0	0	.02	13

Note.- No flow during water year 1936-37 except for days given above.



## Cajon Creek near Keenbrook, Calif.

Location.- Water-stage recorder, lat. 34°15'50", long. 117°27'50", near north boundary of sec. 13, T. 2 N., R. 6 W., 300 feet above mouth of Lone Pine Creek and 1 mile north of Keenbrook. Altitude, about 2,620 feet.

Drainage area.- 40.9 square miles.

Records available.- December 1919 to September 1937.

Average discharge.- 17 years (1920-37), 7.44 second-feet.

Extremes.- Maximum discharge during year, 1,030 second-feet Dec. 27 (gage height, 4.30 feet); minimum, 1.1 second-feet Oct. 1.  
1919-37: Maximum discharge, about 5,000 second-feet Dec. 20, 1921; minimum, 0.05 second-foot June 25, 1920.

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

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	1.6	1.6	25	15	20	26	11	6.5	3.1	2.4	1.6
2	1.2	1.6	1.6	17	13	18	24	10	6	3.1	2.5	1.6
3	1.2	1.6	1.6	14	12	17	22	10	5.5	3.1	2.1	1.7
4	1.2	1.6	1.7	11	12	17	21	10	6	3.1	2.0	1.7
5	1.3	1.6	1.7	14	14	16	20	10	6	3.1	2.0	1.7
6	1.3	1.6	1.7	26	85	15	20	10	6	3.1	2.0	1.8
7	1.3	1.6	1.7	17	45	14	19	10	6	3.1	2.0	1.8
8	1.4	1.6	1.7	13	30	14	19	10	6	2.8	2.0	1.8
9	1.4	1.6	1.7	10	26	14	19	10	6	2.6	2.0	1.8
10	1.5	1.6	1.6	9.5	22	13	19	9.5	5.5	2.6	2.0	1.8
11	1.5	1.6	1.6	9	20	13	19	9	5.5	2.6	2.0	1.8
12	1.6	1.6	1.6	15	18	110	19	8.5	5.5	2.6	2.0	2.0
13	1.6	1.6	1.7	14	66	209	18	8	5.5	2.7	2.0	2.0
14	1.7	1.6	2.3	11	320	59	18	8	5.5	2.7	2.0	2.0
15	1.7	1.6	21	9.5	95	145	17	7.5	5.5	2.6	2.0	2.0
16	1.8	1.6	8.5	9.5	59	111	16	7.5	5	2.4	2.0	1.8
17	1.9	1.6	4.2	8.5	47	70	16	7.5	4.9	2.4	2.0	2.0
18	1.9	1.6	3.3	8.5	40	64	15	7.5	4.7	2.3	2.0	2.0
19	1.9	1.6	2.8	8	33	54	15	7.5	4.5	2.3	2.0	1.8
20	1.9	1.6	2.7	8	29	49	14	7.5	4.4	2.3	2.1	1.8
21	1.9	1.6	2.7	7	26	44	14	8	4.2	2.3	2.1	1.8
22	1.8	1.6	2.7	7	24	86	14	8	4.1	2.3	2.0	2.0
23	1.8	1.6	2.7	6.5	22	58	13	8	3.8	2.4	2.0	1.8
24	1.8	1.6	2.6	6.5	22	52	13	8	3.6	2.4	2.0	1.8
25	1.8	1.6	3.4	6.5	29	50	12	8	3.6	2.4	2.0	1.7
26	1.8	1.4	3.0	6.5	24	43	12	8	3.6	2.4	1.8	1.7
27	1.8	1.4	191	6	21	40	12	7.5	3.4	2.4	1.8	1.8
28	1.8	1.4	98	6	21	40	12	7.5	3.1	2.4	1.6	1.8
29	1.8	1.4	16	10	-	34	11	7.5	2.8	2.6	1.6	2.0
30	1.8	1.6	116	25	-	31	11	7	2.8	2.6	1.6	2.0
31	2.1	-	94	20	-	28	-	7	-	2.4	1.6	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					50.6	2.1	1.1	1.63	100			
November.....					47.2	1.6	1.4	1.57	94			
December.....					598.4	191	1.6	19.3	1,190			
Calendar year 1936.....					1,616.7	191	1.3	4.42	3,210			
January.....					362.5	26	6	11.7	719			
February.....					1,190	320	12	42.5	2,360			
March.....					1,548	209	13	49.9	3,070			
April.....					500	26	11	16.7	992			
May.....					263.5	11	7	8.50	523			
June.....					145.5	6.5	2.8	4.85	288			
July.....					51.2	3.1	2.3	2.62	161			
August.....					61.0	2.4	1.6	1.97	121			
September.....					54.9	2.0	1.6	1.83	109			
Water year 1936-37.....					4,902.8	320	1.1	13.4	9,730			

## Lone Pine Creek near Keenbrook, Calif.

Location.- Water-stage recorder, lat. 34°15'55", long. 117°27'55", in SW¼ sec. 12, T. 2 N., R. 8 W., 50 feet above Atchison, Topeka & Santa Fe Railway bridge and 1 mile north of Keenbrook. Altitude, about 2,630 feet.

Drainage area.- 15.3 square miles.

Records available.- December 1919 to September 1937.

Average discharge.- 17 years (1920-37), 1.05 second-feet.

Extremes.- Maximum discharge during year, 365 second-feet Dec. 27 (gage height, 4.00 feet); minimum, 0.2 second-foot for several periods.  
1919-37: Maximum discharge (estimated), 810 second-feet Dec. 19, 1921; minimum, 0.1 second-foot at various times during 1926-32.

Remarks.- Records good. Discharge for periods of missing gage heights, Nov. 13 to Dec. 11, Jan. 2-6, 20-25 computed on basis of records for Cajon Creek near Keenbrook. No diversions or regulations above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.2	0.2	0.7	0.4	0.4	1.5	1.1	1.0	0.8	0.8	0.7
2	.3	.2	.2	.5	.4	.4	1.5	1.0	1.0	.8	.8	.7
3	.3	.2	.2	.4	.3	.4	1.4	1.0	1.0	.9	.8	.7
4	.3	.3	.2	.3	.3	.4	1.3	1.0	1.0	.9	.8	.7
5	.3	.3	.2	.3	.3	.4	1.3	1.1	1.1	.9	.8	.8
6	.2	.2	.2	.3	16	.4	1.3	1.1	1.1	.8	.8	.7
7	.2	.2	.2	.3	2.4	.4	1.2	1.1	1.1	.8	.8	.7
8	.2	.2	.2	.3	.8	.4	1.2	1.1	1.2	.8	.8	.7
9	.2	.2	.2	.3	.6	.4	1.2	1.2	1.2	.8	.8	.7
10	.2	.2	.2	.3	.4	.4	1.2	1.2	1.2	.8	.8	.7
11	.2	.2	.2	.2	.4	.4	1.3	1.1	1.2	.8	.8	.7
12	.2	.3	.2	.2	.4	19	1.3	1.1	1.2	.8	.8	.7
13	.2	.3	.2	.2	5.5	28	1.3	1.0	1.1	.8	.8	.7
14	.2	.3	.2	.2	42	2.7	1.3	1.0	1.1	.8	.8	.7
15	.2	.3	8.5	.2	6.5	20	1.3	1.0	1.1	.8	.8	.7
16	.3	.3	1.0	.2	1.9	10	1.3	1.1	1.1	.8	.8	.7
17	.3	.3	.6	.3	1.0	3.9	1.3	1.1	1.0	.8	.8	.7
18	.3	.3	.4	.3	.7	3.5	1.3	1.1	1.0	.8	.8	.7
19	.3	.2	.3	.3	.4	2.1	1.3	1.1	1.0	.8	.8	.7
20	.3	.2	.2	.3	.4	1.7	1.3	1.0	1.0	.8	.8	.7
21	.2	.2	.2	.3	.4	1.7	1.3	1.0	1.0	.8	.8	.7
22	.2	.2	.2	.3	.4	9	1.3	1.1	1.0	.8	.8	.7
23	.2	.2	.2	.3	.4	2.6	1.3	1.2	1.0	.8	.8	.7
24	.2	.2	.2	.3	.4	2.4	1.3	1.2	1.0	.8	.8	.7
25	.2	.2	.3	.3	.6	2.1	1.2	1.2	.9	.8	.8	.7
26	.2	.2	.2	.3	.5	2.0	1.3	1.2	.9	.8	.8	.7
27	.2	.2	55	.3	.4	2.0	1.3	1.1	.9	.8	.8	.7
28	.2	.2	13	.3	.4	1.9	1.2	1.1	.9	.8	.8	.7
29	.2	.2	.3	.3	-	1.7	1.1	1.1	.8	.8	.7	.6
30	.3	.2	26	3.3	-	1.6	1.1	1.0	.8	.8	.7	.8
31	.3	-	10	.6	-	1.6	-	1.0	-	.8	.7	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						7.3	0.3	0.2	0.24	14		
November.....						6.9	.3	.2	.23	14		
December.....						119.8	55	.2	3.86	238		
Calendar year 1936.....						252.4	55	.2	.69	501		
January.....						12.7	.7	.2	.41	25		
February.....						54.6	42	.3	3.02	168		
March.....						123.9	28	.4	4.00	246		
April.....						38.5	1.5	1.1	1.28	76		
May.....						33.7	1.2	1.0	1.09	67		
June.....						30.9	1.2	.8	1.03	61		
July.....						25.1	.9	.8	.81	50		
August.....						24.6	.8	.7	.79	49		
September.....						21.3	.8	.7	.71	42		
Water year 1936-37.....						529.2	55	.2	1.45	1,050		

## Meeks &amp; Daley Canal near Colton, Calif.

Location.— Water-stage recorder, lat. 34°04'00", long. 117°18'40", in San Bernardino grant, on Colton Avenue, 1 mile below point of diversion from Warm Creek, and 1 mile east of Colton, San Bernardino County.

Records available.— September 1920 to September 1937.

Average discharge.— 17 years, 10.4 second-feet.

Extremes.— Maximum daily discharge during year, 20.6 second-feet May 30; minimum, no flow for several periods.

1920-37: Maximum daily discharge, 21 second-feet June 16, 1926; no flow at times.

Remarks.— Records fair. This canal diverts from right bank of Warm Creek  $1\frac{1}{2}$  miles northeast of Colton. Water is used for irrigation in vicinity of Colton, Riverside, and Corona. The stage-discharge relation was affected during the year by backwater caused by operation of a pumping plant that discharges into canal 500 feet below gage and by waste from swimming pool of city of Colton, which is discharged into canal 200 feet below gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.9	1.9	16.6	0.3	0.1	0.2	0.2	19.1	20.4	17.1	15.4	17.3
2	13.6	1.6	15.0	.3	0	.2	.3	17.3	19.5	17.8	14.7	17.6
3	14.1	1.4	15.4	.2	0	.2	.3	16.2	18.6	17.8	14.7	18.6
4	14.3	1.3	15.9	.2	.6	.2	.3	15.6	18.0	18.0	14.4	18.6
5	14.1	1.2	15.4	.2	2.5	.2	.3	15.4	18.9	18.0	14.2	18.2
6	14.2	1.1	16.1	.4	1.9	.2	.3	17.8	18.0	17.8	13.6	17.8
7	14.7	1.0	16.1	.3	3.7	.2	.2	19.7	18.8	17.6	13.7	18.0
8	13.9	1.8	16.4	.4	.3	.3	.2	18.7	18.7	17.8	13.7	18.0
9	13.9	2.5	16.4	2.2	.2	.2	1.1	19.5	19.5	17.4	13.9	17.4
10	7.6	2.5	16.8	3.2	.2	.2	3.0	18.4	20.1	17.3	15.0	17.3
11	8.2	2.8	16.9	3.2	.2	.3	2.5	17.1	19.5	17.1	15.4	18.4
12	8.5	2.9	16.9	1.7	.2	.4	2.6	16.6	18.7	15.6	15.4	18.2
13	8.4	2.9	17.1	.2	.3	.4	0	18.2	18.9	15.6	15.7	18.2
14	8.1	3.1	16.1	.1	2.5	.3	0	19.1	19.5	15.6	15.7	18.2
15	10.3	8.3	2.3	.1	.2	.4	1.1	19.3	19.7	15.7	14.7	18.9
16	7.9	16.9	2.0	.1	.2	.4	5.0	19.5	19.9	15.7	13.9	19.9
17	1.6	17.1	1.4	.2	.2	.3	4.9	19.5	18.9	15.9	15.0	20
18	1.6	16.8	1.6	.1	.2	.4	5.2	19.1	18.9	15.9	14.9	20
19	1.9	16.2	2.0	1.8	.2	.4	2.0	19.1	18.6	15.2	15.0	20
20	1.0	16.2	3.2	3.6	.1	.4	1.0	19.1	18.4	15.4	16.6	20
21	.6	16.9	3.6	3.7	.2	.4	5.2	18.7	17.8	14.7	18.6	20
22	.5	15.9	3.3	4.0	.2	.5	9.3	18.7	18.4	15.6	18.0	19.3
23	.3	16.2	2.8	2.8	.2	.5	16.9	18.4	18.4	16.1	17.1	19.3
24	.1	15.7	2.4	2.7	.2	.5	16.9	18.7	18.2	16.1	17.3	18.9
25	.1	15.9	2.5	3.4	.2	.5	17.6	18.7	17.4	14.7	18.6	19.1
26	.1	15.9	3.4	3.2	.2	.5	18.4	18.7	18.0	15.2	18.4	18.6
27	.1	15.7	1.9	3.2	.1	.4	19.4	18.7	18.2	15.0	18.9	17.6
28	.1	15.9	.3	3.3	.1	.3	17.1	20.3	16.9	15.0	18.6	18.2
29	.1	16.4	.3	1.7	—	.2	17.3	17.6	17.8	15.0	18.6	17.6
30	2.2	16.9	.4	.2	—	.2	16.6	20.6	17.8	15.2	17.8	17.3
31	2.3	—	1.6	.2	—	.2	—	18.7	—	15.7	18.6	—
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				197.3	14.7	0.1	6.36	391				
November.....				280.9	17.1	1.0	9.36	557				
December.....				262.0	17.1	.3	8.45	520				
Calendar year 1936.....				4,201.8	19.5	0	11.5	8,340				
January.....				47.2	4.0	.1	1.52	94				
February.....				15.2	3.7	0	.54	30				
March.....				10.0	.5	.2	.32	20				
April.....				185.2	19.4	0	6.17	367				
May.....				572.1	20.6	15.4	18.5	1,130				
June.....				560.4	20.4	16.9	18.7	1,110				
July.....				502.6	18.0	14.7	16.2	997				
August.....				496.1	18.9	13.6	16.0	984				
September.....				556.5	20	17.3	18.6	1,100				
Water year 1936-37.....				3,685.5	20.6	0	10.1	7,300				

## Day Creek near Etiwanda, Calif.

**Location.**— Water-stage recorder, lat. 34°11'00", long. 117°32'25", in SW¼ sec. 8, T. 1 N., R. 6 W., a quarter of a mile below junction of two main forks and 6 miles north of Etiwanda. Altitude, about 2,940 feet.

**Drainage area.**— 4.8 square miles.

**Records available.**— January 1929 to September 1937.

**Extremes.**— Maximum discharge during year, 80 second-feet Mar. 15 (gage height, 2.05

feet); minimum, 1.0 second-foot Oct. 1, 2.

1929-37: Maximum discharge, 192 second-feet Feb. 11, 1936; minimum, 0.1 second-foot Dec. 19, 20, 1933.

**Remarks.**— Record good. Discharge for Oct. 1-8, May 27 to June 1 computed on a basis of records for Cucamonga Creek near Upland. Etiwanda Water Co. diverted about 762 acre-feet above station for spreading during winter.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	3.0	1.6	9	6	14	18	10	7.5	4.6	3.6	5
2	1.0	3.0	1.7	7	5.5	12	19	10	7	4.5	3.6	4.9
3	1.1	2.3	1.9	6	5.5	12	19	10	7	4.5	3.4	4.9
4	1.1	2.2	2.3	5	5.5	12	17	10	7.5	4.6	3.1	4.9
5	1.2	2.3	2.4	5.5	6	12	17	11	7.5	4.6	3.1	4.8
6	1.2	2.3	2.6	6	47	11	17	11	7.5	4.6	3.2	4.8
7	1.2	2.0	2.6	4.9	45	12	16	11	7	4.6	3.2	4.8
8	1.3	2.0	2.4	4.8	25	12	16	10	7	4.6	3.8	4.8
9	1.3	1.9	2.4	4.6	19	12	16	10	7	4.8	4.0	4.8
10	1.3	1.9	2.3	4.5	16	13	16	10	7	4.8	4.0	4.8
11	1.3	2.0	2.2	4.5	14	13	16	10	7	4.8	4.0	4.8
12	1.3	1.7	2.0	4.8	13	25	16	10	7	4.8	4.0	4.8
13	1.2	1.6	2.0	4.8	31	47	16	10	7	4.8	3.8	4.9
14	1.2	1.6	6.5	4.6	58	36	16	9.5	6	4.6	4.0	5
15	1.3	1.7	32	4.5	48	41	16	9.5	5.5	4.6	4.0	5.5
16	3.8	1.7	16	4.3	35	52	16	9.5	5.5	4.6	4.2	5.5
17	7	1.7	8.5	4.3	30	41	16	9	5.5	4.5	4.5	5.5
18	3.2	1.9	7	4.2	28	34	15	9	5.5	4.5	4.3	5.5
19	3.1	1.9	5	4.2	27	34	14	9	5.5	4.5	4.3	5.5
20	3.2	1.9	3.8	4.0	25	31	14	8.5	5.5	4.3	4.3	5.5
21	3.0	1.9	3.5	4.0	23	30	14	8.5	5.5	4.3	4.2	5.5
22	2.9	2.2	3.3	4.2	22	30	14	8.5	5.5	4.2	4.2	5.5
23	2.4	2.2	3.2	4.2	20	28	13	8.5	5.5	4.2	5	5.5
24	2.0	1.9	3.2	4.3	19	27	12	8.5	5.5	4.0	5.5	5.5
25	1.9	1.9	3.8	4.2	19	25	12	8.5	5.5	3.8	5.5	5.5
26	1.6	1.7	3.0	4.2	18	24	12	8.5	5	3.7	5	5.5
27	1.5	1.7	23	4.3	18	24	11	8	4.9	3.7	5.5	5.5
28	1.5	1.7	14	4.3	17	23	11	8	5	3.7	5.5	5.5
29	1.7	1.7	4.4	4.9	-	20	10	8	4.9	3.8	5.5	5.5
30	2.2	1.6	12	9.5	-	18	10	7.5	4.8	3.8	5.5	5.5
31	7.5	-	21	7	-	18	-	7.5	-	3.7	5	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						66.5	7.5	1.0	2.15	132		
November.....						59.1	3.0	1.6	1.97	117		
December.....						201.6	32	1.6	6.50	400		
Calendar year 1936.....						1,219.1	42	1.0	3.33	2,420		
January.....						156.6	9.5	4.0	5.05	311		
February.....						645.5	58	5.5	23.1	1,280		
March.....						743	52	11	24.0	1,470		
April.....						444	19	10	14.8	881		
May.....						287.0	11	7.5	9.26	569		
June.....						184.1	7.5	4.8	6.14	365		
July.....						135.1	4.8	3.7	4.36	268		
August.....						132.8	5.5	3.1	4.28	263		
September.....						156.0	5.5	4.8	5.20	309		
Water year 1936-37.....						3,211.3	58	1.0	8.80	6,360		

## Cucamonga Creek near Upland, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}10'15''$ , long.  $117^{\circ}37'55''$ , in NE  $\frac{1}{4}$  sec. 17, T. 1 N., R. 7 W., 6 miles north of Upland. Altitude, about 2,550 feet.

Drainage area.- 10.1 square miles.

Records available.- December 1928 to September 1937.

Extremes.- Maximum discharge during year, 212 second-feet Feb. 6 (gage height, 4.05 feet); minimum, 1.3 second-feet Oct. 4-15.

1928-37: Maximum discharge, 475 second-feet Feb. 11, 1936; minimum, 0.8 second-foot July 16, 17, Aug. 28 to Sept. 15, Oct. 2-6, 1934.

Remarks.- Records good. Entire flow diverted above gage for irrigation Oct. 1 to Nov. 11; discharge for which period was interpolated between weekly measurements. Discharge Mar. 6-11, June 28 to July 2, July 20-25, Aug. 16-28 computed on basis of records for station on Day Creek near Etiwanda.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	4.0	2.4	12	10	26	33	19	14	9	6.5	4.8
2	1.4	3.5	2.5	11	9.5	25	35	18	14	9	6	4.9
3	1.4	3.5	2.6	10	8.5	25	33	18	14	9	5.5	4.9
4	1.3	3.0	3.3	8.5	9	24	31	18	14	8.5	5.5	4.6
5	1.3	3.0	2.9	9	11	23	30	18	14	8.5	5	4.8
6	1.3	3.0	2.8	11	86	23	29	18	14	8.5	5	4.9
7	1.3	2.5	2.7	10	130	23	28	18	14	8	5	4.9
8	1.3	2.5	2.6	9	66	22	28	18	14	8	5.5	4.9
9	1.3	2.2	2.6	8	44	22	29	18	14	8	5.5	4.9
10	1.3	2.2	2.6	8	35	22	30	18	13	8	5.5	4.9
11	1.3	2.1	2.6	7.5	32	25	30	17	13	8	5.5	4.9
12	1.3	2.0	2.7	8.5	28	40	31	16	13	8	5.5	4.9
13	1.3	1.9	2.7	8	48	73	30	16	12	8	5.5	5
14	1.3	2.0	2.9	7.5	138	53	30	17	12	8	5.5	5
15	1.3	1.9	33	7.5	88	51	31	18	12	8	5.5	5
16	4.0	2.0	43	7.5	67	72	31	18	12	8	5.5	5
17	9	2.0	18	7	54	69	30	18	12	8	5.5	5
18	4.0	2.2	13	7	50	70	29	18	12	8	5.5	4.9
19	3.0	2.2	8.5	6.5	46	66	27	17	11	8	5.5	5
20	2.8	2.3	7	6.5	42	60	25	17	11	7.5	5.5	4.9
21	2.6	2.5	6	6.5	38	55	28	16	10	7.5	5	5
22	2.4	2.9	5	6.5	36	56	23	17	10	7.5	5	5.5
23	2.2	4.5	4.3	6.5	34	48	23	17	10	7	5	5.5
24	2.2	2.8	3.9	6.5	34	46	22	17	10	7	5	4.7
25	2.0	2.6	4.6	6.5	36	42	22	17	9.5	7	5	4.6
26	1.8	2.6	3.9	6	32	40	22	17	9.5	6.5	4.9	4.6
27	1.6	2.5	6	6	30	38	22	15	9.5	6.5	4.9	4.5
28	1.6	2.5	16	6	28	38	22	15	9	6.5	4.9	4.5
29	1.6	2.5	12	7	-	36	21	16	9	6.5	4.9	4.8
30	2.0	2.5	15	12	-	34	20	16	9	6.5	4.9	5
31	10	-	25	14	-	33	-	15	-	6.5	4.8	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						72.6	10	1.3	2.34	144		
November.....						77.9	4.5	1.9	2.60	155		
December.....						262.1	43	2.4	8.45	520		
Calendar year 1936.....						1,950.4	56	1.2	5.33	3,870		
January.....						253.5	14	6	8.18	503		
February.....						1,270.0	138	8.5	45.4	2,520		
March.....						1,280	75	22	41.3	2,540		
April.....						820	35	20	27.5	1,630		
May.....						531	19	15	17.1	1,050		
June.....						354.5	14	9	11.8	703		
July.....						239.0	8	6.5	7.71	474		
August.....						164.3	6.5	4.8	5.50	326		
September.....						147.0	5.5	4.5	4.90	292		
Water year 1936-37.....						5,471.9	138	1.3	15.0	10,860		

## San Jacinto River near San Jacinto, Calif.

Location.- Staff gage, lat.  $33^{\circ}44'05''$ , long.  $116^{\circ}49'45''$ , in SE $\frac{1}{4}$  sec. 13, T. 5 S., R. 1 E., at highway bridge,  $8\frac{1}{4}$  miles southeast of San Jacinto. Altitude, about 1,980 feet. Water-stage recorder, used prior to Feb. 6, 1937, was destroyed by flood on that date.

Drainage area.- 140 square miles.

Records available.- October 1920 to September 1937.

Average discharge.- 14 years (1921-25, 1927-37), 22.2 second-feet.

Extremes.- Maximum discharge during year, 14,000 second-feet Feb. 6, by slope-area method; no flow for several months.

1920-37: Maximum discharge (estimated), 45,000 second-feet Feb. 16, 1927; no flow for several months of each year.

Remarks.- Records fair. Discharge for Jan. 24-27, Feb. 22-24, Mar. 7-10, Apr. 13-15, Apr. 20 to July 7 interpolated; that for Feb. 6-18, Mar. 12-17, computed on basis of partial gage-height record, four discharge measurements, and unpublished records for station several miles downstream. Water-stage recorder for Oct. 1 to Feb. 6 destroyed by flood. Readings of staff gage, made once daily during low water, oftener during high water, furnished by Lake Hemet Water Co. Results of discharge measurements furnished by Metropolitan Water District. Several diversions above gage. Storage in Lake Hemet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		4.4	0.1	74	30	284	456	150	60	6.5		
2		3.2	.1	35	23	278	456	145	57	*3.5		
3		.9	.1	26	23	278	468	142	54	2.0		
4		.4	.2	20	23	273	444	130	*51	1.0		
5		.3	.4	20	33	230	432	128	46	.5		
6		0	.4	54	4,000	210	432	125	42	.2		
7		0	.2	39	3,500	220	400	*122	40	.1		
8		0	.2	33	650	240	381	118	38	0		
9		0	.2	17	450	260	381	110	36	0		
10		0	.2	20	350	280	381	100	36	0		
11		0	.2	18	270	300	343	92	*36	0		
12		0	.2	20	200	540	355	95	34	0		
13		0	.2	32	500	630	320	98	30	0		
14		0	.2	24	2,270	460	290	*101	25	0		
15		0	238	21	1,200	620	280	95	20	0		
16		0	238	21	770	1,200	262	90	*15	0		
17		0	78	18	620	1,000	190	82	15	0		
18		0	34	18	540	780	174	75	15	0		
19		0	19	22	495	618	154	78	14	0		
20		0	10	21	444	480	165	80	14	0		
21		0	8	14	414	480	155	*83	14	0		
22		0	6	14	400	522	155	82	14	0		
23		.1	5	12	360	487	155	80	14	0		
24		1.5	4.4	10	320	550	155	78	12	0		
25		.5	4.4	8	278	588	154	75	*11	0		
26		.5	6	7	210	580	154	74	10	0		
27		.1	4.4	6.5	182	565	153	73	10	0		
28		.1	144	6	262	565	153	*72	9	0		
29		.1	46	6.5	-	501	152	70	8	0		
30		.1	27	14	-	456	*152	68	7	0		
31		-	219	53	-	444	-	65	-	0		
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						12.2	4.4	0	.41	24		
December.....						1,094.1	238	.1	35.3	2,170		
Calendar year 1936.....						5,145.3	174	0	14.1	10,210		
January.....						704.0	74	6	22.7	1,400		
February.....						18,817	4,000	23	672	37,320		
March.....						14,919	1,200	210	481	29,590		
April.....						8,292	468	152	276	16,450		
May.....						2,976	150	65	96.0	5,900		
June.....						787	60	7	26.2	1,560		
July.....						13.8	6.5	0	.45	27		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						47,615.1	4,000	0	130	94,440		

\*Discharge measurement.

## San Jacinto River near Elsinore, Calif.

Location.- Water-stage recorder, lat. 33°39'45", long. 117°17'46", near east line of sec. 9, T. 6 S., R. 4 W., 2 miles east of Elsinore and 2½ miles above junction with Elsinore Lake (low-water stage). Altitude, about 1,270 feet.

Drainage area.- 717 square miles.

Records available.- January 1916 to September 1937.

Average discharge.- 21 years, 18.1 second-feet.

Extremes.- Maximum discharge during year, 2,260 second-feet Feb. 9 (gage height, 7.80 feet); no flow Oct. 1-21.  
1916-37: Maximum discharge, about 16,000 second-feet Feb. 17, 1927 (gage height, 11.8 feet); no flow for several months each year.

Remarks.- Records good. Discharge Oct. 22 to Jan. 3, Jan. 29 to Feb. 8, Mar. 3-25 computed on basis of five discharge measurements, records of reservoir releases just above gage, and records for stations on nearby streams. Storage and diversions for irrigation above station. Seepage from Metropolitan Water District's tunnel under Mt. San Jacinto was pumped into San Jacinto River above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.1	0.1	0.1	0.5	274	532	97	23	9	12	13
2	0	.1	.1	3.5	19	266	492	86	20	10	12	12
3	0	.1	.1	86	14	285	489	96	19	11	12	12
4	0	.1	.1	143	4.0	248	524	82	17	13	13	13
5	0	.1	.1	82	1.0	240	476	78	15	13	14	13
6	0	.1	.1	58	.8	230	406	78	14	13	14	12
7	0	.1	.1	50	157	190	385	74	16	13	14	12
8	0	.1	.1	50	783	200	385	66	14	14	14	14
9	0	.1	.1	50	1,900	200	350	62	14	14	15	15
10	0	.1	.1	56	1,140	340	344	58	12	14	12	12
11	0	.1	.1	52	770	600	350	53	11	16	14	11
12	0	.1	.1	40	634	595	340	48	11	19	16	12
13	0	.1	.1	32	639	590	334	45	11	20	16	14
14	0	.1	.1	14	639	585	318	40	12	19	14	14
15	0	.1	3.0	34	639	580	274	35	13	19	14	13
16	0	.1	.4	31	462	575	218	34	14	17	15	13
17	0	.1	.3	8.8	1,190	570	206	33	14	15	16	13
18	0	.1	.2	12	928	580	192	33	13	15	16	13
19	0	.1	.2	2.8	720	580	160	30	13	16	16	13
20	0	.1	.2	1.8	616	580	137	27	14	15	16	13
21	0	.1	.2	1.4	549	580	126	24	13	14	16	14
22	.1	.1	.2	1.2	458	580	120	22	13	14	16	14
23	2.0	.1	.2	1.0	399	400	117	22	13	14	16	16
24	.5	.1	.2	1.0	371	520	112	22	13	14	14	16
25	.2	.1	.2	1.0	399	680	110	23	12	14	15	16
26	.1	.1	.2	1.0	444	675	110	23	12	14	16	18
27	.1	.1	.2	1.0	413	680	110	22	13	13	15	18
28	.1	.1	.2	1.0	321	654	110	20	13	13	16	20
29	.1	.1	.1	.8	-	621	120	28	11	12	16	20
30	.1	.1	.1	.8	-	608	114	27	10	12	16	19
31	.1	-	.1	.8	-	585	-	26	-	12	14	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					3.4	2.0	0	0.11	6.7			
November.....					5.0	.1	.1	.10	6.0			
December.....					7.6	3.0	.1	.25	15			
Calendar year 1936.....					57.6	3.6	0	.16	115			
January.....					818.2	143	.1	26.4	1,620			
February.....					14,640.3	1,900	.5	523	29,040			
March.....					14,841	680	190	479	29,440			
April.....					8,060	532	110	269	15,990			
May.....					1,404	97	20	45.3	2,780			
June.....					413	23	10	13.8	819			
July.....					441	20	9	14.2	875			
August.....					453	16	12	14.6	899			
September.....					426	20	11	14.2	845			
Water year 1936-37.....					41,510.5	1,900	0	114	82,340			

## Elsinore Lake at Elsinore, Calif.

Location.- Staff gage fastened to pier, lat. 33°40'35", long. 117°21'30", on northeast shore, in La Laguna grant, at Aloha Beach Club, Elsinore, Riverside County. Zero of gage is 1,200 feet above mean sea level.

Records available.- December 1915 to September 1937.

Remarks.- Elsinore Lake overflows only during and after years of heavy rainfall, such as that of 1918. Temescal Creek is the high-water outlet. There was flow in creek during most of 1918 and the first half of 1917. Surface of lake has been below outlet since July 1917. A history of the lake is given in Water-Supply Papers 426, 429, and 441.

Gage height, in feet, water year September 1936 to October 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-			-	-	-	-	-	-	-	
2		-			-	-	-	-	-	-	-	
3		-			28.3	-	-	51.0	-	-	-	
4		-			-	-	-	-	50.9	-	-	
5		26.8			-	40.3	-	-	-	-	-	
6		-			-	-	-	-	-	-	-	
7		-			-	-	49.1	-	-	-	-	
8		-			-	-	49.2	-	-	-	49.8	
9		-			31.0	-	-	-	-	50.3	-	
10		-	26.6		-	-	-	-	-	-	-	
11		-			-	-	-	-	50.6	-	-	
12		-			-	-	-	-	-	-	-	
13		26.6			-	-	-	-	-	-	-	
14		-			-	-	-	51.1	-	-	-	
15		-			-	-	-	-	-	50.2	-	49.2
16		-			-	-	-	-	-	-	-	
17		-			-	43.7	-	-	-	-	-	
18		26.6			36.2	-	-	-	-	-	-	
19		-			-	-	50.6	-	-	-	-	
20		-			-	-	-	-	-	-	-	
21	27.0	-			-	-	-	-	-	-	-	
22		-			-	-	-	-	-	-	-	
23		26.6			38.2	-	-	-	-	-	-	
24		-			-	-	-	-	-	-	-	
25		-			-	-	-	-	50.6	-	49.5	
26		-			-	46.4	-	-	-	-	-	
27		-			-	-	-	-	-	-	-	
28		-			-	-	-	51.0	-	-	-	
29		-			-	-	-	-	-	50.0	-	
30		-			-	-	-	-	-	-	-	
31		-			-	47.8	-	-	-	-	-	



## Temescal Creek near Corona, Calif.

Location.- Water-stage recorder, lat. 33°50'30", long. 117°30'45", in El Sobrante de San Jacinto grant, half a mile upstream from Blue Diamond Quarry and 4 miles south-east of Corona, Riverside County.

Records available.- January 1929 to September 1937.

Extremes.- Maximum discharge during year, 2,350 second-feet Feb. 6 (gage height, 8.10 feet); no flow during several months.  
1929-37: Maximum discharge, that of Feb. 6, 1937; no flow during part of each year.

Remarks.- Records fair. Numerous diversions and three storage reservoirs above station.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0.2	0.6	3.3	8	4.2	2.6	2.2
2					0	.2	.9	3.3	10	4.0	2.6	2.2
3					0	.1	.8	3.3	11	4.0	2.6	2.2
4					0	.1	.5	3.3	10	3.8	2.6	2.1
5					0	.1	.6	3.3	10	3.6	2.7	2.1
6					661	.1	.8	3.7	9	3.8	2.7	2.1
7					300	.1	.7	3.7	8	3.6	2.7	2.1
8					2.0	.1	.7	4.0	9	3.4	2.7	2.1
9					0	.1	.7	4.0	11	3.2	2.7	2.0
10					0	.1	.5	4.4	7.5	3.1	2.7	2.0
11					0	.1	.4	4.8	7	3.1	2.7	2.0
12					0	.1	.5	4.8	7	3.2	2.7	2.0
13					1.0	.2	.7	4.8	6.5	3.0	2.7	2.0
14					100	.2	.9	4.8	6.5	3.0	2.8	2.0
15					2.0	.3	1.1	4.8	6.5	3.0	2.8	2.0
16					0	.3	1.6	4.8	6.5	3.0	2.8	2.0
17					0	.3	1.4	4.8	7	3.0	2.8	2.0
18					0	.3	1.1	5	7.5	3.0	2.8	2.0
19					0	.3	1.4	5	7	3.0	2.8	1.9
20					0	.3	1.8	6	6.5	3.0	2.7	1.9
21					0	.3	2.0	7.5	6.5	2.9	2.7	1.9
22					0	.3	2.0	7	6	2.9	2.7	1.9
23					0	2.7	2.0	7.5	6	2.9	2.6	1.9
24					0	.7	2.0	8	5.5	2.8	2.6	1.9
25					.2	1.1	2.2	8	5	2.8	2.6	1.8
26					.2	1.1	2.2	7.5	4.8	2.8	2.5	1.8
27					.2	1.1	2.2	7	4.6	2.7	2.5	1.8
28					.2	.8	2.4	8	4.4	2.7	2.4	1.8
29					-	.7	3.0	8.5	4.6	2.6	2.4	1.8
30					-	.7	3.3	10	4.2	2.6	2.3	1.8
31					-	.5	-	9	-	2.6	2.3	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0	0	0	0	0			
November.....					0	0	0	0	0			
December.....					0	0	0	0	0			
Calendar year 1936.....					0	0	0	0	0			
January.....					0	0	0	0	0			
February.....					1,006.8	661	.1	36.0	2,000			
March.....					13.6	2.7	.4	.44	27			
April.....					410.0	3.3		1.37	81			
May.....					173.9	10	3.3	5.61	345			
June.....					213.1	11	4.2	7.10	423			
July.....					97.3	4.2	2.6	3.14	193			
August.....					81.8	2.8	2.3	2.64	162			
September.....					59.3	2.2	1.8	1.98	118			
Water year 1936-37.....					1,686.8	561	0	4.62	3,350			

## Chino Creek near Prado, Calif.

Location.- Water-stage recorder, lat. 33°53'40", long. 117°38'40", in El Rincon grant, on Chino-Rincon road 1 mile west of Prado, Riverside County. Altitude, 460 feet.

Records available.- January 1929 to September 1937.

Extremes.- Maximum discharge during year, 725 second-feet Feb. 6 (gage height, 10.30 feet); minimum discharge, 0.1 second-foot on many days.  
1929-37: Maximum discharge, 1,440 second-feet Jan. 1, 1934 (gage height, 10.50 feet); minimum, 0.1 second-foot at times during 1935-37.

Remarks.- Records good. Numerous irrigation diversions above station.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	0.4	2.1	60	14	38	26	8.5	8	2.9	0.3	0.4
2	.4	.4	2.5	24	13	37	31	8.5	6	1.7	.2	.5
3	.4	.4	3.6	15	12	35	29	8	6	1.2	.2	4.7
4	.4	.4	3.9	13	12	35	23	8	6	1.5	.2	.6
5	.4	.4	3.9	12	12	28	22	8.5	6.5	1.2	.2	.2
6	.5	.4	3.4	50	322	26	21	8.5	6.5	1.3	.2	.2
7	.4	.4	9	32	307	24	20	8	7	1.1	.2	.2
8	.4	.4	7	19	103	22	20	8	6.5	1.0	.2	.2
9	.2	.4	14	14	52	20	19	9	8.5	.8	.2	.4
10	.2	.4	7	13	42	20	18	9.5	10	.7	.2	.2
11	.3	.4	4.9	12	38	18	18	9.5	8	.5	.2	.2
12	.3	.3	4.2	13	35	24	19	9	8.5	.5	.2	.2
13	.3	.3	4.2	58	37	83	18	8.5	8.5	.4	.2	.3
14	.3	.3	4.9	23	413	29	18	7	7.5	.3	.2	.4
15	.3	.4	14	17	186	28	17	7	8	.3	.2	.2
16	.4	.4	15	15	91	208	16	7.5	7	.3	.2	.2
17	.4	.4	10	14	60	148	15	8	7	.3	.2	.2
18	.4	.5	7.5	13	52	62	15	7.5	8	.3	.2	.2
19	.4	.6	7	13	46	46	14	6	5.5	.3	.2	.2
20	.4	.6	6.5	12	42	40	14	6	4.2	.3	.2	.2
21	.5	.7	6	11	39	39	13	6	3.7	.3	.2	.3
22	.5	.8	6	10	38	128	13	6	4.0	.3	.4	.3
23	.5	.7	6	11	36	82	12	7.5	2.1	.3	.2	.4
24	.5	.7	6	11	35	52	12	8.5	6	.3	.3	.4
25	.5	.7	7	11	76	112	13	9	4.5	.2	.2	.4
26	.5	.7	7	11	70	49	10	12	3.1	.2	.2	.4
27	.5	1.1	48	11	44	43	10	10	2.0	.2	.2	.4
28	.6	1.2	87	11	40	40	9.5	9	2.4	.2	.3	.5
29	.8	1.4	32	12	-	36	9	9	3.3	.3	.2	.5
30	.3	2.7	16	14	-	32	9	8	4.6	.3	.3	.4
31	.5	-	227	40	-	30	-	8	-	.3	.3	-

  

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	12.9	0.8	0.2	0.42	26
November.....	18.9	2.7	.3	.63	37
December.....	582.6	227	2.1	18.8	1,160
Calendar year 1936.....	2,730.3	227	.1	7.46	5,420
January.....	595	60	10	19.2	1,180
February.....	2,287	413	12	81.0	4,500
March.....	1,612	208	18	52	3,200
April.....	503.5	31	9	16.8	999
May.....	253.5	12	6	8.18	503
June.....	178.9	10	2.0	5.96	355
July.....	19.8	2.9	.2	.64	39
August.....	6.9	.4	.2	.22	14
September.....	13.9	4.7	.2	.46	28
Water year 1936-37.....	6,064.9	413	.2	16.6	12,040

## San Antonio Creek near Claremont, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}12'50''$ , long.  $117^{\circ}40'00''$ , in NW  $\frac{1}{4}$  sec. 36, T. 2 N., R. 8 W., at highway bridge, half a mile above Southern California Edison Co.'s Sierra power plant and 8 miles northeast of Claremont. Altitude, about 3,400 feet.

Drainage area.- 16.9 square miles.

Records available.- March 1901 to September 1937.

Average discharge.- 20 years (1917-37), 7.80 second-feet. Average combined discharge of creek and canal, 20 years (1917-37), 21.0 second-feet.

Extremes.- Maximum discharge during year, 175 second-feet Feb. 14 (gage height, 5.00 feet); minimum, 0.3 second-foot Oct. 1, 2, and 5-16.

1917-37: Maximum discharge, 1,020 second-feet Dec. 19, 1921 (gage height, 8.20 feet); minimum, less than 0.1 second-foot for several days during October 1934.

Remarks.- Records good. Discharge for Oct. 29 to Nov. 11, July 6-11, July 14 to Aug. 8, Aug. 17-26 computed on basis of records for stations on adjacent streams. See record for Southern California Edison Co.'s canal near Claremont, which diverts water above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	0.5	0.6	3.8	1.9	64	75	59	36	10	1.2	0.9
2	.5	.5	.6	2.8	1.8	61	75	57	36	9	1.2	.9
3	.4	.5	.6	2.4	1.7	59	72	54	32	9	1.2	.9
4	.4	.5	.6	2.0	1.7	59	70	56	31	8.5	1.2	.9
5	.5	.5	.6	1.9	1.9	57	70	54	29	8	1.2	.9
6	.5	.5	.6	2.0	37	56	70	56	27	7.5	1.2	.9
7	.3	.5	.6	1.7	94	54	73	54	26	7.5	1.2	.9
8	.3	.5	.6	1.7	75	53	78	53	24	7	1.2	.9
9	.3	.5	.5	1.6	64	52	78	52	22	7	1.2	.9
10	.3	.5	.6	1.5	57	52	80	52	20	6.5	1.2	.9
11	.3	.5	.6	1.5	52	50	80	52	19	6	1.1	.9
12	.3	.5	.6	1.5	49	93	78	52	18	5.5	1.1	.8
13	.3	.5	.5	1.5	65	123	76	53	18	5	1.0	.9
14	.3	.4	.6	1.5	166	116	80	59	16	5	1.0	.9
15	.3	.4	4.6	1.5	169	120	86	64	15	4.8	1.0	.9
16	.3	.5	5.4	1.5	158	120	94	64	15	4.5	1.0	.9
17	.6	.5	3.1	1.4	136	118	94	61	14	4.2	1.0	.9
18	.6	.5	2.0	1.4	128	115	90	58	14	4.0	1.0	.9
19	.6	.5	1.7	1.4	116	111	90	54	13	3.5	.9	.9
20	1.8	.5	1.5	1.3	113	113	86	52	13	3.0	.9	1.0
21	.7	.6	1.3	1.3	113	116	86	50	12	2.5	.9	.9
22	.6	.6	1.2	1.3	107	109	86	48	12	2.0	.9	1.0
23	.6	.7	1.2	1.2	102	98	84	48	11	1.8	.9	1.1
24	.6	.8	1.1	1.2	100	92	82	44	11	1.5	.8	1.0
25	.6	.8	1.3	1.2	96	86	80	44	10	1.4	.8	.9
26	.5	.7	1.1	1.2	86	80	78	43	10	1.3	.8	.9
27	.5	.6	6.4	1.2	73	78	75	39	10	1.3	.8	.9
28	.5	.6	4.2	1.1	68	73	68	38	10	1.3	.9	.9
29	.5	.6	2.6	1.4	-	70	62	38	10	1.2	1.0	1.0
30	.5	.6	3.6	2.2	-	70	61	37	10	1.2	1.0	1.0
31	.5	-	8.5	1.7	-	72	-	36	-	1.2	1.0	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					30.9	18	0.3	1.0	61			
November.....					16.5	.8	.4	.55	33			
December.....					59.0	8.5	.5	1.90	117			
Calendar year 1936.....					678.7	31	.3	1.85	1,350			
January.....					50.9	3.8	1.1	1.64	101			
February.....					2,233	169	1.7	79.3	4,430			
March.....					2,588	123	50	83.5	5,180			
April.....					2,357	94	61	78.6	4,680			
May.....					1,581	64	36	51.0	3,140			
June.....					544	36	10	18.1	1,080			
July.....					142.2	10	1.2	4.59	282			
August.....					31.8	1.2	.8	1.03	63			
September.....					27.6	1.1	.8	.92	55			
Water year 1936-37.....					9,661.9	169	.3	26.5	19,170			

Combined discharge, in second-feet, of San Antonio Creek and Southern California Edison Co.'s canal near Claremont, Calif., for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	8.1	7.7	22	17.7	85	96	80	57	31	20	16.4
2	7.7	8.0	7.7	21	17.6	82	96	78	57	30	19.5	16.4
3	7.9	7.5	7.6	19.8	17.5	80	93	75	53	30	19.5	15.9
4	7.6	7.3	8.1	19.3	17.5	80	91	77	52	30	19.5	15.9
5	7.5	7.3	7.8	19.1	18.0	78	91	75	50	29	19.2	15.9
6	7.1	7.5	7.9	20	56	77	91	77	48	28	19.2	15.9
7	7.1	7.7	7.6	19.3	112	75	94	75	47	28	19.2	15.9
8	7.1	7.6	7.7	18.8	93	74	99	74	46	28	18.2	15.9
9	7.1	8.0	7.7	18.2	84	73	99	73	43	28	18.2	15.9
10	6.9	7.5	7.9	18.1	77	73	101	73	41	28	17.2	15.9
11	6.9	8.1	7.7	17.8	72	71	101	73	40	27	17.1	15.4
12	6.9	7.4	7.9	17.3	69	114	99	73	39	26	17.1	14.8
13	6.6	7.3	7.6	17.9	85	144	97	74	39	26	16.0	14.9
14	6.6	6.9	7.7	17.3	186	137	101	80	37	26	16.0	13.9
15	6.6	7.1	14.2	17.3	189	141	107	85	36	26	16.0	13.9
16	7.4	7.2	20	17.1	178	141	115	85	36	26	16.0	13.9
17	8.8	7.1	18.0	16.6	156	139	116	82	35	25	16.0	13.9
18	8.8	7.2	16.0	16.6	149	134	111	79	35	25	16.0	13.9
19	7.7	7.1	15.7	16.6	137	132	111	75	34	24	15.9	13.9
20	25	6.9	16.0	16.5	134	134	107	73	34	24	15.9	14.0
21	7.1	7.4	15.3	15.8	134	137	107	71	33	24	15.9	13.9
22	7.0	7.9	15.2	16.5	128	130	107	69	33	23	15.9	14.0
23	7.1	8.7	15.2	16.1	123	119	105	69	32	23	15.9	14.1
24	7.1	7.9	14.7	16.1	121	113	103	65	32	22	15.8	14.0
25	7.1	8.1	15.0	15.9	117	107	101	65	31	21	15.8	13.9
26	7.3	7.8	15.1	16.1	107	101	99	64	31	21	15.8	13.9
27	7.3	7.9	22	16.4	94	99	96	60	31	21	15.8	13.9
28	7.3	7.6	22	16.3	89	94	89	59	31	21	16.9	13.9
29	7.3	7.9	19.7	16.9	-	91	83	59	31	21	17.0	14.0
30	8.0	7.7	20	17.7	-	91	82	58	31	21	17.0	14.0
31	8.6	-	28	18.4	-	93	-	57	-	21	16.5	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						245.9	25	6.6	7.93	488		
November.....						227.7	8.7	6.9	7.59	452		
December.....						410.7	28	7.6	13.2	815		
Calendar year 1936.....						5,377.1	52	6.5	14.7	10,670		
January.....						548.7	22	15.8	17.7	1,090		
February.....						2,778.3	189	17.5	99.2	5,510		
March.....						3,259	144	71	104	8,480		
April.....						2,997	115	82	99.6	5,920		
May.....						2,232	85	57	72.0	4,430		
June.....						1,174	57	31	39.1	2,330		
July.....						784	31	21	25.3	1,560		
August.....						530.0	20	15.8	17.1	1,050		
September.....						442.1	16.4	13.9	14.7	877		
Water year 1936-37.....						15,599.4	189	6.6	42.7	30,940		

Southern California Edison Co.'s canal near Claremont, Calif.

Location.— Hook gage, lat.  $34^{\circ}12'45''$ , long.  $117^{\circ}40'15''$ , in NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 36, T. 2 N., R. 8 W., at weir in tailrace of Sierra power house on San Antonio Creek,  $1\frac{1}{2}$  miles below intake and 8 miles northeast of Claremont. Altitude, about 3,160 feet.

Records available.— January 1917 to September 1937.

Average discharge.— 20 years, 13.3 second-feet.

Remarks.— This canal diverts water from San Antonio Creek in SE $\frac{1}{4}$  sec. 25, T. 2 N., R. 8 W., 1 mile above gaging station on San Antonio Creek near Claremont. Water is used first for power development at Sierra power house and then for irrigation. Discharge record furnished by Southern California Edison Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.1	7.6	7.1	18.0	15.8	21	21	21	21	21	19.0	15.5
2	7.4	7.5	7.1	18.0	15.8	21	21	21	21	21	18.3	15.5
3	7.5	7.0	7.0	17.4	15.8	21	21	21	21	21	18.3	15.0
4	7.2	6.8	7.5	17.3	15.8	21	21	21	21	21	18.3	15.0
5	7.2	6.8	7.2	17.2	16.1	21	21	21	21	21	18.0	15.0
6	6.8	7.0	7.5	18.2	19.2	21	21	21	21	21	18.0	15.0
7	6.8	7.2	7.0	17.6	17.8	21	21	21	21	21	18.0	15.0
8	6.8	7.1	7.1	17.1	18.4	21	21	21	21	21	17.0	15.0
9	6.8	7.5	7.2	16.6	20	21	21	21	21	21	17.0	15.0
10	6.6	7.0	7.3	16.6	20	21	21	21	21	21	16.0	15.0
11	6.6	7.6	7.1	16.3	20	21	21	21	21	21	16.0	14.5
12	6.6	6.9	7.3	15.8	20	21	21	21	21	21	16.0	14.0
13	6.3	6.9	7.1	16.3	20	21	21	21	21	21	15.0	14.0
14	6.3	6.6	7.1	15.8	20	21	21	21	21	21	15.0	13.0
15	6.3	6.7	9.6	15.8	20	21	21	21	21	21	15.0	13.0
16	7.1	6.7	15.1	15.6	20	21	21	21	21	21	15.0	13.0
17	8.2	6.6	14.9	15.2	20	21	21	21	21	21	15.0	13.0
18	8.2	6.6	14.0	15.2	21	21	21	21	21	21	15.0	13.0
19	7.1	6.6	14.0	15.2	21	21	21	21	21	21	15.0	13.0
20	6.7	6.4	14.5	15.2	21	21	21	21	21	21	15.0	13.0
21	6.4	6.8	14.0	14.5	21	21	21	21	21	21	15.0	13.0
22	6.4	7.3	14.0	15.2	21	21	21	21	21	21	15.0	13.0
23	6.5	8.0	14.0	14.9	21	21	21	21	21	21	15.0	13.0
24	6.5	7.1	13.6	14.9	21	21	21	21	21	21	15.0	13.0
25	6.5	7.3	13.7	14.7	21	21	21	21	21	20	15.0	13.0
26	6.8	7.1	14.0	14.9	21	21	21	21	21	20	15.0	13.0
27	6.8	7.3	16.0	15.2	21	21	21	21	21	20	15.0	13.0
28	6.8	7.0	17.7	15.2	21	21	21	21	21	20	16.0	13.0
29	6.8	7.3	17.1	15.5	-	21	21	21	21	20	16.0	13.0
30	7.5	7.1	16.5	15.5	-	21	21	21	21	20	16.0	13.0
31	8.1	-	20	16.7	-	21	-	21	-	20	15.5	-
Month	Second-foot-days					Maximum	Minimum	Mean	Run-off in acre-feet			
October.....	214.7					8.2	6.3	6.93	426			
November.....	211.2					6.0	6.4	7.04	419			
December.....	353.1					20	7.0	11.4	700			
Calendar year 1936.....	4,701.2					25	5.7	12.5	9,320			
January.....	497.6					18.2	14.5	16.1	987			
February.....	545.7					21	15.8	19.5	1,060			
March.....	651					21	21	21.0	1,290			
April.....	630					21	21	21.0	1,250			
May.....	651					21	21	21.0	1,290			
June.....	630					21	21	21.0	1,250			
July.....	644					21	20	20.8	1,280			
August.....	498.4					19.0	15.0	16.1	989			
September.....	414.5					15.5	13.0	13.6	822			
Water year 1936-37.....	5,940.2					21	6.3	16.3	11,780			

## Santiago Creek near Villa Park, Calif.

Location.- Water-stage recorder, lat.  $33^{\circ}49'10''$ , long.  $117^{\circ}46'30''$ , in SW $\frac{1}{4}$  sec. 13, T. 4 S., R. 9 W., five-eighths of a mile below diversion dam of Serrano and Carpenter Irrigation Districts and  $1\frac{1}{2}$  miles northeast of Villa Park. Altitude, about 420 feet.

Drainage area.- 83.8 square miles.

Records available.- June 1920 to September 1937.

Average discharge.- 17 years, 6.98 second-feet.

Extremes.- Maximum discharge during year, 1,360 second-feet Feb. 6 (gage height, 4.45 feet); no flow for several months.

1920-37: Maximum discharge, about 11,000 second-feet Feb. 16, 1927 (gage height, 8.4 feet); no flow for several months of each year.

Remarks.- Records fair. Irvine Co. and Serrano and Carpenter Irrigation Districts divert above gage. Flow completely regulated by storage in Santiago Reservoir.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.4	0.1	1.2	0.4	8.5	96					
2	.1	.4	.1	1.1	.2	7.5	96					
3	.1	.2	.1	.5	.7	6	104					
4	.1	.1	.1	.2	.5	4.7	96					
5	.1	.1	.1	.5	.2	4.0	93					
6	.1	.1	.1	4.7	595	4.2	39					
7	.1	.1	.1	2.3	145	4.2	26					
8	.1	.1	.1	1.9	28	4.2	72					
9	.1	.1	.1	1.8	14	4.2	1.0					
10	.1	.1	.1	1.8	5.5	4.2	.5					
11	.1	.1	.1	.8	4.0	4.9	.4					
12	.1	.1	.1	1.9	1.9	8.5	.3					
13	.1	.1	.1	2.6	52	28	.3					
14	.1	.1	.1	2.0	316	20	.2					
15	.1	.1	1.5	1.9	59	78	.2					
16	.5	.1	.8	1.9	31	538	.1					
17	.4	.1	.7	.4	25	381	.1					
18	.4	.1	.6	.3	18	269	.1					
19	.4	.1	.5	.7	16	237	0					
20	.4	.1	.3	.7	15	217	0					
21	.4	.1	.1	.3	12	208	0					
22	.3	.1	.1	.1	11	269	0					
23	.3	.1	.1	.1	9.5	257	0					
24	.3	.1	.1	.1	8.5	225	0					
25	.3	.1	.4	.1	26	253	0					
26	.3	.1	.4	.1	19	208	0					
27	.3	.1	15	.1	13	179	0					
28	.3	.1	3.8	.1	12	146	0					
29	.3	.1	1.9	.3	-	135	0					
30	.3	.1	3.8	.6	-	122	0					
31	.5	-	41	1.1	-	112	-					
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				7.2	0.5	0.1	0.23	14				
November.....				5.7	.4	.1	.12	7.5				
December.....				70.5	41	.1	2.27	140				
Calendar year 1936.....				186.7	41	0	.51	370				
January.....				32.2	4.7	.1	1.04	64				
February.....				1,433.4	595	.2	51.2	2,840				
March.....				3,927.1	556	4.0	127	7,790				
April.....				625.2	104	0	20.8	1,240				
May.....				0	0	0	0	0				
June.....				0	0	0	0	0				
July.....				0	0	0	0	0				
August.....				0	0	0	0	0				
September.....				0	0	0	0	0				
Water year 1936-37.....				6,099.3	595	0	16.7	12,100				

## SANTA ANA RIVER BASIN

Santiago Creek at Santa Ana, Calif.

Location.- Water-stage recorder, lat. 33°46'00", long. 117°52'45", in Santiago de Santa Ana grant, at end of Baker Street, Santa Ana, Orange County. Altitude, about 120 feet.

Records available.- January 1929 to September 1937.

Extremes.- Maximum discharge during year, 3,270 second-feet Feb. 6 (gage height, 6.90 feet); no flow during most of year.

1929-37: Maximum discharge, that of Feb. 6, 1937; no flow during most of each year.

Remarks.- Records fair. Discharge for Jan. 1 to Feb. 5, Feb. 8, 9, 17, Mar. 13, 14, Apr. 9-19 computed on basis of five discharge measurements and records for nearby streams. Irvine Co. and Serrano and Carpenter Irrigation Districts divert water above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0	1.0	3.0	0	81					
2		0	0	.5	.5	0	79					
3		0	0	.4	0	0	86					
4		0	0	.2	0	0	85					
5		0	0	.2	0	0	88					
6		13	0	10	1,350	0	51					
7		6	0	1.0	110	0	22					
8		0	0	.8	20	0	65					
9		0	0	.6	1.0	0	3.5					
10		0	0	.5	0	0	2.0					
11		0	0	.5	0	0	1.5					
12		0	0	.5	0	0	1.2					
13		0	0	.5	146	5	1.0					
14		0	0	.3	838	10	.9					
15		0	8	.1	68	64	.7					
16		0	0	0	17	559	.5					
17		0	0	0	5	392	.3					
18		0	0	0	0	294	.2					
19		0	0	0	0	244	.1					
20		0	0	0	0	204	0					
21		0	0	0	0	188	0					
22		0	0	20	0	235	0					
23		0	0	6	0	214	0					
24		0	0	7	0	208	0					
25		0	0	2.0	80	208	0					
26		0	0	15	10	178	0					
27		0	73	5	0	168	0					
28		0	32	7	0	155	0					
29		0	6	10	-	122	0					
30		0	2	12	-	106	0					
31		-	180	7	-	91	-					
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						19.0	13	0	.65	38		
December.....						301.0	180	0	9.71	597		
Calendar year 1936.....						438.9	180	0	1.20	870		
January.....						114.1	20	0	3.68	228		
February.....						2,648.5	1,350	0	94.6	5,260		
March.....						3,646	559	0	118	7,230		
April.....						568.9	88	0	19.0	1,130		
May.....						0	0	0	0	0		
June.....						0	0	0	0	0		
July.....						0	0	0	0	0		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						7,297.5	1,350	0	20.0	14,470		

Irvine ranch drainage canal near Tustin, Calif.

Location.- Water-stage recorder, lat. 33°30'50", long. 117°51'30", in San Joaquin grant, on Lane Road bridge 5 miles south of Tustin, Orange County.

Drainage area.- 93 square miles.

Records available.- November 1930 to September 1937.

Extremes.- Maximum discharge during year, 5,020 second-feet Feb. 6 (gage height, 17.1 feet); no flow during several periods.

1930-37: Maximum discharge, that of Feb. 6, 1937; no flow for several periods during 1932-37.

Remarks.- This canal carries storm run-off from foothills, crosses ranch, and drains the soil in a small area between Tustin and the ocean. Record furnished by Orange County Flood Control District, through M. N. Thompson, chief engineer.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	40	1.8	2.0	0.9	0.1				
2			0	15	.6	2.0	.8	.1				
3			0	9	.5	2.0	.7	.1				
4			0	5.5	.5	2.0	.7	.1				
5			0	4.8	.5	2.0	.6	0				
6			0	21	2,570	2.0	.5	0				
7			0	33	550	1.0	.5	0				
8			0	13	28	1.0	.5	0				
9			0	5.5	7	1.0	.5	0				
10			0	2.8	5	1.0	.5	0				
11			0	1.8	5	1.0	.5	0				
12			0	.6	5.7	1.0	.5	0				
13			0	23	139	25	.5	0				
14			0	5.5	1,300	1.0	.5	0				
15			0	2.8	181	132	.5	0				
16			0	.6	34	118	.5	0				
17			0	.2	5	1.0	.4	0				
18			0	.2	5	1.0	.4	0				
19			0	.2	4.0	1.0	.3	0				
20			0	.1	4.0	1.0	.3	0				
21			0	.1	3.0	1.0	.3	0				
22			0	.1	3.0	104	.3	0				
23			0	.1	2.0	6	.3	0				
24			0	.1	2.0	6	.2	0				
25			0	.2	30	6	.2	0				
26			0	.1	10	4.0	.1	0				
27			58	0	7	3.0	.1	0				
28			153	.1	3.0	2.0	.1	0				
29			13	.4	-	1.0	.1	0				
30			.6	36	-	1.0	.1	0				
31			419	10	-	1.0	-	0				
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0	0	0	0	0			
November.....					0	0	0	0	0			
December.....					643.6	419	0	20.8	1,280			
Calendar year 1936.....					1,305.1	419	0	3.57	2,590			
January.....					233.8	40	0	7.54	454			
February.....					4,904.6	2,570	.5	175	9,730			
March.....					453.0	132	1.0	14.0	859			
April.....					12.4	.9	.1	.41	25			
May.....					.4	.1	0	.01	.6			
June.....					0	0	0	0	0			
July.....					0	0	0	0	0			
August.....					0	0	0	0	0			
September.....					0	0	0	0	0			
Water year 1936-37.....					6,227.8	2,570	0	17.1	12,360			



## SAN GABRIEL RIVER BASIN

San Gabriel River near Camp Bonita, Calif.

Location.— Water-stage recorder, lat.  $34^{\circ}14'15''$  (revised), long.  $117^{\circ}49'10''$  (revised), in SW $\frac{1}{4}$  sec. 22, T. 2 N., R. 9 W., above junction with Susanna Canyon and 3 miles west of Camp Bonita, Calif.

Records available.— December 1932 to September 1937. October 1927 to September 1932, at site 3 miles upstream.

Extremes.— Maximum discharge during water year 1935-36, 1,290 second-feet Feb. 11; minimum daily discharge, 8 second-feet Aug. 19.  
Maximum discharge during water year 1936-37, 2,180 second-feet Feb. 14; minimum, 8.5 second-feet Oct. 7.  
1932-37: Maximum discharge, 8,500 second-feet Jan. 1, 1934; minimum, 1.5 second-feet Oct. 1, 1934.

Remarks.— Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, 1935-37  
1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	17	16	16	29	128	69	55	35	18	15	11
2	18	18	16	16	201	121	62	54	35	16	14	12
3	17	21	17	16	56	117	67	54	34	16	14	13
4	17	19	18	16	44	115	116	55	33	16	13	14
5	16	18	18	16	35	113	86	53	31	16	13	13
6	16	17	18	15	29	108	77	51	31	17	12	12
7	14	17	18	15	27	104	72	49	31	18	12	11
8	14	17	18	15	25	97	72	48	31	18	14	10
9	14	17	16	15	25	93	76	47	31	20	16	10
10	14	18	16	15	24	88	77	46	30	21	15	10
11	14	16	16	15	292	86	76	45	28	20	15	11
12	16	16	16	16	384	85	78	44	27	19	14	11
13	16	16	16	15	297	81	79	42	27	17	13	11
14	16	16	16	15	245	77	80	40	27	16	12	12
15	17	16	16	15	295	75	79	40	26	15	12	11
16	16	16	16	15	319	74	79	40	27	14	12	11
17	14	16	16	15	226	73	78	39	26	14	12	10
18	14	17	16	15	268	72	77	39	24	14	12	10
19	14	17	15	14	181	70	74	38	24	15	8	10
20	15	17	15	14	141	68	72	38	24	15	10	10
21	16	17	16	14	121	68	69	37	23	15	12	9.5
22	16	17	16	14	128	68	69	36	22	15	12	9.5
23	15	17	16	15	428	65	69	38	23	15	11	9.5
24	16	17	16	15	260	67	66	36	22	15	11	9
25	15	17	16	15	210	66	63	35	21	15	11	9.5
26	16	17	16	14	177	62	61	36	20	16	10	10
27	16	16	16	14	162	59	60	36	20	18	11	9.5
28	15	16	15	13	146	57	61	36	20	18	10	9.5
29	16	16	15	14	151	56	60	36	19	17	11	9.5
30	16	15	15	14	-	51	59	36	19	15	10	9.5
31	18	-	16	14	-	93	-	36	-	15	10	-

Discharge, in second-feet, of San Gabriel River near Camp Bonita, Calif., 1935-37--Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	23	17	145	122	280	334	253	156	85	49	30
2	10	20	17	107	101	266	345	253	154	82	49	29
3	11	19	17	83	89	250	340	257	150	78	48	30
4	10	18	19	73	86	260	329	257	147	77	47	30
5	10	17	19	78	104	273	324	261	147	78	45	30
6	9.5	17	17	101	564	266	324	257	143	77	44	29
7	9.5	17	17	92	1,020	266	324	245	135	76	43	29
8	10	16	16	78	580	256	319	245	128	75	42	29
9	10	16	16	76	397	253	313	240	122	72	42	29
10	10	16	16	70	316	250	319	240	115	71	42	28
11	9.5	16	16	65	276	250	319	228	109	71	42	27
12	9.5	16	16	68	208	410	319	228	102	69	40	28
13	9	16	16	76	335	326	313	249	101	69	39	27
14	9	15	16	65	1,440	348	324	261	99	68	39	27
15	9.5	15	128	63	1,090	375	350	266	98	68	38	26
16	12	15	233	60	782	593	345	253	97	66	38	26
17	21	15	68	58	604	601	313	236	97	64	38	26
18	21	13	60	60	554	674	303	224	94	60	38	26
19	22	13	50	60	501	607	303	204	94	58	38	26
20	19	13	44	60	442	543	299	201	95	56	37	27
21	16	14	40	58	404	437	303	201	95	52	37	27
22	16	15	38	58	375	543	294	201	95	51	36	28
23	15	24	37	58	363	501	289	198	95	55	34	26
24	15	22	34	56	368	476	284	194	95	58	33	25
25	15	18	40	56	386	427	289	188	94	56	31	25
26	15	17	40	56	346	408	289	188	92	54	31	25
27	14	17	182	54	317	404	289	177	90	51	31	25
28	14	17	168	54	294	394	275	171	92	50	31	25
29	14	16	80	70	-	392	266	174	89	50	31	26
30	17	17	140	98	-	361	261	171	88	51	30	26
31	26	-	312	148	-	340	-	163	-	51	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1935	493	18	14	15.6	958
November	507	21	15	16.9	1,010
December	508	18	15	16.4	1,010
Calendar year 1935	28,239.0	634	14	7.74	56,000
January 1936	460	16	13	14.8	912
February	4,894	428	24	169	9,710
March	2,567	128	66	82.8	5,090
April	2,133	116	59	72.3	4,330
May	1,315	55	35	42.4	2,610
June	781	35	19	26.4	1,570
July	509	21	14	16.4	1,010
August	377	16	8	12.2	748
September	318	14	9	10.6	631
Water year 1935-36	14,912.0	428	8	40.7	29,590
October 1936	418.0	28	9	13.5	829
November	503	24	13	16.8	998
December	1,859	312	16	60.0	3,690
Calendar year 1936	16,194.0	428	8	44.2	32,130
January 1937	2,304	148	54	74.3	4,670
February	12,483	1,440	86	445	24,720
March	12,580	826	250	404	24,830
April	9,306	350	261	310	18,460
May	6,854	266	163	222	13,650
June	3,308	156	88	110	6,560
July	1,998	85	50	64.5	3,960
August	1,192	49	30	38.5	2,380
September	817	30	25	27.2	1,680
Water year 1936-37	53,574.0	1,440	9	147.0	106,200

## SAN GABRIEL RIVER BASIN

San Gabriel River near Azusa, Calif.

Location.- Water-stage recorder, lat. 34°09'30", long. 117°54'05", in NW¼ sec. 23, T. 1 N., R. 10 W., 1 mile above power house of city of Pasadena and 2 miles north of Azusa.

Drainage area.- 214 square miles.

Records available.- 1894 to September 1937.

Average discharge.- 41 years (1896-1937), 106 second-feet. Average combined discharge of river and diversions, corrected for storage and evaporation in Morris Reservoir, 42 years (1895-1937), 154 second-feet.

Extremes.- Maximum discharge during year, 1,950 second-feet Feb. 20 (gage height, 5.84 feet); no flow for long periods.

1894-1937: Maximum discharge observed, 40,000 second-feet Jan. 18, 1916; no flow for several months each year.

Remarks.- Records good. Results of some discharge measurements furnished by Los Angeles County Flood Control District. During the year flow was completely regulated by releases from Morris Reservoir of Pasadena Water Department (capacity, 39,350 acre-feet). Azusa Canal (formerly Southern California Edison Co.'s power canal) diverts above high-water line of Morris Reservoir at point about 5 miles above station. This run-off is comparable to combined discharge of San Gabriel River and Southern California Edison Co.'s power canal as published for 1894-1933.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	80	80	678	569	360	192	23	4.5	24
2			0	180	130	475	632	331	168	18	4.8	27
3			0	150	130	632	759	339	145	14	4.8	30
4			0	185	130	491	852	339	150	12	4.5	32
5			0	233	130	576	768	343	229	10	4.5	32
6			0	156	128	543	597	347	312	8	4.5	32
7			0	282	99	537	625	343	325	6	4.8	33
8			0	282	94	26	560	327	254	5.5	4.8	33
9			0	282	243	8	611	323	250	5.5	5	34
10			0	282	336	157	569	315	132	5.5	4.8	35
11			0	282	255	543	532	303	94	5	3.8	36
12			0	266	290	330	85	295	100	5	3.6	38
13			0	200	244	376	66	295	101	5	3.6	43
14			0	282	110	648	53	303	98	4.8	3.8	44
15			0	282	242	1,020	87	307	87	4.8	3.6	38
16			0	183	480	1,530	246	307	84	4.8	3.4	35
17			10	73	652	1,550	549	323	82	4.5	3.2	40
18			57	73	1,200	1,310	537	307	85	4.5	2.9	38
19			89	73	1,600	1,370	513	311	70	4.5	3.2	33
20			91	73	1,770	625	511	339	66	4.3	3.2	33
21			87	73	1,450	597	511	360	68	4.1	3.4	32
22			93	73	1,070	655	511	254	64	4.1	3.2	31
23			93	73	597	1,090	485	250	58	4.1	3.2	30
24			93	73	566	1,470	465	261	52	4.1	8	26
25			95	73	438	1,200	455	261	43	4.1	15	26
26			93	73	716	730	430	261	37	4.1	20	26
27			93	73	812	576	430	254	35	3.8	23	26
28			107	75	740	583	475	240	39	3.8	20	25
29			130	76	-	516	391	240	32	4.1	18	4.1
30			130	80	-	531	368	231	29	4.3	19	1.0
31			95	80	-	537	-	213	-	4.5	20	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		Run-off in acre-feet*		
October.....				0	0	0	0	0		1,195		
November.....				0	0	0	0	0		1,462		
December.....				1,356	130	0	43.7	2,690		10,949		
Calendar year 1936.....				12,264.3	224	0	33.5	24,370		-		
January.....				4,721	282	73	152	9,560		11,574		
February.....				14,732	1,770	80	526	29,220		55,612		
March.....				21,610	1,550	8	707	45,460		58,082		
April.....				14,322	852	66	477	28,410		35,567		
May.....				9,282	360	213	299	18,410		21,278		
June.....				3,471	325	29	116	6,880		10,941		
July.....				199.8	23	3.8	6.45	596		6,043		
August.....				234.1	23	2.9	7.55	464		3,413		
September.....				917.1	44	1.0	30.6	1,820		2,538		
Water year 1936-37.....				71,145.0	1,770	0	195	141,100		218,344		

\*Combined discharge of river and canal, adjusted for storage and evaporation in Morris Reservoir and releases from San Gabriel No. 2 Flood Control Reservoir, furnished by city of Pasadena.

## West Fork of San Gabriel River at Camp Rincon, Calif.

Location.— Water-stage recorder, lat. 34°14'30", long. 117°51'50", near center of sec. 19, T. 2 N., R. 9 W., half a mile below North Fork of San Gabriel River and quarter of a mile above Camp Rincon.

Drainage area.— 102 square miles.

Records available.— October 1927 to September 1937.

Extremes.— Maximum discharge during year, 2,000 second-feet Feb. 14 (gage height, 7.11 feet); minimum, 2.3 second-feet Oct. 11.

1927-37: Maximum discharge, 5,320 second-feet Jan. 1, 1934; no flow at times during 1928 and 1929.

Remarks.— Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	23	8.5	158	101	263	378	219	140	56	47	26
2	3.9	12	9	117	91	257	385	216	133	54	44	17
3	4.2	9.5	21	101	88	254	364	213	133	53	45	17
4	3.9	12	36	91	84	248	350	204	195	53	37	15
5	3.9	18	13	95	88	236	342	204	374	53	36	15
6	3.5	12	12	117	513	230	336	204	350	52	44	15
7	3.1	9.5	12	101	576	225	326	202	303	50	44	15
8	3.1	7	12	93	329	225	322	199	309	50	44	15
9	2.9	12	11	84	284	225	306	196	295	50	42	14
10	2.9	9	11	78	239	225	284	193	90	48	42	13
11	2.7	9	10	75	219	222	281	187	84	47	41	13
12	2.9	9	11	80	207	435	278	184	80	47	41	13
13	3.1	9	11	78	387	851	272	182	80	47	40	16
14	2.9	8	12	73	1,640	520	272	179	79	47	41	16
15	3.3	7	159	70	1,010	490	272	174	75	47	44	15
16	3.9	7	212	66	613	761	272	168	73	45	42	15
17	7.5	7	134	61	406	580	263	168	73	47	41	14
18	13	7	67	59	370	533	257	168	71	45	44	13
19	38	6.5	44	58	350	483	254	168	68	44	45	13
20	15	7	37	54	332	457	251	168	66	42	44	14
21	10	8	32	52	332	439	251	165	64	42	35	15
22	9.5	8.5	28	52	319	485	248	165	64	41	35	15
23	8.5	9	23	52	303	442	245	165	63	39	32	15
24	9.5	9	19	52	306	439	236	163	61	37	31	14
25	7	8.5	29	53	322	424	233	163	63	37	30	13
26	6.5	8.5	23	52	294	410	236	163	63	35	29	12
27	12	8.5	423	52	281	412	236	158	63	32	26	13
28	6.5	8.5	266	52	269	399	230	158	61	32	25	13
29	7	9	117	66	-	361	225	158	58	37	34	14
30	9.5	9	173	142	-	374	219	158	56	45	36	15
31	19	-	362	133	-	378	-	152	-	45	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	232.2	38	2.7	7.49	461
November.....	287	23	6.5	9.57	569
December.....	2,337.5	423	8.5	75.4	4,640
Calendar year 1936.....	13,290.7	423	2.5	36.3	26,360
January.....	2,467	158	52	79.6	4,890
February.....	10,353	1,640	84	370	20,530
March.....	12,303	851	222	397	24,400
April.....	8,424	385	219	281	16,710
May.....	5,564	219	182	179	11,040
June.....	3,886	374	56	123	7,310
July.....	1,399	56	32	45.1	2,770
August.....	1,206	47	26	32.9	2,390
September.....	443	26	12	14.8	879
Water year 1936-37.....	48,701.7	1,640	2.7	135	96,590

## SAN GABRIEL RIVER BASIN

Azusa Canal near Azusa, Calif.

Location.- Water-stage recorder, lat. 34°10'40", long. 117°52'15", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7, T. 1 N., R. 9 W., at Morris Dam of city of Pasadena, 4 miles northeast of Azusa.

Records available.- 1898 to September 1937.

Average discharge.- 41 years, 46.9 second-feet.

Extremes.- Maximum daily discharge during year, 91.8 second-feet May 13.

1898-1937: Maximum daily discharge, 97 second-feet Nov. 27, 1906; usually no flow for a few days each year.

Remarks.- Intake on San Gabriel River in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 2 N., R. 9 W. Water is used for power development and irrigation. During rainy season part of water from power plant is returned to San Gabriel River below station. Record furnished by city of Pasadena.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.4	40.5	20.9		0	89.1	77.9	86.4	90.1	89.4	87.8	55.8
2	12.7	32.9	20.8		0	89.0	83.4	86.6	91.0	89.4	88.2	46.2
3	14.2	27.5	25.4		0	88.9	90.7	86.3	91.4	89.4	88.1	44.1
4	12.0	25.9	37.7		0	85.7	91.0	89.1	89.9	89.4	88.6	42.8
5	12.7	34.4	33.4		0	82.0	91.0	89.6	71.8	89.4	87.9	41.8
6	11.2	25.8	29.3		0	81.9	91.0	90.5	80.5	89.4	85.8	40.8
7	11.8	23.3	28.0		0	81.8	91.0	84.6	79.9	89.4	84.3	40.2
8	10.3	22.6	26.8		0	84.1	91.0	89.8	80.5	89.4	83.4	39.7
9	11.3	24.2	24.4		0	89.3	91.0	88.4	82.7	89.4	83.8	38.6
10	10.3	21.1	26.1		0	89.8	91.0	88.4	82.7	89.3	86.9	37.8
11	10.8	23.5	25.7		0	89.7	91.0	87.6	83.1	89.4	88.8	37.2
12	8.2	22.1	24.7		0	90.6	91.0	89.6	84.0	89.4	87.8	36.5
13	11.0	20.1	25.7		0	86.2	91.0	91.8	85.6	89.4	84.7	39.7
14	10.3	20.3	23.6		0	83.8	89.4	91.7	85.3	89.4	82.3	40.9
15	11.4	21.1	25.8		21.3	91.0	83.8	91.7	87.0	89.3	79.5	39.1
16	13.5	19.0	36.4		63.1	81.2	86.8	91.6	88.7	89.3	78.0	37.5
17	25.2	18.8	36.6		61.9	86.1	87.4	91.1	88.7	89.4	76.2	36.9
18	28.1	17.9	24.1		79.2	91.0	87.8	89.2	88.9	89.3	80.6	36.8
19	39.4	17.1	0		88.5	91.0	85.6	87.4	88.8	89.2	80.8	36.3
20	38.5	17.3	0		88.5	90.7	82.1	85.0	88.7	88.8	82.9	36.8
21	27.2	18.8	0		86.4	90.4	82.1	85.9	88.6	88.2	70.9	37.5
22	25.8	21.1	0		88.5	91.0	82.1	87.0	88.6	87.3	71.8	39.2
23	20.3	29.6	0		78.6	91.0	82.0	87.0	88.5	86.4	66.6	40.0
24	22.8	26.7	0		69.0	91.0	81.9	88.3	88.4	85.3	65.7	38.6
25	21.0	24.4	0		88.5	91.0	81.9	88.0	88.3	84.5	63.8	36.4
26	19.6	25.5	0		88.6	91.0	80.0	89.7	88.3	84.8	60.3	34.8
27	16.5	23.3	0		88.6	91.0	19.3	88.0	88.4	86.1	57.6	35.3
28	20.3	24.6	0		88.0	88.8	30.9	87.4	88.4	88.6	62.6	36.6
29	15.7	24.6	0		-	78.1	82.4	90.3	88.7	88.8	62.2	37.7
30	25.8	24.3	0		-	78.2	86.4	89.1	89.5	88.4	63.9	39.0
31	34.2	-	0		-	78.0	-	90.2	-	88.0	60.3	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				562.5		39.4	8.2	18.1	1,120			
November.....				718.3		40.5	17.1	23.9	1,420			
December.....				495.4		36.6	0	16.0	983			
Calendar year 1936.....				14,104.7		88.9	0	38.5	27,980			
January.....				0		0	0	0	0			
February.....				1,078.7		88.6	0	38.5	2,140			
March.....				2,702.4		91.0	78.0	87.2	5,360			
April.....				2,473.9		91.0	19.3	82.5	4,910			
May.....				2,746.3		91.8	84.6	88.6	5,450			
June.....				2,595.0		91.4	71.8	86.5	5,150			
July.....				2,745.2		89.4	84.5	88.5	5,440			
August.....				2,392.1		88.8	57.6	77.2	4,740			
September.....				1,180.6		55.8	34.8	39.4	2,340			
Water year 1936-37.....				19,688.4		91.8	0	53.9	39,050			

## Rogers Creek near Azusa, Calif.

Location.- Water-stage recorder, lat. 34°09'55", long. 117°54'20", in NW $\frac{1}{4}$  sec. 23, T. 1 N., R. 10 W., half a mile above mouth of creek and 2 $\frac{1}{2}$  miles north of Azusa. Altitude, about 800 feet.

Drainage area.- 6.4 square miles.

Records available.- October 1917 to September 1937. May 1916 to June 1917; discharge measurements only.

Average discharge.- 20 years, 2.66 second-feet.

Extremes.- Maximum discharge during year, 190 second-feet Dec. 31 (gage height, 4.85 feet); no flow for part of year.

1917-37: Maximum discharge, about 2,600 second-feet Apr. 7, 1928; no flow several months each year.

Remarks.- Records good. Discharge May 31, June 1, and June 29 to July 10 computed on basis of two discharge measurements and records for stations on nearby streams. All water diverted above station at times. Results of some discharge measurements furnished by Los Angeles County Flood Control District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.6	0	16	13	16	20	5.5	2.7	0.7	0.2	
2	0	.2	0	9	9.5	14	20	5.5	2.4	.7	.2	
3	0	.1	0	6.5	8.5	13	18	4.7	2.2	.7	.1	
4	0	.1	0	4.7	8	12	17	4.4	2.4	.6	.1	
5	0	0	0	5.5	7.5	12	16	4.6	2.4	.6		
6	0	0	0	10	71	11	15	4.6	2.3	.6	.1	
7	0	0	0	8	79	11	15	4.4	2.0	.5	.1	
8	0	0	0	7	42	10	14	4.3	1.9	.5	.1	
9	0	0	0	6	30	9.5	14	4.3	1.8	.5	.1	
10	0	0	0	5.5	24	9	13	4.3	1.7	.5	.1	
11	0	0	0	4.7	20	8.5	13	4.1	1.8	.5	.1	
12	0	0	0	5.5	18	18	12	3.6	1.9	.5	0	
13	0	0	0	5.5	32	48	11	3.3	2.0	.5	0	
14	0	0	0	4.6	127	27	10	3.2	2.3	.4	0	
15	0	0	15	4.1	88	39	10	3.1	2.1	.3	0	
16	0	0	9	3.9	60	54	10	3.1	2.0	.3	0	
17	0	0	2.1	3.6	46	42	9.5	3.2	2.0	.4	0	
18	0	0	1.3	3.3	38	40	9.5	3.1	1.8	.3	0	
19	0	0	1.0	3.2	33	35	9	3.0	1.8	.3	0	
20	0	0	.7	2.9	30	33	8	2.9	1.7	.2	0	
21	0	0	.7	2.3	24	32	6.5	2.9	1.6	.2	0	
22	0	.1	.6	2.2	21	38	6	3.0	1.5	.2	0	
23	0	.1	.5	2.2	19	33	6	3.1	1.3	.2	0	
24	0	.1	.5	2.2	19	32	6	3.1	1.1	.2	0	
25	0	.1	1.3	2.2	25	30	6	3.2	1.0	.2	0	
26	0	.1	1.0	2.2	20	29	6.5	3.1	1.0	.2	0	
27	0	.1	34	2.3	18	28	6.5	2.9	1.0	.2	0	
28	0	0	27	2.4	17	26	6	2.8	1.0	.1	0	
29	0	0	7.5	5.5	-	25	5.5	3.1	.9	.2	0	
30	.1	0	22	23	-	23	5.5	3.1	.8	.2	0	
31	1.6	-	64	20	-	22	-	2.9	-	.2	0	
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						1.7	1.6	0	0.05	3.4		
November.....						1.6	.6	0	.05	3.2		
December.....						188.2	64	0	6.07	373		
Calendar year 1936.....						902.3	64	0	2.47	1,790		
January.....						186.0	23	2.2	6.0	369		
February.....						947.5	127	7.5	33.8	1,880		
March.....						780.0	54	8.5	25.2	1,550		
April.....						324.5	20	5.5	10.8	644		
May.....						112.4	5.5	2.8	3.63	223		
June.....						52.4	2.7	.8	1.75	104		
July.....						11.7	.7	.1	.38	23		
August.....						1.3	.2	0	.04	2.6		
September.....						0	0	0	0	0		
Water year 1936-37.....						2,607.3	127	0	7.14	5,180		

## Fish Creek near Duarte, Calif.

Location.- Water-stage recorder, lat. 34°10'00", long. 117°55'25", in SW¼SW¼ sec. 15, T. 1 N., R. 10 W., three-quarters of a mile above mouth of canyon, and 3 miles north-east of Duarte. Altitude, about 1,000 feet.

Drainage area.- 8.5 square miles.

Records available.- July to September 1918, July 1917 to September 1937.

Average discharge.- 20 years (1917-37), 3.78 second-feet.

Extremes.- Maximum discharge during year, 252 second-feet Dec. 30; minimum daily, 0.4 second-foot Sept. 17.

1918-37: Maximum discharge, about 2,180 second-feet Apr. 4, 1925; no flow during periods in 1919-21, 1924, 1929-30.

Remarks.- Records good. No diversions or regulation above station. Discharge Nov. 27 to Dec. 9, Jan. 1-7, 20-28 computed on basis of one discharge measurement and records for stations on nearby streams. Results of some discharge measurements furnished by Los Angeles County Flood Control District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	3.4	2.8	22	17	14	19	6.5	3.8	1.6	1.2	0.8
2	3.7	3.0	2.8	14	14	14	19	6.0	3.8	1.6	1.1	.7
3	3.7	2.8	2.8	11	12	14	17	5.5	3.6	1.6	.9	.6
4	3.7	2.8	2.8	10	11	13	17	6	4.0	1.6	.8	.6
5	3.7	2.8	2.8	10	11	13	15	6	4.2	1.6	.8	.6
6	3.4	2.8	2.8	13	103	12	15	6	4.0	1.6	.8	.5
7	3.4	2.8	2.8	11	102	12	14	6	3.6	1.6	.8	.6
8	3.4	2.6	2.8	11	58	11	14	6	3.8	1.5	.8	.6
9	3.2	3.0	2.8	8.5	39	10	13	6	3.8	1.5	.8	.5
10	3.2	3.0	2.8	8	30	9.5	12	6	3.6	1.5	.8	.5
11	3.2	3.0	2.8	7	23	9.5	12	5.5	3.4	1.5	.8	.5
12	3.2	3.0	2.8	8.5	20	21	11	5	3.2	1.5	.9	.5
13	3.2	3.0	2.8	8.5	33	46	11	4.8	3.1	1.5	.8	.5
14	3.0	3.2	3.0	7	142	27	11	4.8	3.1	1.6	.9	.5
15	2.8	3.2	3.8	7	87	36	11	4.6	2.9	1.6	.9	.5
16	3.0	3.2	3.0	6.5	59	44	10	4.6	2.9	1.6	.9	.5
17	3.9	3.0	5.5	6	47	36	9.5	4.6	2.9	1.6	.9	.4
18	8.5	3.0	4.5	6	36	37	9	4.6	2.8	1.6	.9	.5
19	6	3.0	3.7	6	27	31	8	4.4	2.6	1.5	.9	1.2
20	3.2	3.0	3.2	5.5	25	30	8	4.2	2.5	1.5	.9	1.9
21	3.2	3.0	3.0	5	23	29	8	4.2	2.4	1.5	.8	2.1
22	3.0	3.0	3.0	5	20	39	8	4.6	2.4	1.3	.8	2.2
23	2.8	3.0	3.0	5	20	33	7.5	5	2.2	1.3	.8	2.4
24	2.8	3.0	2.8	5	20	33	7.5	5	2.1	1.2	.8	2.1
25	2.8	3.0	4.8	4.8	23	31	7.5	5	2.1	1.2	.8	1.6
26	2.8	2.8	3.7	4.8	19	29	7.5	5	2.1	1.2	.8	1.7
27	2.6	2.8	81	4.8	17	27	7.5	4.8	1.9	1.0	.7	2.1
28	2.5	2.8	50	4.8	16	25	7.5	4.8	1.9	.9	.7	2.2
29	3.2	2.8	14	8.5	-	23	7	4.8	1.8	1.1	.7	2.4
30	3.4	2.8	45	38	-	21	7	4.8	1.6	1.3	.8	2.5
31	8.5	-	84	31	-	20	-	4.4	-	1.3	.8	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						112.9	8.5	2.5	3.64	224		
November.....						88.6	3.4	2.6	2.95	176		
December.....						418.6	84	2.8	13.5	830		
Calendar year 1936.....						2,220.3	84	.9	6.07	4,410		
January.....						303.2	38	4.8	9.78	601		
February.....						1,054	142	11	37.6	2,090		
March.....						750.0	46	9.5	24.2	1,490		
April.....						330.5	19	7	11.0	656		
May.....						159.5	6.5	4.2	5.15	316		
June.....						88.1	4.2	1.6	2.94	175		
July.....						44.4	1.6	.9	1.43	88		
August.....						26.1	1.2	.7	.84	52		
September.....						34.3	2.5	.4	1.14	68		
Water year 1936-37.....						3,410.2	142	.4	9.34	6,770		

## Sawpit Creek near Monrovia, Calif.

Location.- Water-stage recorder, lat. 34°10'20", long. 117°59'25" in NW¼ sec. 13, T. 1 N., R. 11 W., 0.2 mile below junction of two main branches and 2 miles north of Monrovia.

Drainage area.- 5.3 square miles above old location, 0.2 mile (revised) upstream and just below junction of two main branches.

Records available.- November 1916 to September 1937.

Average discharge.- 20 years (1917-37), 1.01 second-foot.

Extremes.- Maximum discharge during year, 230 second-feet Feb. 6 (gage height, 3.54 feet); no flow for several months.

1916-37: Maximum discharge, about 2,000 second-feet Apr. 7, 1926, estimated from flow of Rogers Creek; no flow for several months each year.

Remarks.- Records good. Regulation at flood-control dam above gage and diversions by city of Monrovia. See record for Monrovia pipe line near Monrovia. Results of some discharge measurements furnished by Los Angeles County Flood Control District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4	0	8.5	6.5	6	1.0	0.1	0.2	0		
2	0	.3	0	6.5	6.5	5.5	4.8	.1	.3	0		
3	0	.3	0	5.5	4.6	4.9	7	.1	.3	.4		
4	0	.2	0	4.6	2.2	3.7	6.5	.1	.2	.3		
5	0	.2	0	4.5	2.1	2.0	5.5	.1	1.0	.1		
6	0	.1	0	1.8	44	1.4	4.5	.3	.9	.1		
7	0	.1	0	.7	44	2.1	7.5	.6	.9	.1		
8	0	.1	0	.6	20	1.7	6.5	1.0	.9	.2		
9	0	.1	0	.3	12	1.0	3.9	.9	.9	0		
10	0	.1	0	1.5	11	1.0	4.1	1.3	.9	.7		
11	0	.1	.1	1.5	8	1.0	3.5	1.3	.9	.6		
12	0	.1	.1	1.6	1.5	7	.9	.7	.4	.4		
13	0	.1	0	1.4	3.2	14	9.5	0	0	.6		
14	0	.1	.1	1.0	70	5	6.5	.3	0	.5		
15	0	.1	2.4	1.0	32	15	.6	1.2	0	0		
16	.1	.1	1.2	.9	27	19	.6	1.2	0	0		
17	.6	.1	.5	.8	24	17	1.0	1.2	0	0		
18	1.2	.1	.4	1.6	18	13	.7	.5	0	.1		
19	0	.1	.3	2.0	9	10	1.7	0	0	0		
20	0	.1	.2	1.9	4.4	7	2.6	0	0	.1		
21	0	.1	.2	1.8	9	7	2.6	.4	0	.1		
22	0	.1	0	1.8	9	9	2.5	1.0	0	0		
23	0	.1	0	.8	7	9.5	2.5	1.1	0	0		
24	0	.1	0	.1	3.6	12	1.7	1.1	0	0		
25	0	.1	.4	.1	6	13	.9	1.1	0	0		
26	0	.1	.2	.1	7.5	11	.6	1.1	0	0		
27	0	.1	10	.1	4.6	11	1.3	1.1	0	0		
28	0	.1	4.7	.1	10	11	.5	.4	0	0		
29	0	.1	1.9	.3	-	8.5	.2	.2	0	0		
30	.2	.1	7.5	2.1	-	3.6	.4	.4	0	0		
31	.8	-	17	5	-	1.0	-	.3	-	0		
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						2.9	1.2	0	0.09	5.8		
November.....						3.9	.4	.1	.13	7.7		
December.....						47.2	17	0	1.52	94		
Calendar year 1936.....						374.3	25	0	1.02	742		
January.....						60.5	8.5	.1	1.95	120		
February.....						406.7	70	1.5	14.5	807		
March.....						236.9	19	1.0	7.64	470		
April.....						92.1	9.5	.2	3.07	183		
May.....						19.2	1.3	.1	.62	38		
June.....						7.8	1.0	0	.26	15		
July.....						4.3	.7	0	.14	8.5		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						881.5	70	0	2.42	1,750		



## SAN GABRIEL RIVER BASIN

Monrovia pipe line near Monrovia, Calif.

Location.- Staff gage and weirs, lat.  $34^{\circ}10'00''$ , long.  $117^{\circ}59'40''$ , near southwest corner sec. 13, T. 1 N., R. 11 W., 300 feet above settling reservoir at mouth of Sawpit Canyon and  $\frac{1}{2}$  miles north of Monrovia. Altitude, 970 feet.

Records available.- May 1916 to September 1937.

Average discharge.- 21 years, 1.28 second-feet.

Extremes.- Maximum daily discharge during year, 4.6 second-feet July 5, 6; minimum, 0.1 second-foot Dec. 25, 27.

1916-37: Maximum daily discharge, 6.1 second-feet May 9, 1922; no flow at numerous times.

Remarks.- Records good. Monrovia pipe line furnishes part of water supply of Monrovia. It diverts from two branches of Sawpit Creek. Most of this water is collected by tunnels driven into side of canyon. Gage-height record furnished by city of Monrovia.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	0.4	1.1	0.4	0.6	2.1	2.4	2.4	1.1	2.4	1.9	2.1
2	.9	.6	1.1	.4	.6	2.1	2.4	4.5	2.1	3.4	2.1	2.1
3	.9	.8	1.1	.4	.6	2.1	2.4	2.2	2.4	4.5	2.1	2.1
4	.9	.8	1.1	.8	.6	2.1	2.1	2.1	3.6	4.5	2.1	2.1
5	.9	.8	1.1	1.3	.6	2.8	2.0	2.1	2.4	4.6	2.1	2.1
6	.9	.8	1.1	.6	.2	1.3	1.9	2.1	2.4	4.6	2.1	2.1
7	.9	.8	1.1	.6	.3	1.1	2.0	3.4	2.4	4.3	1.9	2.1
8	.9	.9	1.1	.6	.6	1.5	2.1	3.4	2.4	4.0	1.9	2.1
9	.9	.9	1.1	1.1	.9	1.3	2.1	1.1	2.1	4.0	1.9	2.1
10	.9	.9	1.1	1.1	1.3	1.8	2.1	2.4	2.1	3.4	1.9	2.1
11	.9	.9	1.1	1.1	1.3	2.4	2.0	2.1	2.1	4.3	2.1	2.1
12	.9	.9	1.1	1.1	1.3	2.4	2.0	2.1	2.1	4.3	2.1	2.1
13	.9	.9	1.1	1.2	1.3	.9	2.1	4.0	2.1	3.4	2.1	2.1
14	.9	.9	1.1	1.3	.5	.9	2.4	3.7	3.4	3.4	1.9	2.1
15	.9	.8	.6	1.3	.9	.9	2.4	2.4	3.4	3.4	1.9	2.1
16	.9	.9	1.1	1.1	1.0	.6	2.4	2.4	3.4	3.4	2.1	2.1
17	.9	.9	1.1	1.6	1.1	.9	2.4	2.1	3.4	3.1	2.1	2.1
18	.4	.9	1.1	2.1	1.3	.9	2.4	3.4	3.1	2.8	2.1	2.1
19	.4	.9	1.1	1.9	2.1	1.6	2.4	3.4	2.8	3.1	2.1	2.1
20	.4	.9	1.1	1.9	1.8	2.4	2.2	3.4	3.4	3.4	2.1	2.1
21	.4	.9	1.1	1.9	1.3	2.4	2.1	3.4	3.1	3.1	2.1	2.1
22	.5	.9	1.1	1.9	1.7	1.1	2.1	2.4	3.1	3.1	2.1	2.1
23	.6	.9	1.1	1.9	2.1	2.4	2.1	2.6	2.8	2.4	2.1	2.1
24	.8	.9	1.1	1.9	1.3	2.1	2.1	2.5	2.8	2.1	2.1	2.1
25	.8	1.1	.1	1.9	1.1	1.7	2.1	2.4	2.8	2.1	2.1	2.1
26	.8	1.1	.2	1.9	1.1	2.2	2.1	2.4	2.8	1.9	2.1	2.1
27	.8	1.1	.1	1.9	1.1	2.1	3.4	2.1	2.8	1.9	2.1	2.1
28	.8	1.1	.4	1.6	2.1	2.1	3.4	3.7	2.8	1.9	2.1	2.1
29	.8	1.1	.4	1.3	-	2.8	2.8	2.1	2.6	1.9	2.1	2.1
30	.6	1.1	.4	1.3	-	2.7	2.4	1.5	2.4	1.9	2.1	2.1
31	.6	-	.4	.6	-	2.4	-	1.1	-	1.9	2.1	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						24.0	0.9	0.4	0.77	48		
November.....						26.9	1.1	.4	.90	53		
December.....						27.9	1.1	.1	.90	55		
Calendar year 1936 .....						415.0	2.6	0	1.13	822		
January.....						40.0	2.1	.4	1.29	79		
February.....						30.7	2.1	.2	1.10	61		
March.....						56.1	2.9	.6	1.81	111		
April.....						68.8	3.4	1.9	2.29	136		
May.....						80.5	4.3	1.1	2.60	160		
June.....						80.2	3.6	1.1	2.67	159		
July.....						98.1	4.6	1.9	3.16	195		
August.....						65.7	2.1	1.9	2.05	128		
September.....						65.0	2.1	2.1	2.10	125		
Water year 1936-37.....						659.9	4.6	.1	1.81	1,310		

## San Dimas Creek near San Dimas, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}08'45''$ , long.  $117^{\circ}46'35''$ , in SW  $\frac{1}{4}$  sec. 25, T. 1 N., R. 9 W., at mouth of San Dimas Canyon, 3 miles northeast of San Dimas. Altitude, about 1,245 feet.

Drainage area.- 18.3 square miles.

Records available.- December 1916 to September 1937. April to September 1916, discharge measurements only.

Average discharge.- 20 years (1917-37), 3.73 second-feet.

Extremes.- Maximum discharge during year, 127 second-feet Feb. 7 (gage height, 2.22 feet); minimum, less than 0.1 second-foot during October and November.

1916-37: Maximum discharge, 1,140 second-feet Feb. 9, 1922; no flow for several months of nearly every year.

Remarks.- Records good. Discharge Feb. 6-9 and July 11-24 computed on basis of records of releases from flood-control reservoir and records for stations on nearby streams. Flood-control dam above gage regulates flow. San Dimas Water Co. diverts just below gage for irrigation. Results of several discharge measurements furnished by Los Angeles County Flood Control District.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0.1	42	1.2	20	3.1	1.3	6	7.5	6.5	5.5
2			.1	42	1.0	20	3.3	1.1	6	7.5	6.5	5.5
3			.1	39	.8	18	2.9	1.0	6	7.5	6.5	4.7
4			.2	3.2	.8	2.1	2.8	2.6	6	7.5	6.5	5.5
5			.2	2.5	.9	25	2.8	4.5	6	7.5	6	6.5
6			.1	3.6	6	93	18	5.5	6	8	6	6.5
7			.1	2.1	114	91	81	5.5	6.5	8	6	6
8			.1	1.0	93	63	76	6	6.5	7.5	6	5
9			.1	1.0	63	2.0	56	6	6	7	6	5.5
10			.1	.9	33	1.6	54	5.5	6	7.5	6	5.5
11			.1	.8	33	1.6	53	2.9	6		6	6.5
12			.1	1.3	33	3.6	22	2.8	6		6	6.5
13			.1	1.1	38	8.5	2.1	2.7	5.5		6	6.5
14			.1	.8	84	3.6	2.0	2.5	5.5		6	6.5
15			.3	.8	101	5	2.0	2.8	5.5		6	6.5
16			.2	.8	101	39	1.9	3.7	5.5		6	6
17			.2	.7	99	104	1.7	3.8	6.5		6	6
18			.1	.7	82	101	1.6	3.9	7	7	5.5	6
19			.1	.6	33	99	1.5	3.9	6.5		5.5	6.5
20			.1	.6	24	61	1.6	4.1	6		5.5	6.5
21			.1	.5	5.5	40	1.6	4.4	6		5.5	6.5
22			.1	.5	4.6	44	1.7	4.9	6.	*7	5.5	6.5
23			.1	.5	3.5	42	1.7	4.9	6.5		5	6.5
24			.1	.5	2.5	42	1.7	5	7.5		5	6
25			.1	.5	3.0	47	1.7	4.2	7.5	7	5	6
26			.1	.5	12	4.0	1.8	3.0	7.5	7	5	6
27			1.4	.5	21	73	1.9	4.5	7.5	7	5.5	6
28			2.5	.5	20	35	3.9	6	7.5	6.5	5.5	6
29			.9	.8	-	3.6	2.1	6	7.5	6.5	5.5	6
30			3.9	2.1	-	3.4	2.0	6	7.5	6.5	5.5	6
31			40	1.9	-	3.3	-	6	7.5	6.5	5.5	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				154		-	-	0.050	3.1			
November.....				2.7		-	-	.009	5.4			
December.....				51.9		40	.1	1.67	103			
Calendar year 1936.....				821.92		74	-	2.25	1,630			
January.....				154.3		42	.5	4.98	306			
February.....				1,013.6		114	.8	36.2	2,010			
March.....				1,099.3		104	1.6	35.5	2,180			
April.....				409.4		81	1.5	13.6	812			
May.....				126.9		6	1.0	4.09	252			
June.....				192.0		7.5	5.5	6.40	381			
July.....				220.5		8	6.5	7.11	437			
August.....				179.0		6.5	5	5.77	355			
September.....				181.2		6.5	4.7	6.04	359			
Water year 1936-37.....				3,632.54		114	-	9.95	7,200			

\*Discharge measurement.

Note.- Discharge less than 0.1 second-foot on days for which no discharge is given.

## SAN GABRIEL RIVER BASIN

Dalton Creek near Glendora, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}09'20''$ , long.  $117^{\circ}49'50''$ , in center of sec. 21, T. 1 N., R. 9 W., at Glendora Irrigation Co.'s dam, a quarter of a mile above mouth and  $2\frac{1}{2}$  miles northeast of Glendora. Altitude, about 1,150 feet.

Drainage area.- 7.5 square miles.

Records available.- December 1919 to September 1937.

Average discharge.- 17 years (1920-37), 1.05 second-feet.

Extremes.- Maximum discharge during year, 42 second-feet Feb. 6 (gage height, 2.63 feet); no flow for parts of several months.  
1919-37: Maximum discharge, 660 second-feet Feb. 16, 1927; no flow for several months of each year.

Remarks.- Records good. Discharge for Apr. 28 to May 2 computed on basis of one discharge measurement and records for stations on nearby streams. Glendora Irrigation Co. diverts water above gage through 10-inch pipe line. A 12-inch pipe line diverts water just below gage. Storage at flood-control dam about 1 mile upstream. Results of several discharge measurements furnished by Los Angeles County Flood Control District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	2.6	1.0	7	7	0.8	0.9	0.6	0.6	
2	0		0	1.4	1.0	7	6	.7	1.1	.4		
3	0		0	1.0	.9	7	3.8	.6	.6	.4	.2	
4	0		0	.8	.9	7	3.3	.6	.3	.5	.2	
5	0		0	1.0	.9	7	3.1	.5	.3	.6	.3	
6	0		0	1.7	5.5	6.5	3.0	.5	.4	.6	.3	
7	0		0	1.2	19	6	2.9	.5	.3	1.0	.2	
8	0		0	.9	8.5	6	2.8	.6	.3	.5	.2	
9	0		0	.7	5.5	6.5	2.8	.6	.3	.4	.1	
10	0		0	.7	4.3	4.7	2.8	.6	.4	.4	.1	
11	0		0	.6	3.4	2.9	2.7	.5	.3	.4	.3	
12	0		0	.9	2.9	3.1	2.7	.4	.4	.3	.2	
13	0		0	.9	4.0	4.3	2.7	.4	.3	.2	.4	
14	0		0	.7	21	3.6	2.6	.4	.3	.2	.3	
15	0		0	.6	15	3.6	2.5	.4	.4	.4	.4	
16	0		0	.5	17	8.5	2.5	.4	2.0	.1	.1	
17	0		0	.4	32	24	2.4	.4	1.4	.1	.1	
18	0		0	.4	32	24	2.2	.4	.6	.4	.1	
19	0		0	.4	32	24	2.2	.4	.4	.1	.1	
20	0		0	.4	30	24	2.2	.4	.4	.1	0	
21	0		0	.4	17	24	2.2	.4	.2	.1	0	
22	0		0	.3	12	19	2.2	.4	.2	.1	0	
23	0		0	.3	12	19	2.1	.4	.2	.4	0	
24	0		0	.3	11	21	2.0	.4	.2	.2	0	
25	0		0	.3	9	24	1.9	.4	.3	.2	0	
26	0		0	.3	7.5	27	1.7	.4	.4	.1	0	
27	0		.6	.5	7	27	1.0	.4	.4	.1	0	
28	0		1.3	.3	7	27	1.0	.4	.4	.1	0	
29	0		.6	-	-	27	1.0	.4	.5	.1	0	
30	0		1.6	1.1	-	17	.9	.5	.6	.1	0	
31	.5		5	1.4	-	9	-	.4	-	.3	0	
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0.5		0.5	0	0.02	1.0			
November.....				0		0	0	0	0			
December.....				9.1		5	0	.29	18			
Calendar year 1936.....				115.0		10	0	.31	228			
January.....				23.4		2.6	.3	.75	46			
February.....				319.3		32	.9	11.4	635			
March.....				426.7		27	2.9	13.8	846			
April.....				78.2		7	.9	2.61	165			
May.....				14.6		.8	.4	.47	29			
June.....				14.8		2.0	.2	.49	29			
July.....				9.5		1.0	.1	.31	19			
August.....				4.4		.6	0	.14	8.7			
September.....				0		0	0	0	0			
Water year 1936-37.....				900.5		32	0	2.47	1,780			

San Jose Creek near Whittier, Calif.

Location.— Water-stage recorder, lat. 34°01'25", long. 118°02'05", in Paso de Bartolo grant, on Workman-Mill road bridge, about 3 miles north of Whittier.

Drainage area.— 85.2 square miles.

Records available.— January 1929 to September 1936.

Extremes.— Maximum discharge during water year 1935-36, 1,010 second-feet Feb. 12 (gage height, 5.74 feet); minimum, no flow at times.

1929-36: Maximum discharge, 13,100 second-feet Jan. 1, 1934; no flow at times.

Remarks.— Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.1	0.2	0.2	0.2	0.4	0.8	0.2	0.7	0.3	0.2	0
2	.2	.2	.2	.2	.6	.4	.3	.2	.1	.3	.3	.1
3	.2	.2	.2	.2	.6	.4	.3	.2	.1	.4	.3	.2
4	.2	.2	.2	.1	.3	.4	.3	.2	.2	.3	.3	.3
5	.2	.2	.2	.1	.3	.4	.8	.2	.4	.2	.2	.3
6	.2	.2	.2	.1	.4	.4	.3	.1	.2	.1	.2	.3
7	.2	.2	.1	.1	.3	.4	.1	.1	0	.1	.2	.3
8	.2	.2	.1	.1	.3	.5	.1	.1	.1	.1	.2	.3
9	.1	.2	.1	.1	.3	.5	.1	.1	.1	.2	.2	.3
10	.1	.2	.1	.2	.3	.3	.1	.1	.1	.5	.2	.3
11	.2	.2	.1	.2	2.1	.2	.1	.2	.1	.4	.2	.4
12	.2	.2	.1	.2	225	.2	.1	.1	.1	.4	.2	.3
13	.2	.2	.1	.2	99	.2	.1	.1	.1	.3	.2	.3
14	.2	.2	.1	.2	15	.2	.1	.1	.1	.3	.2	.3
15	.1	.2	.1	.2	71	.2	.3	.1	.3	.2	.2	.2
16	.1	.2	.1	.2	133	.2	.3	.1	.3	.2	.2	.2
17	.1	.2	.1	.2	3.0	.2	.4	.1	.3	.4	.2	.2
18	.1	.3	.1	.2	3.9	.2	.3	.1	.2	.3	.2	.3
19	.1	.4	.1	.2	1.4	.2	.3	.1	.1	.2	.2	.3
20	.1	.3	.1	.2	.7	.2	.3	.3	.3	.2	.1	.3
21	.1	.2	.1	.2	.7	.1	.3	.3	.4	.1	.1	.2
22	.1	.2	.1	.2	1.4	.1	.2	.4	.3	.1	.1	.2
23	.1	.2	.1	.2	50	.1	.2	.7	.3	.2	.1	.1
24	.1	.2	.1	.2	6	.1	.2	.9	.4	.3	.1	.2
25	.1	.2	.1	.2	1.1	.2	.1	.8	.3	.4	.1	.7
26	.1	.2	.1	.2	1.1	.1	.1	.7	.2	.5	0	.9
27	.1	.2	.1	.2	.6	.1	.1	.7	.3	.7	0	.7
28	.1	.2	.1	.2	.5	.2	.1	.4	.3	.9	0	.6
29	.1	.2	.1	.2	.5	.2	.2	.3	.2	1.0	0	.4
30	.1	.2	.2	.2	-	4.0	.2	.4	.3	.6	0	.4
31	.1	-	.2	.2	-	2.4	-	.6	-	.1	0	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					4.3	0.2	0.1	0.14	8.5			
November.....					6.3	.4	.1	.21	12			
December.....					3.9	.2	.1	.13	7.7			
Calendar year 1935.....					598.5	150	0	1.64	1,190			
January.....					8.6	.2	.1	.18	11			
February.....					619.8	225	.2	21.4	1,230			
March.....					13.7	4.0	.1	.44	27			
April.....					7.2	.8	.1	.24	14			
May.....					9.0	.9	.1	.29	18			
June.....					6.9	.7	0	.23	14			
July.....					10.3	1.0	.1	.33	20			
August.....					4.7	.3	0	.15	9.3			
September.....					9.6	.9	0	.32	19			
Water year 1935-36.....					701.3	225	0	1.92	1,390			

## Brea Creek at Fullerton, Calif.

Location.- Water-stage recorder, lat. 33°52'25", long. 117°55'40", in San Juan Cajon de Santa Ana grant, on Ford Avenue bridge, at Fullerton, Orange County.

Drainage area. 26.4 square miles.

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge during year, 1,285 second-feet Feb. 6 (gage height, 6.95 feet); no flow during most of year.

1930-37: Maximum discharge, 1,600 second-feet Oct. 17, 1934 (gage height, 7.60 feet); minimum, no flow during most of each year.

Remarks.- Records furnished by Orange County Flood Control District, through M. N. Thompson, chief engineer.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0.9	0.3	0						
2			0	.1	0	0						
3			0	0	0	0						
4			0	0	0	0						
5			0	.1	.1	0						
6			0	2.0	567	0						
7			0	.3	79	0						
8			0	.1	1.0	0						
9			0	0	0	0						
10			0	0	0	0						
11			0	0	0	0						
12			0	.5	0	.4						
13			0	2.4	99	41						
14			0	.4	366	.4						
15			0	.2	5	12						
16			0	.5	1.0	34						
17			0	.2	0	5.5						
18			0	0	0	.1						
19			0	0	0	0						
20			0	0	0	0						
21			0	0	0	0						
22			0	0	0	14						
23			0	0	0	5						
24			0	0	.1	1.0						
25			.1	0	2.5	17						
26			0	0	1.7	1.0						
27			1.6	0	.1	0						
28			18	0	0	0						
29			1.3	.3	-	0						
30			3.6	.5	-	0						
31			7	.8	-	0						
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						31.6	18	0	1.02	63		
Calendar year 1936.....						164.2	50	0	.45	326		
January.....						9.3	2.4	0	.30	18		
February.....						1,112.8	567	0	39.7	2,210		
March.....						151.4	41	0	4.24	261		
April.....						0	0	0	0	0		
May.....						0	0	0	0	0		
June.....						0	0	0	0	0		
July.....						0	0	0	0	0		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37 .....						1,285.1	567	0	3.52	2,550		

## Carbon Creek at Olinda, Calif.

Location.- Water-stage recorder, lat. 33°53'20", long. 117°50'40", in San Juan Cajon de Santa Ana grant, on Golden Avenue bridge, 1½ miles south of Olinda, Orange County.

Drainage area.- 20.0 square miles.

Records available.- October 1930 to February 1937, when station was destroyed by high water.

Extremes.- Maximum discharge during period October to February, not determined; no flow during most of period.

1930-37: Maximum discharge, 728 second-feet Jan. 1, 1934; no flow during most of each year.

Remarks.- Records furnished by Orange County Flood Control District, through M. N. Thompson, chief engineer.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	0.1	0.2							
2	0		0	0	.1							
3	0		0	0	0							
4	0		0	0	0							
5	0		0	0	.3							
6	0		0	.1	186							
7	0		0	0	12							
8	0		0	0	2.1							
9	0		0	0	0							
10	0		0	0	-							
11	0		0	0	-							
12	0		0	1.1	-							
13	0		0	.4	-							
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		.3	0	-							
26	0		0	0	-							
27	0		5.5	0	-							
28	0		3.2	0	-							
29	.5		0	0	-							
30	0		.1	.3	-							
31	.5		1.1	.2	-							
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						1.0	0.5	0	0.03	2.0		
November.....						0	0	0	0	0		
December.....						10.2	5.5	0	.33	20		
Calendar year 1936.....						55.9	29	0	.23	170		
January.....						2.2	1.1	0	.07	4.4		
February 1-9.....						200.7	186	0	22.3	40		
March.....												
April.....												
May.....												
June.....												
July.....												
August.....												
September.....												
The period .....										66		

## Los Angeles River near Downey, Calif.

Location.- Water-stage recorder, lat. 33°56'45", long. 118°10'25", in San Antonio grant, on Stewart Gray road bridge, half a mile above junction with Rio Hondo and 2½ miles west of Downey, Los Angeles County.

Drainage area.- 614 square miles.

Records available.- March 1928 to September 1936.

Extremes.- Maximum discharge during water year 1935-36, 5,730 second-feet Feb. 12; no flow at times.

1928-36: Maximum discharge, 29,400 second-feet Jan. 1, 1934 (gage height, 11.2 feet); no flow during parts of most years.

Remarks.- Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	2.6	1.3	0.8	170	4.8	25	4.5	1.8	1.8	1.8	3.4
2	.9	4.5	2.3	.9	519	4.8	24	4.5	1.8	1.8	1.5	3.7
3	1.3	1.8	4.5	1.3	31	4.8	23	3.8	2.2	1.8	1.9	1.9
4	1.4	1.6	25	1.6	4.0	4.2	452	3.8	1.8	1.5	2.2	2.0
5	1.4	1.3	4.0	2.0	3.1	5.5	34	5.5	1.8	.4	5.5	2.6
6	1.4	1.2	2.0	2.4	2.8	5.5	17	3.0	1.5	0	4.5	1.9
7	1.2	1.1	1.7	2.8	1.7	6	8.5	2.2	1.5	0	3.8	1.1
8	1.4	1.4	1.2	3.2	1.7	5.5	3.0	1.8	1.2	0	7.5	1.7
9	1.9	1.2	.9	3.5	1.2	12	1.2	2.2	1.0	1.4	11	2.6
10	1.9	1.1	.8	2.9	.6	12	.7	2.2	1.5	1.2	15	3.1
11	1.8	.8	.6	2.3	569	13	.8	1.0	1.8	1.2	18	3.1
12	1.6	.8	1.7	1.7	1,040	8	.8	.3	2.2	1.0	22	3.1
13	1.6	.8	2.3	1.0	588	6.5	.7	1.0	2.2	.8	16	1.8
14	1.2	1.0	2.0	2.6	470	6	2.2	1.5	2.2	1.8	13	1.9
15	1.1	1.1	1.9	3.4	568	4.2	2.2	1.5	1.5	2.2	10	2.3
16	1.3	1.1	2.0	3.4	558	3.7	1.8	3.0	1.8	1.5	7	3.1
17	1.7	120	2.3	3.4	40	2.8	9	2.2	1.8	1.5	4.8	3.1
18	1.6	11	2.8	3.7	194	2.6	1.8	3.8	1.5	1.8	4.5	2.8
19	1.7	10	3.4	3.7	39	2.6	3.8	2.2	1.8	2.2	4.8	2.8
20	1.4	4.8	3.4	1.6	23	2.6	5.5	3.0	1.2	1.5	4.2	1.8
21	.8	2.0	3.4	3.1	21	2.6	7.5	2.2	1.8	2.2	3.4	2.0
22	.6	2.8	3.4	3.7	22	2.6	9	2.2	1.8	3.0	4.2	2.8
23	.9	2.0	3.1	3.7	417	2.8	12	2.2	1.2	2.2	3.4	3.1
24	1.1	1.6	3.1	3.7	19	35	1.2	1.5	1.5	1.2	3.4	2.8
25	1.3	.8	3.4	2.8	8.5	6	1.5	1.8	1.0	1.5	5.5	3.1
26	1.8	1.3	3.1	2.0	6	4.5	1.2	2.2	1.2	3.8	9	2.8
27	1.8	1.3	2.8	.9	6.5	4.5	1.8	3.0	1.2	3.8	5.5	1.4
28	1.3	2.8	2.6	2.3	5.5	5.5	3.0	2.2	1.2	4.5	4.2	2.0
29	1.1	1.6	38	8.5	7.5	4.5	5.5	1.8	1.5	3.0	4.2	1.9
30	1.2	.9	14	8	-	168	1.8	.8	1.8	1.8	3.4	1.8
31	1.6	-	.8	1.8	-	444	-	1.2	-	1.8	3.1	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						42.2	1.9	0.6	1.36	84		
November.....						186.4	120	.8	6.21	370		
December.....						143.8	38	.6	4.64	285		
Calendar year 1935.....						10,914.4	1,430	0	29.9	21,650		
January.....						88.7	8.5	.8	2.86	176		
February.....						5,137	1,040	.6	177	10,200		
March.....						797.1	444	2.6	25.7	1,580		
April.....						661.6	452	.7	22	1,310		
May.....						74.1	5.5	.3	2.39	147		
June.....						48.6	2.2	1.0	1.62	96		
July.....						54.2	4.5	0	1.75	108		
August.....						208.2	22	1.5	6.72	413		
September.....						73.5	3.7	1.1	2.45	146		
Water year 1935-36.....						7,515.3	1,040	0	20.5	14,920		

## Los Angeles River at Long Beach, Calif.

Location.— Water-stage recorder, lat. 33°47'25", long. 118°12'20", on State Street Bridge at Long Beach, Los Angeles County.

Drainage area.— About 1,060 square miles.

Records available.— December 1928 to September 1936.

Extremes.— Maximum discharge during water year 1935-36, 10,400 second-feet Feb. 12; minimum, 2.0 second-feet Nov. 29.  
1928-38: Maximum discharge, 37,500 second-feet Jan. 1, 1934; no flow at times during 1929, 1930, 1934.

Remarks.— Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	5	3.5	5.5	211	16	100	10	4.0	3.5	5	4.5
2	5	5	3.5	3.7	528	7	22	7.5	4.0	3.5	5	4.5
3	5	5.5	3.5	3.7	100	9.5	14	6	4.5	3.5	5	5.5
4	5	5.5	4.0	4.2	52	7.5	425	6	5	4.5	5.5	6
5	5.5	6	4.2	6.5	52	10	14	5.5	5	4.5	5.5	5.5
6	5.5	6	3.5	6	55	9	5	6	4.5	4.0	5.5	6
7	5	5.5	3.2	4.5	28	8.5	4.0	4.8	4.2	4.2	4.8	6
8	5.5	5.5	3.5	5	20	9	3.2	8.5	4.0	4.5	4.2	6
9	5.5	5.5	3.5	7	13	9.5	2.6	8	4.5	4.5	3.7	5.5
10	5	5	3.5	4.8	11	14	2.6	7	4.0	4.5	3.2	5
11	4.5	5.5	4.2	6	657	10	2.6	7	4.0	4.8	3.0	5.5
12	4.8	5	4.2	7	1,630	11	2.8	6	4.5	5.5	2.8	5.5
13	5	5	4.2	6	610	6	3.0	4.5	5	6	3.2	6.5
14	5.5	4.5	3.5	5.5	116	10	3.2	4.2	5.5	5.5	3.2	5.5
15	5.5	5	3.7	5.5	637	7	3.5	4.2	6.5	6	3.7	6.5
16	5.5	5.5	4.5	6.5	675	7.5	3.7	4.5	7	6.5	4.2	6
17	6	35	4.2	5	100	7	5	4.5	7.5	5.5	4.5	6.5
18	5.5	117	4.2	5.5	140	7.5	5.5	5	8	5	5.5	5.5
19	5	11	4.2	7	68	7	4.5	5	7	6	7	4.8
20	5	5.5	4.5	5.5	36	7.5	6	5.5	7	6	7	5
21	5.5	4.8	5.5	4.2	27	7.5	8.5	6	7	5.5	6	4.0
22	5.5	5	5.0	5	21	7.5	11	5.5	6	5	6.5	4.8
23	5	5.5	4.8	5	472	7	13	6	5.5	5	5.5	4.5
24	4.8	4.5	4.5	5.5	52	17	11	4.5	5	5	5	6
25	4.5	3.7	4.0	5.5	34	48	7	5.5	4.8	5	5.5	5.5
26	4.8	4.5	3.5	6	23	14	8.5	4.5	4.5	4.2	5.5	5.5
27	4.2	4.2	4.8	6	17	10	8.5	3.0	4.8	3.7	4.8	4.8
28	4.2	4.2	3.7	5.5	15	7.5	9.5	2.5	4.5	4.0	4.8	4.8
29	4.8	2.3	6	7.5	14	7.5	13	4.2	4.0	4.8	5	4.8
30	5	3.7	38	21	-	9	12	4.0	4.0	4.8	5	5
31	5.5	-	9.5	12	-	1,267	-	3.7	-	4.5	4.8	-
Month												
						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						158.6	6	4.2	5.12	315		
November.....						296.9	117	2.3	9.90	589		
December.....						166.6	38	3.2	5.37	330		
Calendar year 1935.....						14,729.5	2,930	2.0	40.4	29,220		
January.....						193.6	21	3.7	6.25	384		
February.....						6,402	1,630	11	221	12,700		
March.....						1,582.5	1,267	6	51.0	3,140		
April.....						735.2	425	2.6	24.5	1,460		
May.....						169.1	10	2.5	6.45	335		
June.....						166.4	8	4.0	5.21	310		
July.....						148.8	6.5	3.5	4.53	297		
August.....						149.9	7	2.8	4.84	297		
September.....						159.5	6.5	4.0	5.32	316		
Water year 1935-36.....						10,320.1	1,630	2.3	28.2	20,470		



## Pacoima Creek near San Fernando, Calif.

Location.— Water-stage recorder, lat. 34°20'02", long. 118°23'55", in SE¼ sec. 24, T. 3 N., R. 15 W., 600 feet above mouth of canyon and 4 miles northeast of San Fernando.

Drainage area.— 27.9 square miles.

Records available.— March 1916 to September 1936.

Average discharge.— 19 years (1917-36), 5.38 second-feet.

Extremes.— Maximum daily discharge during water year 1935-36, 153 second-feet May 13; no flow during several periods.  
1916-36: Maximum discharge, about 1,860 second-feet Feb. 16, 1927; no flow for several months of each year.

Remarks.— Flow completely regulated by flood-control dam above gage. Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.1	0.2	0	0.9	0.1	0	48	6.5	3.7	4.2	0
2	.3	.2	.2	0	.9	.1	0	51	6	5	3.9	0
3	.3	.1	.2	0	0	.7	0	44	6	5	1.4	0
4	.3	.2	.8	0	0	.1	0	57	6	4.9	0	0
5	.3	0	.2	0	0	.1	0	22	6	4.7	0	0
6	.3	.1	0	0	0	.1	0	10	6	4.4	0	0
7	.3	.1	0	0	.3	.1	13	16	6	4.1	0	0
8	.3	.1	0	0	0	.1	12	12	2.4	3.9	0	0
9	.2	.1	0	0	0	.1	19	12	0	3.4	0	0
10	.2	.1	0	0	0	.1	27	12	0	3.5	0	0
11	.1	.1	0	.1	0	.1	30	12	0	3.5	0	0
12	.1	.1	0	0	0	.1	30	10	3.3	3.6	0	0
13	.1	.1	0	0	0	.1	30	45	5	3.8	0	0
14	.1	.1	0	0	0	.1	30	8	5	4.1	0	0
15	.1	.1	0	0	0	.1	30	7.5	5	4.2	0	0
16	.1	.1	0	0	0	.1	30	7	4.9	4.4	0	3.1
17	.1	.2	0	0	0	.1	35	6.5	4.7	4.7	0	4.1
18	.1	0	0	0	.2	.1	40	6.5	4.4	4.7	0	2.9
19	.1	0	0	0	.2	.1	40	6.5	4.4	4.5	0	1.1
20	.1	0	0	0	.2	.1	38	6.5	2.9	4.7	0	0
21	.1	0	0	0	.2	4.1	36	6.5	4.2	4.9	0	0
22	.1	0	0	0	.3	10	36	5	4.2	4.9	0	0
23	0	0	0	0	.1	6	35	7	4.2	4.7	0	0
24	0	0	0	0	.1	0	28	7	4.2	4.6	0	0
25	.3	.5	0	0	.1	0	34	7	4.4	4.4	0	0
26	.1	.5	0	0	.1	0	36	7	4.4	4.4	0	0
27	.1	.3	0	0	.2	0	34	7	3.3	4.4	0	0
28	.1	.1	0	0	.1	0	29	5	4.6	4.2	0	1.1
29	.1	.2	.2	0	.1	2.6	28	4.3	4.7	4.1	0	1.9
30	.2	.2	.1	0	-	3.8	30	6.5	4.9	4.1	0	.7
31	.1	-	0	0	-	1.3	-	6.5	-	4.2	0	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						5.0	0.3	0	0.16	9.9		
November.....						3.7	.5	0	.12	7.3		
December.....						1.9	.8	0	.06	3.8		
Calendar year 1935.....						2,537.6	97	0	6.95	5,030		
January.....						.1	.1	0	.003	.20		
February.....						4.0	.9	0	.14	7.9		
March.....						30.4	10	0	.98	60		
April.....						730.4	40	0	24.3	1,450		
May.....						468.3	57	4.3	15.1	929		
June.....						127.6	6.5	0	4.25	253		
July.....						133.8	5	3.4	4.32	265		
August.....						9.5	4.2	0	.31	19		
September.....						14.9	4.1	0	.50	30		
Water year 1935-36.....						1,529.2	57	0	4.18	3,040		

## Tujunga Creek near Colby Ranch, Calif.

Location.- Water-stage recorder, lat. 34°18'10", long. 118°09'35", 25 feet above crossing of Edison road, 300 feet below Lucas Creek, 4 miles above Tujunga flood-control dam no. 1 and 3½ miles west of Colby Ranch.

Drainage area.- 66.9 square miles.

Records available.- October 1930 to September 1936.

Extremes.- Maximum discharge during water year 1935-36, 159 second-feet Feb. 12; no flow July 2 to Sept. 30.

1930-36: Maximum discharge, 3,910 second-feet Feb. 8, 1932; no flow during part of each year.

Remarks.- Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.6	1.1	1.2	4.2	10	11	2.4	0.9	0.1		
2	.3	.6	1.2	1.2	28	9.5	9.5	2.3	.8	0		
3	.3	.6	1.2	1.2	8.5	9	8	2.2	.8	0		
4	.3	.6	1.2	1.2	4.3	8	14	2.3	.7	0		
5	.3	.6	1.2	1.2	3.5	7.5	11	2.2	.6	0		
6	.3	.7	1.2	1.2	2.7	7.5	9.5	2.1	.6	0		
7	.3	.8	1.2	1.2	2.4	7	9	2.0	.6	0		
8	.3	.8	1.2	1.2	2.4	7	9	1.7	.6	0		
9	.3	.8	1.2	1.2	2.5	6	7.5	1.6	.6	0		
10	.3	.8	1.2	1.2	2.5	6	6.5	1.5	.5	0		
11	.3	.9	1.2	1.2	14	5.5	6	1.4	.5	0		
12	.3	.9	1.1	1.3	60	5.5	6	1.3	.5	0		
13	.4	.9	1.2	1.4	44	5	5	1.2	.4	0		
14	.4	1.0	1.2	1.4	44	5	4.6	1.0	.4	0		
15	.4	1.1	1.2	1.4	60	4.8	3.9	1.0	.4	0		
16	.4	1.2	1.2	1.4	48	5	3.8	1.0	.4	0		
17	.4	1.4	1.1	1.4	34	4.8	3.8	.9	.4	0		
18	.4	1.5	1.1	1.4	31	4.6	3.6	.9	.4	0		
19	.4	1.6	1.1	1.4	22	4.6	3.8	.9	.4	0		
20	.4	1.4	1.1	1.4	18	4.6	3.9	.9	.4	0		
21	.5	1.5	1.0	1.3	16	4.6	3.8	.8	.3	0		
22	.5	1.3	1.0	1.3	14	4.6	3.6	.8	.3	0		
23	.5	1.3	1.1	1.3	50	4.6	3.5	.7	.3	0		
24	.5	1.2	1.2	1.3	28	4.6	3.5	.7	.2	0		
25	.5	1.2	1.2	1.3	20	5.5	3.2	.7	.2	0		
26	.5	1.1	1.2	1.3	17	5	2.9	.8	.2	0		
27	.5	1.2	1.2	1.2	15	6	2.7	.8	.2	0		
28	.6	1.1	1.2	1.3	13	7.5	2.7	.9	.2	0		
29	.6	1.1	1.7	1.3	11	9.5	2.5	.9	.1	0		
30	.6	1.1	1.4	1.4	-	11	2.4	.9	.1	0		
31	.6	-	1.3	1.3	-	20	-	.9	-	0		
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						12.6	0.6	0.2	0.41	25		
November.....						30.8	1.5	.6	1.03	61		
December.....						36.9	1.7	1.0	1.19	73		
Calendar year 1935.....						4,262.4	296	0	11.7	8,450		
January.....						40.0	1.4	1.2	1.29	79		
February.....						620.5	60	2.4	21.4	1,230		
March.....						209.8	20	4.6	6.77	416		
April.....						170.2	14	2.4	5.67	338		
May.....						39.7	2.4	.7	1.28	79		
June.....						13.0	.9	.1	.43	26		
July.....						.1	.1	0	.003	.2		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1935-36.....						1,173.6	60	0	3.21	2,330		

## Tujunga Creek near Sunland, Calif.

Location.- Water-stage recorder, lat. 34°17'55", long. 118°16'10", near center of sec. 32, T. 3 N., R. 13 W. (unsurveyed), a quarter of a mile downstream from a partly constructed and abandoned dam, 2 miles above mouth of canyon, and 4 miles northeast of Sunland.

Drainage area.- 106 square miles.

Records available.- October 1916 to September 1936.

Average discharge.- 19 years (1917-36), 21.3 second-feet.

Extremes.- Maximum discharge during water year 1935-36, 494 second-feet Feb. 2;

minimum, 2.4 second-feet several days in December.

1916-36: Maximum discharge, 8,500 second-feet Dec. 19, 1921 (gage height, 6.20 feet); minimum, 0.1 second-foot during summers of 1919, 1924, 1928-31.

Remarks.- Flow regulated by flood control dam 7 miles upstream. Two or three small diversions for irrigation above gage. Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	15	2.7	4.0	13	9	7	4.2	3.7	3.7	10	11
2	25	15	2.7	3.5	74	18	6	4.2	4.0	4.0	10	11
3	26	13	2.6	3.0	11	33	6	4.2	4.0	4.0	10	11
4	25	12	2.4	3.0	8	27	12	4.0	3.7	4.0	9.5	11
5	26	11	2.4	3.2	6	17	10	3.5	3.7	3.7	9.5	10
6	25	10	2.4	3.5	4.0	16	8.5	3.3	3.7	4.2	9.5	10
7	24	9.5	2.4	3.3	4.5	13	4.8	3.2	4.0	4.0	9.5	10
8	24	10	2.4	3.3	7.5	13	5.5	3.0	3.7	4.0	9.5	10
9	23	14	2.6	3.3	12	14	5.5	3.0	3.7	4.4	9.5	10
10	23	10	2.6	3.3	18	15	5.5	3.2	3.7	4.2	9	9.5
11	23	8	3.8	3.5	42	16	5	3.2	3.5	3.7	9	8.5
12	22	7.5	6.5	5.5	150	16	5.5	3.2	3.5	3.5	9	8.5
13	22	5	16	4.4	145	15	5	3.7	3.5	3.0	9	8
14	23	4.0	12	4.0	65	13	5.5	4.0	3.5	4.1	9.5	8
15	23	3.5	4.2	3.7	51	12	5	4.4	3.5	3.1	9.5	7.5
16	26	3.0	6	3.5	72	11	5.5	4.4	3.5	6	9	7
17	25	7	7.5	3.5	44	9	5.5	4.4	3.3	6.5	8.5	6.5
18	25	11	4.6	3.5	41	7.5	5.5	4.6	3.3	6.5	8.5	6
19	24	19	4.0	3.5	49	4.8	5.5	4.8	3.3	7	9	6
20	24	16	3.5	3.3	46	4.6	5.5	4.8	3.3	7.5	8.5	6
21	24	5	3.5	3.3	38	4.4	5.5	4.8	3.3	8	8.5	6
22	22	9	3.2	3.3	32	4.2	5.5	4.6	3.5	8	9	6.5
23	22	11	3.2	3.3	57	3.7	5.5	4.0	3.3	9	9	9.5
24	22	4.4	3.2	3.2	30	4.2	5	4.0	3.3	9	9	9.5
25	21	3.2	3.0	3.3	20	3.7	4.8	3.5	3.3	10	8.5	8.5
26	21	7	3.2	3.3	22	3.7	4.6	3.5	3.3	10	9	7.5
27	20	4.4	3.2	3.2	26	4.6	4.6	3.7	3.5	10	11	7.5
28	19	3.2	3.2	3.2	34	6.5	4.6	3.7	3.2	10	11	6.5
29	18	2.9	5	3.2	16	10	4.4	3.7	3.3	10	11	5.5
30	17	2.8	5	3.2	-	20	4.4	3.7	3.5	10	11	4.8
31	16	-	4.4	3.2	-	26	-	3.7	-	10	11	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						704	26	16	22.7	1,400		
November.....						256.4	19	2.8	8.55	509		
December.....						133.4	16	2.4	4.30	265		
Calendar year 1935 .....						7,860.2	354	2.4	21.5	15,590		
January.....						107.5	5.5	3.0	3.47	213		
February.....						1,132.1	150	4.0	39.2	2,260		
March.....						375.1	33	3.7	12.1	744		
April.....						173.2	12	4.4	5.77	344		
May.....						120.2	4.8	3.0	3.88	238		
June.....						105.4	4.0	3.2	3.51	209		
July.....						194.9	10	3.0	6.29	387		
August.....						293.5	11	8.5	9.47	582		
September.....						247.3	11	4.8	8.24	491		
Water year 1935-36 .....						3,849.0	150	2.4	10.5	7,640		

## Fox Creek near Colby Ranch, Calif.

Location.— Water-stage recorder, lat. 34°18'20", long. 118°10'40", half a mile above junction with Tujunga Creek and 4 miles west of Colby Ranch, Los Angeles County.

Drainage area.— 9.35 square miles.

Records available.— October 1930 to September 1936.

Extremes.— Maximum discharge during water year 1935-36, 410 second-feet Feb. 2; no flow at times.

1930-36: Maximum discharge, that of Feb. 2, 1936 (gage height, 4.50 feet); no flow at times.

Remarks.— Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.2	0.2	0.2	0.3	4.7	2.0	1.1	0.4	0.1		
2	0	.2	.2	.2	16	5	1.7	1.0	.4	.1		
3	0	.1	.2	.3	.7	4.5	1.6	1.0	.4	.1		
4	0	.1	.2	.2	.6	3.7	4.1	1.0	.3	.1		
5	0	.1	.2	.2	.5	3.3	3.1	.9	.3	.1		
6	0	.2	.2	.2	.4	2.9	2.9	.9	.3	.1		
7	0	.1	.2	.2	.4	2.7	2.5	.9	.3	.1		
8	0	.1	.2	.2	.4	2.5	2.5	.9	.3	.1		
9	0	.1	.2	.2	.4	2.2	2.5	.8	.3	.1		
10	0	.2	.2	.2	.4	2.0	2.5	.8	.2	.1		
11	0	.2	.2	.2	6.5	2.0	2.3	.8	.2	.1		
12	0	.2	.2	.2	32	1.8	2.0	.8	.2	.1		
13	0	.2	.2	.2	18	1.6	2.0	.7	.2	.1		
14	0	.2	.2	.2	10	1.3	1.7	.7	.2	.1		
15	0	.2	.2	.2	13	1.4	1.6	.7	.2	0		
16	0	.2	.2	.2	11	1.4	1.4	.7	.2	0		
17	0	.3	.2	.2	6	1.8	1.3	.6	.2	.1		
18	0	.2	.2	.2	7	1.6	1.3	.6	.2	0		
19	0	.2	.2	.2	8.5	1.6	1.3	.6	.1	0		
20	.1	.2	.2	.2	6.5	1.6	1.3	.6	.1	.1		
21	.1	.2	.2	.2	6.5	1.4	1.2	.6	.1	0		
22	.1	.2	.2	.2	8	1.4	1.2	.5	.1	0		
23	.1	.2	.2	.2	18	1.4	1.2	.5	.1	0		
24	.1	.2	.2	.2	11	1.7	1.1	.4	.1	0		
25	.1	.2	.2	.2	9.5	1.7	1.1	.4	.1	0		
26	.1	.2	.3	.2	8	1.6	1.0	.4	.1	.1		
27	.1	.2	.3	.2	6.5	1.4	1.1	.4	.1	.1		
28	.1	.2	.3	.2	6	1.4	1.1	.5	.1	.1		
29	.1	.2	.6	.2	5.5	1.3	1.1	.4	.1	.1		
30	.1	.2	.2	.2	-	2.5	1.1	.4	.1	.1		
31	.2	-	.2	.2	-	5.5	-	.4	-	0		
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					1.3	0.2	0	0.04	2.6			
November.....					5.5	.3	.1	.18	11			
December.....					6.9	.6	.2	.22	14			
Calendar year 1935.....					504.2	17	0	1.38	1,000			
January.....					6.3	.3	.2	.20	12			
February.....					219.6	32	.3	7.57	456			
March.....					68.5	5	1.3	2.21	136			
April.....					52.8	4.1	1.0	1.76	108			
May.....					21	1.1	.4	.68	42			
June.....					6	.4	.1	.20	12			
July.....					2.1	.1	0	.07	4.2			
August.....					0	0	0	0	0			
September.....					0	0	0	0	0			
Water year 1935-36.....					390.0	32	0	1.06	775			

## Little Tujunga Creek near San Fernando, Calif.

Location.- Water-stage recorder, lat. 34°18'30", long. 118°22'20", in Tujunga grant, on Foothill Boulevard bridge, 4 miles east of San Fernando, Los Angeles County.

Drainage area.- 21.0 square miles.

Records available.- December 1928 to September 1936.

Extremes.- Maximum discharge during water year 1935-36, 653 second-feet Feb. 2; no flow during most of year.

1928-36: Maximum discharge, 1,360 second-feet Jan. 1, 1934; no flow during most of each year.

Remarks.- Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					10	0.2	0.2					
2					62	0	0					
3					0	0	0					
4					0	0	2.6					
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					49	0	0					
12					83	0	0					
13					39	0	0					
14					29	0	0					
15					16	0	0					
16					44	0	0					
17					9.5	0	0					
18					16	0	0					
19					1.6	0	0					
20					1.6	0	0					
21					1.3	0	0					
22					9.5	0	0					
23					49	0	0					
24					5	0	0					
25					3.1	0	0					
26					4.4	0	0					
27					2.4	0	0					
28					1.2	0	0					
29					.3	0	0					
30					-	10	0					
31					-	18	-					
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0	0	0	0	0			
November.....					0	0	0	0	0			
December.....					0	0	0	0	0			
Calendar year 1935 .....					129.1	33	0	.35	256			
January.....					0	0	0	0	0			
February.....					435.9	83	0	15.1	867			
March.....					28.2	18	0	.91	56			
April.....					2.3	2.6	0	.09	5.6			
May.....					0	0	0	0	0			
June.....					0	0	0	0	0			
July.....					0	0	0	0	0			
August.....					0	0	0	0	0			
September.....					0	0	0	0	0			
Water year 1935-36 .....					467.9	83	0	1.28	929			

## Haines Creek near Tujunga, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}15'50''$ , long.  $118^{\circ}16'15''$ , in SW  $\frac{1}{4}$  sec. 17, T. 2 N., R. 13 W., 800 feet above mouth of canyon and  $1\frac{1}{2}$  miles northeast of Tujunga. Altitude, about 2,200 feet.

Drainage area.- 1.2 square miles.

Records available.- February 1917 to September 1934 and October 1935 to September 1937.

Average discharge.- 19 years, .11 second-foot.

Extremes.- Maximum discharge during year, about 40 second-feet Dec. 27, from rating extended above 1.0 second-foot; no flow for several months.

1917-34, 1935-37: Maximum stage, 11.0 feet Jan. 1, 1934 (discharge not determined); no flow for periods nearly every year.

Remarks.- Records fair. Discharge for Oct. 18, computed on basis of rainfall records and Records Arroyo Seco near Pasadena, Calif.; that for June 1-21, computed on basis of two discharge measurements.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	0.03	0.01	0.35	0.64	0.15	0.01			
2	0		0	.05	.01	.32	.69	.15	.01			
3	0		0	.05	.01	.32	.69	.13	.01			
4	0		0	.03	.01	.32	.64	.13	.01			
5	0		0	.03	.01	.35	.60	.11	.01			
6	0		0	.02	.42	.35	.57	.11	.01			
7	0		0	.02	.35	.29	.53	.06	.01			
8	0		0	.03	.05	.29	.53	.05	.01			
9	0		0	.03	.03	.29	.46	.05	.01			
10	0		0	.04	.04	.26	.39	.05	.01			
11	0		0	.04	.06	.26	.32	.05	.01			
12	0		0	.04	.06	.88	.32	.05	.01			
13	0		0	.05	.40	2.26	.32	.05	.01			
14	0		0	.05	1.95	.64	.35	.05	.01			
15	0		.59	.05	.46	1.21	.35	.05	.01			
16	0		.01	.05	.39	.9	.35	.05	.01			
17	0		0	.05	.35	.8	.32	.05	.01			
18	.5		0	.05	.35	.7	.29	.05	.01			
19	0		0	.05	.39	.7	.29	.05	.01			
20	0		0	.04	.39	.7	.26	.05	.01			
21	0		0	.04	.39	.7	.29	.04	.01			
22	0		0	.04	.39	.9	.26	.04	0			
23	0		0	.04	.39	.8	.24	.03	0			
24	0		0	.04	.41	.9	.24	.03	0			
25	0		.25	.04	1.40	.7	.21	.02	0			
26	0		.05	.04	.64	.7	.24	.01	0			
27	0		4.64	.04	.46	.7	.21	.01	0			
28	0		.23	.04	.39	.8	.19	.01	0			
29	0		.01	.04	-	.7	.17	.01	0			
30	0		1.08	.20	-	.60	.17	.01	0			
31	0		.58	.06	-	.55	-	.01	-			
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0.5	0.5	0	0.015	0.99		
November.....						0	0	0	0	0		
December.....						7.44	4.64	0	.240	14.8		
Calendar year 1936.....						13.25	-	-	.036	26.3		
January.....						1.38	.20	.02	.045	2.74		
February.....						10.21	1.95	.01	.365	20.3		
March.....						20.22	2.26	.26	.652	40.1		
April.....						11.13	.69	.17	.371	22.1		
May.....						1.71	.15	.01	.652	3.39		
June.....						.21	.01	0	.007	.42		
July.....						0	0	0	0	0		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						52.80	4.64	0	.145	105		

## Arroyo Seco near Pasadena, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}13'20''$ , long.  $118^{\circ}10'40''$ , near north line of Sec. 31, T. 2 N., R. 12 W.,  $1\frac{1}{2}$  miles above mouth of Millard Canyon and  $5\frac{1}{2}$  miles northwest of Pasadena. Altitude, about 1,400 feet.

Drainage area.- 16.4 square miles.

Records available.- December 1910 to September 1937.

Average discharge. - 23 years (1913-15, 1916-37); 8.76 second-feet.

Extremes.- Maximum discharge during year, 640 second-feet Feb. 6 (gage height, 4.50 feet); minimum, 0.1 second-foot Oct. 1-18.

1910-37: Maximum discharge, about 5,630 second-feet Feb. 20, 1914 (gage height, 12.5 feet); practically no flow for several months of nearly every year.

Remarks.- Records fair. Discharge Oct. 1 to Dec. 26, Jan. 2-7 computed on basis of 14 discharge measurements, partial gage-height records, and records for stations on nearby streams. No diversions above station. Some measurements furnished by Los Angeles County Flood Control District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	8	0.8	75	22	29	47	14	8	3.1	1.6	1.0
2	.1	3.0	.8	40	18	30	47	13	8	2.9	1.6	1.0
3	.1	.9	.9	34	17	30	43	13	8	2.9	1.6	.9
4	.1	.8	.9	30	16	29	40	13	8	2.9	1.4	.9
5	.1	.8	.9	28	20	28	38	14	8	2.9	1.0	.9
6	.1	.8	.9	25	183	25	37	14	8	2.7	.9	.8
7	.1	.7	.9	21	148	24	34	14	7.5	2.7	1.0	.8
8	.1	.7	.9	22	86	23	32	13	7	2.7	1.1	.8
9	.1	.7	1.0	23	66	21	30	13	6.5	2.7	1.1	.8
10	.1	.7	1.0	22	52	20	29	12	6.5	2.7	1.2	.8
11	.1	.6	1.0	18	29	20	28	11	6	2.7	1.2	.8
12	.1	.6	1.0	15	25	74	26	11	5.5	2.7	1.2	.7
13	.1	.6	1.0	11	79	160	25	11	5.5	2.7	1.2	.7
14	.1	.6	1.0	9.5	261	58	24	11	5	2.5	1.1	.6
15	.1	.6	25	9.5	118	106	22	11	6	2.5	1.1	.6
16	.1	.6	15	9.5	92	95	22	11	5	2.5	1.1	.6
17	.5	.6	7.5	9.5	70	66	22	11	5.3	2.5	1.0	.4
18	15	.6	4.0	9.5	54	75	22	10	5.5	2.3	1.0	.4
19	3.0	.6	3.4	9.5	45	65	22	9.5	5.5	2.3	1.0	.5
20	1.0	.7	2.9	8.5	45	58	21	8.5	5	2.1	1.0	.5
21	.7	.7	2.7	8.5	43	56	19	8.5	4.8	2.1	1.1	.6
22	.5	.7	2.5	8	40	78	18	9	4.5	2.1	1.1	.8
23	.5	.7	2.3	8	37	63	18	9.5	4.2	2.1	1.1	.8
24	.4	.7	2.2	7.5	42	68	17	9.5	3.9	2.0	1.0	.9
25	.4	.7	4.0	7	61	63	16	9.5	3.9	1.8	.9	.8
26	.4	.7	3.2	7	45	56	15	10	3.9	1.6	.9	.8
27	.3	.7	81	6.5	38	54	15	9.5	3.9	1.5	.9	.8
28	.3	.7	50	6.5	34	52	15	8.5	3.9	1.4	.9	.8
29	.3	.8	34	19	-	52	14	8.5	3.9	1.2	.9	1.0
30	.6	.8	87	49	-	51	14	9	3.4	1.4	1.0	1.1
31	15	-	140	34	-	49	-	9	-	1.5	1.0	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				40.5		15	0.1	1.31	80			
November.....				30.4		8	.6	1.01	60			
December.....				479.7		140	.8	16.5	951			
Calendar year 1936.....				2,292.7		191	.1	6.26	4,540			
January.....				590.5		75	6.5	19.0	1,170			
February.....				1,784		261	16	63.7	3,540			
March.....				1,677		160	20	54.1	3,330			
April.....				772		47	14	25.7	1,630			
May.....				338.5		14	8.5	10.9	671			
June.....				189.3		8	3.4	5.64	356			
July.....				71.7		3.1	1.2	2.31	142			
August.....				34.1		1.6	.9	1.10	68			
September.....				22.7		1.1	.4	.76	46			
Water year 1936-37.....				6,010.4		261	.1	16.5	11,920			

## Santa Anita Creek near Sierra Madre, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}11'30''$ , long.  $118^{\circ}01'00''$ , in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 10, T. 1 N., R. 11 W., at head of Hermits Falls, 4 miles northeast of Sierra Madre. Altitude, about 1,400 feet.

Drainage area.- 10.5 square miles.

Records available.- July 1916 to September 1937.

Average discharge.- 21 years 4.84 second-feet.

Extremes.- Maximum discharge during year, 570 second-feet Dec. 27 (gage height, 5.40 feet); minimum, 0.2 second-foot Oct. 7-15.

1916-37: Maximum discharge, about, 3,300 second-feet (revised) Apr. 7, 1926 (gage height, 10.7 feet); practically no flow Aug. 18 to Sept. 14, 1929.

Remarks.- Records good. Discharge July 21 to Aug. 8, Aug. 13 to Sept. 8 computed on basis of records for Little Santa Anita Creek near Sierra Madre, Calif. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	2.0	1.0	36	24	26	34	15	9	3.4	2.3	1.4
2	.4	1.4	1.0	24	21	25	33	14	8.5	3.4	2.3	1.3
3	.5	1.2	1.0	19	19	23	32	14	8.5	3.4	2.2	1.3
4	.4	1.2	1.1	16	17	22	30	14	8.5	3.2	2.2	1.3
5	.4	1.1	1.1	17	18	21	29	14	8.5	3.2	2.2	1.2
6	.3	1.1	1.1	21	139	20	27	14	8	5.1	2.1	1.2
7	.3	1.1	1.1	17	116	19	26	14	7.5	3.0	2.1	1.2
8	.2	1.0	1.1	14	66	19	25	13	7.5	2.9	2.1	1.2
9	.2	1.0	1.1	12	51	19	24	13	7.5	2.9	2.0	1.2
10	.2	.9	1.1	12	41	18	23	13	7	3.0	2.0	1.2
11	.2	.9	1.1	11	36	18	22	12	7	3.0	1.9	1.2
12	.2	.9	1.1	13	32	29	21	11	6.5	3.0	1.9	1.2
13	.2	.9	1.0	12	68	63	21	11	6.6	3.1	1.9	1.3
14	.2	.9	1.0	11	185	37	20	11	6.5	3.1	1.9	1.3
15	.2	.9	33	11	112	55	19	11	6	3.1	1.9	1.3
16	.5	.9	21	11	75	61	19	11	6	3.0	1.8	1.3
17	2.2	.9	6.5	10	60	51	18	10	6	3.0	1.8	1.2
18	7	.9	4.8	10	51	48	18	10	6	2.9	1.8	1.3
19	2.4	.9	4.6	9	45	45	18	10	6	2.7	1.7	1.4
20	1.6	.9	4.4	9	44	43	17	10	5.5	2.6	1.7	1.6
21	1.2	.9	4.4	8	39	41	17	10	5	2.6	1.7	1.6
22	.8	.9	4.2	7.6	34	46	17	11	5	2.6	1.7	1.8
23	.6	.9	4.2	7.5	29	42	17	11	5	2.6	1.6	1.8
24	.6	1.0	4.2	7	32	44	17	11	4.9	2.5	1.6	1.6
25	.6	1.0	5.5	6.5	37	42	16	11	4.6	2.5	1.6	1.6
26	.6	1.0	4.1	6.5	32	41	16	11	4.4	2.5	1.5	1.5
27	.5	1.0	108	6	30	41	17	10	4.1	2.4	1.5	1.6
28	.5	1.0	68	6.5	27	39	16	10	3.9	2.4	1.5	1.8
29	.6	1.0	37	11	-	37	16	10	3.8	2.4	1.5	2.0
30	.7	1.0	72	34	-	36	15	11	3.6	2.3	1.4	2.1
31	6.5	-	101	32	-	35	-	10	-	2.3	1.4	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				30.8		7	0.2	0.99	61			
November.....				30.7		2.6	0.9	1.02	61			
December.....				501.8		108	1.0	16.2	995			
Calendar year 1936.....				1,936.6		108	.2	5.30	3,850			
January.....				427.5		36	6	13.8	848			
February.....				1,480		185	17	52.9	2,940			
March.....				1,106		61	18	35.7	2,190			
April.....				640		34	15	21.3	1,270			
May.....				361		15	10	11.6	718			
June.....				186.8		9	3.6	6.23	371			
July.....				88.1		3.4	2.3	2.84	175			
August.....				56.8		2.3	1.4	1.85	113			
September.....				43.0		2.1	1.2	1.45	85			
Water year 1936-37.....				4,952.5		185	.2	13.6	9,820			



## Little Santa Anita Creek near Sierra Madre, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}11'15''$ , long.  $118^{\circ}02'35''$ , near center of NW $\frac{1}{4}$  Sec. 9, T. 1 N., R. 11 W., 2 miles northeast of Sierra Madre. Altitude, about 2,200 feet.

Drainage area.- 1.9 square miles.

Records available.- April 1916 to September 1937.

Average discharge.- 20 years (1918-25, 1926-37), 0.854 second-foot.

Extremes.- Maximum discharge during year, 100 second-feet Dec. 27 (gage height, 2.00 feet); minimum, discharge less than 0.1 second-foot at times during October. 1916-37: Maximum stage, 11.75 feet Apr. 7, 1928 (discharge not determined); no flow during periods in 1919, 1924, and 1925.

Remarks.- Records fair. Discharge Jan. 4 to Feb. 11 computed on basis of two discharge measurements and records for Santa Anita Creek near Sierra Madre. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	0.2	0.1	4.0	2.5	3.6	4.9	2.2	1.4	0.7	0.5	0.2
2	-	.2	.1	3.1	2.2	3.4	4.7	2.1	1.3	.7	.5	.2
3	-	.2	.1	2.2	2.0	3.4	4.4	2.0	1.3	.7	.4	.2
4	-	.2	.2	2.0	1.7	3.4	4.2	2.0	1.3	.7	.4	.2
5	-	.1	.2	2.2	1.8	3.3	4.0	2.0	1.3	.7	.4	.2
6	-	.2	.2	2.5	1.4	3.2	4.0	2.0	1.3	.7	.4	.2
7	-	.2	.2	2.2	1.2	3.1	4.0	2.0	1.3	.7	.4	.2
8	-	.1	.2	1.8	9	3.0	3.8	2.0	1.3	.7	.4	.2
9	-	.1	.2	1.5	6.5	3.0	3.6	1.9	1.3	.6	.3	.2
10	-	.1	.2	1.2	6	2.8	3.6	1.9	1.2	.6	.3	.2
11	-	.1	.2	1.1	6	2.7	3.6	1.7	1.2	.6	.3	.2
12	-	.1	.1	1.3	5.5	3.6	3.4	1.7	1.1	.6	.3	.2
13	-	.1	.1	1.2	8	6	3.3	1.7	1.1	.6	.3	.2
14	-	.1	.2	1.2	26	4.4	3.3	1.7	1.1	.6	.3	.2
15	-	.1	3.3	1.1	18	6.8	3.2	1.6	1.0	.6	.3	.2
16	-	.1	1.8	1.1	14	9	3.2	1.6	1.0	.6	.3	.2
17	0.3	.1	.8	1.0	11	7	3.2	1.6	1.0	.6	.4	.2
18	.6	.1	.6	1.0	9	7	3.2	1.6	.9	.6	.4	.2
19	.3	.1	.4	.9	7.5	6.5	3.1	1.6	.9	.6	.3	.2
20	.2	.1	.4	.9	6.5	6	3.0	1.5	.9	.6	.3	.2
21	.2	.1	.3	.9	5.5	6	2.8	1.5	.8	.5	.3	.2
22	.1	.1	.3	.8	4.9	7.5	2.8	1.6	.8	.5	.3	.2
23	.1	.1	.3	.8	4.4	6.5	2.8	1.6	.8	.5	.3	.2
24	.1	.1	.3	.8	4.4	7	2.7	1.6	.8	.5	.3	.2
25	.1	.1	.6	.7	4.9	6.5	2.7	1.5	.8	.5	.3	.2
26	.1	.1	.3	.7	4.2	6	2.7	1.5	.8	.5	.3	.2
27	.1	.1	7.5	.6	4.0	6	2.7	1.4	.8	.5	.2	.2
28	-	.1	3.0	1.0	3.8	5.5	2.6	1.4	.8	.5	.2	.2
29	.1	.1	1.8	2.0	-	5.5	2.5	1.4	.7	.5	.2	.2
30	.2	.1	4.6	5	-	5	2.3	1.5	.7	.5	.2	.2
31	.5	-	7.5	4.0	-	4.9	-	1.5	-	.5	.2	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					3.34	0.6	-	0.108	6.6			
November.....					3.6	.2	0.1	.12	7.1			
December.....					36.1	7.5	.1	1.16	72			
Calendar year 1936.....					230.39	9.5	-	.63	457			
January.....					50.6	5	.6	1.63	100			
February.....					206.3	26	1.7	7.33	407			
March.....					166.6	8	2.7	5.05	311			
April.....					100.3	4.9	2.3	3.34	199			
May.....					52.9	2.2	1.4	1.71	105			
June.....					31.0	1.4	.7	1.03	61			
July.....					18.3	.7	.5	.59	36			
August.....					10.0	.5	.2	.32	20			
September.....					6.0	.2	.2	.20	12			
Water year 1936-37.....					674.04	26	-	1.85	1,340			

Note.- Discharge less than 0.1 second-foot on days for which no discharge is given.

## Eaton Creek near Pasadena, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}11'40''$ , long.  $118^{\circ}06'15''$ , in SE $\frac{1}{4}$  sec. 2, T. 1 N., R. 12 W., at mouth of canyon, just above Mount Wilson toll bridge and 4 miles north-east of Pasadena. Altitude, 1,230 feet.

Drainage area.- 6.5 square miles.

Records available.- March 1918 to September 1937.

Average discharge.- 19 years, 2.10 second-feet.

Extremes.- Maximum discharge during year, 305 second-feet Dec. 27 (gage height, 3.50 feet); no flow for several months.

1918-37: Maximum discharge, about 1,360 second-feet Apr. 7, 1926 (gage height, 5.0 feet); no flow for some periods of each year.

Remarks.- Records good. Tables of daily and monthly discharge do not include water diverted above station by city of Pasadena; record of diversion furnished by city. Results of several discharge measurements furnished by Los Angeles County Flood Control District.

Monthly diversion, in acre-feet, from Eaton Creek  
by city of Pasadena, water year 1936-37

October	18	May	218
November	42	June	200
December	58	July	110
January	227	August	65
February	200	September	42
March	198		
April	235	The year	1,610

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.6	0	18	7.5	15	15	2.6	0.2			
2	0	0	0	12	4.2	11	17	2.4	.1			
3	0	0	0	4.6	3.2	9	15	2.3	0			
4	0	0	0	4.2	3.4	10	12	1.3	0			
5	0	0	0	6.5	3.6	9.5	12	2.2	1.0			
6	0	0	0	8.5	92	6.5	11	2.6	1.0			
7	0	0	0	3.2	102	4.2	11	2.6	0			
8	0	0	0	2.1	36	4.9	11	1.8	0			
9	0	0	0	1.6	22	7.5	8.5	1.5	0			
10	0	0	0	.6	17	8.5	8.5	2.1	0			
11	0	0	0	.2	15	6	10	2.2	0			
12	0	0	0	2.4	14	17	7.5	1.6	0			
13	0	0	0	2.3	18	44	7.5	1.1	0			
14	0	0	0	.3	112	21	6	0	0			
15	0	0	16	1.0	61	26	6.5	0	0			
16	0	0	14	.8	41	36	6.5	0	0			
17	0	0	2.1	.6	28	25	6	3.3	0			
18	3.6	0	0	0	23	21	5.5	4.2	0			
19	2.2	0	0	.8	20	18	5.5	3.6	0			
20	.6	0	0	.8	18	18	4.9	1.4	0			
21	.1	0	0	.3	17	17	4.6	0	0			
22	0	0	0	0	16	22	4.4	1.0	0			
23	0	0	0	0	12	18	4.2	2.1	0			
24	0	0	0	0	13	17	3.9	1.4	0			
25	0	0	3.5	0	20	19	2.9	4.4	0			
26	0	0	1.8	0	13	18	2.9	2.8	0			
27	0	0	43	0	10	18	3.6	1.3	0			
28	0	0	20	0	12	18	3.6	2.6	0			
29	.1	0	11	2.4	-	18	3.6	2.4	0			
30	.1	0	24	14	-	17	3.4	2.6	0			
31	3.3	-	56	16	-	15	-	1.5	-			
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						9.9	3.5	0	0.32	20		
November.....						16	6	0	.02	1.2		
December.....						191.4	56	0	6.17	380		
Calendar year 1936.....						638.1	56	0	1.74	1,270		
January.....						103.2	18	0	3.33	205		
February.....						752.9	112	3.2	26.9	1,490		
March.....						515.1	44	4.2	18.6	1,020		
April.....						224.0	17	2.9	7.47	444		
May.....						60.9	4.4	0	1.96	121		
June.....						2.3	1.0	0	.77	4.6		
July.....						0	0	0	0	0		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						1,860.3	112	0	5.10	3,690		

## Rio Hondo near Montebello, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}01'55''$ , long.  $118^{\circ}04'15''$ , in Potrero Grande grant, at Montebello oil field, about 1,000 feet above Mission bridge and 2 miles northeast of Montebello, Los Angeles County.

Records available.- October 1928 to September 1936.

Extremes.- Maximum discharge during water year 1935-36, 2,890 second-feet Feb. 12 (gage height, 8.38 feet); minimum, 7.0 second-feet Aug. 25, Sept. 5.

1928-36: Maximum discharge, 11,800 second-feet Jan. 1, 1934; minimum, 0.3 second-foot Dec. 1, 1933.

Remarks.- Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	20	18	17	80	27	21	19	20	14	19	10
2	25	24	17	17	247	31	24	19	18	14	19	11
3	25	19	18	17	15	33	52	19	17	16	19	12
4	24	25	19	17	17	31	177	20	17	17	16	15
5	20	24	18	17	20	37	120	21	18	17	15	16
6	18	20	19	17	22	42	81	22	17	16	15	12
7	21	19	19	18	22	40	27	20	16	16	15	13
8	18	20	17	18	22	40	22	20	16	15	18	15
9	19	22	18	17	22	44	50	21	16	16	16	16
10	17	22	20	17	21	44	56	20	17	15	16	17
11	17	25	17	17	333	47	35	22	15	16	13	18
12	20	24	17	18	446	37	30	24	15	16	11	16
13	18	27	18	19	145	37	31	22	16	15	11	14
14	17	27	17	20	220	44	33	21	17	17	11	18
15	17	28	17	19	72	47	35	21	14	12	13	14
16	19	30	17	19	314	55	31	20	15	15	13	16
17	19	91	16	21	44	52	25	18	14	15	11	16
18	19	17	16	22	79	44	30	18	14	14	11	13
19	21	17	16	21	17	95	31	17	15	15	12	15
20	20	15	15	21	24	90	24	16	16	14	12	15
21	21	15	18	21	24	81	21	16	13	12	14	16
22	20	16	17	19	24	73	21	18	16	11	15	17
23	20	17	19	19	172	77	21	18	17	15	13	16
24	17	18	19	18	31	76	21	17	17	15	14	19
25	17	18	20	19	25	73	20	20	15	16	11	18
26	17	19	21	19	24	59	20	19	16	16	12	18
27	16	20	21	19	21	55	19	19	16	19	11	18
28	20	20	22	18	21	52	18	18	17	15	11	19
29	20	18	33	20	25	44	18	19	16	16	12	17
30	18	19	15	19	-	177	19	19	15	14	13	16
31	19	-	16	20	-	196	-	17	-	17	13	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					603	25	16	19.5	1,200			
November.....					696	91	15	23.2	1,580			
December.....					570	33	15	18.4	1,130			
Calendar year 1935.....					12,870.5	885	8.5	35.3	25,540			
January.....					580	22	17	18.7	1,150			
February.....					2,549	446	15	88	5,060			
March.....					1,880	196	27	60.6	3,730			
April.....					1,115	177	18	37.1	2,210			
May.....					600	24	16	19.4	1,190			
June.....					481	20	13	16	954			
July.....					470	19	11	15.2	932			
August.....					425	19	11	13.7	843			
September.....					468	19	10	15.5	924			
Water year 1935-36.....					10,433	446	10	28.5	20,700			

## Rio Hondo near Downey, Calif.

Location.- Water-stage recorder, lat. 33°56'40", long. 118°09'50", in San Antonio grant, on Stewart and Gray road bridge, half a mile above junction with Los Angeles River, and 1½ miles west of Downey, Los Angeles County.

Drainage area.- 374 square miles.

Records available.- March 1928 to September 1936.

Extremes.- Maximum discharge during water year 1935-36, 3,160 second-feet Feb. 12; no flow during several periods.

1928-36: Maximum discharge, 16,000 second-feet Jan. 1, 1934; no flow during part of each year.

Remarks.- Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	1.6	1.7	3.7	0	0	3.3				
2		0	1.3	.4	117	0	0	2.7				
3		0	1.2	.7	.5	0	0	1.5				
4		0	0	1.8	0	0	124	.8				
5		0	0	1.8	0	0	5.5	0				
6		.4	0	1.8	0	0	4.4	.8				
7		1.3	0	1.2	0	0	1.0	.9				
8		1.3	0	2.1	0	0	1.4	.8				
9		1.5	0	1.6	0	0	1.1	.6				
10		1.1	0	1.3	0	0	.6	0				
11		1.4	0	1.1	221	1.3	.2	0				
12		.9	1.0	0	472	1.1	.9	0				
13		.7	1.5	.2	84	0	.5	0				
14		.5	1.8	1.2	113	.1	.5	0				
15		0	1.2	1.2	132	1.1	.3	0				
16		0	1.2	1.1	193	1.1	.1	0				
17		.4	1.2	1.9	1.1	1.5	.6	0				
18		.2	1.8	4.4	11	.8	.9	0				
19		0	.8	7.5	.7	1.2	1.6	0				
20		0	1.8	9.5	0	1.7	1.4	.1				
21		0	1.0	24	0	1.9	2.2	.3				
22		0	.3	28	0	1.2	3.1	.1				
23		0	1.6	35	87	1.2	2.2	.3				
24		0	2.2	27	0	2.7	1.4	0				
25		0	3.1	12	0	4.8	3.1	0				
26		0	2.4	24	0	2.7	4.0	.1				
27		0	1.8	14	0	0	2.8	0				
28		.5	2.5	1.4	0	.2	3.0	0				
29		1.3	2.6	7	0	1.9	2.8	0				
30		1.1	0	0	-	5	3.8	0				
31		-	.4	2.6	-	211	-	0				
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						12.6	1.5	0	.42	25		
December.....						34.3	3.1	0	1.11	63		
Calendar year 1935.....						2,189.6	667	0	6.00	4,340		
January.....						218.5	36	0	7.05	433		
February.....						1,436	472	0	49.5	2,850		
March.....						242.5	211	0	7.82	461		
April.....						173.4	124	0	5.78	344		
May.....						12.3	3.3	0	.40	24		
June.....						0	0	0	0	0		
July.....						0	0	0	0	0		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1935-36.....						2,129.6	472	0	5.82	4,220		

## Rio Hondo Slough near Montebello, Calif.

Location.- Water-stage recorder, lat. 34°01'45", long. 118°04'07", in Paso de Bartolo grant, on San Gabriel Boulevard bridge, 2 miles northeast of Montebello, Los Angeles County.

Records available.- October 1932 to September 1936.

Extremes.- Maximum discharge during water year 1935-36, 38 second-feet Feb. 12; minimum, 8.0 second-feet Sept. 12.

1932-36: Maximum discharge, 166 second-feet Jan. 1, 1934; minimum, 4.8 second-feet Oct. 4, 1935.

Remarks.- Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	13	13	13	16	17	16	16	14	12	10	11
2	13	14	13	13	20	17	15	16	14	12	10	11
3	13	14	13	13	17	17	16	16	13	11	10	11
4	13	14	13	14	16	17	17	16	13	11	9.5	10
5	13	14	12	14	15	17	17	15	13	12	9.5	10
6	13	14	13	14	15	17	17	15	13	12	9.5	11
7	13	14	13	14	15	17	17	14	14	11	9.5	11
8	13	14	13	14	15	17	17	14	14	11	10	10
9	13	14	14	14	16	17	16	14	14	10	10	10
10	13	14	14	14	16	17	15	14	14	11	11	9.5
11	13	14	14	14	23	17	15	14	14	11	10	9.5
12	13	13	14	14	26	17	15	14	14	11	10	9.5
13	13	13	14	14	22	17	15	15	14	11	9.5	9.5
14	13	13	14	14	21	17	15	14	14	11	9.5	9.5
15	14	13	14	14	22	17	15	14	14	11	9.5	9.5
16	14	13	14	14	26	17	15	14	14	11	10	9.5
17	13	14	13	14	20	17	15	15	13	11	9.5	9.5
18	13	14	13	14	20	17	15	14	12	10	9.5	9.5
19	13	13	13	14	19	16	15	14	13	11	9.5	10
20	13	13	14	15	18	16	16	14	12	11	9.5	10
21	13	13	14	14	18	16	16	14	12	10	9.5	10
22	13	13	14	14	18	16	16	14	12	10	9.5	11
23	12	13	14	13	21	15	18	14	12	9.5	9.5	11
24	12	13	14	13	18	16	16	14	13	10	9.5	10
25	12	13	14	13	18	16	16	14	12	10	9.5	11
26	12	13	13	13	17	15	16	15	12	10	9.5	10
27	12	13	13	13	17	15	15	14	11	10	9.5	11
28	12	13	13	14	17	15	16	14	11	11	10	11
29	13	13	14	14	17	16	16	14	12	11	10	10
30	13	13	14	14	-	16	16	13	13	10	11	10
31	13	-	14	14	-	17	-	14	-	10	11	-
Month												
						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						399	14	12	12.9	791		
November.....						402	14	13	13.4	797		
December.....						419	14	12	13.5	831		
Calendar year 1935.....						4,803.0	22	10	13.2	9,520		
January.....						427	15	13	13.8	847		
February.....						539	26	15	18.6	1,070		
March.....						509	17	15	16.4	1,010		
April.....						473	17	15	16.8	938		
May.....						445	16	13	14.4	883		
June.....						390	14	11	13	774		
July.....						333.5	12	9.5	10.8	661		
August.....						304	11	9.5	9.81	603		
September.....						305.5	11	9.5	10.2	606		
Water year 1935-36.....						4,946.0	26	9.5	13.5	9,810		

## Ballona Creek near Culver City, Calif.

Location.— Water-stage recorder, lat. 33°59'50", long. 118°24'10", in La Ballona grant, on Sawtelle Boulevard bridge, about 1½ miles south of Culver City, Los Angeles County. Prior to May 15, 1936, water-stage recorder on Centinela Boulevard bridge one mile downstream.

Drainage area.— 112 square miles.

Records available.— February 1928 to September 1936.

Extremes of discharge.— Maximum discharge during water year 1935-36, 8,070 second-feet Feb. 12; no flow at times.

1928-36: Maximum discharge, 11,300 second-feet Jan. 1, 1934; no flow at times during each year.

Remarks.— Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	0	2.8	277	1.2	16	-	3.4	0	0	0
2	0	105	0	2.1	487	1.0	8.5	-	.8	0	.1	0
3	0	9.5	0	5	2.2	1.3	195	-	.2	.6	.4	0
4	0	3.4	22	6	3.1	1.3	198	-	.2	0	0	0
5	0	.2	.8	6	3.4	1.6	2.5	-	0	0	0	0
6	0	1.3	0	6	2.0	1.2	2.8	-	0	0	0	0
7	0	1.0	0	7.5	4.0	1.4	2.9	-	0	1.4	0	0
8	0	0	0	9	2.8	1.7	2.9	-	0	.3	0	0
9	0	0	0	10	3.4	2.0	2.9	-	0	1.1	0	.2
10	0	0	0	6.5	5	3.8	2.8	-	0	2.4	0	.1
11	0	0	0	5.5	692	1.2	2.0	-	0	3.9	0	0
12	0	0	0	10	929	.2	1.4	-	0	6.5	0	0
13	0	0	0	12	391	.4	1.4	-	0	3.4	0	0
14	0	0	.1	5	504	.1	.7	-	0	3.4	.2	1.0
15	9	0	.3	1.7	59	0	1.7	1.8	0	3.0	0	1.0
16	.9	0	.2	7.5	507	.1	1.4	2.7	0	3.4	.2	1.0
17	.5	634	0	2.0	15	0	1.8	2.2	0	2.4	1.3	.8
18	0	13	0	.6	195	.1	1.8	2.1	0	1.6	0	1.8
19	.6	3.4	0	0	11	.5	2.2	.2	0	1.6	0	1.5
20	2.1	.1	0	0.1	8.5	.3	2.1	1.2	0	1.8	0	.6
21	0	0	0	1.8	8.5	0	1.8	0	0	1.3	0	.6
22	0	0	0	2.6	9.5	.2	1.3	.2	0	1.0	0	.3
23	0	0	0	2.9	240	0	.8	.2	0	1.8	0	.4
24	0	0	0	2.8	3.8	37	.1	0	0	1.1	0	.4
25	0	0	0	3.8	2.2	4.2	0	.6	0	2.4	0	.9
26	0	0	0	.3	2.1	.9	0	.4	0	1.6	0	0
27	0	0	1.7	0	1.4	0	-	.5	0	1.5	0	0
28	0	0	.2	0	1.0	2.6	-	.5	0	2.1	0	0
29	0	0	157	45	1.0	2.2	-	.6	0	2.1	0	0
30	0	0	1.3	6.5	-	482	-	3.4	0	1.8	0	1.6
31	0	-	5	4.1	-	168	-	2.7	-	2.1	0	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					13.1	2.1	0	0.42	26			
November.....					770.9	634	0	25.7	1,530			
December.....					188.6	157	0	6.08	374			
Calendar year 1935.....					9,272.8	2,190	0	2.54	18,390			
January.....					175.1	45	0	5.65	347			
February.....					4,370.9	929	1.0	151	8,670			
March.....					716.6	482	0	23.1	1,420			
April 1-28.....					454.8	198	0	17.5	902			
May 15-31.....					19.3	3.4	0	1.14	38			
June.....					4.6	3.4	0	.15	9.1			
July.....					55.4	6.5	0	1.79	110			
August.....					2.2	1.3	0	.07	4.4			
September.....					12.2	1.8	0	.41	24			
Water year.....												

## Topanga Creek near Topanga Beach, Calif.

Location.- Water-stage recorder, lat. 34°03'50", long. 118°35'10", in Boca de Santa Monica grant, on highway bridge, 2 miles north of Topanga Beach, Los Angeles County.

Drainage area.- 17.9 square miles.

Records available.- January 1930 to September 1936.

Extremes.- Maximum discharge during water year 1935-36, 528 second-feet Feb. 22; no flow at times.

1930-36: Maximum discharge, 4,510 second-feet Dec. 31, 1933 (gage height, 11.27 feet); no flow at times during each year 1933-36.

Remarks.- Records furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

## Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.1	0.1	3.2	3.9	8.5	2.4	0.2	0	0.1	
2		0	.1	.1	6.5	3.6	3.0	1.8	.2	.1	.1	
3		0	.1	.1	.6	3.9	5.5	1.3	.1	.1	.1	
4		0	.1	.1	.5	3.6	12	1.1	.1	.1	.1	
5		0	.1	.1	.5	3.4	2.2	1.1	.1	.1	.1	
6		0	.2	.1	.6	3.4	1.3	.5	.2	.1	.1	
7		0	.3	.1	.6	3.4	1.2	.3	0	.2	.1	
8		0	.3	.1	.7	3.2	1.2	.5	0	.2	.1	
9		0	.2	.1	.7	3.2	1.2	.5	.1	0	.1	
10		0	.3	.1	.9	3.2	1.3	.5	.1	0	.1	
11		0	.4	.1	.7	3.2	1.2	.4	.1	0	.1	
12		0	.4	.1	29	3.0	1.1	.4	.2	0	0	
13		0	.4	.1	15	3.0	1.1	.3	.2	0	0	
14		0	.3	.1	36	3.0	1.1	.2	.3	0	0	
15		0	.3	0	46	2.8	1.1	.1	.1	0	0	
16		0	.4	0	70	2.6	1.2	.1	0	0	0	
17		0	.3	0	27	2.8	1.1	.2	0	0	0	
18		0	.3	0	20	2.8	1.1	.1	.1	0	0	
19		0	.3	.1	3.2	2.4	1.1	0	.1	0	0	
20		0	.4	.1	4.2	2.2	1.0	.1	0	0	0	
21		0	.4	.1	3.6	2.2	1.1	.1	.1	0	0	
22		0	.4	.1	77	1.4	1.0	0	.1	0	0	
23		0	.4	.1	74	1.8	1.0	0	.1	0	0	
24		0	.4	.1	61	2.4	1.1	.1	.1	0	0	
25		0	.4	.1	34	1.2	1.1	.2	.1	0	0	
26		0	.4	.1	13	.7	1.0	.1	0	0	0	
27		0	.4	.1	3.6	.4	1.1	0	0	0	0	
28		0	.5	.1	3.6	.3	1.1	.1	0	.1	0	
29		0	1.5	.1	3.9	.5	1.1	.2	0	.1	0	
30		.1	.1	.1	-	26	1.8	.2	.1	.1	0	
31		-	.1	.1	-	21	-	.1	-	.1	0	
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0	0	0	0	0			
November.....					.1	.1	0	.003	.2			
December.....					10.3	1.5	.1	.33	20			
Calendar year 1935.....					648.29	130	0	1.78	1,290			
January.....					2.7	.1	0	.09	5.4			
February.....					539.6	77	.5	18.6	1,070			
March.....					120.5	26	.3	3.89	239			
April.....					59.9	12	1.0	2.0	119			
May.....					13.0	2.4	0	.42	26			
June.....					2.8	.3	0	.09	5.6			
July.....					1.3	.2	0	.04	2.6			
August.....					1.1	.1	0	.04	2.2			
September.....					0	0	0	0	0			
Water year 1935-36.....					751.3	77	0	2.05	1,490			

Malibu Creek at Crater Camp, near Calabasas, Calif.

Location.- Water-stage recorder, lat. 34°04'30", long. 118°42'10", in SW¼ sec. 18, T. 1 S., R. 17 W., a quarter of a mile below Crater Camp and 6 miles southwest of Calabasas.

Drainage area.- 103 square miles.

Records available.- January 1931 to September 1936.

Extremes.- Maximum discharge during water year 1936-37, 147 second-feet Feb. 23; no flow at times.

1931-36: Maximum discharge, 9,650 second-feet Jan. 1, 1934 (gage height, 13.73 feet); no flow during several periods in 1932 and 1936.

Remarks.- Record furnished by Los Angeles County Flood Control District, through C. H. Howell, chief engineer.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	.1	0.2	0.2	0.3	0.8	5	32	5	0.9	0.4	0.2	0
2	.1	.2	.2	.3	.9	5	17	5	.9	.4	.2	0
3	.1	.2	.2	.3	.8	6.5	10	5	.9	.4	.2	0
4	.1	.2	.2	.3	.8	6.5	27	5	.9	.4	.2	0
5	.1	.2	.2	.3	.8	7	28	4.7	.9	.5	.2	0
6	.1	.2	.2	.3	.8	8	18	4.9	.8	.4	.2	0
7	.1	.2	.2	.3	.8	7	14	4.7	.8	.4	.2	0
8	.2	.2	.2	.3	.8	6.5	10	4.1	.9	.5	.2	0
9	.2	.3	.2	.3	.8	6.5	9.5	2.5	.8	.5	.2	0
10	.2	.3	.2	.3	.8	6.5	8.5	2.0	.8	.4	.2	.1
11	.1	.3	.2	.3	2.4	6	7.5	1.5	.8	.4	.2	.1
12	.1	.3	.2	.3	14	5.5	7	1.8	.8	.4	.2	.1
13	.1	.3	.2	.3	9	5	6.5	1.6	.8	.4	.1	.1
14	.1	.3	.2	.3	9	5	6.5	1.4	.7	.4	.1	.1
15	.1	.3	.2	.3	10	5	6.5	1.4	.7	.3	.1	.1
16	.1	.3	.2	.3	76	4.9	7	1.3	.7	.3	.1	.1
17	.1	1.6	.2	.4	35	4.7	6.5	1.2	.7	.3	.1	.1
18	.1	.3	.2	.4	30	4.5	6.5	1.2	.7	.3	.1	.1
19	.1	.3	.2	.4	26	4.2	6.5	1.2	.7	.3	.1	.1
20	.1	.2	.3	.4	18	4.0	6	1.2	.7	.3	.1	.1
21	.1	.2	.3	.4	14	3.8	5	1.1	.7	.3	0	0
22	.1	.2	.3	.3	17	3.6	5.5	1.0	.6	.3	0	.1
23	.1	.2	.3	.3	92	2.8	5.5	1.1	.6	.3	0	.1
24	.1	.2	.3	.3	53	3.0	5.5	1.1	.6	.3	0	.1
25	.1	.2	.3	.3	33	3.8	5.5	1.0	.5	.3	0	.1
26	.2	.2	.3	.3	24	2.8	5	1.0	.5	.3	0	0
27	.2	.2	.3	.4	20	2.6	5	.9	.4	.3	0	0
28	.2	.2	.3	.4	18	2.6	5	.9	.4	.3	0	0
29	.3	.2	.4	.4	13	2.8	5	.9	.4	.3	0	0
30	.3	.2	.3	.4	-	5	5	.9	.5	.2	0	.1
31	.3	-	.3	.4	-	69	-	.9	-	.2	0	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						4.3	0.3	0.1	0.14	8.5		
November.....						8.4	1.6	.2	.28	17		
December.....						7.5	.4	.2	.24	15		
Calendar year 1935.....						3,097.5	511	.1	8.49	6,140		
January.....						10.3	.4	.3	.33	20		
February.....						520.5	92	.8	17.9	1,030		
March.....						218.6	69	2.6	7.05	434		
April.....						292.5	32	5	9.75	580		
May.....						67.5	5	.9	2.18	134		
June.....						21.1	.9	.4	.70	42		
July.....						10.8	.5	.2	.35	21		
August.....						3.3	.2	0	.11	6.5		
September.....						1.6	.1	0	.05	3.2		
Water year 1935-36.....						1,166.4	92	0	3.19	2,310		



## Santa Clara River near Saugus, Calif.

Location.- Water-stage recorder, lat. 34°25'42", long. 118°35'23", in San Francisco grant, on pier of old highway bridge, 3 miles west of Saugus, Los Angeles County.

Drainage area.- 355 square miles.

Records available.- October 1929 to September 1936.

Extremes.- Maximum discharge during water year 1935-36, 833 second-feet Feb. 23; no flow at times.

1929-36: Maximum discharge, 3,870 second-feet Jan. 1, 1934 (gage height, 15.07 feet); no flow Aug. 10, 1933 and at times during 1935-36.

Remarks.- Record furnished by Los Angeles County Flood Control District.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.1	0.2	0.3	19	22	2.6	0.2	0.1			
2	0	.1	.2	.3	16	15	.4	.2	.1			
3	0	.1	.2	.3	13	8	.4	.2	.1			
4	0	.1	.2	.2	13	6.5	.2	.2	.1			
5	0	.1	.2	.2	12	4.8	.2	.2	.1			
6	0	.1	.2	.2	10	3.8	.2	.2	.1			
7	0	.1	.2	.2	10	2.6	.2	.2	.1			
8	0	.1	.2	.2	10	1.9	.2	.2	.1			
9	0	.1	.2	.2	8	1.4	.2	.2	.1			
10	0	.1	.2	.2	12	.9	.2	.2	0			
11	0	.1	.2	.2	19	.5	.2	.2	0			
12	0	.1	.2	.2	99	.4	.2	.2	0			
13	0	.1	.2	.2	4.8	.4	.2	.2	0			
14	0	.1	.2	.2	13	.5	.2	.2	0			
15	0	.1	.2	.2	46	.5	.2	.2	0			
16	0	.1	.2	.2	31	.5	.3	.2	0			
17	0	.1	.2	.2	22	.5	.4	.2	0			
18	0	.1	.2	.2	5	.5	.4	.2	0			
19	.1	.1	.2	.2	4.1	.4	.3	.2	0			
20	.1	.1	.2	.2	8	.4	.3	.2	0			
21	.1	.1	.2	.2	8	.4	.3	.2	0			
22	.1	.1	.2	.2	12	.3	.3	.2	0			
23	.1	.1	.2	.2	113	.4	.3	.2	0			
24	.1	.1	.2	.2	32	.5	.2	.2	0			
25	.1	.1	.2	.2	15	.4	.2	.2	0			
26	.1	.1	.2	.2	15	.4	.2	.2	0			
27	.1	.2	.2	.2	26	.5	.2	.2	0			
28	.1	.2	.2	.2	39	1.9	.2	.2	0			
29	.1	.2	3.3	.2	29	4.1	.2	.2	0			
30	.1	.2	9.5	.2	-	4.8	.2	.2	0			
31	.1	-	.5	.3	-	4.5	-	.1	-			
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					1.3	0.1	0	0.04	2.6			
November.....					3.4	.2	.1	.11	6.7			
December.....					18.9	9.5	.2	.61	37			
Calendar year 1935.....					434.35	82	0	1.19	862			
January.....					6.6	.3	.2	.21	13			
February.....					663.9	113	4.1	22.9	1,320			
March.....					89.7	22	.3	2.9	178			
April.....					9.8	2.6	.2	.35	19			
May.....					6.1	.2	.1	.20	12			
June.....					.9	.1	0	.03	1.8			
July.....					0	0	0	0	0			
August.....					0	0	0	0	0			
September.....					0	0	0	0	0			
Water year 1935-36.....					800.6	113	0	2.19	1,590			

## Piru Creek near Piru, Calif.

Location.— Water-stage recorder, lat.  $34^{\circ}25'30''$ , long.  $118^{\circ}45'45''$ , in southern part of Temescal grant, about 1-3/4 miles northeast of Piru, Ventura County, and 2 miles above junction with Santa Clara River. Altitude, about 780 feet.

Drainage area.— 432 square miles.

Records available.— October 1911 to September 1913 and October 1934 to September 1937. October 1927 to September 1934, at site at Piru, 1 1/2 miles downstream.

Average discharge.— 10 years (1927-37), 32.3 second-feet.

Extremes.— Maximum discharge during year, 5,000 second-feet Feb. 14 (gage height, 8.9 feet); minimum, 0.5 second-foot Oct. 1.

1911-13, 1927-37: Maximum discharge, 15,800 second-feet Feb. 9, 1932; no flow during parts of some years.

Remarks.— Records good. The Doheny Ditch diverts above and Piru Water Co. diverts below station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	4.1	4.5	101	111	154	302	84	32	11	2.8	2.0
2	.6	5.4	4.8	72	82	147	312	79	29	9.5	2.8	2.0
3	.6	2.7	5	65	78	127	294	77	26	7.5	2.5	2.0
4	.6	2.5	5	54	72	123	271	75	26	7.5	2.4	2.0
5	.6	2.5	5	45	78	120	252	79	28	7.5	2.5	2.0
6	.6	2.6	5	62	874	118	245	89	26	7	2.4	2.3
7	.6	2.6	4.8	49	1,090	113	231	66	23	7	2.4	2.3
8	.6	2.3	4.8	30	283	107	213	70	23	6.5	2.4	2.1
9	.7	2.4	4.8	26	199	103	202	61	23	6.5	2.5	2.0
10	.8	2.6	4.6	25	152	103	199	58	23	6	2.4	2.0
11	.8	2.6	4.8	26	135	107	196	55	22	6	2.4	2.2
12	.8	2.6	5	45	127	407	186	51	19	5.5	2.3	2.3
13	.9	2.6	5	40	397	1,120	180	49	18	5.5	2.3	2.3
14	1.0	2.8	8.5	35	3,290	583	193	47	18	5	2.3	2.4
15	1.0	2.9	112	35	1,490	609	206	44	17	5	2.4	2.5
16	1.4	2.9	130	35	674	1,080	206	43	17	5	2.5	2.4
17	2.4	2.8	70	34	461	643	180	43	17	5	2.4	2.4
18	123	2.8	34	35	340	503	154	40	16	5	2.4	2.5
19	169	2.8	22	36	275	428	144	38	14	4.8	2.3	2.5
20	33	2.9	19	33	224	385	150	45	14	4.5	2.3	2.6
21	11	3.2	17	21	189	345	147	44	12	3.9	2.4	2.7
22	5.5	3.4	16	20	177	615	150	44	12	3.9	2.3	2.8
23	4.1	3.8	14	22	171	390	140	46	12	3.7	2.0	2.8
24	3.3	3.9	14	27	174	422	125	46	12	3.7	1.9	2.7
25	2.9	3.9	19	31	213	380	125	46	12	3.6	2.0	2.6
26	2.7	4.1	17	28	180	331	123	47	12	3.7	2.1	2.6
27	2.4	4.1	522	27	171	326	123	42	12	3.4	1.9	2.7
28	2.3	4.2	206	31	160	307	123	39	12	3.2	1.9	2.7
29	2.4	4.4	91	70	-	290	105	40	12	2.9	2.0	2.9
30	2.6	4.5	263	333	-	290	89	39	12	2.9	2.1	2.7
31	13	-	278	191	-	298	-	35	-	2.9	2.0	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						391.8	169	0.6	12.6	777		
November.....						94.9	4.5	2.3	3.16	198		
December.....						1,915.6	522	4.5	61.8	3,800		
Calendar year 1936.....						9,301.3	522	.4	25.4	18,450		
January.....						1,684	333	20	54.3	3,340		
February.....						11,867	3,290	72	424	23,640		
March.....						11,079	1,120	103	357	21,970		
April.....						5,598	312	89	185	11,020		
May.....						1,651	89	35	54.2	3,350		
June.....						551	32	12	18.4	1,090		
July.....						165.1	11	2.9	5.33	327		
August.....						71.3	2.8	1.9	2.30	141		
September.....						72.0	2.9	2.0	2.40	143		
Water year 1936-37.....						35,128.7	3,290	.6	96.2	69,670		

## Sespe Creek near Fillmore, Calif.

Location.- Water-stage recorder, lat. 34°26'55", long. 118°55'35", in NE¼ sec. 12, T. 4 N., R. 20 W., 0.1 mile below junction with Little Sespe Creek and 3¼ miles north of Fillmore. Altitude, about 590 feet.

Drainage area.- 257 square miles, at former site.

Records available.- November 1934 to September 1937. September 1911 to September 1913 and October 1927 to November 1934 equivalent records at site at Sespe, 3 miles downstream.

Average discharge.- 10 years (1927-37), 70.2 second-feet.

Extremes.- Maximum discharge during year, 12,800 second-feet Feb. 14 (gage height, 9.00 feet); minimum, less than 0.1 second-foot many times during Oct. 1-18.

1927-37: Maximum discharge, about 34,000 second-feet Dec. 31, 1933; no flow at times during most years.

Remarks.- Records good. About 5,240 acre-feet of water was diverted by Fillmore Irrigation Co. 1 mile above station. See tables of miscellaneous discharge measurements.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	18	1.8	396	321	310	501	113	46	9	1.4	0.4
2	.1	14	1.8	250	268	290	489	110	42	8.5	1.4	.4
3	.1	12	1.9	200	284	270	435	105	40	8	1.0	.4
4	.1	11	2.2	167	255	250	400	102	40	7.5	.6	.4
5	.1	11	1.5	160	326	238	366	100	40	7	.4	.4
6	.1	11	1.0	196	3,910	230	361	97	39	6.5	.4	.4
7	.1	10	1.0	156	2,450	226	335	94	38	6	.4	.4
8	.1	10	1.0	132	1,010	218	325	92	38	6	.3	.4
9	.1	10	.8	113	667	214	300	92	36	5.5	.3	.4
10	.1	10	.8	105	513	206	290	92	33	5.5	.4	.4
11	.1	10	.7	97	383	203	275	89	32	5.5	.4	.4
12	.1	10	.6	150	398	1,090	265	84	31	6	.4	.4
13	.1	10	.6	147	2,350	3,840	250	82	30	4.4	.4	.4
14	.1	10	2.3	129	8,250	1,450	250	80	29	4.4	.4	.4
15	.1	10	769	120	3,060	1,780	250	78	29	4.1	.5	.4
16	.1	8.5	546	120	1,500	2,300	246	74	28	3.9	.5	.4
17	57	6.5	138	113	1,010	1,210	230	65	26	3.9	.5	.4
18	57	4.6	77	113	765	863	218	38	25	3.6	.5	.4
19	333	3.6	56	110	611	702	210	54	22	3.4	.5	.4
20	50	2.4	45	100	507	597	203	54	20	3.4	.4	.4
21	28	2.2	40	88	441	519	192	54	19	3.2	.4	.4
22	21	2.1	37	84	388	2,390	188	54	19	2.9	.4	.4
23	18	2.1	32	84	356	1,100	177	56	19	2.2	.4	.4
24	14	1.9	30	84	350	1,020	163	56	18	2.2	.4	.4
25	13	1.8	38	79	538	904	156	56	17	2.1	.4	.4
26	12	1.8	34	75	411	772	153	56	15	1.9	.4	.4
27	11	1.8	2,580	75	350	702	147	53	15	1.4	.4	.4
28	11	1.8	588	79	325	646	140	53	13	1.3	.4	.4
29	11	1.8	268	174	-	577	131	53	12	1.2	.4	.4
30	14	1.8	642	1,170	-	538	122	51	11	1.2	.4	.4
31	42	-	1,270	552	-	519	-	48	-	1.3	.4	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				1,403.6	757	0.1	45.3	2,780				
November.....				211.7	18	1.8	7.06	420				
December.....				7,207.8	2,580	.6	233	14,300				
Calendar year 1936 .....				33,060.2	2,950	.1	90.3	65,570				
January.....				5,618	1,170	75	181	11,140				
February.....				31,967	8,250	255	114	63,410				
March.....				26,144	3,840	203	943	51,660				
April.....				7,768	501	122	259	15,410				
May.....				2,305	113	48	74.4	4,570				
June.....				822	46	11	27.4	1,630				
July.....				133.0	9	1.2	4.29	284				
August.....				15.5	1.4	.3	.50	31				
September.....				12.0	.4	.4	.40	24				
Water year 1936-37 .....				83,607.6	8,250	.1	229	165,800				

## Santa Paula Creek near Santa Paula, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}23'40''$ , long.  $119^{\circ}04'35''$ , near east boundary Ex Mission San Buenaventura grant, 50 feet upstream from Santa Paula Water Works diversion dam and about 3 miles north of Santa Paula, Ventura County. Altitude, about 650 feet.

Drainage area.- 39.8 square miles.

Records available.- October 1927 to September 1936. April 1912 to September 1913, at site about  $2\frac{1}{2}$  miles upstream. October 1927 to February 1931, at site 500 feet downstream, below diversion of Santa Paula Water Works.

Average discharge.- 10 years (1927-37), 14.5 second-feet.

Extremes.- Maximum discharge during year, 1,350 second-feet Feb. 14 (gage height, 4.32 feet); minimum, 1.5 second-feet Oct. 10.  
1927-37: Maximum discharge, about 10,000 second-feet Dec. 31, 1933 (gage height, 8.30 feet); minimum, 0.3 second-foot Aug. 25, 1933.

Remarks.- Records good. About 211 acre-feet of water was diverted above station. Daily discharge Oct. 1-16 and July 1 to Sept. 30 furnished by Santa Paula Water Works.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	5.5	3.0	47	74	77	127	42	18	10	8	5
2	1.6	4.9	2.7	35	66	77	121	38	17	9.5	6.5	5.5
3	2.0	4.6	3.1	32	61	74	111	39	16	9.5	6	6
4	2.9	4.4	3.5	29	58	70	101	38	15	9	5.5	6
5	2.9	4.4	3.8	31	83	68	93	33	17	8	5	5.5
6												
7	2.5	4.6	3.8	34	61.6	66	90	33	16	9	5	5.5
8	2.3	4.6	3.8	29	270	66	88	31	15	9	4.9	4.9
9	2.0	4.4	3.6	28	162	64	85	29	15	9	5	4.6
10	1.9	4.6	3.8	27	121	59	81	31	16	9.5	5	4.7
11	1.5	4.6	3.0	25	101	58	77	33	15	9.5	5	4.2
12												
13	2.0	4.4	2.8	24	101	58	74	32	13	9.5	4.5	3.9
14	2.5	4.2	3.3	27	93	166	70	29	13	9	4.6	4.4
15	2.5	4.0	4.0	28	350	460	66	27	13	9.5	4.1	3.9
16	2.5	4.2	4.2	27	866	241	68	25	13	9.5	4.9	3.8
17	2.5	4.4	57	26	505	259	66	24	13	10	4.8	3.7
18												
19	2.9	4.4	3.6	25	326	247	64	26	13	9.5	4.8	3.6
20	20	3.5	13	24	220	192	64	24	13	9	4.7	3.5
21	109	3.5	9.5	24	166	166	62	23	13	8	4.7	3.9
22	17	3.5	7	23	144	147	59	22	13	8	4.5	4.7
23	9	3.3	7	23	121	133	54	23	13	8	4.8	4.5
24												
25	6.5	3.6	6.5	21	106	133	54	23	12	7.5	4.8	4.2
26	5.5	4.2	6	19	93	308	54	26	13	6.5	5	4.9
27	4.9	3.5	5.5	18	83	201	53	27	13	7	5.5	4.6
28	4.6	3.1	5.5	17	97	225	50	24	13	7	4.3	3.9
29	4.6	3.3	6.5	16	114	201	48	23	13	7.5	3.7	3.4
30												
31	4.4	3.3	6	15	92	178	48	23	12	8	3.6	4.2
32	4.2	3.3	226	14	85	166	48	23	11	7.5	3.5	4.5
33	4.2	3.3	59	14	83	151	47	23	11	7.5	4.4	4.4
34	4.2	4.2	35	14	-	147	44	22	10	6.5	4.8	4.9
35	4.6	3.6	113	224	-	140	43	21	10	6	5	6
36	15	-	104	108	-	133	-	20	-	7.5	5.5	-
37												
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					254.2	109	1.5	8.20	504			
November.....					121.4	5.5	3.1	4.05	241			
December.....					750.9	226	2.7	24.2	1,490			
Calendar year 1936.....					7,616.4	655	.8	20.8	15,110			
January.....					1,048	224	14	33.8	2,080			
February.....					5,257	866	58	188	10,430			
March.....					4,731	460	58	153	9,380			
April.....					2,112	127	43	70.4	4,190			
May.....					857	42	20	27.6	1,700			
June.....					408	18	10	13.6	809			
July.....					260.5	10	6	8.40	517			
August.....					152.4	8	3.5	4.92	302			
September.....					136.8	6	3.4	4.56	271			
Water year 1936-37.....					16,089.2	866	1.5	44.1	31,910			

## Matilija Creek at Matilija, Calif.

Location.- Water-stage recorder, lat. 34°29'05", long. 119°18'30", in NE¼ sec. 29, T. 5 N., R. 23 W., half a mile northwest of Matilija. Altitude, about 970 feet.

Drainage area.- 55 square miles.

Records available.- October 1927 to September 1937.

Average discharge.- 10 years, 20.8 second-feet.

Extremes.- Maximum discharge during year, 2,180 second-feet Feb. 14 (gage height, 5.85 feet); minimum, 1.9 second-feet Oct. 10.  
1927-37: Maximum discharge, 7,000 second-feet Dec. 31, 1933 (gage height, 7.20 feet); minimum, 0.4 second-foot Oct. 28, 1930.

Remarks.- Record good. Discharge Jan. 3-25 computed on basis of five discharge measurements and records for Ventura River near Ventura. No diversion above station. Results of 24 discharge measurements furnished by Ventura County Water Survey.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	6.5	5.5	86	60	122	220	61	34	18	12	8
2	2.6	5.5	5.5	73	58	116	205	58	32	18	12	8
3	2.6	5.5	6	65	55	112	194	57	31	18	11	7.5
4	2.6	5.5	6	58	53	105	180	57	31	18	11	7.5
5	2.4	5.5	6	52	77	103	170	57	31	18	11	7
6												
7	2.2	5.5	6	*47	527	97	160	57	30	17	10	7
8	2.2	5.5	6	*41	421	95	150	56	30	16	10	7
9	2.0	5.5	6	*37	230	95	145	53	29	16	10	7
10	2.0	5.5	6	36	162	90	140	52	29	16	10	7
11	2.0	5.5	5.5	34	136	86	134	50	28	16	9.5	6.5
12	2.0	5.5	5.5	33	123	84	125	48	26	16	9	6.5
13	2.0	5.5	5.5	48	117	256	121	45	26	16	9	6.5
14	2.2	4.9	10	42	573	950	117	45	25	16	9	6
15	2.4	4.9	74	*34	1,270	418	111	43	25	16	9	6
16				33	770	711	106	42	24	16	9	6
17	2.4	4.9	40	32	397	570	102	42	23	16	9	6
18	3.9	4.9	19	31	279	382	98	41	23	16	9	6
19	83	4.6	15	30	279	325	95	40	22	16	8.5	6
20	20	4.6	14	28	248	275	88	39	22	15	8.5	6
21	10	4.9	12	27	229	240	83	39	22	14	8.5	6.5
22												
23	8	4.9	11	*26	189	251	80	39	22	14	8.5	6.5
24	7.5	5.5	10	26	165	715	76	40	22	14	8.5	7
25	7	5.5	9.5	26	148	470	75	42	22	14	8.5	7
26	6.5	5.5	9.5	25	162	450	72	42	21	14	8.5	7
27	6.5	5.5	10	25	173	399	70	42	21	13	8.5	6.5
28	6	5.5	9.5	25	148	352	70	39	21	13	8	6.5
29	5.5	5.5	256	25	136	324	70	38	20	12	7.5	6.5
30	5.5	5.5	75	27	129	295	68	39	20	12	7.5	7
31	5.5	5.5	64	28	-	276	65	39	20	12	7.5	7
	5.5	5.5	188	70	-	255	62	38	19	12	8	7.5
	8.5	-	155	64	-	239	-	36	-	12	8	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				224.9		83	2.0	7.25	446			
November.....				160.6		6.5	4.6	5.35	319			
December.....				1,056.5		256	5.5	34.1	2,100			
Calendar year 1936 .....				7,316.7		374	2.0	20.0	14,520			
January.....				1,234		86	25	39.8	2,450			
February.....				7,314		1,270	53	261	14,510			
March.....				9,259		960	84	299	18,360			
April.....				3,452		220	62	115	6,850			
May.....				1,416		61	36	45.7	2,810			
June.....				751		34	19	25.0	1,490			
July.....				470		18	12	16.2	932			
August.....				284.0		12	7.5	9.16	563			
September.....				202.5		8	6	6.75	402			
Water year 1936-37 .....				25,824.5		1,270	2.0	70.8	51,230			

\*Discharge measurement.

## Ventura River near Ventura, Calif.

Location.- Water-stage recorder, lat. 34°20'55", long. 119°18'20", in southeast corner of Santa Ana grant, at highway bridge at entrance to Foster Memorial Park, a quarter of a mile below Ventura diversion dam and mouth of Coyote Creek and 5 miles north of Ventura, Ventura County. Altitude, about 210 feet.

Drainage area.- 187 square miles.

Records available.- September 1911 to January 1914, October 1929 to September 1937.

Average discharge.- 10 years (1911-13, 1929-37), 42.0 second-feet.

Extremes.- Maximum discharge during year, 13,900 second-feet Feb. 14 (gage height, 10.68 feet); no flow Oct. 1-17.  
1911-13, 1929-37: Maximum discharge, 23,000 second-feet Dec. 31, 1933 (gage height, 14.8 feet); minimum, no flow at times during each year.

Remarks.- Records good. Daily discharge Nov. 17-24, 26-27, Apr. 30 to June 10 computed on basis of four discharge measurements and records for Matilija Creek at Matilija, Calif. Water diverted for irrigation and municipal use from Ventura River and tributaries above station. Results of 20 discharge measurements furnished by Ventura County Water Survey.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.9	0.2	183	114	233	378	87	48	15	11	8.5
2	0	.6	.3	95	100	213	352	86	47	14	11	8
3	0	1.2	.3	70	91	208	328	86	46	13	11	8
4	0	.9	.3	60	91	196	304	*85	*45	14	8.5	8
5	0	.4	.3	60	156	196	288	83	43	15	6.5	9
6	0	.4	.4	82	3,390	191	273	81	42	15	6.5	9
7	0	.4	.4	53	756	180	267	80	40	15	7.5	7
8	0	.4	.4	60	441	169	253	78	39	14	6.5	7.5
9	0	.4	.4	43	320	164	233	76	38	13	8.5	7
10	0	.4	.4	36	260	164	226	74	*37	13	7.5	7
11	0	.4	.6	33	233	140	226	72	37	14	6.5	7.5
12	0	.3	.6	77	202	393	213	70	33	15	4.6	8
13	0	.2	.6	74	2,510	1,860	202	68	33	14	5.6	8
14	0	.2	.9	43	6,420	685	191	67	33	13	7.5	8
15	0	.1	95	36	1,770	1,120	174	66	31	13	8.5	7
16	0	.1	70	36	846	1,030	164	65	31	13	6.5	7.5
17	0	.1	31	33	598	700	154	64	31	15	5.5	8
18	136	.1	19	33	527	560	144	63	28	17	5.5	7.5
19	46	.1	12	33	441	461	136	*62	28	15	7.5	8
20	21	.1	9	33	387	414	126	60	26	12	7	8.5
21		.1	9	36	344	425	122	59	24	11	6.5	8.5
22	7.5	.1	7.5	35	304	1,800	113	58	24	11	6.5	7
23	2.2	.1	7.5	36	273	801	110	57	24	12	7	7
24	1.6	.1	6	36	310	862	102	56	22	10	7	9.5
25	.9	.1	10	36	464	714	99	55	20	10	7	7
26	.6	.1	6	36	320	585	96	54	20	10	6.5	7
27	.1	.1	1,130	36	273	538	96	53	18	10	7.5	9
28	.1	.1	260	36	246	494	92	52	20	10	7	8
29	.1	.1	82	50	-	441	88	51	20	8.5	7	8.5
30	.1	.2	934	751	-	414	88	50	18	11	8	8.5
31	7.5	-	886	216	-	387	-	49	-	11	8.5	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					224.9	135	0	7.25	446			
November.....					8.8	1.2	.1	.29	17			
December.....					3,580.1	1,130	.2	115	7,100			
Calendar year 1936.....					15,959.7	1,200	0	43.6	31,660			
January.....					2,465	751	33	79.5	4,890			
February.....					21,987	6,420	91	785	43,610			
March.....					16,728	1,860	140	540	33,180			
April.....					5,638	375	98	188	11,180			
May.....					2,087	87	49	66.7	4,100			
June.....					946	48	18	31.5	1,880			
July.....					398.5	17	8.5	12.8	786			
August.....					227.6	11	4.6	7.34	461			
September.....					237.0	9	7	7.90	470			
Water year 1936-37.....					54,505.9	6,420	0	149	108,100			

\*Discharge measurement.

## VENTURA RIVER BASIN

Coyote Creek near Ventura, Calif.

Location.-- Water-stage recorder, lat.  $34^{\circ}21'20''$ , long.  $119^{\circ}18'50''$ , near southeast corner of Santa Ana grant, 200 feet below highway bridge half a mile above junction with Ventura River, and  $5\frac{1}{2}$  miles northwest of Ventura, Ventura County.

Drainage area.-- 41.1 square miles.

Records available.-- October 1927 to September 1932, October 1933 to September 1937.

Extremes.-- Maximum discharge during year, 5,600 second-feet Feb. 14; minimum, less than 0.1 second-foot on numerous days during October and November.  
1927-32, 1933-37: Maximum discharge, that of Feb. 14, 1937; no flow Aug. 19 to Sept. 18, 1929.

Remarks.-- Records good. Results of 28 discharge measurements furnished by Ventura County Water Survey.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.1	0.2	36	38	32	47	11	4.6	0.7	0.3	0.5
2	.1	.1	.2	22	29	31	47	10	3.8	.7	.3	.5
3	.1	.1	.2	16	25	28	43	9.5	4.2	.7	.3	.6
4	.1	.1	.2	13	23	27	41	9.5	4.6	.8	.2	.4
5	.1	.1	.2	12	47	26	38	10	6	.8	.3	.4
6	.1	.1	.2	23	1,280	25	38	10	4.6	.7	.3	.4
7	.1	.1	.2	12	264	24	37	10	4.2	.7	.3	.3
8	.1	.1	.2	10	104	23	34	10	3.0	.7	.3	.3
9	.1	.1	.2	8	60	20	31	10	3.0	.7	.3	.3
10	.1	.1	.2	7.5	38	19	28	10	3.0	.7	.3	.3
11	.1	.1	.2	7	30	18	27	9.5	2.8	.8	.3	.3
12	.1	.1	.2	29	25	56	26	8	2.6	.8	.3	.3
13	.1	.1	.2	26	901	283	25	6.5	2.6	.8	.3	.3
14	.1	.1	.3	15	1,750	70	23	6.5	2.8	.7	.3	.3
15	.1	.1	.3	11	394	211	22	6.5	2.4	.7	.3	.4
16	.1	.1	.3	10	183	144	20	6.5	1.9	.7	.3	.4
17	.2	.1	.2	9.5	125	96	19	6.5	1.7	.7	.3	.4
18	1.3	.1	.2	8	85	78	17	6	1.3	.7	.3	.4
19	.4	.1	.2	7.5	71	65	16	6	1.1	.6	.3	.4
20	.2	.1	.2	6.5	64	57	16	6	1.1	.5	.3	.4
21	.2	.1	.2	6	50	57	15	6	1.3	.5	.3	.4
22	.1	.2	.2	6	44	440	15	6.5	1.7	.5	.4	.4
23	.1	.2	.2	6	43	156	14	7	1.9	.4	.4	.4
24	.1	.2	.2	5	61	167	13	7	1.7	.4	.4	.3
25	.1	.2	.3	5	94	132	13	7	1.3	.3	.5	.3
26	.1	.2	.3	4.9	55	96	14	6.5	1.1	.3	.4	.3
27	.1	.2	262	4.9	34	78	14	6	1.0	.3	.4	.3
28	.1	.2	60	5	32	70	13	6	1.0	.3	.4	.2
29	.1	.2	18	10	-	59	13	6.5	1.0	.3	.4	.2
30	.1	.2	276	232	-	55	12	6	.8	.3	.5	.2
31	.2	-	202	82	-	51	-	6	-	.3	.5	-
Month					Second-foot--days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					5.0	1.3	0.1	0.16	10			
November.....					3.9	.2	.1	.13	7.7			
December.....					843.7		.2	27.2	1,670			
Calendar year 1936 .....					4,268.6	442	.1	11.7	8,460			
January.....					655.8	232	4.9	21.2	1,300			
February.....					5,949	1,750	25	212	11,800			
March.....					2,694	440	18	86.9	5,340			
April.....					730	47	12	24.3	1,450			
May.....					238.5	11	6	7.69	473			
June.....					74.1	6	.6	2.47	147			
July.....					18.1	.8	.3	.58	36			
August.....					10.5	.5	.2	.34	21			
September.....					10.5	.5	.2	.35	21			
Water year 1936-37.....					11,233.1	1,750	.1	30.8	22,280			

Santa Ynez River at Juncal Reservoir, near Montecito, Calif.

Location.- Water-stage recorder, lat.  $34^{\circ}29'30''$ , long.  $119^{\circ}30'50''$ , in sec. 28, T. 5 N., R. 25 W., at Juncal Reservoir dam, 8.5 miles northeast of Montecito.

Records available.- December 1930 to September 1937.

Remarks.- Montecito County Water District diverts water at dam for municipal supply of City of Montecito. Record furnished by Montecito County Water District.

Discharge, in second-feet, water year October 1936 to September 1937

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	4.8	0.35	0.55	34
November.....	.73	.35	.37	22
December.....	173	.35	11.7	721
Calendar year 1936..	173	.22	3.61	2,630
January.....	45	1.7	6.53	401
February.....	207	9	50.0	2,780
March.....	235	9	57.7	3,550
April.....	38	12	12.6	1,110
May.....	14	9	11.3	697
June.....	11	1.1	7.35	437
July.....	1.8	.35	.94	58
August.....	1.1	.35	.49	30
September.....	.9	.35	.48	28
Water year 1936-37..	235	.35	13.6	9,870

Note.- Discharge equals change in storage plus diversion to city plus release to river plus waste over spillway plus evaporation minus precipitation.

Santa Ynez River near Santa Barbara, Calif.

Location.- Lat.  $34^{\circ}31'40''$ , long.  $119^{\circ}41'00''$ , about on line between secs. 10 and 11, T. 5 N., R. 27 W., at Gibraltar dam, 7 miles north of Santa Barbara.

Drainage area.- 219 square miles.

Records available.- November 1903 to April 1907, October 1907 to January 1908, February 1910 to November 1918, April 1920 to September 1937.

Average discharge.- 23 years (1904-06, 1911-14, 1916-17, 1920-37), 48.4 second-feet.

Remarks.- Beginning April 1920, discharge at station was compiled from reservoir records. The Montecito County Water District diverted 980 acre-feet from Juncal Reservoir during the water year. City of Santa Barbara diverts at dam for municipal supply. Record furnished by city of Santa Barbara.

Discharge, in second-feet, water year October 1936 to September 1937

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	0	0	0	0
November.....	0	0	0	0
December.....	814	0	48.4	2,980
Calendar year 1936.....	814	0	25.5	18,430
January.....	395	12	51.0	3,130
February.....	3,000	101	526	29,240
March.....	1,300	125	461	28,380
April.....	406	98	131	11,360
May.....	97	30	61.6	3,170
June.....	34	3.2	15.1	899
July.....	2.2	0	.67	41
August.....	0	0	0	0
September.....	0	0	0	0
Water year 1936-37.....	3,000	0	109	79,180

Note.- Discharge equals change in storage plus diversion to city plus release to river plus waste over spillway plus evaporation minus precipitation.



## SANTA YNEZ RIVER BASIN

Santa Ynez River below Gibraltar Dam, near Santa Barbara, Calif.

Location.- Lat. 34°31'40", long. 119°41'00", about on line between secs. 10 and 11, T. 5 N., R. 27 W., just below Gibraltar Dam, 7 miles north of Santa Barbara.

Records available.- April 1920 to September 1937.

Average discharge.- 16 years, 26.6 second-feet.

Remarks.- Regulated by storage in reservoir and diversion to city of Santa Barbara. During water year city of Santa Barbara diverted 3,306 acre-feet from Gibraltar Reservoir, and Montecito County Water District diverted 980 acre-feet from Juncal Reservoir. Record furnished by city of Santa Barbara.

Discharge, in second-feet, water year October 1936 to September 1937

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	0.5	0.5	0.5	31
November.....	.5	.5	.5	30
December.....	.5	0	.44	27
Calendar year 1936	700	0	16.1	11,720
January.....	436		37.1	2,280
February.....	2,920	103	528	29,340
March.....	1,240	122	462	28,410
April.....	409	94	190	11,290
May.....	90	21	43.5	2,670
June.....	28	0	7.53	448
July.....	1.0	0	.63	39
August.....	.5	.5	.5	31
September.....	.5	.5	.5	30
Water year 1936-37	2,920	0	103	74,630

Note.- Discharge equals waste over spillway plus release to river.

## Santa Ynez River near Santa Ynez, Calif.

Location.- Water-stage recorder, lat. 34°35'20", long. 120°01'25", in Canada de los Pinos grant, at San Marcos road bridge, 4 miles southeast of Santa Ynez, Santa Barbara County.

Drainage area.- 435 square miles.

Records available.- December 1928 to September 1931 and October 1932 to September 1937.

Extremes.- Maximum discharge during year, 7,990 second-feet Feb. 6 (gage height, 10.67 feet); no flow for several months.

1929-31, 1932-37: Maximum discharge, that of Feb. 6, 1937; no flow during several months of each year.

Remarks.- Records good. Discharge Mar. 21, June 21, and 22 interpolated. Regulated by storage in Juncal and Gibraltar Reservoirs and diversions to cities of Montecito and Santa Barbara. Results of several discharge measurements furnished by city of Santa Barbara.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	178	360	427	748	131	56	7	1.8	3.7
2			0	72	258	414	691	122	52	7	1.8	3.3
3			0	39	210	398	627	115	46	6.5	1.8	2.6
4			0	24	151	382	576	109	44	6.5	1.6	1.6
5			0	17	237	367	528	109	40	6.5	1.6	1.8
6			0	19	4,350	352	500	107	39	6.5	1.5	2.1
7			0	20	4,180	342	469	107	36	6	1.5	2.1
8			0	16	1,300	328	443	101	34	6	1.5	1.8
9			0	12	760	314	414	99	32	6	1.5	1.6
10			0	15	561	311	394	93	31	6	1.5	1.4
11			0	19	460	301	367	89	29	5.5	1.5	1.4
12			0	43	427	574	345	86	27	4.9	1.6	1.1
13			0	104	1,010	2,370	328	82	27	4.2	1.5	.9
14			0	100	5,560	1,230	314	80	26	3.9	1.5	.8
15			0	74	2,560	1,040	298	77	24	3.5	1.5	.8
16			0	60	1,440	1,580	282	77	23	3.1	1.5	.7
17			0	54	1,040	1,120	266	75	22	3.1	1.5	.6
18			0	49	854	972	254	74	20	2.8	1.5	.6
19			0	45	719	835	236	74	18	2.8	1.4	.6
20			0	42	627	743	220	72	17	2.8	1.4	.6
21			0	39	556	725	203	70	16	2.6	1.4	.6
22			0	34	509	2,680	192	70	14	2.5	1.4	.5
23			0	30	478	1,980	186	72	12	2.4	1.3	.5
24			0	30	482	1,980	181	75	12	2.1	1.3	.5
25			0	30	764	1,820	181	75	10	2.1	1.2	.4
26			0	29	591	1,380	178	72	9	1.9	1.2	.4
27			83	29	491	1,190	178	66	8.5	1.8	1.2	.4
28			121	29	448	1,060	160	63	8.5	1.8	1.2	.4
29			164	35	-	945	146	62	8	1.8	1.5	.4
30			496	393	-	867	141	59	7.5	1.8	1.6	.3
31			782	802	-	810	-	58	-	1.8	3.1	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0		0	0	0	0			
November.....				0		0	0	0	0			
December.....				1,646		782	0	53.1	3,260			
Calendar year 1936.....				17,143.4		1,540	0	46.8	34,000			
January.....				2,482		802	12	80.1	4,920			
February.....				31,383		5,560	151	1,120	62,250			
March.....				29,837		2,680	301	962	59,180			
April.....				10,046		748	141	335	19,930			
May.....				2,621		151	58	84.5	5,200			
June.....				749.5		56	7.5	25.0	1,480			
July.....				123.2		7	1.8	3.97	244			
August.....				47.3		3.1	1.2	1.53	94			
September.....				34.5		3.7	.3	1.15	68			
Water year 1936-37.....				78,968.5		5,560	0	216	156,600			

## Santa Ynez River at Solvang, Calif.

Location.- Water-stage recorder, lat. 34°35'10", long. 120°08'40", in San Carlos de Jonata grant, at Mission Bridge, 25 feet below mouth of Alisal Creek, 0.9 mile south of Solvang, Santa Barbara County.

Drainage area.- 585 square miles.

Records available.- October 1928 to November 1936 and June to November 1937 (irrigation season).

Extremes.- 1928-36: Maximum daily discharge, 12,300 second-feet Jan. 9, 1932; minimum, 1.4 second-feet Aug. 2, 1935 (gage height, 1.97 feet).

Remarks.- Records good. For measurements made during period for which no daily discharge is given see table of miscellaneous discharge measurements. Gage-height record and results of discharge measurements furnished by city of Santa Barbara.

Discharge, in second-feet, 1936-37

Day	Oct.	Nov.					June	July	Aug.	Sept.	Oct.	Nov.
1	5.5	7.5					52	12	3.3	5	7	6
2	6	7					48	11	3.5	5.5	7.5	5
3	6	7					45	10	3.3	5.5	7	4.4
4	6	7					43	9.5	3.3	5	6.5	4.7
5	5.5	7					41	8.5	3.3	4.7	6	5.5
6	5.5	6.5					40	8.5	3.3	4.7	5	5.5
7	5	6.5					39	9	3.3	5.5	4.7	6
8	4.9	7					38	9	3.5	4.7	4.4	6.5
9	4.2	7					36	8.5	4.7	3.8	4.1	7
10	4.4	7					36	7.5	5	3.3	4.1	7
11	4.7	7					35	7	5	3.3	3.8	7
12	5	6.5					34	7	5	3.5	3.8	6
13	5	6.5					33	6.5	4.4	3.8	3.8	5.5
14	5	6.5					32	6	3.8	3.5	3.5	6
15	5.5	6.5					30	5	3.8	3.3	3.8	7
16	5.5	6.5					28	5	3.8	3.3	3.5	7
17	5.5	6					25	5	3.5	3.5	3.5	7.5
18	7	6					24	4.7	3.8	4.1	3.5	6.5
19	7	6					23	4.7	3.8	4.7	3.3	5.5
20	7	5.5					22	4.1	4.1	4.7	3.5	6
21	7	5.5					21	4.1	4.1	4.7	3.3	6.5
22	7	5.5					19	5.5	4.1	4.7	3.3	6
23	7	5.5					18	5.5	4.4	4.4	4.4	6
24	6.5	5.5					17	5	4.4	4.1	4.7	5.5
25	6.5	6					16	4.7	4.4	4.4	5	6
26	7	6					15	5.5	4.4	4.4	5.5	6
27	7	6.5					14	5.5	4.4	5	6	6
28	7	6					14	5	4.4	5.5	5.5	6
29	6.5	6.5					14	3.8	4.4	5.5	5.5	6.5
30	7	6.5					13	3.8	4.4	6	5.5	7
31	7.5	-					-	3.3	5	-	6	-
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
1936							186.2	7.5	4.2	6.01	369	
October.....							192.0	7.5	5.5	6.40	381	
November.....												
1937							865	52	13	28.8	1,720	
June.....							200.2	12	3.3	6.46	397	
July.....							125.9	5	3.5	4.06	250	
August.....							134.1	6	3.3	4.47	266	
September.....							147.0	7.5	3.3	4.74	292	
October.....							153.1	7.5	4.4	6.10	363	
November.....												
The period.....							1,655.3				3,290	

## Santa Ynez River near Lompoc, Calif.

Location.- Water-stage recorder, lat. 34°38'30", long. 120°25'50", near boundary of La Mision Vieja La Purisima grant, at highway bridge, 1½ miles east of Lompoc, Santa Barbara County.

Drainage area.- 790 square miles.

Records available.- November 1906 to September 1918 (for 1909, gage heights only), April 1925 to September 1937.

Average discharge.- 21 years (1907-08, 1910-18, 1925-37), 217 second-feet.

Extremes.- Maximum discharge during year, 10,700 second-feet Feb. 7 (gage height, 19.10 feet); no flow for several months.  
1908-18, 1925-37: Maximum discharge, 41,800 second-feet Jan. 25, 1914 (gage height, 13.0 feet, former site and datum); no flow for some periods during 1929-31, 1934, 1936, 1937.

Remarks.- Records good. Water is diverted by city of Santa Barbara at Gibraltar Dam, and some is pumped for irrigation from wells along banks of river.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	349	692	560	1,030	188	72	14	2.5	0.5
2			0	185	441	514	978	182	72	13	1.8	.3
3			0	109	328	481	896	174	67	12	1.8	.3
4			0	77	248	452	820	166	65	12	1.8	.3
5			0	59	237	432	767	160	61	11	1.8	.3
6			0	68	1,390	413	691	153	54	11	1.8	.8
7			0	53	7,320	394	638	150	52	9.5	1.5	1.5
8			0	39	2,510	383	595	148	50	9	1.2	1.5
9			0	33	1,450	348	558	146	48	9	1.0	1.5
10			0	30	1,010	319	528	146	46	9	.8	1.8
11			0	28	783	297	508	136	42	9	.8	1.8
12			0	168	665	355	464	131	42	9	.8	1.5
13			0	127	1,440	1,250	460	124	43	9	.8	1.5
14			0	134	6,060	2,210	445	118	44	9	.8	1.2
15			0	120	5,670	1,350	427	111	40	8.5	.8	1.2
16			0	104	2,550	1,370	404	105	37	8	1.0	1.2
17			0	89	1,750	1,500	386	99	34	7	.8	1.5
18			0	80	1,240	1,270	373	95	29	5.5	.5	1.5
19			0	78	981	1,110	360	88	26	4.2	.5	1.5
20			0	72	858	981	320	88	25	4.2	.6	1.5
21			0	70	741	896	287	86	24	4.2	.5	1.5
22			0	68	655	2,430	269	84	20	4.2	.5	1.8
23			0	64	605	3,290	255	84	20	3.8	.6	1.8
24			0	62	615	3,000	245	84	21	3.3	1.0	1.5
25			0	56	741	3,650	239	84	18	3.3	.8	1.5
26			0	53	870	2,920	239	84	17	2.9	.5	1.0
27			37	51	717	2,200	236	82	15	3.3	.5	.8
28			8.5	51	625	1,730	226	79	16	2.9	.6	1.0
29			6.5	62	-	1,300	211	77	16	2.9	.8	1.0
30			28	261	-	1,170	194	77	14	3.3	.6	1.0
31			113	492	-	1,080	-	73	-	3.3	.6	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0		0	0	0	0			
November.....				0		0	0	0	0			
December.....				193.0		113	0	6.23	383			
Calendar year 1936.....				20,630.5		1,880	0	56.4	40,930			
January.....				3,292		492	28	106	6,530			
February.....				43,192		7,320	237	1,540	85,670			
March.....				39,635		3,630	297	1,280	78,610			
April.....				14,059		1,030	194	469	27,890			
May.....				3,602		188	73	116	7,140			
June.....				1,130		72	14	37.7	2,240			
July.....				220.3		14	2.9	7.11	437			
August.....				30.2		2.5	.5	.97	60			
September.....				36.1		1.8	.3	1.20	72			
Water year 1936-37.....				105,389.6		7,320	0	289	209,000			

## Cuyama River near Santa Maria, Calif.

Location.- Water-stage recorder, lat. 35°00'50", long. 120°16'45", in Suey grant, at highway bridge, 3 miles above mouth of Alamos Creek and 10 miles northeast of Santa Maria, Santa Barbara County. Altitude, about 610 feet.

Drainage area.- 902 square miles (correction of figure given in earlier publications).

Records available.- December 1929 to September 1937.

Extremes.- Maximum discharge during year, 5,220 second-feet Feb. 6 (gage height, 7.60 feet); no flow Oct. 1.

1929-37: Maximum discharge, that of Feb. 6, 1937; no flow at times during each year.

Remarks.- Records fair. No diversions. Discharge Jan. 12-27 computed on basis of weather records and records for Huasna River near Santa Maria.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	4.2	4.0	89	68	54	153	34	9	3.5	1.3	0.4
2	.2	3.7	4.0	42	43	47	146	32	9	3.3	1.3	.5
3	.3	3.5	4.5	24	34	46	135	30	9	3.2	1.2	.5
4	.3	3.3	4.5	22	31	47	121	29	9	3.0	1.2	.4
5	.2	3.1	4.7	23	453	47	111	28	9	3.0	1.1	.4
6	.2	2.9	5	35	3,560	47	101	28	9	2.9	1.0	.4
7	.2	2.9	5	32	2,910	48	93	27	9	2.8	1.0	.3
8	.1	2.9	5	28	944	48	84	25	9	2.7	.9	.3
9	.1	2.9	5	22	302	49	81	23	9	2.6	.9	.3
10	.1	2.9	5	21	218	50	78	22	9	2.5	.9	.3
11	.2	2.9	5.5	22	160	52	74	20	8.5	2.5	.8	.3
12	.2	2.9	5.5	70	115	65	70	19	8	2.4	.8	.3
13	.2	2.9	6	100	133	68	68	19	8	2.4	.8	.3
14	.2	3.0	6.5	50	238	72	64	18	7.5	2.3	.8	.3
15	.2	3.0	9.5	40	258	95	58	17	7	2.2	.8	.3
16	.4	3.0	9	30	146	98	56	15	6.5	2.1	.7	.3
17	.6	3.1	8.5	28	149	163	53	14	6.5	2.1	.7	.3
18	2.0	3.1	10	26	161	128	51	14	6	1.9	.7	.3
19	1.3	3.2	9	24	144	115	48	13	5.5	1.8	.6	.3
20	1.0	3.2	9	22	133	108	45	13	5.5	1.7	.6	.3
21	22	3.3	9	20	122	407	45	13	5	1.7	.6	.3
22	17	3.3	8.5	19	118	765	42	13	4.7	1.6	.6	.3
23	12	3.4	9	18	111	606	42	13	4.5	1.5	.6	.3
24	9	3.5	9	17	104	617	40	13	4.0	1.4	.6	.3
25	7.5	3.5	10	16	97	631	39	12	4.0	1.4	.5	.3
26	6.5	3.5	10	16	87	391	38	12	3.8	1.4	.5	.3
27	5	3.7	21	16	75	313	38	12	3.8	1.4	.5	.3
28	4.0	3.7	90	15	61	290	37	11	3.7	1.3	.5	.3
29	3.6	3.8	94	22	-	265	37	10	3.7	1.3	.5	.3
30	3.8	4.0	55	206	-	209	34	9.5	3.6	1.4	.5	.3
31	5.5	-	92	172	-	158	-	9	-	1.3	.5	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				103.9		22	0	3.35	206			
November.....				98.3		4.2	2.9	3.28	195			
December.....				532.7		94	4.0	17.2	1,060			
Calendar year 1936 .....				5,085.6		340	0	13.9	10,090			
January.....				1,289		208	15	41.6	2,560			
February.....				10,966		3,560	31	392	21,750			
March.....				6,120		765	46	197	12,140			
April.....				2,082		153	34	69.4	4,130			
May.....				567.5		34	9	18.3	1,130			
June.....				199.8		9	3.6	6.66	396			
July.....				65.7		3.5	1.3	2.15	132			
August.....				24.0		1.3	.5	.77	48			
September.....				9.8		.5	.3	.33	19			
Water year 1936-37 .....				22,059.7		3,560	0	60.4	43,770			



## Salinas River near Santa Margarita, Calif.

Location.- Water-stage recorder, lat. 35°24'20", long. 120°34'05", in N½ sec. 15, T. 29 S., R. 13 E., 250 feet below Calif Canyon highway bridge, 250 feet above Morano Creek, and 2½ miles northeast of Santa Margarita. Altitude, about 960 feet.

Drainage area.- 150 square miles.

Records available.- April to September 1922, February 1932 to September 1937.

Extremes.- Maximum discharge during year, 7,260 second-feet Feb. 6 (gage height, 14.35 feet), from rating curve extended above 3,000 second-feet on basis of velocity-area studies; no flow for several months.

1932-37: Maximum discharge, that of Feb. 6, 1937; no flow for several months each year.

Remarks.- Records good except those for Nov. 2-4, May 29 to June 14, July 9-17, which were computed on basis of precipitation records and a partial gage-height record and are fair. No diversions above station.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1.7	1.7	48	199	104	183	23	5.5	0.8		
2	0	1.4	1.7	23	94	94	161	23	5	.5		
3	0	1.4	1.7	16	43	91	149	19	5	.5		
4	0	1.3	1.7	11	29	78	134	19	4.6	.5		
5	0	1.3	1.7	12	314	74	120	15	3.7	.5		
6	0	1.4	1.7	49	4,090	69	112	17	4.2	.5		
7	0	1.4	1.7	29	1,700	64	94	20	4.2	.5		
8	0	1.4	1.7	17	551	62	75	18	4.2	.5		
9	0	1.4	1.7	12	330	62	73	15	4.2	.5		
10	0	1.4	1.7	9	236	53	70	15	3.7	.5		
11	0	1.4	1.7	8	199	60	65	12	4.2	.5		
12	0	1.4	1.7	33	174	101	65	11	3.3	.5		
13	0	1.6	1.9	66	977	242	63	10	3.7	.6		
14	0	1.6	2.8	36	2,940	162	59	9.5	3.5	.4		
15	0	1.6	5	36	952	185	52	10	3.3	.4		
16	0	1.6	2.8	36	498	630	52	9	3.7	.4		
17	0	1.6	1.7	33	352	352	46	11	3.7	.4		
18	3.6	1.6	1.6	26	280	348	42	9.5	4.2	.3		
19	3.2	1.6	1.6	20	222	294	42	7.5	2.8	.2		
20	1.7	1.6	1.6	18	183	258	39	7.5	2.0	.1		
21	1.4	1.6	1.6	17	160	328	34	7.5	1.6	.1		
22	1.3	1.6	1.6	17	131	1,890	25	7.6	1.6	.1		
23	1.2	1.6	1.6	18	114	982	34	7	1.6	.1		
24	1.0	1.6	1.6	18	145	1,100	34	8	1.6	.1		
25	1.0	1.7	2.0	17	242	1,040	32	8	1.2	.1		
26	1.0	1.7	2.0	17	166	628	30	7.5	1.2	.1		
27	1.2	1.7	62	13	128	457	32	7	.8	0		
28	1.0	1.7	43	36	114	326	28	6.5	.8	0		
29	1.0	1.7	6.5	502	-	308	30	6.5	.8	0		
30	1.2	1.7	110	2,660	-	254	28	6.5	.8	0		
31	2.4	-	261	915	-	216	-	5.5	-	0		
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					22.2	3.6	0	0.72	44			
November.....					46.3	1.7	1.3	1.54	92			
December.....					532.3	261	1.6	17.2	1,060			
Calendar year 1936.....					20,738.4	1,960	0	56.7	41,160			
January.....					4,757	2,650	8	153	9,440			
February.....					15,543	4,090	29	555	30,830			
March.....					10,970	1,890	53	354	21,760			
April.....					2,003	183	25	66.8	3,970			
May.....					358.5	5.5	5.5	11.6	711			
June.....					90.5	2.5	.3	3.02	180			
July.....					9.6	.8	0	.31	19			
August.....					0	0	0	0	0			
September.....					0	0	0	0	0			
Water year 1936-37.....					34,332.4	4,090	0	94.1	68,110			

## Salinas River near Spreckels, Calif.

Location.-- Water-stage recorder, lat.  $36^{\circ}37'50''$ , long.  $121^{\circ}40'40''$ , in El Toro grant, at bridge on Salinas-Monterey highway half a mile above Toro Creek, 2 miles west of Spreckels, and 4 miles south of Salinas, Monterey County. Altitude, about 50 feet.

Drainage area.-- 4,180 square miles.

Records available.-- January 1900 to August 1901, December 1929 to September 1937.

Extremes.-- Maximum discharge during year, 27,100 second-feet Feb. 8 (gage height, 23.30 feet); minimum, 0.1 second-foot Sept. 1-30.  
1929-37: Maximum discharge, 42,100 second-feet Dec. 29, 1931; no flow at times during 1929-35.

Maximum stage known, 26.6 feet, as indicated at oil pumping station opposite gage (date and discharge unknown).

Remarks.-- Records good except those for very low flow, which are fair. Stage-discharge relation affected by aquatic growth Aug. 12 to Sept. 30; discharge computed on basis of gage-height record and field estimate of flow on Oct. 1. Small diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	4.8	6	3.6	8,160	1,660	3,120	356	36	4.6	0.2	0.1
2	.3	4.4	6	145	4,260	1,480	2,720	332	33	3.7	.2	.1
3	.3	4.0	6.5	317	2,520	1,350	2,370	310	29	3.7	.2	.1
4	.4	4.0	7	125	2,140	1,210	2,090	290	27	4.6	.2	.1
5	.5	4.0	7	53	1,800	1,130	1,870	283	25	4.1	.2	.1
6	.6	4.0	6.5	24	2,580	1,020	1,720	276	23	3.3	.2	.1
7	.8	4.0	6.5	15	16,200	950	1,670	269	20	3.3	.2	.1
8	1.1	4.0	6.5	11	20,600	850	1,430	246	15	2.9	.2	.1
9	1.2	4.0	6.5	10	9,020	805	1,320	236	15	2.7	.2	.1
10	1.6	4.0	5.5	9.5	5,710	760	1,260	226	13	2.5	.2	.1
11	1.7	4.0	5	9.5	4,260	715	1,160	214	11	2.1	.2	.1
12	1.8	4.0	5	9	3,290	850	1,080	202	9.5	1.9	.2	.1
13	1.8	4.0	5	8.5	2,780	2,160	1,000	193	8	1.7	.2	.1
14	1.8	4.4	4.8	8	7,840	2,580	925	182	7.5	1.5	.2	.1
15	2.0	4.8	4.8	7.5	22,100	4,160	875	168	8	1.3	.2	.1
16	2.0	4.8	4.8	8	11,000	3,120	805	154	8.5	1.3	.2	.1
17	1.8	4.8	4.0	10.4	7,110	3,120	760	144	7.5	1.2	.2	.1
18	2.0	5	3.8	116	5,310	3,950	738	133	7.5	1.2	.2	.1
19	2.5	5.5	3.8	138	4,260	3,040	715	120	7.5	1.1	.2	.1
20	2.7	5.5	3.6	141	3,580	2,510	670	110	7.5	1.1	.2	.1
21	2.7	5.5	3.3	102	2,800	2,510	625	101	7	1.1	.2	.1
22	2.7	5.5	3.1	84	2,370	4,210	602	92	5.5	.9	.2	.1
23	2.9	6	3.1	62	2,020	9,200	544	87	6	.7	.2	.1
24	2.9	7	3.1	54	1,840	9,180	504	81	6.5	.5	.2	.1
25	2.9	6	3.6	46	1,840	8,250	472	72	7	.3	.2	.1
26	3.1	6	3.3	37	1,900	9,660	446	68	7	.3	.2	.1
27	3.3	6	5	31	2,230	7,390	446	61	6.5	.3	.2	.1
28	3.6	6	4.0	25	2,020	5,990	425	56	6	.2	.2	.1
29	4.0	6	3.1	23		5,070	392	48	5.5	.2	.2	.1
30	5	6	3.6	30		4,260	368	41	5	.2	.2	.1
31	6	-	4.8	997	-	3,560	-	39	-	.2	.2	.1
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						66.2	6	0.2	2.14	131		
November.....						148.0	7	4.0	4.93	294		
December.....						148.6	7	3.1	4.79	295		
Calendar year 1936.....						193,980.9	17,300	.1	530	384,700		
January.....						2,753.6	997	3.6	88.8	5,460		
February.....						161,280	22,100	1,200	5,760	319,900		
March.....						106,690	9,660	715	3,442	211,600		
April.....						33,022	3,120	368	1,101	65,500		
May.....						5,180	356	39	167	10,270		
June.....						380.5	36	5	12.7	755		
July.....						54.7	4.6	.2	1.76	108		
August.....						6.2	.2	.2	.20	12		
September.....						3.0	.1	.1	.10	6.0		
Water year 1936-37.....						309,732.8	22,100	.1	849	614,300		



## San Antonio River at Pleyto, Calif.

Location.- Water-stage recorder, lat. 35°51'55", long. 120°59'30" in Pleyto grant, at highway bridge at old town site of Pleyto, Monterey County, 1.1 miles below Copperhead Creek and 15 miles west of Bradley. Altitude, about 720 feet.

Drainage area.- 282 square miles.

Records available.- April to September 1922, December 1929 to September 1937.

Extremes.- Maximum discharge during year, 6,390 second-feet Feb. 14 (gage height, 4.49 feet); no flow for several months.  
1929-37: Maximum discharge, 7,460 second-feet Dec. 28, 1931 (gage height, 4.55 feet); no flow for several months each year.

Remarks.- Records fair. Discharge for Nov. 1 to Dec. 30, Jan. 7-28, July 2-15 computed on basis of precipitation records, discharge measurements, and records for other streams in same basin. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0.2	92	279	173	339	60	13	0.6		
2			.2	61	242	167	286	77	12	.5		
3			.2	40	209	165	274	74	12	.4		
4			.2	25	170	162	262	69	10	.3		
5			.2	17	594	146	243	67	10	.3		
6			.2	14	2,400	137	232	64	8.5	.2		
7			.2	60	1,850	134	218	62	8.5	.2		
8			.2	40	339	126	207	60	8.5	.1		
9			.2	30	558	115	194	57	8.5	.1		
10			.2	20	425	115	190	55	7.5	.1		
11			.2	10	336	112	180	53	6.5	.1		
12			.2	50	295	346	167	51	6	.1		
13			.3	70	613	811	187	49	6.5	.1		
14			.3	60	3,410	509	164	44	4.9	.1		
15			.4	50	1,510	410	161	40	4.3	.1		
16			.4	50	856	597	145	38	4.3	0		
17			.4	45	646	430	136	37	3.7	0		
18			.5	45	516	385	142	35	3.1	0		
19			.5	44	430	325	133	33	2.5	0		
20			.5	42	374	290	127	31	2.5	0		
21			.6	42	317	316	124	28	2.3	0		
22			.6	40	282	1,510	121	26	2.3	0		
23			1.0	38	242	835	115	26	2.1	0		
24			1.0	36	238	916	107	24	2.0	0		
25			2.0	34	291	995	98	22	1.8	0		
26			3.0	32	262	718	93	21	1.6	0		
27			1.0	30	231	571	87	19	1.2	0		
28			.8	30	194	509	87	16	.9	0		
29			.8	144	-	448	85	15	.7	0		
30			.8	443	-	395	82	15	.6	0		
31			94	571	-	357	-	13	-	0		
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0	0	0	0	0			
November.....					3.0	-	-	.10	6.0			
December.....					111.3	94	.2	3.59	221			
Calendar year 1936.....					29,093.3	2,040	0	79.5	57,710			
January.....					2,305	571	10	74.4	4,570			
February.....					18,308	3,410	170	654	36,310			
March.....					13,205	1,510	112	426	26,190			
April.....					4,966	339	92	166	9,850			
May.....					1,301	80	13	42.0	2,580			
June.....					157.3	13	.6	5.24	312			
July.....					3.3	.6	0	.11	6.5			
August.....					0	0	0	0	0			
September.....					0	0	0	0	0			
Water year 1936-37.....					40,357.9	3,410	0	111	80,050			

## Arroyo Seco near Soledad, Calif.

Location.- Water-stage recorder, lat. 36°16'05", long. 121°19'55", in NW¼ sec. 21, T. 19 S., R. 6 E., half a mile below Vaquero Creek and 11 miles south of Soledad. Altitude, about 370 feet.

Drainage area.- 238 square miles.

Records available.- November 1901 to September 1937.

Average discharge.- 35 years (1902-37), 168 second-feet.

Extremes.- Maximum discharge during year, 12,200 second-feet Feb. 13 (gage height, 14.42 feet), from rating curve extended above 3,000 second-feet; minimum, 0.4 second-foot Oct. 2-6.

1901-37: Maximum discharge, about 22,000 second-feet Feb. 21, 1917, and Nov. 25, 1925 (gage height, 16.5 feet); no flow at times in several years.

Remarks.- Records good except those for Jan. 21 to Feb. 8, May 31 to June 6, June 24 to July 8, which were computed on basis of records for Salinas River near Santa Margarita and San Antonio River at Pleyto and are fair. No large diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	6	8.5	154	240	376	584	152	64	24	5.5	1.4
2	.6	7	9	106	280	347	552	148	62	23	5.5	1.4
3	.6	6.5	9	82	260	326	508	140	61	22	5.5	1.6
4	.6	6	9	71	240	308	474	140	60	21	5.5	2.2
5	.6	6	10	65	350	289	441	136	58	20	5.5	2.6
6	.6	6	10	80	5,200	276	437	133	56	19	5.5	2.9
7	1.5	5.5	10	71	3,300	263	399	128	55	18	5	2.9
8	1.5	5.5	10	61	1,060	253	376	126	55	17	4.6	3.3
9	1.8	6	10	55	645	241	356	121	55	16	4.3	2.9
10	1.8	6	9	52	493	234	336	119	55	15	4.0	2.6
11	2.2	6	9	51	410	231	318	114	54	14	3.6	2.4
12	2.2	6	9	106	370	1,970	306	112	52	14	3.3	2.4
13	2.6	6	9	95	3,320	1,710	291	105	51	14	3.3	2.4
14	2.2	6.5	9	78	4,060	1,090	276	103	50	14	3.5	2.0
15	1.8	7	10	107	1,740	895	264	99	48	13	2.9	1.8
16	1.5	7.5	35	148	1,090	895	256	96	49	13	2.9	1.6
17	1.5	8	21	123	815	740	245	96	54	12	2.9	1.2
18	2.2	8	16	102	645	668	236	94	48	12	2.6	1.2
19	3.5	8	14	91	544	596	225	92	44	11	2.6	1.4
20	3.0	8	14	82	473	560	214	90	41	10	2.6	1.4
21	3.0	8	13	80	420	1,890	206	86	38	10	2.4	1.0
22	3.0	8	13	70	376	2,480	198	86	36	9.5	2.2	1.0
23	3.0	8	13	60	338	1,460	190	84	36	9	2.0	1.4
24	2.6	8	14	60	485	1,820	184	86	34	8.5	1.8	1.6
25	2.6	8	14	60	715	1,540	177	84	32	8	1.4	1.6
26	2.6	8	16	60	528	1,200	174	78	30	8	1.2	1.8
27	2.2	8	365	50	462	1,020	184	74	28	7	1.2	2.0
28	2.2	8.5	150	70	413	900	172	72	27	6	1.4	2.0
29	2.2	8.5	83	130	-	800	164	70	26	5.5	1.4	2.2
30	2.6	8.5	280	310	-	710	167	67	25	5.5	1.4	2.2
31	3.0	-	358	260	-	645	-	66	-	5.5	1.4	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				61.9	3.5	0.6	2.00	123				
November.....				213.0	8.5	5.5	7.10	422				
December.....				1,557.5	363	8.5	50.2	3,090				
Calendar year 1936.....				61,503.9	4,530	.6	168	122,000				
January.....				2,968	310	50	96.4	5,930				
February.....				29,272	5,200	240	1,045	59,060				
March.....				26,723	2,480	231	862	53,000				
April.....				8,900	584	157	297	17,650				
May.....				3,197	182	66	103	6,340				
June.....				1,384	64	25	46.1	2,750				
July.....				404.5	24	5.5	13.0	802				
August.....				98.7	5.5	1.2	3.18	196				
September.....				58.4	3.3	1.0	1.95	116				
Water year 1936-37.....				74,858.0	5,200	.6	205	148,500				

## Uvas Creek near Morgan Hill, Calif.

Location.- Water-stage recorder, lat. 37°04'00", long. 121°41'30", in Las Uvas grant, 500 feet above Uvas Dam, 0.6 mile below Eastman Canyon, and 4.6 miles southwest of Morgan Hill, Santa Clara County. Altitude, about 390 feet.

Drainage area.- 30.2 square miles.

Records available.- December 1930 to September 1937.

Extremes.- Maximum discharge during year, 4,180 second-feet Feb. 13 (gage height, 10.6 feet); minimum, 0.2 second-foot several days in October and September.  
1930-37: Maximum discharge, 4,340 second-feet Dec. 27, 1931 (gage-height, 10.82 feet); no flow at times in each year during 1931-34.

Remarks.- Records good. No regulation or large diversions above station. Water diverted at Uvas Dam, below gage, for Gilroy water supply.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.9	0.8	14	89	50	100	19	6.5	3.0	0.5	0.3
2	.3	.7	.8	9	237	46	91	19	6.5	2.6	.5	.3
3	.3	.7	.8	7	87	44	82	18	6.5	2.4	.5	.2
4	.3	.7	.8	5.5	659	40	74	18	6.5	1.7	.5	.2
5	.3	.8	.8	6	610	39	71	17	6.5	1.7	.5	.2
6	.2	.8	.8	6	851	58	72	17	6.5	1.7	.6	.2
7	.2	.8	.8	5	320	35	83	16	6	1.5	.5	.2
8	.2	.9	.8	4.4	169	34	59	15	6	1.5	.5	.3
9	.2	.8	.8	4.1	115	32	55	15	6	1.4	.5	.3
10	.2	.8	.8	4.1	86	31	51	15	6	1.4	.5	.3
11	.2	.8	.8	5.5	77	33	48	14	6	1.2	.5	.3
12	.2	.8	.8	15	65	236	46	13	5.5	1.1	.5	.3
13	.2	.8	.8	11	1,200	191	42	13	5.5	1.0	.5	.3
14	.2	.8	.8	9.5	771	115	40	12	5.5	.9	.5	.3
15	.2	.9	2.2	17	298	119	38	12	5.5	1.1	.4	.3
16	.3	.9	4.6	15	199	110	36	11	9.5	1.1	.4	.3
17	.3	.9	1.9	12	146	95	35	11	6.5	1.1	.4	.3
18	.3	.9	1.1	10	117	86	33	11	5	1.0	.4	.3
19	.3	.9	.9	9	96	79	32	11	4.9	1.0	.4	.3
20	.3	.9	.9	8	82	100	30	10	4.6	.8	.4	.3
21	.3	.9	.8	6.5	71	1,320	29	10	4.4	.8	.4	.3
22	.3	.9	.9	6	65	745	28	10	4.4	.8	.4	.3
23	.3	.9	.9	5.5	59	383	26	10	4.1	.7	.4	.3
24	.3	.9	1.0	6	65	690	24	9.5	4.1	.7	.3	.2
25	.3	.9	1.2	5.5	86	358	24	9.5	3.8	.7	.3	.2
26	.3	.9	27	3.5	66	266	25	9	3.3	.6	.3	.2
27	.3	.9	51	6	58	226	25	8.5	2.8	.6	.3	.2
28	.3	.9	20	84	53	177	23	8.5	3.0	.6	.3	.2
29	.3	.9	8.5	77	-	149	21	-	3.3	.6	.3	.2
30	.4	.9	88	251	-	128	20	8	3.0	.5	.3	.2
31	.8	-	36	80	-	113	-	7	-	.5	.3	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				8.9	0.8	0.2	0.29	18				
November.....				25.5	.8	.7	.35	51				
December.....				256.1	88	.8	8.33	512				
Calendar year 1936.....				12,914.4	875	.2	35.3	25,630				
January.....				710.1	251	4.1	22.9	1,410				
February.....				6,797	1,200	53	243	17,480				
March.....				6,109	1,320	31	197	12,120				
April.....				1,343	100	20	44.8	2,660				
May.....				385.0	19	7	12.4	764				
June.....				157.7	9.5	2.8	5.26	313				
July.....				36.3	3.0	.5	1.17	72				
August.....				13.2	.6	.3	.43	26				
September.....				7.8	.3	.2	.26	15				
Water year 1936-37.....				1,351.6	1,320	.2	43.4	31,440				

## San Lorenzo River at Big Trees, Calif.

Location.— Water-stage recorder, lat.  $37^{\circ}01'40''$ , long.  $122^{\circ}03'30''$ , in Canada del Rincon grant, Santa Cruz County, half a mile south of Big Trees and 4 miles north of Santa Cruz. Altitude, about 150 feet.

Drainage area.— 110 square miles.

Records available.— April to September 1937.

Extremes.— Maximum gage height during year, 14.1 feet Feb. 14, from drift marks, (discharge not determined); minimum discharge, April to September, 12 second-feet July 11.

Remarks.— Records excellent except those for Apr. 25, May 1-3, 6, 9, which were interpolated and are good. Many small diversions above station to supply water for domestic use.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	90	45	27	21	16
2							-	85	48	27	22	16
3							-	80	45	27	20	21
4							-	80	45	27	20	17
5							-	80	46	26	20	15
6							-	80	43	26	20	15
7							-	80	38	26	20	15
8							-	80	41	27	19	15
9							-	78	42	26	18	15
10							-	76	43	26	17	16
11							-	76	42	26	17	16
12							-	70	40	26	17	16
13							-	68	37	25	17	15
14							-	65	38	25	16	15
15							-	64	40	31	16	14
16							-	61	67	24	16	14
17							-	60	49	20	17	15
18							-	62	35	24	17	15
19							122	60	36	24	16	15
20							116	59	37	23	16	22
21							116	57	36	22	16	16
22							110	56	34	23	16	16
23							105	57	34	22	16	16
24							105	56	34	22	17	16
25							100	53	34	22	14	16
26							100	56	32	21	15	15
27							105	53	32	21	15	18
28							100	52	30	21	15	17
29							95	48	27	22	16	16
30							95	47	29	23	16	21
31							-	41	-	21	16	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....												
November.....												
December.....												
Calendar year .....												
January.....						-	-	-	-	-		
February.....						-	-	-	-	-		
March.....						-	-	-	-	-		
April 19-30.....						1,269	122	95	106	2,520		
May.....						2,030	90	41	65.5	4,030		
June.....						1,179	67	27	39.3	2,340		
July.....						753	31	20	24.3	1,490		
August.....						534	22	14	17.2	1,060		
September.....						485	22	14	16.2	962		
The period .....										12,400		

## San Francisquito Creek at Stanford University, Calif.

Location.-- Water-stage recorder, lat. 37°25'20", long. 122°11'25", in Rinconada del Arroyo de San Francisquito grant, at Stanford University golf course, Santa Clara County, three-quarters of a mile below junction with Los Trancos Creek. Altitude, about 120 feet.

Drainage area.-- 37.7 square miles.

Records available.-- January 1931 to September 1937.

Extremes.-- Maximum discharge during year, 2,620 second-feet Feb. 4 (gage height, 9.15 feet); practically no flow for several months.

1931-37: Maximum discharge, that of Feb. 4, 1937; practically no flow for several months each year.

Remarks.-- Records good except those for very low flow, which are fair. Probably a very small discharge during October, November, August, and September, due to return flow from golf-course irrigation. Storage at Searsville Lake. See records for Los Trancos Canal and Lagunita Canal, which divert above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.2	0.3	1.6	72	3.0	304
.4	1.8	1.8	95	3.5	434
.6	5.6	2.0	121	4.0	580
.8	12.7	2.2	150	4.5	748
1.0	22.2	2.4	182	5.0	930
1.2	36	2.6	220	5.5	1,120
1.4	52	2.8	260	6.0	1,310

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0.2	30	25	84	13	0.4	0.2		
2			0	.2	99	19	46	3.0	.4	.2		
3			0	.2	20	17	35	1.5	.4	.2		
4			0	.2	573	14	54	2.2	.4	.2		
5			0	.2	420	13	35	2.7	.4	.1		
6			0	.2	380	11	118	2.8	.4	.1		
7			0	.2	132	4.9	56	2.4	.4	.1		
8			0	.2	60	5.5	55	2.4	.4	.1		
9			0	.2	45	9.5	53	2.7	.4	.1		
10			0	.2	35	8.5	23	2.2	.4	.1		
11			0	12	38	8	34	2.0	.4	.1		
12			0	18	43	182	20	1.5	.4	.1		
13				.4	595	147	41	1.2	.4	.1		
14			0	1.9	360	60	26	.6	.3	.1		
15			.3	.8	113	38	14	.4	.3	.1		
16			.4	.4	60	69	14	.4	.3	.1		
17			.2	.3	42	47	22	.4	.3	.1		
18			.2	.3	43	54	28	.4	.3	.1		
19			.2	.3	26	369	9	.4	.3	.1		
20			.2	.2	18	247	9	.4	.3	.1		
21			.2	.2	20	1,170	11	.4	.3	.1		
22			.2	.2	19	382	12	.4	.3	.1		
23			.3	.2	17	244	11	.4	.3	.1		
24			.4	.2	22	659	23	.4	.2	.1		
25			.6	.2	69	230	21	.4	.2	.1		
26			1.0	.2	47	153	3.3	.4	.2	.1		
27			.9	.2	34	168	6.5	.4	.2	.1		
28			.5	27	28	127	5.5	.4	.2	.1		
29			.2	22	-	103	7	.4	.2	.1		
30			.2	49	-	69	5.5	.4	.2	.1		
31			.5	6.5	-	68	-	.4	-	.1		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	6.5	1.0	0	.21	13
Calendar year 1936.....	5,459.6	794	0	14.9	10,790
January.....	142.5	49	.2	4.60	283
February.....	3,386	595	17	121	6,720
March.....	4,719.4	1,170	4.9	152	9,360
April.....	881.8	118	3.3	29.4	1,750
May.....	47.0	13	.4	1.52	93
June.....	9.6	.4	.2	.32	19
July.....	3.5	.2	.1	.11	6.9
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1936-37.....	9,196.3	1,170	0	25.2	18,240

## San Francisquito Creek at Palo Alto, Calif.

Location.- Water-stage recorder, lat. 37°27'10", long. 122°08'20", in Rancho de las Pulgas grant, 175 feet above Newell Avenue bridge in Palo Alto, Santa Clara County, and about 2 miles above mouth. Altitude, about 5 feet.

Drainage area.- 38.6 square miles.

Records available.- January 1931 to September 1937.

Extremes.- Maximum discharge during year, 2,550 second-feet Feb. 4 (gage height, 18.05 feet); no flow for several months.

1931-37: Maximum discharge, that of Feb. 4, 1937; no flow for several months each year.

Remarks.- Records good except those for Feb. 13, 14, Apr. 18, and Apr. 24 to May 2, which were computed on basis of records for station at Stanford University and are fair. Storage at Searsville Lake. See records for Los Trancos Canal and Lagunita Canal, which divert above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.1	0.1	1.0	7.0	2.0	35	4.0	171	7.0	516
.2	.4	1.2	10.5	2.4	54	4.5	220	8.0	672
.4	1.3	1.4	14.5	2.8	76	5.0	271	9.0	852
.6	2.6	1.6	20	3.2	103	5.5	326	10.0	1,060
.8	4.5	1.8	27	3.6	135	6.0	384	11.0	1,280

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0	0.5	20	78	8				
2			0	0	110	14	46	5				
3			0	0	24	13	26	0				
4			0	0	453	11	55	0				
5			0	0	511	9.5	26	0				
6			0	0	383	8.5	127	0				
7			0	0	132	3.0	56	0				
8			0	0	53	2.7	50	0				
9			0	0	37	5.5	57	0				
10			0	0	30	7.5	20	0				
11			0	2.3	31	4.5	36	0				
12			0	24	39	174	16	0				
13			0	.2	516	141	39	0				
14			0	0	413	59	35	0				
15			.3	.1	111	32	10	0				
16			0	.1	58	57	11	0				
17			0	0	37	42	16	0				
18			0	0	38	44	26	0				
19			0	0	25	292	6	0				
20			0	0	14	280	5	0				
21			0	0	15	1,150	6.5	0				
22			0	0	15	401	7	0				
23			0	0	13	225	6.5	0				
24			0	0	16	556	16	0				
25			0	0	64	245	19	0				
26			2.0	0	46	149	2	0				
27			.8	0	31	166	4	0				
28			0	14	25	127	3	0				
29			0	25	-	96	4	0				
30			.2	45	-	67	3	0				
31			.5	10	-	58	-	0				

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	3.8	2.0	0	.12	7.5
Calendar year 1936.....	4,942.8	705	0	13.5	9,810
January.....	120.7	45	0	3.89	239
February.....	3,220.5	516	.5	115	6,390
March.....	4,559.2	1,150	2.7	147	9,040
April.....	812.0	127	2	27.1	1,610
May.....	13	8	0	.42	26
June.....	0	0	0	0	0
July.....	0	0	0	0	0
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1936-37.....	8,729.2	1,150	0	23.9	17,310

## SAN FRANCISQUITO CREEK BASIN

Los Trancos Creek at Stanford University, Calif.

Location.-- Water-stage recorder, lat. 37°24'35", long. 122°11'35", in El Corte de Madera grant, about 800 feet above mouth and 1.6 miles southwest of Stanford University post office, Santa Clara County. Altitude, about 160 feet.

Drainage area.-- 7.5 square miles.

Records available.-- January 1931 to September 1937.

Extremes.-- Maximum discharge during year, 399 second-feet Mar. 21 (gage height, 3.13 feet); no flow for several months.  
1931-37: Maximum discharge, that of Mar. 21, 1937; no flow for several months each year.

Remarks.-- Records good. Discharge for Dec. 1-6, and July 2-10 estimated.  
Intermittent discharge of less than 0.1 second-foot occurred July 11 to Sept. 30.  
See record for Los Trancos Canal, which diverts above station. A small part of this diversion was returned to creek above station by way of Felt Lake spillway.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0.1	0.2	.7	3.8	10	0.2	0.1	0.1		
2			.1	.1	4.4	3.5	9	.3	.1	.1		
3			.1	.1	1.0	3.3	7.5	.5	.1	.1		
4			.1	.1	.49	3.2	7	.3	.1	.1		
5			.1	.1	15	3.2	7	.3	.1	.1		
6			.1	.1	21	3.2	10	.2	.1	.1		
7			.1	.1	3.0	3.2	6.5	.2	.1	.1		
8			.1	.1	1.6	3.0	6	.2	.1	.1		
9			.1	.1	1.2	3.0	5	.3	.1	.1		
10			.1	.1	.9	3.0	4.6	.3	.1	.1		
11			.1	.2	1.2	3.2	3.8	.4	.1	0		
12			.1	.4	1.1	28	3.5	.4	.1	0		
13			.1	.2	69	20	1.2	.3	.1	0		
14			.1	.3	43	5	.3	.2	.1	0		
15			.1	.3	5	7.5	1.4	.2	.1	0		
16			.1	.3	1.9	8	1.4	.2	.2	0		
17			.1	.2	4.2	9	1.4	.2	.1	0		
18			.1	.2	5	9	1.4	.1	.1	0		
19			.1	.2	7	26	1.7	.1	.1	0		
20			.1	.2	5.5	22	1.7	.1	.1	0		
21			.1	.2	4.6	219	1.4	.1	.2	0		
22			.1	.1	4.4	82	1.2	.1	.1	0		
23			.1	.1	3.8	39	1.1	.1	.1	0		
24			.1	.1	5.5	106	1.1	.1	.1	0		
25			.1	.2	10	44	1.1	.1	.1	0		
26			.3	.2	5.5	30	1.7	.1	.1	0		
27			.3	.2	4.4	30	1.0	.1	.1	0		
28			.2	.8	4.0	21	.2	.1	.1	0		
29			.1	1.3	-	15	.2	.1	.1	0		
30			.3	5.5	-	13	.2	.1	.1	0		
31			.2	.7	-	12	-	.1	-	0		
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						3.9	.3	.1	.13	7.7		
Calendar year 1936.....						502.2	50	0	1.37	995		
January.....						13.0	5.5	.1	.42	26		
February.....						292.2	69	.9	10.4	580		
March.....						784.1	219	3.0	25.3	1,560		
April.....						99.6	10	.2	3.32	198		
May.....						5.9	.4	.1	.19	12		
June.....						3.2	.2	.1	.11	6.3		
July.....						1.0	.1	0	.03	2.0		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						1,202.9	219	0	3.30	2,390		

## Los Trancos Canal near Stanford University, Calif.

Location.- Water-stage recorder, lat. 37°23'20", long. 122°11'10", in El Corte de Madera grant, half a mile below intake and 3 miles southwest of Stanford University post office, Santa Clara County. During periods of low flow recorder is moved to Cippoletti weir at canal intake. Altitude, about 360 feet.

Records available.- October 1931 to September 1937.

Extremes.- Maximum daily discharge during year, 33 second-feet Feb. 6; no flow at times. 1931-37: Maximum daily discharge, 40 second-feet Feb. 13, 1936; no flow at times in each year.

Remarks.- Records excellent. Discharge Oct. 1 to Dec. 7, Apr. 13 to Sept. 30 computed by Formula for flow over Cippoletti weir. Canal diverts water from Los Trancos Creek 2 miles above mouth and conveys it to Felt Lake, an irrigation reservoir on Stanford University campus.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.1	0.2	0.5	9		0	3.0	0.8	0.5	0.4	0.2
2	.2	0.1	.2	.4	12		0	3.0	.7	.4	.3	.2
3	.1	.1	.1	.4	5.5		0	2.8	.2	.3	.3	.2
4	.1	.1	.2	.5	18		0	2.8	.4	.5	.2	.2
5	.1	.1	.2	.5	24		0	2.6	.4	.5	.2	.2
6	.1	.1	.2	.4	33		0	2.5	.5	.5	.3	.2
7	.1	.1	.1	.3	15		0	2.5	.5	.4	.3	.1
8	0	.1	0	.4	9		0	2.4	.5	.4	.4	.2
9	0	.1	0	.5	6.5		0	2.4	.5	.5	.3	.2
10	.1	.1	.1	.3	6		0	2.3	.4	.5	.2	.1
11	.1	.1	.1	2.9	6		0	2.1	.3	.5	.2	.1
12	.1	.1	0	4.1	5		0	2.0	.3	.4	.2	.1
13	.1	.1	0	1.6	16		2.4	1.9	.5	.3	.1	.2
14	.1	.1	.1	1.9	11		4.6	1.8	.4	.5	.2	.2
15	.1	.1	1.3	2.1	11		4.5	1.8	.2	.2	.3	.1
16	.1	.1	.1	2.2	10		4.1	1.8	.5	.4	.3	.2
17	.1	.1	.1	1.5	9		3.8	1.7	.6	.5	.2	.2
18	.1	.1	.1	1.4	3		3.8	1.6	.6	.5	.2	.2
19	.1	.1	.1	1.4	0		1.5	1.5	.6	.5	.2	.2
20	.1	.1	.1	.9	0		0	1.5	.6	.4	.2	.2
21	.1	.1	.1	.8	0		0	1.4	.6	.2	.3	.2
22	.1	.1	.1	.7	0		0	1.3	.6	.2	.3	.2
23	.1	.1	.1	.7	0		0	1.3	.6	.3	.3	.2
24	.1	.1	.2	.7	0		0	1.3	.6	.3	.2	.2
25	.1	.1	.1	.6	0		0	1.3	.6	.5	.2	.2
26	.1	.1	.7	.7	0		0	1.2	.5	.3	.2	.3
27	.1	.1	.6	.8	0		1.6	1.1	.3	.4	.2	.3
28	.1	.1	.3	9.5	0		3.5	1.1	.5	.3	.2	.2
29	.1	.1	.2	13	0		3.2	1.0	.5	.2	.3	.3
30	.2	.2	2.1	20	-		3.0	1.0	.5	.2	.2	.3
31	.1	-	2.0	7.5	-		-	.9	-	.3	.2	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						3.1	0.2	0	0.10	6.1		
November.....						3.1	.2	.1	.10	6.1		
December.....						9.8	2.1	0	.32	19		
Calendar year 1936.....						369.4	40	0	1.01	732		
January.....						79.0	20	.3	2.55	157		
February.....						209.0	33	0	7.46	415		
March.....						0	0	0	0	0		
April.....						36.0	4.6	0	1.20	71		
May.....						56.9	3.0	.9	1.84	113		
June.....						14.8	.8	.2	.49	29		
July.....						11.9	.5	.2	.38	24		
August.....						7.6	.4	.1	.25	15		
September.....						5.9	.3	.1	.20	12		
Water year 1936-37 .....						437.1	33	0	1.20	867		



## Lagunita Canal at Stanford University, Calif.

Location.- Water-stage recorder, lat. 37°25'05", long. 122°11'15", in Rinconada del Arroyo de San Francisquito grant, 500 feet below intake, at Stanford University, Santa Clara County. Altitude, about 150 feet.

Records available.- January 1931 to September 1937.

Extremes.- Maximum daily discharge during year, 19 second-feet Jan. 30; no flow for several months.

1931-37: Maximum daily discharge, 23 second-feet Feb. 13, 1936; no flow for several months each year.

Remarks.- Records excellent except those for very low flow, which are fair. Canal diverts water from San Francisquito Creek below its junction with Los Trancos Creek to supply the Lagunita, an irrigation reservoir on Stanford University campus.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	3.2	12	4.2	0	3.2	0.7	0.1		
2			0	2.7	14	5.5	2.7	3.0	.5	.4		
3			0	2.3	16	5.5	5.5	2.8	.5	.1		
4			0	1.5	16	5.5	5.5	3.1	.3	0		
5			0	1.5	11	5.5	5.5	3.2	.2	0		
6			0	2.5	0	5.5	3.7	3.3	.2	0		
7			0	1.9	0	5.5	0	3.3	.3	0		
8			0	1.4	0	5.5	1.6	3.3	.2	0		
9			0	1.1	0	2.0	2.4	3.3	.3	0		
10			0	1.1	0	3.9	2.2	3.4	.3	0		
11			0	8.5	0	6	1.9	3.4	.2	0		
12			0	16.5	4.3	4.3	1.7	3.4	.2	0		
13			0	5.5	4.3	1.8	2.0	3.3	.2	0		
14			0	11	0	1.6	1.6	1.6	.2	0		
15			0	11	1.9	4.9	1.5	1.5	.2	0		
16			0	8.5	6	8	1.5	1.5	.6	0		
17			0	3.7	5.5	5	1.7	1.1	.3	0		
18			0	3.1	5.5	4.1	1.7	1.2	.6	0		
19			0	3.6	5	4.2	2.1	1.1	.3	0		
20			0	2.2	4.8	1.8	2.6	.9	.2	0		
21			0	2.0	4.9	1.6	2.7	.8	.3	0		
22			0	1.8	4.9	0	2.8	.8	.5	0		
23			0	1.9	4.8	0	2.8	.9	.6	0		
24			0	1.7	4.9	0	3.1	1.5	.3	0		
25			0	1.5	5.5	0	3.1	1.1	.2	0		
26			.1	1.5	5.5	0	2.8	1.1	.2	0		
27			.2	2.4	3.7	0	3.0	1.1	.2	0		
28			1.1	16	2.7	0	3.0	1.1	.6	0		
29			1.1	18	-	3.1	3.0	1.2	.2	0		
30			3.1	19	-	2.8	3.0	1.1	.1	0		
31			8.5	17	-	0	-	.8	-	0		
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						14.1	8.5	0	.45	28		
Calendar year 1936.....						643.4	23	0	1.76	1,280		
January.....						175.1	19	1.1	5.65	347		
February.....						143.7	16	0	5.13	285		
March.....						97.8	8	0	3.15	194		
April.....						76.7	5.5	0	2.56	152		
May.....						62.4	3.4	.8	2.01	124		
June.....						9.7	.7	.1	.32	19		
July.....						.6	.4	0	.19	1.2		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						580.1	19	0	1.59	1,150		

## Stevens Creek near Cupertino, Calif.

Location.- Water-stage recorder, lat. 37°18'20", long. 122°04'25", in SW¼ sec. 22, T. 7 S., R. 2 W., at county highway bridge about 4 miles west of Cupertino. Altitude, about 385 feet.

Drainage area.- 18.1 square miles.

Records available.- January 1930 to September 1937.

Extremes.- Maximum discharge during year, 124 second-feet Mar. 25 (gage height, 2.64 feet); no flow Oct. 7 to Nov. 7.  
1930-37: Maximum discharge, 709 second-feet Dec. 27, 1931 (gage height, 4.57 feet); no flow at times during each year.

Remarks.- Records good. Storage in Stevens Creek Reservoir above station began in 1936; water released during summer.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0	0.6	5	25	18	50	14	22	5	4.9	18
2	.1	0	.6	5	25	18	47	13	19	4.9	4.9	18
3	.1	0	.6	4.9	25	18	42	12	23	4.2	9	18
4	.1	0	.6	4.9	22	18	40	12	25	4.2	20	18
5	.1	0	.6	4.6	21	18	38	12	14	4.2	17	18
6	.1	0	.6	4.6	27	18	44	11	11	7.5	18	18
7	0	0	.6	4.6	29	18	35	12	19	11	18	18
8	0	.1	.6	4.6	29	19	33	13	21	15	17	19
9	0	.2	.6	4.2	25	21	32	14	11	18	18	19
10	0	.2	.6	4.2	21	18	30	19	5.5	16	18	18
11	0	.2	.6	4.2	21	18	29	27	14	14	18	18
12	0	.2	.6	4.6	21	29	28	34	20	14	18	18
13	0	.2	.6	4.9	20	30	26	41	10	15	18	21
14	0	.2	.6	4.9	2.4	26	25	32	17	15	18	22
15	0	.4	2.2	4.9	4.2	26	24	28	19	15	18	21
16	0	.4	2.2	5	9.5	26	23	23	18	15	18	21
17	0	.4	1.8	5	11	26	21	28	17	15	18	21
18	0	.4	1.3	5.5	11	26	21	30	18	17	19	9
19	0	.4	1.2	5.5	11	26	20	26	17	18	19	.4
20	0	.4	1.2	6	11	26	19	25	18	9.5	18	.4
21	0	.4	1.0	6.5	11	35	18	24	18	5.5	18	.3
22	0	.4	1.0	6.5	10	12	17	20	18	5.5	18	.3
23	0	.4	1.0	6.5	10	3.8	17	16	24	6.5	18	.3
24	0	.4	1.3	6	11	4.6	17	25	23	17	18	.3
25	0	.4	1.6	6	11	47	17	24	12	18	18	.3
26	0	.4	1.8	4.9	11	100	17	22	6.5	18	18	.2
27	0	.4	2.0	4.8	17	100	17	18	6	19	18	.2
28	0	.5	3.4	13	18	84	16	20	5.5	19	18	.2
29	0	.5	5.5	15	18	71	15	14	5.5	19	18	.3
30	0	.5	6	28	-	62	14	13	5	19	17	.3
31	0	-	8	29	-	55	-	14	-	11	18	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0.6	0.1	0	0.02	1.2			
November.....					8.0	5	0	.27	16			
December.....					50.9	8	.6	1.64	101			
Calendar year 1936 .....					3,465.3	87	0	9.47	6,880			
January.....					220.3	29	4.2	7.11	437			
February.....					471.1	29	2.4	16.8	934			
March.....					1,018.4	100	3.8	32.9	2,020			
April.....					792	50	14	26.4	1,870			
May.....					636	41	11	20.5	1,260			
June.....					462.0	25	5	15.4	916			
July.....					395.0	19	4.2	12.7	773			
August.....					523.8	20	4.9	16.9	1,040			
September.....					356.5	22	.2	11.2	667			
Water year 1936-37 .....					4,914.6	100	0	13.5	9,750			

## Guadalupe Creek at Guadalupe, Calif.

Location.- Water-stage recorder, lat. 37°13'05", long. 121°54'35", in SW $\frac{1}{4}$  sec. 19, T. 8 S., R. 1 E., half a mile northwest of Guadalupe and  $\frac{3}{4}$  miles upstream from junction with Alamos Creek. Altitude, about 325 feet.

Drainage area.- 12.6 square miles.

Records available.- January 1930 to September 1937.

Extremes.- Maximum discharge during year, 520 second-feet Feb. 13 (gage height, 2.80 feet); minimum, 0.1 second-foot Oct. 1-11, 14-16.

1930-37: Maximum discharge, 1,160 second-feet Dec. 28, 1931 (gage height, 4.05 feet); no flow during part of each year except 1937.

Remarks.- Records good. Small diversions above station. Storage in Guadalupe Reservoir began in 1936; water released during summer.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.4	0.4	2.5	39	35	14	15	19	1.9	12	1.2
2	.1	.3	.5	2.0	41	38	14	15	19	2.0	11	1.1
3	.1	.3	.5	1.8	29	52	12	15	19	2.1	13	1.1
4	.1	.3	.5	1.8	47	51	11	15	20	1.8	14	1.1
5	.1	.4	.5	2.0	40	46	10	15	18	2.3	13	1.1
6	.1	.4	.5	2.0	36	51	9.5	15	13	4.9	12	1.0
7	.1	.3	.6	2.0	23	66	8.5	15	16	15	12	1.1
8	.1	.3	.6	1.8	16	55	9.5	15	19	16	12	1.2
9	.1	.3	.6	2.0	16	39	10.5	15	19	16	12	1.3
10	.1	.4	.6	1.8	26	42	12	15	19	16	12	1.3
11	.1	.4	.6	2.9	36	46	13	15	19	16	12	1.4
12	.2	.4	.6	4.6	35	43	16	16	17	16	11	1.4
13	.2	.4	.6	6	155	23	17	17	7	15	10	1.3
14	.1	.4	.7	5.5	105	16	15	20	21	15	11	1.4
15	.1	.6	1.4	5	42	21	14	28	21	15	11	1.5
16	.1	.4	1.0	4.9	26	16	15	33	17	14	11	4.8
17	.2	.3	.8	4.6	21	13	15	25	17	13	11	5
18	.4	.3	.7	4.6	25	12	16	18	18	13	11	5.5
19	.4	.3	.7	4.6	22	17	16	25	18	14	11	5.5
20	.3	.3	.7	4.3	23	26	16	27	18	12	11	4.2
21	.3	.3	.7	4.0	28	214	16	33	22	12	11	3.5
22	.3	.4	.7	4.0	27	109	16	27	19	12	11	3.5
23	.2	.4	.7	4.0	33	66	15	16	16	15	11	3.5
24	.2	.4	.9	4.0	25	116	15	24	19	15	11	3.7
25	.2	.4	.9	4.0	21	71	15	24	11	14	11	2.3
26	.2	.4	3.6	4.0	24	48	16	13	1.4	12	11	1.4
27	.2	.4	2.3	4.0	36	40	14	12	1.3	12	10	.5
28	.2	.4	1.2	11	36	29	12	18	1.1	12	9.5	.2
29	.7	.5	.9	21	-	25	13	15	1.8	12	10	.2
30	.5	.4	5.5	52	-	20	14	14	2.0	13	7.5	.2
31	.4	-	4.3	26	-	17	-	17	-	12	1.2	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						6.5	0.7	0.1	0.21	13		
November.....						11.2	0.6	.3	.37	22		
December.....						34.8	5.5	.4	1.12	69		
Calendar year 1936.....						3,286.3	76	0	8.98	6,520		
January.....						204.7	52	1.8	6.60	406		
February.....						1,033	155	16	36.9	2,050		
March.....						1,460	214	12	47.1	2,900		
April.....						408.5	17	8.5	13.6	810		
May.....						587	33	12	18.9	1,160		
June.....						448.6	22	1.1	15.0	990		
July.....						362.0	16	1.8	11.7	718		
August.....						337.2	14	1.2	10.9	669		
September.....						62.5	5.5	.2	2.08	124		
Water year 1936-37.....						4,956.0	214	.1	13.6	9,830		

## Guadalupe Creek at San Jose, Calif.

Location.- Water-stage recorder, lat. 37°20', long. 121°54' 100 feet downstream from junction with Los Gatos Creek, in city of San Jose, Santa Clara County. Altitude, about 80 feet.

Drainage area.- 131 square miles.

Records available.- January 1930 to September 1937.

Extremes.- Maximum discharge during year, 6,070 second-feet Feb. 13 (gage height, 9.64 feet); no flow during most of year.  
1930-37: Maximum discharge, 6,700 second-feet Dec. 27, 1931 (gage height, 11.12 feet); no flow during most of each year.

Remarks.- Records excellent. Small diversions above station. Storage in several up-stream reservoirs began in 1936.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.5	0	1.0	5.2	1.6	27	2.2	127	3.0	520	4.5	1,600
.6	.5	1.2	10	1.6	46	2.4	194	3.5	870	5.0	2,000
.7	1.2	1.4	17	2.0	79	2.6	274	4.0	1,230	5.5	2,400
.8	2.2										

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0	43	0				
2					15	0	26	0				
3					0	0	24	0				
4					0	8.5	11	0				
5					250	.7	5	.3				
6					328	0	7	.5				
7					105	0	3.2	0				
8					22	4.9	29	0				
9					.2	.4	2.2	0				
10					0	0	0	0				
11					0	0	2.3	0				
12					0	71	.2	0				
13					1,160	98	0	0				
14					1,420	66	0	0				
15					316	60	0	0				
16					146	67	0	0				
17					81	16	0	.5				
18					73	17	0	1.0				
19					43	5	0	0				
20					11	19	0	0				
21					.6	2,070	0	0				
22					4.5	1,060	0	0				
23					1.8	443	0	0				
24					36	1,030	0	0				
25					33	646	0	0				
26					8.5	384	0	.4				
27					.3	316	0	.1				
28					0	224	.1	0				
29					-	122	0	0				
30					-	81	0	0				
31					-	75	-	0				
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0	0	0	0	0			
November.....					0	0	0	0	0			
December.....					0	0	0	0	0			
Calendar year 1936.....					3,627.8	650	0	9.91	7,200			
January.....					0	0	0	0	0			
February.....					4,054.9	1,420	0	145	8,040			
March.....					6,884.5	2,070	0	222	13,660			
April.....					153.0	43	0	5.10	303			
May.....					2.8	1.0	0	.09	5.6			
June.....					0	0	0	0	0			
July.....					0	0	0	0	0			
August.....					0	0	0	0	0			
September.....					0	0	0	0	0			
Water year 1936-37.....					11,095.2	2,070	0	30.4	22,010			

## Alamitos Creek near Edenvale, Calif.

Location.— Water-stage recorder, lat.  $37^{\circ}14'20''$ , long.  $121^{\circ}52'15''$ , in SW $\frac{1}{4}$  sec. 16, T. 8 S., R. 1 E., 0.4 mile above junction with Guadalupe Creek and 4 miles southwest of Edenvale. Altitude, about 200 feet.

Drainage area.— 35.0 square miles.

Records available.— January 1930 to September 1937.

Extremes.— Maximum discharge during year, 1,840 second-feet Feb. 13 (gage height, 6.05 feet); no flow for several months.  
1930-37: Maximum discharge, 2,670 second-feet Dec. 27, 1931 (gage height, 6.60 feet); no flow for several months each year.

Remarks.— Records good. Small diversions above station. Storage in Calero and Almaden Reservoirs began in 1936; water released during summer.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	32	36	25	27	24	0	27	7
2				0	59	36	24	29	34	0	34	1.8
3				0	46	37	29	31	33	0	34	1.1
4				0	70	35	32	35	28	0	33	.7
5				0	70	32	35	35	29	0	34	.4
6				0	47	25	38	28	32	0	34	.2
7				0	35	20	29	28	33	0	33	0
8				0	41	23	32	28	35	7	33	0
9				0	50	21	36	29	30	21	35	18
10				0	38	20	36	29	27	25	33	31
11				0	33	20	36	27	30	27	33	28
12				0	40	59	34	26	30	28	33	30
13				0	360	46	34	29	32	28	33	36
14				0	122	22	34	30	32	28	33	36
15				0	36	23	33	31	31	28	33	36
16				0	26	21	33	32	33	29	31	36
17				0	46	40	32	29	30	29	32	34
18				0	46	21	31	27	31	29	33	8
19				0	42	25	31	22	25	30	33	2.7
20				0	47	18	30	27	25	34	33	2.0
21				0	49	588	30	28	26	35	33	1.6
22				0	48	127	30	28	35	38	35	1.5
23				0	35	51	29	28	34	45	36	1.1
24				0	36	252	29	26	32	44	36	.7
25				0	32	157	28	31	23	42	36	.5
26				0	37	87	29	35	4.9	41	36	.3
27				0	39	73	30	22	2.2	42	36	0
28				0	38	46	29	22	1.6	43	38	0
29				0	-	28	23	27	1.1	47	39	0
30				23	-	22	20	26	.5	52	39	0
31				35	-	22	-	23	-	40	35	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0		0	0	0	0			
November.....				0		0	0	0	0			
December.....				0		0	0	0	0			
Calendar year 1936.....				4,877.2		172	0	13.3	9,670			
January.....				58		35	0	1.87	115			
February.....				1,600		360	26	57.1	3,170			
March.....				2,033		588	18	65.6	4,030			
April.....				821		38	20	30.7	1,830			
May.....				873		35	22	28.2	1,730			
June.....				760.3		34	.5	26.3	1,510			
July.....				810		52	0	26.1	1,610			
August.....				1,054		39	27	34.0	2,090			
September.....				314.4		36	0	10.5	624			
Water year 1936-37.....				8,423.7		588	0	23.1	16,710			

## Los Gatos Creek at Los Gatos, Calif.

Location.- Water-stage recorder, lat. 37°13'15", long. 121°59'00", in SW $\frac{1}{4}$  sec. 21, T. 8 S., R. 1 W., about 700 feet upstream from highway bridge at Los Gatos. Altitude, about 360 feet.

Drainage area.- 40.0 square miles.

Records available.- January 1930 to September 1937.

Extremes.- Maximum discharge during year, 5,500 second-feet Feb. 13 (gage height, 12.90 feet), from rating curve extended above 2,800 second-feet; no flow for most of October, November, August, and September.  
1930-37: Maximum discharge, that of Feb. 13, 1937; no flow during part of most years.

Remarks.- Records good except those of very low flow, which are fair. Several small storage reservoirs and diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.2	0.1	14	60	61	154	30	10	0.5	0	0
2	0	.1	.1	10	115	57	136	28	9	.7	0	0
3	0	.1	.1	3.8	54	54	120	27	8.5	.5	0	0
4	0	0	.1	1.3	331	51	108	27	8.5	.6	0	0
5	0	.1	.1	4.8	464	48	107	28	7	.4	0	0
6	0	0	.1	8	544	43	100	26	4.7	.3	0	0
7	0	.4	.1	3.5	246	40	88	26	4.2	.3	0	0
8	0	1.9	.1	1.5	138	39	87	25	4.1	.4	0	0
9	0	.1	.1	1.2	89	36	82	22	4.4	.4	0	0
10	0	.1	.1	1.2	69	35	76	20	4.9	.3	0	0
11	0	0	.1	19	61	41	71	19	4.6	.3	0	0
12	0	0	.1	26	56	277	68	20	3.9	.3	0	0
13	0	0	.1	14	1,510	237	63	18	1.9	.5	0	0
14	0	0	.5	11	1,040	159	60	17	6	.2	0	0
15	0	0	7	11	344	134	57	17	9.5	.3	0	0
16	0	0	10	11	214	118	54	15	19	.3	0	0
17	0	0	2.1	5.5	159	107	51	17	10	.2	0	0
18	0	0	.6	4.7	129	98	49	17	8	.2	0	.1
19	0	0	.4	4.2	108	115	47	16	6.5	.2	0	0
20	0	0	.3	2.7	88	145	38	15	4.9	.2	.1	0
21	0	0	.3	1.2	77	1,540	37	15	3.4	.1	0	0
22	0	0	.5	.8	70	792	36	14	2.6	.2	0	0
23	0	0	1.8	.8	64	433	34	15	2.4	.2	0	0
24	0	.1	1.7	.8	98	782	33	14	9	.2	0	0
25	0	.1	4.1	.7	107	480	32	12	10	.2	0	0
26	0	.1	30	.8	80	339	33	11	4.6	.1	0	0
27	0	.1	32	2.4	69	295	34	10	1.2	.1	0	0
28	0	1	15	56	65	246	30	11	1.2	.1	0	0
29	0	.1	3.6	60	-	212	28	14	1.7	.1	0	0
30	0	.1	35	177	-	182	34	12	4.3	.1	0	0
31	3.6	-	30	67	-	167	-	9.5	-	.1	0	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					3.6	5.6	0	0.12	7.1			
November.....					175.8	1.9	0	.12	7.3			
December.....						35	.1	5.67	349			
Calendar year 1936.....					12,518.1	835	0	33.7	24,430			
January.....					525.9	177	.7	17.0	1,040			
February.....					6,249	1,310	54	223	12,590			
March.....					7,152	1,340	35	231	14,190			
April.....					1,940	154	28	64.7	3,850			
May.....					567.5	30	9.5	18.3	1,130			
June.....					180.0	19	1.2	6.00	557			
July.....					8.6	.7	.1	.28	17			
August.....					.1	.1	0	.003	.2			
September.....					.1	.1	0	.003	.2			
Water year 1936-37.....					16,806.3	1,340	0	46.0	33,340			

## Campbell Creek at Saratoga, Calif.

Location.- Water-stage recorder, lat. 37°15'15", long. 122°02'25", in Quito grant, half a mile southwest of Saratoga post office, Santa Clara County. Altitude, about 500 feet.

Drainage area.- 8.8 square miles.

Records available.- October 1933 to September 1937.

Extremes.- Maximum discharge during year, 910 second-feet Feb. 13 (gage height, 3.8 feet); from rating curve extended above 450 second-feet; no flow at times in October and September.

1933-37: Maximum discharge, that of Feb. 13, 1937; no flow at times during each year.

Remarks.- Records fair. Discharge partly estimated on days when flow was less than 0.2 second-foot, Aug. 20 to Sept. 30. Diversion and regulation above station by San Jose Water Works.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.7	0.4	3.3	17	14	32	8.5	2.8	1.4	0.4	0.1
2	0	.3	.4	2.2	22	14	28	8	2.7	1.4	.4	.1
3	0	.2	.4	1.5	12	13	26	7.5	2.6	1.3	.4	.2
4	0	.6	.4	1.5	120	11	23	7.5	2.7	1.4	.3	.1
5	.2	.7	.4	2.8	97	11	23	7.5	2.7	1.6	.3	0
6	.2	.7	.6	2.4	82	10	23	7.5	2.8	1.6	.3	.1
7	.1	.7	.7	2.0	39	9.5	20	7	2.8	1.6	.3	.3
8	0	.7	.7	1.7	24	9	19	7	2.8	1.2	.3	0
9	0	.7	.8	1.4	17	8.5	18	6.5	3.0	1.1	.3	.3
10	0	.7	.7	1.2	14	8.5	17	6.5	3.3	1.2	.2	.1
11	0	.5	.6	6.5	13	9	16	6	3.2	1.2	.2	0
12	.1	.5	.4	5.5	11	64	16	6	2.6	1.2	.2	.2
13	.1	.5	.4	3.3	214	51	15	5.5	2.7	1.2	.2	0
14	.2	.3	.4	3.6	139	35	14	5.5	2.7	1.2	.3	0
15	0	.3	3.0	3.3	52	31	14	6	2.6	1.1	.4	.1
16	.1	.6	1.6	3.4	36	28	13	5	5.5	1.2	.2	0
17	0	.8	1.1	2.7	26	26	13	5	3.2	1.2	.2	0
18	.1	.7	.9	2.6	20	24	12	5	2.6	1.1	.1	0
19	.7	.6	.6	2.7	18	36	12	4.8	2.6	1.0	.3	.1
20	.8	.6	.7	2.2	15	48	11	4.6	2.2	.8	.1	.2
21	.9	.3	.8	2.0	14	239	11	4.4	2.2	.6	.1	0
22	.8	.3	.8	1.9	12	169	10	4.4	2.2	.5	.1	0
23	.7	.3	.8	1.8	11	89	10	4.4	2.0	.5	.1	.1
24	.6	.3	1.0	1.7	18	140	10	4.3	2.1	.6	.1	.4
25	.7	.4	1.1	1.6	24	101	9.5	4.3	2.0	.5	.1	.2
26	.7	.3	1.1	1.9	19	80	9.5	4.1	1.6	.6	.1	0
27	.7	.6	6	2.2	17	72	9.5	3.9	1.2	.7	.1	0
28	.5	.7	3.2	10	15	54	9.5	3.8	1.5	.4	.1	0
29	.4	.7	1.9	16	-	45	9	3.6	1.3	.4	.1	0
30	1.4	.7	10	42	-	40	8.5	3.4	1.1	.4	.4	.1
31	1.3	-	6.5	16	-	36	-	3.3	-	.4	.1	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					11.3	1.4	0	0.36	22			
November.....					16.0	.8	.2	.53	32			
December.....					58.3	11	.4	1.88	116			
Calendar year 1936.....					2,497.2	152	0	6.82	4,950			
January.....					152.9	42	1.2	4.93	303			
February.....					1,118	214	11	39.9	2,220			
March.....					1,525.5	239	8.5	49.2	3,030			
April.....					461.5	32	8.5	15.4	915			
May.....					170.6	8.5	3.3	5.51	339			
June.....					75.3	5.5	1.1	2.51	149			
July.....					30.6	1.6	.4	.99	61			
August.....					6.8	.4	.1	.22	13			
September.....					2.7	.4	0	.09	5.4			
Water year 1936-37.....					3,629.7	239	0	9.94	7,210			

## Coyote Creek near Madrone, Calif.

Location.- Water-stage recorder, lat. 37°10'00", long. 121°37'40", in northwest corner of San Jose grant, above highway bridge at mouth of canyon, a quarter of a mile below Las Animas Creek, and 2.8 miles northeast of Madrone, Santa Clara County. Altitude, about 420 feet.

Drainage area.- 193 square miles.

Records available.- October 1902 to September 1912, December 1916 to September 1937.

Average discharge.- 31 years (1902-12, 1916-37), 71.2 second-feet.

Extremes.- Maximum discharge during year, 4,060 second-feet Mar. 22 (gage height, 10.40 feet); minimum, 0.1 second-foot Oct. 16, 17.

1902-12, 1916-37: Maximum discharge, 25,000 second-feet, probably on Mar. 7, 1911, furnished by Duryea, Haehl, & Gilman; no flow at times.

Remarks.- Records excellent. No large diversions. Storage in Coyote Reservoir began in 1936; water released during summer.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.*	Sept.
1	0.4	1.3	0.5	18	227	38	191	63	81	8.5	71	61
2	.7	1.0	.5	19	182	32	177	73	86	8.5	71	61
3	.7	.9	.5	7	35	27	156	64	93	8	69	62
4	.6	.9	.5	3.3	198	30	138	65	100	8	66	61
5	.6	.9	.6	2.8	216	43	128	65	89	8	66	61
6	.5	.9	.6	2.8	309	42	134	65	81	7.5	66	61
7	.4	.9	.7	1.9	144	41	119	64	81	7.5	67	61
8	.3	.9	.7	1.4	60	40	109	69	81	7.5	67	61
9	.2	.8	.7	1.3	37	39	102	76	56	7.5	67	61
10	.2	.8	.7	1.4	26	38	93	76	9	20	67	60
11	.3	.8	.8	1.8	27	40	85	76	11	37	66	60
12	.3	.8	.8	3.4	35	78	80	75	11	57	65	60
13	.2	.7	.7	18	426	371	76	74	34	76	65	60
14	.2	.7	.8	19	410	408	72	74	81	76	70	65
15	.2	.8	1.7	20	120	321	68	74	87	76	73	72
16	.1	.7	1.4	22	70	308	64	73	89	78	73	72
17	.1	.7	1.0	28	50	273	61	73	87	82	73	72
18	.2	.6	.9	54	44	264	58	73	87	82	72	72
19	.5	.5	.9	156	48	225	120	78	87	52	72	72
20	.5	.5	.9	132	43	202	137	75	86	5.5	71	71
21	.5	1.3	.9	67	40	1,880	58	77	84	30	63	18
22	.5	.9	.8	25	37	3,150	57	75	81	82	63	3.3
23	.5	.7	.8	19	36	1,560	57	73	79	88	62	2.6
24	.5	.7	.9	17	37	1,600	56	82	78	93	62	2.2
25	.5	.5	1.1	15	50	1,280	55	82	43	93	62	1.8
26	.5	.5	4.3	14	141	810	58	81	7.5	87	62	1.7
27	.6	.6	8.5	14	71	610	62	80	10	76	62	30
28	.5	.5	4.0	64	49	484	54	80	10	76	61	81
29	.5	.6	2.2	162	-	347	63	80	7.5	76	61	86
30	.8	.6	7	258	-	160	55	81	7	75	61	85
31	1.5	-	6.5	243	-	195	-	81	-	71	62	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					14.1	1.5	0.1	0.45	28			
November.....					23.0	1.3	.5	.77	46			
December.....					52.8	8.5	.5	1.71	106			
Calendar year 1936.....					27,389.2	763	.2	74.8	54,320			
January.....					1,411.1	258	1.3	45.5	2,800			
February.....					3,168	426	26	113	6,280			
March.....					14,936	3,150	27	482	29,650			
April.....					2,743	131	54	91.4	5,440			
May.....					2,297	82	63	74.1	4,560			
June.....					1,826.0	100	7.5	60.9	3,620			
July.....					1,559.5	93	5.5	50.3	3,090			
August.....					2,058	73	61	66.4	4,080			
September.....					1,597.6	86	1.7	53.3	3,170			
Water year 1936-37.....					31,686.2	3,150	.1	86.8	62,850			



## Coyote Creek near Edenvale, Calif.

Location.- Water-stage recorder, lat. 37°16'15", long. 121°47'55", at east boundary of Santa Teresa grant, at "The Narrows", 7 miles south of San Jose and 1½ miles north-east of Edenvale, Santa Clara County. Altitude, about 190 feet.

Drainage area.- 229 square miles.

Records available.- October 1916 to September 1937.

Average discharge.- 21 years, 27.5 second-feet.

Extremes.- Maximum discharge during year, 4,220 second-feet Mar. 21 (gauge height, 6.78 feet); no flow for several months.

1916-37: Maximum discharge, 10,000 second-feet Feb. 10, 1922 (gauge height, 12.8 feet); no flow during part of each year.

Remarks.- Records excellent except those for Feb. 6, 7, and June 11-17, which were computed on basis of records for station near Madrone and are good. Water for irrigation pumped from wells along creek above station. Storage in Coyote Reservoir above station began in 1936; water released during summer.

Rating table, water year 1936-37 (gauge height, in feet, and discharge, in second-feet)

2.15	0	2.8	26	4.0	490
2.2	.2	2.9	40	4.4	720
2.3	1.0	3.0	58	4.8	1,170
2.4	3.0	3.2	110	5.2	1,650
2.5	6.2	3.4	180	5.6	2,190
2.6	10.5	3.6	270	6.0	2,810
2.7	17.0	3.8	374	6.4	3,490

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	34	12	172	0.5	12	0	17	9
2				0	85	3.0	161	1.9	12	0	18	9.5
3				0	9	0	136	6	14	0	16	9
4				0	0	0	120	3.6	23	0	13	9
5				0	301	0	102	5	23	0	12	8.5
6				0	250	0	59	4.0	16	0	12	9
7				0	150	0	53	4.0	16	0	12	8
8				0	55	0	54	4.3	16	0	12	7.5
9				0	16	0	55	7	16	0	10	8
10				0	3.3	0	59	12	2.3	0	9	8.5
11				0	0	0	36	7.5	0	0	8.5	7.5
12				0	0	16	29	7.5	0	0	9	7.5
13				0	259	176	23	8	0	0	9.5	7.5
14				0	598	369	20	9	5	0	9.5	7.5
15				0	153	285	16	9	15	0	16	11
16				0	68	260	12	8.5	24	0	18	13
17				0	33	238	10	7	24	0	18	14
18				0	18	233	9	.2	23	5.5	19	16
19				0	14	202	8	1.4	20	4.9	19	16
20				0	12	172	97	11	16	0	16	16
21				0	8	1,460	21	10	16	0	12	11
22				0	5	3,260	12	11	19	0	10	.1
23				0	2.8	1,610	9.5	10	21	0	10	0
24				0	1.2	1,530	8.5	9	18	19	9.5	0
25				0	5	1,290	4.0	8	16	32	9	0
26				0	61	798	4.9	9.5	.4	33	8.5	0
27				0	54	590	7	8	0	22	7.5	0
28				0	23	472	6	10	0	21	9	0
29				0	-	374	4.0	11	0	22	9	0
30				0	-	169	3.6	14	0	21	9.5	0
31				2.7	-	169	-	11	-	17	9.5	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0		0	0	0	0			
November.....				0		0	0	0	0			
December.....				0		0	0	0	0			
Calendar year 1936.....				13,222.7		716	0	36.1	26,230			
January.....				2.7		2.7	0	.09	5.4			
February.....				2,216.3		598	0	79.2	4,400			
March.....				13,708.0		3,260	0	442	27,190			
April.....				1,289.5		172	3.6	43.0	2,560			
May.....				228.9		12	.2	7.38	454			
June.....				367.7		24	0	12.3	729			
July.....				196.4		33	0	6.34	390			
August.....				377.0		19	7.5	12.2	748			
September.....				213.1		16	0	7.10	423			
Water year 1936-37.....				18,599.6		3,260	0	51.0	36,900			

## Alameda Creek near Niles, Calif.

Location.- Water-stage recorder, lat. 37°35'15", long. 121°57'35", in Arroyo de la Alameda grant, an eighth of a mile above highway bridge and 1½ miles northeast of Niles, Alameda County. Altitude, about 100 feet.

Drainage area.- 633 square miles.

Records available.- October 1916 to September 1937.

Average discharge.- 20 years (1916-19, 1920-37), 62.3 second-feet.

Extremes.- Maximum discharge during year, 7,350 second-feet Mar. 22 (gage height, 10.30 feet); minimum, 0.2 second-foot Oct. 25-28.

1916-37: Maximum discharge, 13,900 second-feet Feb. 10, 1922 (gage height, 12.44 feet, former site and datum); no flow during periods in 1918, 1924-35, and possibly 1920.

Remarks.- Records excellent. Storage at Calaveras Reservoir, which has a capacity of 100,000 acre-feet. San Francisco Aqueduct and other diversions above station. Water released from Calaveras Reservoir at times during period May 19 to Sept. 30. Gage-height record collected in cooperation with city of San Francisco.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	0.4	35	5.5	42	30	558	65	4.1	16	11	11
2	5.5	.4	39	2.7	134	26	528	62	3.9	17	10	10
3	5.5	.3	41	2.5	124	23	488	53	3.7	17	10	11
4	5.5	.3	42	2.0	722	18	460	27	3.7	14	10	11
5	5.5	.3	42	2.4	2,980	15	444	23	3.9	17	10	11
6	5	.4	41	2.2	1,860	13	510	21	4.3	14	10	11
7	4.9	.5	41	1.8	1,360	12	438	20	4.3	9	10	11
8	4.6	.5	41	1.6	516	11	416	18	4.1	9	10	11
9	4.6	.5	41	1.5	258	11	411	13	4.1	9	10	11
10	4.6	.6	40	1.4	193	10	386	12	4.1	9.5	10	11
11	4.6	.5	40	1.6	116	10	375	11	4.1	11	10	11
12	4.6	.4	41	1.8	106	20	355	10	7	11	10	11
13	4.4	.4	41	1.7	610	149	332	10	8	11	10	11
14	4.4	.4	42	1.7	2,710	254	323	9	8	11	10	11
15	4.4	.5	44	1.8	884	149	318	8.5	8	11	10	11
16	3.7	.5	43	1.7	383	104	310	8.5	11	11	10	11
17	3.9	.4	41	1.7	221	89	301	8	19	11	10	11
18	3.9	.4	42	1.7	146	109	293	7.5	19	11	10	11
19	3.9	.4	43	1.7	100	179	289	10	19	11	10	11
20	3.9	.3	43	1.6	72	597	281	16	13	11	10	11
21	3.9	.3	43	1.5	50	2,910	142	16	22	11	10	11
22	3.7	.3	44	1.5	37	5,480	128	16	20	11	10	11
23	2.0	.3	46	1.5	32	2,340	93	16	19	11	10	11
24	.4	15	44	1.5	29	2,720	78	12	19	10	10	11
25	.2	49	42	1.5	42	2,720	78	6	18	11	11	11
26	.2	56	45	1.6	43	1,480	82	6	18	11	2.7	12
27	.2	61	55	1.7	39	1,250	120	5.5	14	11	1.2	11
28	.2	46	19	3.9	34	1,080	122	5	16	10	1.0	11
29	.4	34	33	36	-	852	112	5	17	10	1.1	12
30	.4	33	36	76	-	708	101	4.9	17	10	3.8	12
31	.4	-	22	94	-	624	-	4.7	-	10	12	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						104.0	5.5	0.2	3.35	206		
November.....						303.3	61	.3	10.1	602		
December.....						1,251	55	19	40.4	2,480		
Calendar year 1936.....						37,724.1	4,720	.2	103	74,830		
January.....						263.3	94	1.4	8.49	522		
February.....						13,843	2,980	2.9	494	27,460		
March.....						24,003	5,480	10	774	47,610		
April.....						8,871	558	78	296	17,800		
May.....						509.6	65	4.7	16.4	1,030		
June.....						336.3	22	3.7	11.2	667		
July.....						357.5	17	9	11.5	709		
August.....						273.3	12	1.0	8.82	542		
September.....						332	12	10	11.1	659		
Water year 1936-37.....						50,447.3	5,480	.2	138	100,100		

## Kern River near Kernville, Calif.

Location.- Water-stage recorder, lat. 35°56', long. 118°29', in NE¼ sec. 14, T. 23 S., R. 32 E., 3 miles above Salmon Creek and 15 miles north of Kernville. Altitude, about 3,550 feet.

Drainage area.- 845 square miles.

Records available.- January 1912 to September 1937.

Average discharge.- Combined flow of Kern River near Kernville and Kern River No. 3 Canal, 25 years, 683 second-feet.

Extremes.- Maximum discharge during year year, 8,600 second-feet Feb. 6 (gage height, 12.48 feet); minimum, 0.5 second-foot Oct. 25 and 26.  
1912-37: Maximum discharge, 9,690 second-feet Jan. 17, 1916 (gage height, 8.8 feet, former datum); no flow at times July 31, 1924, to Feb. 7, 1925.

Remarks.- Records good. Discharge for Oct. 1-6, interpolated; that for Mar. 7-9, computed on basis of weather records and records for Kern River No. 3 Canal. (See record for Kern River No. 3 Canal, which diverts water 1 mile above station). Gage-height record and results of several discharge measurements furnished by Southern California Edison Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.0	1.7	1.4	1.0	96	432	1,440	3,050	1,660	143	1.3
2	1.2	1.0	1.7	1.1	1.2	162	695	1,660	3,380	1,620	93	1.5
3	1.2	1.1	1.6	1.1	1.1	256	630	1,900	3,450	1,540	50	1.5
4	1.2	1.2	1.6	1.2	1.4	311	546	2,230	3,020	1,540	18	1.7
5	1.2	1.1	1.5	1.5	56	383	590	2,460	4,360	1,620	4.4	1.5
6	1.2	1.0	1.5	1.7	4,280	471	815	2,640	4,200	1,400	2.2	1.4
7	1.2	1.0	1.4	1.6	2,070	1,120	765	2,640	3,960	1,160	1.7	1.4
8	1.2	1.0	1.4	1.5	510	950	790	2,760	3,380	970	1.4	1.4
9	1.2	1.0	1.4	1.3	190	650	790	2,990	2,930	865	1.4	1.4
10	1.2	1.0	1.5	1.2	90	650	665	3,050	2,700	790	1.3	1.3
11	1.2	1.0	1.5	1.4	36	650	915	3,120	2,480	790	1.3	1.4
12	1.2	1.0	1.4	1.2	73	790	970	3,660	2,280	790	1.2	1.4
13	1.2	1.0	1.4	1.1	370	765	1,000	4,360	2,330	815	1.1	1.2
14	1.3	1.0	1.5	1.0	2,390	590	1,270	5,000	2,360	672	1.2	1.3
15	1.4	1.4	1.9	1.0	940	514	1,620	5,340	2,480	650	1.3	1.3
16	1.3	1.4	3.9	1.0	566	506	1,620	5,340	2,640	590	1.3	1.4
17	1.3	1.0	1.5	1.0	399	494	1,480	5,000	2,480	513	1.3	1.4
18	1.3	1.0	1.4	1.1	311	526	1,480	4,680	2,130	449	1.3	1.4
19	1.4	1.1	1.4	1.2	228	399	1,480	3,960	2,380	399	1.5	1.4
20	1.5	1.2	1.5	1.1	166	368	1,540	3,660	3,380	359	1.5	1.5
21	1.2	1.2	1.3	1.0	152	345	1,820	3,740	3,180	345	1.4	1.5
22	1.1	1.1	1.3	.9	170	365	1,860	3,820	3,050	348	1.3	1.5
23	.8	1.2	1.3	.9	177	297	1,540	3,590	2,540	365	1.2	1.5
24	.6	1.5	1.3	1.0	212	306	1,510	3,310	2,080	482	1.2	1.6
25	.5	1.4	1.5	1.1	246	282	1,620	3,450	1,990	486	1.2	1.5
26	.6	1.5	1.4	1.1	138	243	1,790	3,180	1,900	363	1.3	1.5
27	1.0	1.6	1.7	1.0	92	251	1,740	3,050	1,730	320	1.3	1.4
28	1.0	1.6	1.7	1.0	72	223	1,480	3,590	1,700	279	1.3	1.4
29	1.0	1.6	1.5	1.1	-	221	1,300	4,200	1,740	243	1.3	1.4
30	1.0	1.5	1.5	1.1	-	253	1,300	4,200	1,700	233	1.3	1.4
31	1.2	-	1.6	1.0	-	317	-	3,240	-	190	1.3	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October						47.7	14	0.5	1.54	95		
November						35.8	1.6	1.0	1.19	71		
December						48.8	3.9	1.3	1.57	97		
Calendar year 1936						170,990.5	2,810	.5	467	339,100		
January						35.9	1.7	.9	1.16	71		
February						13,938.7	4,280	1.0	498	27,660		
March						13,754	1,120	96	444	27,280		
April						36,243	1,860	432	1,208	71,890		
May						107,280	5,340	1,440	3,461	212,800		
June						81,850	4,360	1,700	2,728	162,300		
July						22,861	1,660	190	737	45,340		
August						343.6	143	1.2	11.1	682		
September						42.7	1.7	1.2	1.42	85		
Water year 1936-37						276,481.2	5,340	0.5	757	548,400		

Combined discharge, in second-feet, of Kern River and Kern River No. 3 Canal near Kernville, Calif.  
for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	209	275	192	236	231	703	1,030	2,020	3,610	2,260	737	323
2	219	251	192	261	308	765	1,290	2,240	3,940	2,220	687	318
3	240	250	200	281	303	858	1,220	2,480	4,000	2,140	644	316
4	236	256	209	291	310	911	1,140	2,810	4,370	2,140	612	341
5	225	258	200	302	556	983	1,180	3,060	4,910	2,220	586	336
6	221	253	188	307	4,910	1,050	1,410	3,220	4,760	2,000	571	318
7	221	243	189	292	2,720	1,150	1,360	3,220	4,520	1,760	560	308
8	213	232	189	256	1,090	1,250	1,380	3,340	3,940	1,570	539	303
9	212	229	187	241	786	1,250	1,380	3,570	3,480	1,460	520	299
10	209	234	188	251	694	1,250	1,460	3,630	3,250	1,390	503	295
11	206	233	184	276	646	1,250	1,510	3,700	3,030	1,390	487	291
12	205	234	181	281	687	1,390	1,560	4,240	2,840	1,390	474	286
13	204	229	183	286	978	1,360	1,580	4,940	2,900	1,420	487	284
14	202	226	202	266	3,000	1,190	1,860	5,880	2,940	1,270	492	286
15	201	228	393	266	1,550	1,110	2,210	5,920	3,040	1,250	491	283
16	206	232	504	281	1,170	1,100	2,210	5,920	3,210	1,190	467	277
17	229	232	330	261	1,000	1,090	2,070	5,580	3,050	1,120	458	277
18	278	226	264	271	915	1,120	2,070	5,260	2,700	1,060	451	277
19	330	225	255	265	832	995	2,070	4,540	2,940	996	456	275
20	304	224	252	251	769	964	2,130	4,240	3,440	956	450	274
21	283	218	251	211	755	940	2,410	4,310	3,740	941	425	274
22	274	218	244	231	772	959	2,450	4,390	3,650	944	407	270
23	268	217	235	233	782	891	2,130	4,160	3,140	961	396	270
24	259	210	227	245	821	900	2,100	3,880	2,680	1,080	385	270
25	256	211	244	258	854	876	2,210	4,030	2,590	1,080	371	264
26	253	210	218	247	747	838	2,370	3,760	2,500	977	360	260
27	250	208	263	255	701	846	2,330	3,610	2,380	914	350	256
28	246	205	200	259	680	817	2,070	4,150	2,300	873	345	256
29	242	204	236	260	-	815	1,890	4,780	2,340	837	342	256
30	245	199	228	248	-	847	1,980	4,780	2,300	827	338	256
31	277	-	202	186	-	911	-	3,800	-	784	330	-
Month	Second-foot-days					Maximum	Minimum	Mean	Run-off in acre-feet			
October.....	7,423					330	201	239	14,720			
November.....	6,870					275	199	229	13,630			
December.....	7,228					504	181	233	14,340			
Calendar year 1936.....	323,728					3,420	181	885	642,200			
January.....	8,056					307	186	260	15,980			
February.....	29,569					4,910	231	1,056	58,650			
March.....	31,379					1,390	703	1,012	62,240			
April.....	53,970					2,450	1,030	1,799	107,000			
May.....	125,120					5,920	2,020	4,036	248,200			
June.....	98,490					4,910	2,300	3,283	195,400			
July.....	41,400					2,260	784	1,335	82,120			
August.....	14,711					737	350	475	29,180			
September.....	8,599					341	256	287	17,060			
Water year 1936-37.....	432,815					5,920	181	1,186	858,500			

## Kern River near Bakersfield, Calif.

Location.- Water-stage recorder, lat. 35°25'54", long. 118°56'43", in SW¼ sec. 2, T. 29 S., R. 28 E., at mouth of lower canyon, 5 miles northeast of Bakersfield. Altitude, about 470 feet.

Drainage area.- 2,345 square miles.

Records available.- October 1893 to September 1937.

Average discharge.- 42 years (1893-1906, 1908-37), 941 second-feet.

Extremes.- Maximum discharge during year, 20,000 second-feet Feb. 7 (gage height, 9.12 feet); minimum, 205 second-feet Oct. 14.

1896-1937: Maximum discharge, that of Feb. 7, 1937; minimum, 57 second-feet (regulated) in November 1924.

Remarks.- Complete record, except run-off in acre-feet and annual figures, furnished by Kern County Land Co. Regular station disabled by high water of February. Discharge Feb. 14 to Sept. 30 computed by adding discharge at station 1½ miles downstream to discharge of canal that diverts between stations. No flow in canal during September. Many irrigation diversions and four power plants above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	209	302	235	313	346	1,403	1,807	3,398	4,435	2,475	808	343
2	208	314	223	311	354	1,390	2,007	3,667	4,283	2,449	762	337
3	222	297	220	327	394	1,442	2,211	4,117	4,480	2,385	731	331
4	241	282	222	338	423	1,486	2,097	4,559	4,493	2,346	712	331
5	249	284	233	353	438	1,564	2,037	5,119	4,984	2,302	710	347
6												
6	234	287	235	388	4,275	1,662	2,160	5,550	5,315	2,315	670	349
7	228	282	221	404	14,675	1,705	2,411	5,720	5,051	2,199	627	341
8	222	276	219	396	5,080	1,841	2,271	5,713	4,965	1,949	595	332
9	215	270	225	341	2,670	1,982	2,300	5,843	4,400	1,777	572	319
10	209	266	226	337	1,885	2,025	2,371	6,106	4,064	1,672	563	315
11												
11	208	267	230	362	1,560	2,086	2,525	6,046	3,869	1,607	546	311
12	209	273	229	369	1,410	2,111	2,599	6,104	3,608	1,505	534	302
13	209	275	224	370	1,475	2,431	2,642	6,785	3,462	1,471	520	297
14	206	269	221	371	3,676	2,853	2,741	7,669	5,547	1,466	512	294
15	209	265	243	357	5,124	2,002	3,164	8,005	3,526	1,374	514	291
16												
16	210	262	358	355	3,403	1,950	3,623	8,344	3,574	1,303	509	284
17	219	264	490	361	2,715	1,916	3,694	8,161	3,685	1,207	498	277
18	249	264	437	356	2,361	1,950	3,545	7,459	3,448	1,118	487	273
19	309	262	348	363	2,140	1,902	3,506	6,692	3,244	1,054	479	274
20	334	259	313	368	2,017	1,764	3,515	5,854	3,597	1,024	472	270
21												
21	338	258	304	338	1,677	1,707	3,727	5,492	4,035	1,006	462	275
22	315	253	296	307	1,790	1,773	4,134	5,483	4,194	1,008	451	278
23	301	246	292	317	1,738	1,815	4,204	5,391	3,941	1,015	431	280
24	295	254	279	355	1,743	1,799	3,796	5,123	3,394	1,033	418	278
25	284	245	289	354	1,792	1,902	3,674	5,002	2,977	1,121	408	277
26												
26	277	243	298	358	1,768	1,837	3,964	5,076	2,822	1,124	402	275
27	280	244	359	359	1,558	1,755	4,415	4,741	2,673	1,032	390	269
28	272	242	358	350	1,457	1,722	4,356	4,524	2,548	970	375	268
29	268	239	302	358	-	1,648	3,776	5,077	2,522	904	365	271
30	268	239	299	372	-	1,659	3,268	5,420	2,511	859	356	276
31	278	-	314	374	-	1,704	-	5,175	-	857	348	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					540	205		251	15,420			
November.....					321	214		265	15,850			
December.....					512	216		281	17,290			
Calendar year 1936.....						4,173	194	1,097	796,400			
January.....					412	223	354		21,740			
February.....					20,000	322	2,505		139,100			
March.....					-	-	1,812		111,400			
April.....					-	-	3,084		183,500			
May.....					-	-	5,726		352,000			
June.....					-	-	3,788		225,400			
July.....					-	-	1,482		91,100			
August.....					-	-	523		32,190			
September.....					355	263	299		17,780			
Water year 1936-37.....						20,000	205	1,689	1,223,000			

Note.-Maximum and minimum for months shown are instantaneous values, determined from water-stage recorder graph.

## Kern River No. 3 Canal near Kernville, Calif.

Location.- Water-stage recorder, lat. 35°54', long. 118°28', in NE¼ sec. 25, T. 23 S., R. 32 E., 4 miles below intake and 12 miles north of Kernville. Altitude, about 3,590 feet.

Records available.- March 1921 to September 1937.

Average discharge.- 16 years, 339 second-feet.

Extremes.- Maximum daily discharge during year, 645 second-feet Feb. 7; minimum, 33 second-feet Mar. 7.  
1921-37: Maximum daily discharge, 648 second-feet July 16, 1921; no flow at times.

Remarks.- Records excellent except those for Dec. 29 to Jan. 18, Jan. 20-22, 26, Jan. 31 to Feb. 1 (computed on basis of partial gage-height record and records of flow through the Venturi meter in Kern River no. 3 power house), which are good. Canal diverts from left bank of Kern River in sec. 12, T. 23 S., R. 32 E. Water is used for power and returned to river 8 miles below. Gage-height record and results of several discharge measurements furnished by Southern California Edison Co.

## Discharge, in second-feet, water year October 1921 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	208	274	190	235	230	607	594	584	557	599	594	322
2	218	250	190	260	307	603	593	583	555	599	594	317
3	239	249	198	280	302	602	594	581	553	599	594	315
4	235	255	207	290	309	600	594	580	550	600	594	339
5	224	257	198	300	500	600	594	579	550	600	582	335
6	220	252	187	305	633	578	593	582	557	600	569	317
7	220	242	188	290	645	53	594	583	556	599	558	307
8	212	231	188	255	584	297	595	583	556	599	538	302
9	211	228	186	240	596	599	594	582	555	599	519	298
10	208	233	187	250	604	600	593	582	553	601	502	294
11	205	232	182	275	612	598	593	582	550	601	486	290
12	204	233	180	280	614	597	594	579	557	601	473	285
13	203	228	182	285	608	596	593	577	556	601	486	283
14	201	225	200	265	607	596	591	577	555	601	491	285
15	200	227	391	265	607	597	588	577	555	601	490	282
16	205	231	500	280	607	594	589	577	565	600	466	276
17	228	231	329	260	606	594	593	577	566	599	457	276
18	277	225	263	270	604	594	593	576	565	598	450	276
19	316	224	264	264	604	596	593	576	569	597	454	274
20	303	223	250	250	603	596	593	576	59	597	448	272
21	282	217	250	210	603	595	592	574	560	596	424	272
22	273	217	243	230	602	594	590	573	598	596	406	268
23	267	216	234	232	605	594	591	572	598	596	395	268
24	258	209	226	244	609	594	591	574	598	595	384	268
25	255	210	242	257	608	594	590	576	599	595	370	263
26	252	209	217	246	609	595	589	576	600	594	359	268
27	249	206	261	254	609	595	587	561	600	594	349	255
28	245	203	198	258	608	594	597	561	599	594	344	255
29	241	202	235	259	-	594	586	560	598	594	341	255
30	244	197	225	248	-	594	585	561	598	594	337	255
31	-	-	200	185	-	594	-	560	-	594	329	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	7,379	316	200	238	14,640
November.....	6,836	274	197	228	13,560
December.....	7,181	500	180	232	14,240
Calendar year 1936.....	152,837	620	0	418	303,200
January.....	8,022	305	185	259	15,910
February.....	15,655	645	230	558	31,010
March.....	17,614	607	33	568	34,940
April.....	17,746	595	585	592	35,200
May.....	17,841	584	560	576	35,390
June.....	16,608	600	59	554	32,940
July.....	18,533	601	594	598	36,760
August.....	14,373	594	329	464	28,510
September.....	8,562	339	255	285	16,980
Water year 1936-37.....	156,330	645	33	428	310,100

## Borel Canal at Tilley Creek, Calif.

Location.- Water-stage recorder, lat. 35°42', long. 118°27', in NW¼ sec. 4, T. 26 S., R. 33 E., at point where canal crosses Tilley Creek, three-quarters of a mile south of Kernville. Altitude, about 2,570 feet.

Records available.- January 1910 to September 1914, October 1925 to September 1937.

Average discharge.- 12 years (1925-37), 324 second-feet.

Extremes.- Maximum daily discharge during year, 596 second-feet May 27; no flow

Apr. 1-28.

1925-37: Maximum daily discharge, 605 second-feet June 3-5, 1927, and May 22, 1936; no flow at times.

Remarks.- Records good except those for Jan. 8-11, 23, 24, which were (estimated) and are fair. Canal diverts water from Kern River half a mile below Kernville to supply Borel hydroelectric plant of Southern California Edison Co. 10 miles below; water is then returned to Kern River. Gage-height record and results of several discharge measurements furnished by Southern California Edison Co.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	197	285	196	256	253	563	0	538	574	566	111	308
2	207	262	194	286	324	563	0	535	572	565	542	303
3	230	254	204	299	342	564	0	535	572	564	544	299
4	232	267	213	323	341	564	0	535	573	564	545	321
5	219	261	209	324	418	564	0	535	572	565	544	325
6	214	260	193	338	410	564	0	539	571	567	538	311
7	208	250	199	318	407	564	0	541	571	566	518	301
8	204	239	199	291	411	564	0	542	571	564	504	293
9	203	232	197	286	411	563	0	545	568	563	493	287
10	200	235	198	286	414	563	0	547	568	562	483	281
11	199	237	192	309	412	562	0	550	570	559	464	276
12	199	236	189	292	411	562	0	554	568	558	452	266
13	196	233	191	304	411	562	0	555	567	557	456	266
14	194	232	204	280	409	563	0	556	568	556	463	267
15	194	232	342	279	411	563	0	555	571	556	460	266
16	196	236	521	292	414	563	0	559	571	555	447	260
17	219	236	402	274	415	563	0	560	568	554	442	260
18	267	232	297	276	416	563	0	565	568	554	434	258
19	319	227	280	290	416	563	0	565	568	554	439	257
20	323	230	271	269	416	564	0	567	567	553	433	253
21	294	223	270	266	422	564	0	571	565	551	416	250
22	279	223	263	273	530	564	0	573	568	550	394	248
23	268	221	253	282	560	564	0	576	568	549	378	250
24	261	216	243	278	559	563	0	580	568	548	367	250
25	255	214	257	280	562	563	0	597	568	547	356	250
26	253	216	246	272	560	563	0	591	568	545	343	244
27	250	214	290	271	562	564	0	596	568	544	334	239
28	248	209	239	278	562	564	0	592	568	543	326	238
29	245	208	255	287	-	563	179	597	567	542	322	240
30	247	204	256	287	-	563	527	584	566	486	319	242
31	278	-	244	228	-	490	-	578	-	21	314	-
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
October.....							7,298	323	194	235	14,480	
November.....							7,016	285	204	234	13,920	
December.....							7,708	521	189	249	15,290	
Calendar year 1936.....							145,147	605	0	397	287,900	
January.....							9,874	338	228	286	17,600	
February.....							12,179	562	253	435	24,180	
March.....							17,389	564	490	561	34,490	
April.....							706	527	0	23.5	1,400	
May.....							17,393	596	535	561	34,500	
June.....							17,072	574	565	569	33,860	
July.....							16,628	567	21	536	32,980	
August.....							13,181	545	111	425	26,140	
September.....							8,109	325	238	270	16,080	
Water year 1936-37.....							133,553	596	0	366	264,900	

## South Fork of Kern River near Onyx, Calif.

Location.- Water-stage recorder, lat.  $35^{\circ}44'$ , long.  $118^{\circ}10'$ , in SW $\frac{1}{4}$  sec. 24, T. 25 S., R. 35 E., three-quarters of a mile north of Kernville-Walker Pass road, 1.4 miles above Canebrake Creek, and 5 miles northeast of Onyx. Altitude, about 2,900 feet.

Drainage area.- 531 square miles.

Records available.- September 1911 to August 1914, January 1919 to September 1937.

Average discharge.- 16 years (1911-13, 1919-25, 1929-37), 87.5 second-feet.

Extremes.- Maximum discharge during year, 3,130 second-feet Feb. 6 (gage height, 6.50 feet), from rating curve extended above 1,900 second-feet; minimum, 14 second-feet Oct. 1.

1911-14, 1919-37: Maximum discharge, that of Feb. 6, 1937; maximum gage height, 7.1 feet Jan. 25, 1914; no flow for several days in July and August 1929 and September 1934.

Remarks.- Records good except those for Nov. 4-30, which were computed on basis of records for South Fork of Kern River at Isabella and Tule River near Porterville and are fair. Lowell and Thomas irrigation ditches divert about 2,000 acre-feet yearly above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	38	24	22	36	182	282	1,120	605	148	44	18
2	16	37	21	25	38	197	327	1,250	575	135	41	18
3	18	32	22	28	38	228	330	1,400	565	122	38	19
4	20	30	24	31	39	237	324	1,570	540	114	36	22
5	21	29	24	34	104	252	344	1,710	515	110	36	24
6	20	26	22	36	1,690	273	376	1,710	506	106	35	24
7	19	26	22	35	941	301	369	1,660	484	99	32	21
8	18	28	23	30	372	314	394	1,660	456	92	32	20
9	18	28	22	29	249	327	414	1,660	438	88	31	19
10	17	28	23	31	187	352	470	1,620	410	87	30	19
11	16	27	24	33	164	366	488	1,480	386	92	29	19
12	16	27	22	34	167	430	535	1,570	366	95	29	19
13	16	27	22	35	268	430	575	1,570	355	112	27	19
14	17	27	25	36	1,130	366	660	1,620	341	97	25	21
15	18	27	33	38	605	344	830	1,570	327	82	26	20
16	18	26	43	40	402	362	940	1,480	314	75	25	19
17	28	26	33	39	327	344	940	1,360	296	69	25	19
18	47	26	36	39	291	338	912	1,250	285	65	25	20
19	78	26	38	39	258	291	940	1,120	270	61	26	20
20	62	26	41	38	225	288	970	1,030	252	56	28	20
21	52	25	41	34	217	276	1,150	970	240	55	31	20
22	46	25	39	34	220	294	1,280	912	228	53	27	21
23	42	25	36	35	217	261	1,090	858	214	58	24	21
24	40	25	31	36	226	258	1,060	830	203	65	21	22
25	38	25	36	37	234	249	1,120	802	192	67	20	21
26	36	24	28	38	190	231	1,220	758	177	57	20	21
27	36	24	31	36	177	231	1,220	720	167	51	20	21
28	35	24	25	39	174	231	1,060	692	169	48	19	19
29	34	24	26	40	-	220	970	720	184	46	19	19
30	35	24	20	42	-	228	1,000	676	169	44	18	19
31	38	-	20	36	-	246	-	635	-	43	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	928	78	14	29.9	1,840
November.....	816	38	24	27.2	1,620
December.....	877	43	20.	28.3	1,740
Calendar year 1936.....	50,720	1,060	13	139	100,600
January.....	1,081	42	22	34.9	2,140
February.....	9,238	1,690	36	330	18,320
March.....	8,947	1,430	182	289	17,750
April.....	22,590	1,280	282	753	44,810
May.....	37,983	1,710	635	1,225	75,340
June.....	10,233	605	167	341	20,300
July.....	2,494	148	43	80.5	4,950
August.....	857	44	18	27.6	1,700
September.....	604	24	18	20.1	1,200
Water year 1936-37.....	96,648	1,710	14	265	191,700



## South Fork of Kern River at Isabella, Calif.

Location.- Water-stage recorder, lat.  $35^{\circ}40'$ , long.  $118^{\circ}28'$ , in NW $\frac{1}{4}$  sec. 20, T. 26 S., R. 33 E., at Isabella, a quarter of a mile above junction with Kern River. Altitude, about 2,480 feet.

Drainage area.- 985 square miles.

Records available.- October 1910 to September 1913, January 1929 to September 1937.

Extremes.- Maximum discharge during year, 4,100 second-feet Feb. 7 (gage height, 8.92 feet), from rating curve extended above 1,600 second-feet on basis of velocity-area studies minimum, 8.5 second-feet Oct. 7.

1929-37: Maximum discharge, that of Feb. 7, 1937; minimum, 0.3 second-foot July 26, 1931.

Remarks.- Records good except those for Feb. 6-7, 14-15, May 3 to July 24, and Aug. 15 to Sept. 30, which are fair. Water is diverted from river above station by 27 irrigation ditches; considerable return flow from many of them.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	12	14	28	56	222	272	1,000	580	63	12	
2	11	12	13	30	57	230	302	1,160	546	59	12	
3	11	13	11	30	59	248	328	1,280	496	56	11	
4	11	13	11	32	58	260	323	1,430	479	53	11	
5	11	14	11	36	62	272	332	1,600	460	53	12	
6	11	14	11	42	1,330	288	357	1,720	448	50	12	
7	10	14	11	45	2,900	308	371	1,720	432	48	11	
8	9.5	14	12	45	870	329	357	1,660	413	46	10	
9	11	14	12	42	462	344	374	1,600	406	45	10	
10	11	16	12	42	332	364	399	1,600	399	50	11	
11	11	16	12	42	272	385	444	1,480	388	27	12	
12	11	15	12	43	242	405	478	1,430	360	24	13	
13	11	14	13	45	242	487	505	1,600	338	21	11	16
14	11	14	12	45	622	448	528	1,600	323	17	12	16
15	11	14	16	45	1,160	392	618	1,540	306	16	12	16
16	11	14	15	46	702	392	798	1,600	275	14	12	15
17	11	14	14	49	518	385	900	1,600	282	14	14	14
18	11	14	15	49	428	374	900	1,430	282	14	12	12
19	11	14	14	52	371	347	900	1,280	225	14	12	12
20	10	14	14	51	323	317	900	1,040	175	14	13	13
21	10	14	14	49	288	311	935	935	151	14	13	13
22	10	14	14	48	282	320	1,120	870	129	14	14	14
23	10	14	15	49	275	314	1,240	810	135	14	13	13
24	11	14	15	51	272	293	1,080	768	137	17	17	17
25	11	14	17	51	282	293	1,040	750	137	17	13	13
26	11	14	18	51	265	275	1,120	702	104	18	13	13
27	12	14	21	52	238	262	1,200	648	96	17	15	15
28	12	14	25	52	225	262	1,240	618	94	16	11	11
29	12	14	21	55	-	258	1,000	618	79	16	11	11
30	12	14	20	59	-	250	970	636	67	16	11	11
31	12	-	22	61	-	260	-	606	-	13	-	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					338.5	12	9.5	10.9	671			
November.....					419	16	12	14.0	851			
December.....					455	25	11	14.7	902			
Calendar year 1936.....					36,942.3	871	4.8	101	73,280			
January.....					1,417	61	28	45.7	2,810			
February.....					13,183	2,900	56	471	26,150			
March.....					9,896	487	222	319	19,630			
April.....					21,332	1,240	272	711	42,310			
May.....					37,331	1,720	606	1,204	74,040			
June.....					8,683	580	67	289	17,220			
July.....					848	63	13	27.4	1,680			
August.....					364	13	10	11.7	722			
September.....					412	17	11	13.7	817			
Water year 1936-37.....					94,678.5	2,900	9.5	259	187,800			

\*Estimated.

## Tule River near Porterville, Calif.

Location.- Water-stage recorder, lat.  $36^{\circ}05'$ , long.  $118^{\circ}55'$ , in NW $\frac{1}{4}$  sec. 25, T. 21 S., R. 28 E., at highway bridge 1 mile above South Fork and 6 miles east of Porterville. Altitude, about 580 feet.

Drainage area.- 266 square miles.

Records available.- May 1901 to September 1937.

Average discharge.- 36 years, 136 second-feet.

Extremes.- Maximum discharge during year, 11,300 second-feet Feb. 6 (gage height, 9.60 feet), by slope-area method; minimum, 1.3 second-feet Oct. 1.  
1901-37: Maximum discharge, that of Feb. 6, 1937; no flow during parts of 1934 and 1935.

Remarks.- Records good. Several small diversions above station. Power developed on Middle Fork and tributaries.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	40	17	152	148	393	740	518	413	141	32	8
2	1.6	34	17	106	166	403	1,090	566	403	132	32	8.5
3	3.2	30	18	91	141	420	960	630	393	125	32	9
4	4.5	25	19	82	125	455	815	695	403	121	31	9
5	5	27	20	98	875	486	718	740	420	114	26	10
6	4.3	26	20	217	7,560	510	870	765	366	106	24	10
7	3.3	26	20	147	2,840	530	940	740	379	97	24	10
8	3.3	24	20	100	900	550	790	718	359	96	21	9.5
9	3.2	24	20	85	618	550	740	718	356	86	17	10
10	2.7	23	20	90	486	546	682	686	517	79	16	10
11	2.7	23	20	86	403	550	664	672	302	79	15	9
12	2.7	23	21	88	498	638	664	765	287	84	15	9.5
13	2.8	22	21	106	650	765	654	870	276	77	14	11
14	2.6	22	23	97	3,770	646	718	960	273	70	14	9.5
15	2.7	22	121	85	1,410	558	870	960	265	68	14	9
16	3.8	22	224	139	840	574	840	930	262	67	12	8.5
17	7	22	141	110	638	558	740	840	249	61	12	7.5
18	11	22	81	96	630	790	682	740	241	61	12	7.5
19	40	22	58	113	566	650	646	646	234	59	11	7.5
20	28	22	51	91	476	562	650	610	239	54	10	8
21	23	20	47	72	434	514	695	606	239	51	9	8
22	19	21	44	78	427	851	718	606	226	47	9.5	8
23	16	21	42	74	434	695	622	578	212	45	8.5	8
24	15	22	40	72	462	695	586	562	201	51	9	8.5
25	13	20	75	71	740	1,060	602	574	188	45	9	8.5
26	13	20	68	67	570	815	634	522	174	41	8.5	8
27	12	20	234	66	452	870	718	494	166	38	8.5	8
28	12	18	148	67	413	870	606	510	165	37	8	8.5
29	13	18	103	152	-	765	534	530	161	35	8	8.5
30	14	16	146	296	-	718	498	518	150	33	8.5	9
31	39	-	422	250	-	695	-	485	-	32	8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	325.2	40	1.4	10.5	645
November.....	700	40	16	23.3	1,390
December.....	2,324	422	17	75.0	4,610
Calendar year 1936.....	65,996.2	3,340	.8	180	130,900
January.....	3,445	296	66	111	6,830
February.....	27,672	7,560	125	908	54,890
March.....	19,682	1,060	393	635	39,040
April.....	21,586	1,090	498	629	42,820
May.....	20,724	960	455	669	41,110
June.....	8,329	420	150	278	16,520
July.....	2,232	141	32	72.0	4,430
August.....	478.5	32	8	15.4	949
September.....	264.0	11	7.5	8.8	524
Water year 1936-37.....	107,759.7	7,560	1.4	295	213,800

## South Fork of Tule River near Success, Calif.

Location.- Water-stage recorder, lat. 36°03', long. 118°51', in NW¼ sec. 4, T. 22 S., R. 29 E., 3 miles southeast of Success and 5 miles above mouth.

Altitude, about 750 feet.

Drainage area.- 106 square miles.

Records available.- June 1930 to September 1937.

Extremes.- Maximum discharge during year; 3,370 second-feet Feb. 6 (gage height, 6.36 feet), from rating curve extended above 1,100 second-feet on basis of velocity-area studies; no flow Oct. 1-18.

1930-37: Maximum discharge, that of Feb. 6, 1937; no flow at times each year.

Remarks.- Records good. Discharge interpolated Aug. 10-14. Several irrigation ditches divert water above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	9	4.9	30	43	164	336	172	99	30	8	1.0
2	0	6.5	4.9	21	45	166	575	175	94	29	8	1.0
3	0	5.5	5.5	19	42	170	418	184	91	28	8	1.2
4	0	5	5.5	17	35	179	350	194	88	27	7.5	1.5
5	0	4.9	5	21	218	186	316	200	88	26	6.5	1.5
6	0	4.9	4.9	36	2,000	188	375	200	86	26	6.5	1.4
7	0	4.7	5	28	825	190	328	197	83	25	6	1.3
8	0	4.7	5	19	299	190	502	194	81	24	6	1.3
9	0	4.5	5	19	195	192	281	192	81	22	5.5	1.2
10	0	4.2	4.9	19	148	188	258	184	78	22	5	.9
11	0	4.2	4.9	18	188	188	243	180	75	22	4.5	.8
12	0	4.2	4.9	15	248	237	187	172	69	22	4.5	.7
13	0	4.2	4.9	21	252	293	234	197	66	21	4	.7
14	0	4.2	5	19	1,130	219	252	208	66	19	3.5	.6
15	0	4.2	16	17	464	197	278	208	63	19	3.4	.7
16	0	4.9	33	27	322	207	265	197	60	17	3.4	.7
17	0	4.5	27	24	250	202	334	187	59	16	3.4	.6
18	0	3.8	15	22	217	299	222	177	56	16	3.1	.4
19	5.5	3.8	13	26	190	240	214	164	54	15	2.8	.4
20	6.5	3.6	11	21	166	232	214	155	53	14	2.5	.6
21	5	3.8	10	17	159	222	225	149	49	12	2.3	.9
22	4.2	4.0	10	19	161	354	222	145	48	12	1.9	.8
23	3.8	4.2	10	18	164	296	197	139	45	12	2.0	1.0
24	3.3	4.5	9.5	18	179	312	192	155	43	12	2.0	1.4
25	3.2	4.7	14	17	261	495	194	135	40	12	1.4	1.0
26	3.0	5	14	17	197	397	211	131	38	10	1.2	.7
27	2.7	4.9	31	17	175	401	234	120	36	10	.8	.5
28	2.7	4.5	24	17	170	365	192	115	35	9	.8	.4
29	3.0	4.7	20	42	-	326	175	113	36	8	.8	.6
30	3.5	4.7	21	73	-	326	172	111	32	8.5	.8	.9
31	8	-	62	64	-	326	-	108	-	8.5	.8	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						54.4	8	0	1.75	108		
November.....						140.5	9	3.6	4.68	279		
December.....						410.8	62	4.9	15.3	515		
Calendar year 1936.....						16,677.0	760	0	45.6	33,080		
January.....						761	73	17	24.5	1,510		
February.....						8,614	2,000	35	308	17,090		
March.....						7,958	495	164	287	15,780		
April.....						7,946	575	172	285	15,760		
May.....						5,153	208	108	166	10,220		
June.....						1,898	99	32	63.3	3,760		
July.....						554.0	30	8	17.9	1,100		
August.....						116.9	8	.8	3.77	232		
September.....						26.8	1.5	.4	.89	53		
Water year 1936-37.....						33,633.4	2,000	0	92.1	66,710		

## Kaweah River near Three Rivers, Calif.

Location.- Water-stage recorder, lat.  $36^{\circ}24'$ , long.  $118^{\circ}57'$ , in SW $\frac{1}{4}$  sec. 33, T. 17 S., R. 28 E.,  $2\frac{1}{2}$  miles below South Fork and 3 miles southwest of Three Rivers. Altitude, about 820 feet.

Drainage area.- 520 square miles.

Records available.- April 1903 to September 1937.

Average discharge.- 34 years, 543 second-feet.

Extremes.- Maximum discharge during year, 18,900 second-feet Feb. 6 (gage height, 12.65 feet), from rating curve extended above 5,200 second-feet; minimum, 39 second-feet Oct. 28.

1903-37: Maximum discharge, that of Feb. 6, 1937; minimum, 8.5 second-feet Sept. 19, 1934.

Remarks.- Records excellent except those for July 22 and 23, which were interpolated and are good. Irrigation diversions above station. Power developed on Middle and East Forks.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	120	50	261	251	852	1,270	1,620	2,310	1,270	252	77
2	45	91	50	227	261	881	1,090	1,900	2,460	1,270	233	76
3	50	82	53	207	251	910	1,520	2,310	2,460	1,240	221	74
4	50	80	55	193	239	970	1,340	2,680	2,840	1,210	203	82
5	48	82	55	201	2,000	1,030	1,270	2,900	2,900	1,150	194	82
6	46	78	54	218	13,000	1,090	1,620	2,900	2,730	1,000	192	79
7	45	75	54	196	5,660	1,120	1,440	2,840	2,620	852	183	77
8	45	70	54	159	1,820	1,150	1,410	2,840	2,360	796	175	74
9	43	66	54	152	1,270	1,150	1,340	2,900	2,160	742	162	71
10	43	64	53	172	1,000	1,120	1,340	2,840	2,080	715	154	69
11	42	63	50	169	1,150	1,120	1,380	2,960	1,940	715	149	69
12	42	61	48	172	1,030	1,300	1,410	3,720	1,860	688	141	68
13	42	61	51	190	1,930	1,440	1,480	4,300	1,900	678	139	66
14	41	60	54	172	7,620	1,180	1,740	4,760	1,850	601	139	66
15	41	60	974	172	2,460	1,090	2,030	4,660	1,900	601	136	66
16	42	61	1,360	196	1,820	1,120	1,980	4,570	1,980	562	129	66
17	45	61	462	185	1,520	1,120	1,780	4,130	1,860	515	122	65
18	58	60	280	182	1,340	1,340	1,820	3,720	1,820	493	118	65
19	99	58	215	187	1,150	1,120	1,820	3,140	2,030	448	118	65
20	89	57	185	172	1,030	1,060	1,900	3,080	2,260	431	113	65
21	76	54	164	140	970	1,000	2,160	3,210	2,360	406	109	66
22	68	54	147	164	970	1,340	2,120	3,210	2,120	430	102	65
23	64	54	136	157	970	1,150	1,780	2,900	1,820	450	98	65
24	61	54	129	162	1,000	1,240	1,780	2,900	1,660	470	96	65
25	57	54	157	152	1,340	1,300	1,940	3,020	1,620	543	91	63
26	58	53	147	150	1,000	1,180	2,120	2,560	1,550	423	87	60
27	55	53	429	182	910	1,270	2,120	2,730	1,480	370	84	60
28	50	51	277	157	881	1,210	1,780	3,060	1,440	341	82	59
29	53	51	224	212	-	1,180	1,580	3,210	1,380	320	80	59
30	55	51	255	270	-	1,180	1,520	2,900	1,300	289	79	52
31	122	-	403	258	-	1,210	-	2,280	-	272	77	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				1,717	122	41	55.4	3,410				
November.....				1,939	120	51	64.6	3,850				
December.....				6,679	1,360	46	23.5	13,250				
Calendar year 1936.....				250,303	5,160	41	684	496,500				
January.....				5,757	270	140	186	11,420				
February.....				54,843	13,000	239	1,959	108,800				
March.....				35,423	1,440	852	1,143	70,260				
April.....				50,690	2,160	1,270	1,689	100,500				
May.....				96,750	4,760	1,620	3,121	191,900				
June.....				61,060	2,900	1,300	2,035	121,100				
July.....				20,281	1,270	272	654	40,230				
August.....				4,258	252	77	137	8,450				
September.....				2,046	82	59	68.2	4,060				
Water year 1936-37.....				341,433	13,000	41	935	677,200				

## TULARE LAKE BASIN

North Fork of Kaweah River at Kaweah, Calif.

Location.- Water-stage recorder, lat. 36°29', long. 118°55', in SE $\frac{1}{4}$  sec. 34, T. 16 S., R. 28 E.,  $\frac{1}{2}$  miles above Mannikin Creek,  $\frac{1}{2}$  miles north of Kaweah, and 3 miles above mouth. Altitude, about 1,080 feet.

Drainage area.- 128 square miles.

Records available.- October 1933 to September 1937. October 1910 to October 1933, at site 1 mile below.

Average discharge.- 26 years (1911-37), 90.2 second-feet.

Extremes.- Maximum discharge during year, 6,200 second-feet Feb. 6 (gage height, 9.1 feet), from rating curve extended above 3,200 second-feet; minimum, 4.7 second-feet Oct. 1 (gage height, 1.28 feet).

1910-37: Maximum discharge, about 7,400 second-feet Jan. 25, 1914 (gage height, 10.2 feet, former site and datum), from rating curve extended above 3,000 second-feet; no flow for many days during July to October 1924.

Remarks.- Records good. Several small irrigation diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.9	22	10	58	60	306	438	446	297	89	28	10
2	5	16	9.5	48	68	310	605	515	275	84	28	10
3	6	14	10	46	67	320	474	600	266	80	26	11
4	6	13	10	44	67	345	430	660	263	75	25	11
5	6	13	11	48	625	363	402	685	257	71	24	11
6	6	13	10	51	4,190	382	533	670	248	70	23	11
7	5.5	12	10	45	1,660	390	486	655	239	66	22	10
8	5	12	11	40	710	410	454	635	231	64	21	10
9	5	11	10	39	450	410	426	640	223	62	20	9.5
10	5	11	11	40	345	406	434	610	212	59	20	9.5
11	5	11	11	40	300	394	442	630	201	57	19	9
12	5	11	10	42	363	450	454	700	191	59	19	9
13	5	11	10	45	523	538	466	765	184	58	18	8.5
14	5	11	11	42	2,600	418	542	765	177	54	17	8.5
15	5	11	277	41	970	382	600	738	167	51	16	8
16	5.5	11	478	49	685	402	575	710	167	49	16	8
17	6	11	116	44	551	402	524	670	165	47	16	7
18	8	11	62	45	484	450	533	600	157	45	15	7
19	16	10	44	46	422	379	538	533	151	44	14	7.5
20	13	9.5	36	42	371	366	570	502	147	42	14	7.5
21	11	9	32	37	348	345	610	488	140	39	14	7.5
22	9.5	9	30	39	348	418	585	470	136	37	12	8
23	9	9	26	38	352	379	502	438	131	36	12	8
24	9	9.5	25	38	371	422	524	425	127	43	12	8.5
25	8.5	9.5	33	37	446	426	560	416	121	37	11	8
26	8.5	10	30	37	341	398	585	380	113	34	11	7.5
27	8.5	9.5	102	37	516	439	570	364	107	32	11	8
28	8.5	9	69	39	310	422	466	360	105	32	11	7.5
29	8	9.5	49	62	-	410	426	352	103	30	10	8
30	9	10	58	74	-	414	406	333	94	29	10	8
31	27	-	101	63	-	422	-	305	-	29	10	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					244.4	27	4.9	7.88	485			
November.....					338.5	22	9	11.3	671			
December.....					1,702.5	478	9.5	54.9	3,380			
Calendar year 1936.....					48,153.5	997	4.7	132	95,530			
January.....					1,396	74	37	45.0	2,770			
February.....					19,643	4,190	60	666	36,980			
March.....					12,307	538	306	397	24,410			
April.....					15,140	610	402	505	30,030			
May.....					17,060	765	305	550	33,840			
June.....					5,385	287	94	180	10,680			
July.....					1,606	89	29	51.8	3,190			
August.....					525	28	10	16.9	1,040			
September.....					262.0	11	7	8.73	520			
Water year 1936-37.....					74,609.4	4,190	4.9	204	148,000			

## Kings River near Hume, Calif.

Location.- Water-stage recorder, lat. 36°51', long. 118°54', near west line of sec. 35, T. 12 S., R. 28 E.,  $1\frac{1}{2}$  miles below junction of South and Middle Forks of Kings River and  $3\frac{3}{4}$  miles north of Hume. Altitude, about 2,100 feet.

Drainage area.- 838 square miles.

Records available.- August 1921 to December 1936 (discontinued).

Average discharge.- 12 years (1921-22, 1923-24, 1936-36), 1,052 second-feet.

Extremes.- Maximum discharge October to December, 1,750 second-feet Dec. 15 (gage height, 3.93 feet); minimum, 104 second-feet Dec. 12 (gage height, 1.07 feet).  
1921-36: Maximum discharge, 11,700 second-feet June 4, 1922 (gage height, 8.67 feet); minimum, 63 second-feet Sept. 29 to Oct. 4, 1924.

Remarks.- Records good. No diversions. Small amount of water released occasionally from Hume Lake.

Rating table, October to December 1936 (gage height, in feet, and discharge, in second-feet)

1.0	90	2.4	615
1.2	130	2.6	725
1.4	185	2.8	840
1.6	250	3.0	955
1.8	330	3.2	1,100
2.0	415	3.4	1,240
2.2	510	3.6	1,410

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	246	126									
2	142	222	122									
3	158	215	132									
4	167	222	140									
5	161	218	140									
6	152	212	126									
7	148	209	130									
8	142	209	128									
9	142	209	122									
10	140	215	122									
11	138	197	120									
12	139	194	114									
13	135	191	114									
14	132	197	128									
15	132	191	899									
16	130	194	1,270									
17	197	218	560									
18	250	194	428									
19	306	200	370									
20	296	188	339									
21	266	197	314									
22	250	191	290									
23	246	188	266									
24	236	197	250									
25	229	164	270									
26	229	158	258									
27	226	152	379									
28	222	145	302									
29	215	142	326									
30	212	138	330									
31	250	-	390									

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	5,919	306	130	191	11,740
November.....	5,813	246	138	194	11,530
December.....	9,004	1,270	114	290	17,860
Calendar year 1936.....	550,452	6,950	114	1,504	1,092,000
January.....					
February.....					
March.....					
April.....					
May.....					
June.....					
July.....					
August.....					
September.....					
Water year .....					

## Kings River above North Fork, Calif.

Location.- Water-stage recorder, lat. 36°52', long. 119°07', in N $\frac{1}{2}$  sec. 27, T. 12 S., R. 28 E. (unsurveyed), 1 mile above North Fork of Kings River and 10 miles southeast of Trimmer. Altitude, about 1,020 feet.

Drainage area.- 956 square miles.

Records available.- October 1931 to September 1937. March 1927 to December 1928 at site half a mile downstream.

Extremes.- Maximum discharge during year, 13,400 second-feet Feb. 6 (gage height, 7.86 feet); minimum, 104 second-feet Dec. 13 (gage height, 0.74 foot).  
1927-28; 1931-37: Maximum discharge, that of Feb. 6, 1937; minimum, 79 second-feet Oct. 13, 1934 (gage height, 0.54 foot).

Remarks.- Records good. No diversions. Small amount of water released occasionally from Hume Lake. Gage-height record collected in cooperation with Kings River Water Association and San Joaquin Light & Power Corporation.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	257	127	428	416	1,010	1,510	2,900	6,090	4,660	1,110	314
2	142	228	122	445	522	1,030	2,070	3,400	6,780	4,540	1,010	295
3	159	220	131	445	498	1,070	1,830	4,200	6,960	4,540	930	280
4	165	225	137	424	513	1,150	1,610	4,940	8,400	4,660	854	314
5	161	222	142	436	2,220	1,230	1,560	5,580	9,160	5,090	824	330
6	156	217	129	441	8,460	1,320	1,890	5,750	8,400	4,310	806	301
7	149	209	131	407	4,450	1,360	1,720	5,580	8,040	3,400	788	283
8	142	206	129	361	2,130	1,410	1,720	5,580	6,960	3,140	740	268
9	139	201	126	325	1,560	1,460	1,660	6,090	6,260	2,820	704	259
10	135	212	124	350	1,360	1,410	1,790	6,260	5,920	2,760	674	245
11	133	191	124	325	1,150	1,410	1,830	6,090	5,240	2,530	642	236
12	131	184	117	361	1,280	1,610	1,890	7,680	5,090	2,390	615	231
13	131	179	113	361	2,530	1,720	1,950	9,350	5,410	2,460	615	228
14	129	191	131	339	5,750	1,460	2,320	11,100	5,240	2,320	620	228
15	127	181	962	328	2,900	1,360	2,900	11,100	5,750	2,390	620	226
16	127	181	1,760	361	2,190	1,360	2,980	10,700	6,430	2,260	595	220
17	186	217	647	336	1,780	1,410	2,750	9,920	5,750	2,070	585	220
18	245	186	458	339	1,610	1,560	2,820	8,590	5,090	1,890	579	217
19	306	191	387	342	1,410	1,360	2,820	6,960	6,090	1,780	566	215
20	285	184	350	325	1,230	1,280	2,980	6,960	7,320	1,720	552	215
21	266	186	322	279	1,190	1,230	3,490	7,140	8,400	1,720	521	212
22	257	186	298	279	1,190	1,510	3,580	7,320	8,040	1,720	494	204
23	243	174	279	298	1,190	1,360	2,980	6,960	6,600	1,830	469	202
24	240	198	266	295	1,230	1,360	2,900	6,780	5,750	2,150	445	197
25	231	161	288	292	1,560	1,320	3,140	6,960	5,580	1,830	421	192
26	234	154	276	285	1,150	1,280	3,490	6,090	5,090	1,830	393	185
27	231	148	544	288	1,050	1,360	3,490	6,260	5,090	1,660	374	180
28	228	142	395	308	1,020	1,320	2,900	7,680	5,090	1,560	359	176
29	217	139	391	387	-	1,320	2,530	8,780	4,800	1,460	355	178
30	220	135	391	416	-	1,320	2,460	8,400	4,800	1,320	344	178
31	270	-	441	339	-	1,410	-	8,920	-	1,280	327	-
Month				Second-foot-days		Maximum		Minimum		Mean		Run-off in acre-feet
October.....				5,930		308		127		191		11,760
November.....				5,705		287		135		190		11,320
December.....				10,288		1,760		113		330		20,310
Calendar year 1936.....				594,737		6,780		113		1,625		1,180,000
January.....				10,945		445		279		353		21,710
February.....				53,139		8,460		416		1,898		105,400
March.....				41,770		1,720		1,010		1,347		82,650
April.....				73,550		3,580		1,510		2,452		145,900
May.....				217,020		11,100		2,900		7,001		430,500
June.....				189,620		9,160		4,800		6,321		376,100
July.....				80,060		5,090		1,280		2,593		158,800
August.....				13,922		1,110		327		610		37,530
September.....				7,029		330		176		234		13,940
Water year 1936-37.....				713,928		11,100		113		1,956		1,416,000

## Kings River at Piedra, Calif.

Location.- Water-stage recorder, lat. 36°49'02", long. 119°23'08", in NW¼ sec. 8, T. 13 S., R. 24 E., half a mile below highway bridge at Piedra and 12 miles northeast of Sanger. Altitude, about 500 feet.

Drainage area.- 1,694 square miles.

Records available.- September 1895 to September 1937.

Average discharge.- 42 years, 2,277 second-feet.

Extremes.- Maximum discharge during year, 34,800 second-feet Feb. 6 (gage height, 13.9 feet); minimum, 149 second-feet Dec. 13.

1895-1937: Maximum discharge, about 59,700 second-feet Jan. 25, 1914 (gage height, 21.8 feet, former datum); minimum, 67 second-feet Oct. 3, 1924.

Recent high-water discharge measurements indicate that previously published maxima should be revised as follows:

Feb. 22, 1936: 25,700 second-feet  
Apr. 8, 1935: 20,800 second-feet  
June 15, 1933: 14,900 second-feet  
Dec. 28, 1931: 23,800 second-feet

Remarks.- Records excellent. No unreturned diversions; small storage on Tenmile and Mill Flat Creeks; one power plant on North Fork of Kings River. Gage-height record collected in cooperation with Kings River Water Association.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	179	366	184	820	850	2,010	3,180	5,240	9,250	5,630	1,260	342
2	179	320	172	727	1,040	2,010	4,370	6,470	10,700	5,430	1,120	331
3	181	277	169	694	978	2,110	3,680	7,910	10,700	5,240	1,010	317
4	203	277	184	666	945	2,260	3,320	9,530	12,800	5,430	950	307
5	211	280	196	694	6,870	2,360	3,120	10,700	13,900	5,830	890	362
6	201	280	188	790	25,600	2,550	3,600	10,700	12,400	5,240	862	342
7	188	268	176	744	13,900	2,610	3,460	10,400	11,700	4,050	835	314
8	184	269	181	620	4,870	2,670	3,250	10,100	10,700	3,600	808	295
9	176	253	174	550	3,320	2,790	3,180	10,700	9,250	3,250	764	289
10	174	262	172	550	2,870	2,670	3,390	11,100	8,970	3,050	725	277
11	172	253	172	580	2,210	2,730	3,460	11,100	7,910	2,860	685	265
12	169	245	167	570	2,320	2,920	3,600	13,500	7,400	2,670	650	259
13	167	240	160	580	3,670	3,680	3,680	16,000	7,910	2,980	650	253
14	165	237	167	541	20,300	2,920	4,370	18,700	7,400	2,670	655	253
15	165	242	1,510	518	7,160	2,550	5,430	18,700	7,910	2,610	660	248
16	162	237	5,560	575	4,870	2,730	5,630	18,200	9,250	2,550	640	245
17	167	250	1,580	585	3,820	2,980	5,050	16,900	8,430	2,320	616	240
18	253	253	880	550	3,390	3,980	5,050	16,100	7,160	2,060	607	240
19	346	240	666	590	2,920	2,860	5,240	12,100	8,170	1,920	594	238
20	370	242	565	560	2,550	2,610	5,430	11,700	9,530	1,850	571	235
21	331	232	510	492	2,320	2,490	6,470	12,400	10,700	1,780	548	238
22	310	242	469	452	2,320	4,210	6,690	12,600	10,400	1,780	523	232
23	298	229	420	487	2,320	3,460	5,430	11,700	8,700	1,880	495	225
24	292	242	400	478	2,320	3,820	5,240	11,700	7,400	2,260	471	225
25	280	229	404	478	3,600	3,820	6,040	12,100	7,160	2,060	447	223
26	280	211	425	474	2,550	3,250	6,470	10,100	6,470	1,960	423	215
27	277	203	1,070	460	2,160	3,460	6,470	10,400	6,470	1,780	401	211
28	268	196	945	500	2,110	3,320	5,240	12,800	6,470	1,660	387	208
29	262	191	700	912	-	3,050	4,530	14,300	6,040	1,540	373	206
30	259	191	635	1,440	-	2,980	4,290	13,500	5,830	1,460	366	208
31	320	-	1,290	1,160	-	3,050	-	9,530	-	1,360	359	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	7,188	370	162	232	14,260
November.....	7,447	366	191	248	14,770
December.....	20,494	5,560	160	661	40,650
Calendar year 1936.....	960,359	11,600	160	2,624	1,905,000
January.....	19,827	1,440	452	640	39,330
February.....	133,753	25,600	850	4,777	265,300
March.....	90,930	4,210	2,010	2,933	180,400
April.....	138,360	6,690	3,120	4,612	274,400
May.....	376,180	18,700	5,240	12,130	746,100
June.....	267,080	13,900	5,830	8,903	529,700
July.....	90,740	5,830	1,360	2,927	180,000
August.....	20,365	1,280	359	657	40,370
September.....	7,843	362	206	261	15,560
Water year 1936-37.....	1,180,197	25,600	160	3,233	2,341,000



## North Fork of Kings River near Cliff Camp, Calif.

Location.- Water-stage recorder, lat. 37°00', long. 118°59', in NW $\frac{1}{4}$  sec. 12, T. 11 S., R. 27 E., at Cliff Camp Bridge, 1 mile northwest of Cliff Camp and 2.3 miles below Woodchuck Creek. Altitude, about 6,150 feet.

Drainage area.- 174 square miles.

Records available.- November 1922 to September 1937; August 1921 to November 1922 at site 1 mile upstream.

Average discharge.- 13 years (1921-32, 1933-35), 306 second-feet.

Extremes.- Maximum discharge during year, 5,500 second-feet May 14 (gage height, 12.80 feet); minimum, 1.0 second-foot Dec. 13 (gage height, 2.00 feet).  
1921-37: Maximum discharge, 6,030 second-feet June 4, 1922 (gage height, 10.6 feet, former site and datum); minimum, 0.6 second-foot Dec. 30, 1930.

Remarks.- Records good. No record Jan. 1 to Mar. 11 (ice in well). No diversions. Gage-height record and results of discharge measurements furnished by San Joaquin Light & Power Corporation.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

2.4	3.8	4.0	118	7.5	1,245
2.6	6.4	4.4	185	8.0	1,480
2.8	10.6	4.8	264	8.5	1,770
3.0	17.0	5.2	365	9.0	2,100
3.2	28	5.6	490	9.5	2,450
3.4	45	6.0	630	10.0	2,850
3.6	67	6.5	820	11.0	3,730
3.8	91	7.0	1,020	12.0	4,700

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	20	6.5			-	221	1,180	2,310	490	46	8
2	6.5	14	6.5			-	253	1,590	2,530	472	41	8
3	10	14	7.5			-	217	1,980	2,770	419	37	7.5
4	9.5	16	10			-	200	2,380	3,100	401	32	8
5	8.5	17	7			-	208	2,530	2,930	365	29	8
6	7.5	16	7.5			-	215	2,450	2,610	309	27	7.5
7	7	14	7			-	217	2,380	2,380	242	26	7
8	6.5	11	6.5			-	229	2,380	2,100	214	24	6.5
9	6.5	12	6.5			-	244	2,530	1,890	185	23	6.5
10	6	12	6.5			-	309	2,530	1,770	171	22	6.5
11	6	13	5			-	343	2,770	1,590	167	20	6.5
12	5.5	14	4.6			202	377	3,550	1,530	236	18	6
13	5.5	13	4.9			171	472	4,000	1,530	320	17	5.5
14	5.5	12	8			153	700	4,300	1,480	191	16	5.5
15	5.5	13	514			150	820	4,300	1,650	158	16	5.5
16	5.5	13	445			164	820	4,200	1,770	143	16	5.5
17	13	13	79			167	720	3,820	1,550	124	16	8.5
18	19	12	35			147	740	3,190	1,430	103	15	5.5
19	22	12	45			132	780	2,770	1,650	96	15	5.5
20	19	11	41			130	960	2,930	1,770	86	16	5.5
21	16	11	40			130	1,200	3,190	1,710	81	14	5.5
22	15	11	34			124	1,040	3,100	1,480	79	13	5
23	14	9.5	30			122	820	2,930	1,180	94	12	5
24	13	9.5	30			120	960	3,010	1,040	143	12	5
25	12	9.5	34			114	1,200	2,770	900	114	11	5
26	12	9	26			110	1,240	2,450	780	86	11	5
27	12	9	19			111	1,000	2,930	760	74	10	4.9
28	12	8.5	24			108	700	3,550	720	67	9.5	4.9
29	12	8.5	22			112	612	3,550	646	60	9	5
30	12	7.5	20			135	760	2,770	560	56	9	5.5
31	25	-	25			178	-	2,030	-	50	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	334.5	25	5.5	10.8	663
November.....	365.0	20	7.5	12.2	724
December.....	1,577.0	514	4.6	50.9	3,130
Calendar year .....					
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March 12-31.....	2,780	-	-	139	5,510
April.....	18,577	1,240	200	619	36,850
May.....	90,520	4,300	1,180	2,904	178,600
June.....	50,098	3,100	560	1,670	99,370
July.....	5,801	490	50	187	11,510
August.....	591.0	46	8.5	19.1	1,170
September.....	183.8	8.5	4.9	6.15	365
Water year .....					

## North Fork of Kings River below Rancheria Creek, Calif.

Location.- Water-stage recorder, lat. 36°56', long. 119°00', in SE $\frac{1}{4}$  sec. 34, T. 11 S., R. 27 E., just above backwater from forebay of Balch power house and 1 mile below Rancheria Creek. Altitude, about 3,400 feet.

Drainage area.- 225 square miles.

Records available.- March 1927 to September 1937.

Extremes.- Maximum discharge during year, 6,510 second-feet May 14 (gage height, 13.10 feet); minimum, 9.5 second-feet Dec. 12.  
1927-37: Maximum discharge, that of May 14, 1937; minimum, 5 second-feet Aug. 29, 1931.

Remarks.- Records good except those for Nov. 11-16, Dec. 29-31, June 3-21, July 23-24 (computed on basis of weather records and records for nearby streams), which are fair. No record for Jan. 1 to Feb. 15. No diversions. Gage-height record and results of discharge measurements furnished by San Joaquin Light & Power Corporation.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.4	13	4.0	175
1.6	16.5	4.5	248
1.8	21.5	5.0	338
2.0	27	5.5	442
2.2	35	6.0	590
2.4	45	7.0	1,060
2.6	55	8.0	1,700
2.8	67	9.0	2,500
3.0	81	10.0	3,400
3.5	122	11.0	4,360
		12.0	5,360

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	34	13		-	224	368	1,460	2,680	648	75	21
2	14	25	14		-	248	466	1,920	2,950	609	70	20
3	16	22	14		-	291	398	2,410	3,130	556	63	20
4	18	24	16		-	318	348	2,860	3,600	524	58	21
5	16	25	16		-	358	358	3,040	3,500	494	54	20
6	15	25	14		-	388	409	2,950	3,100	431	51	20
7	14	22	14		-	398	388	2,860	2,900	348	48	19
8	14	20	14		-	420	398	2,860	2,600	309	46	18
9	14	20	14		-	420	409	3,130	2,200	273	44	18
10	14	20	14		-	409	490	3,040	2,100	256	42	18
11	13	20	13		-	398	540	3,400	1,900	240	39	17
12	13	21	13		-	420	590	4,160	1,800	283	36	17
13	13	21	13		-	368	734	4,760	1,800	444	35	16
14	13	21	24		-	318	1,000	5,160	1,800	282	34	16
15	13	21	960		-	309	1,150	5,160	1,900	232	33	16
16	13	21	902		409	398	1,150	5,060	2,100	210	32	15
17	16	21	164		358	348	1,030	4,560	1,800	182	31	16
18	28	20	102		318	290	1,060	3,760	1,700	161	31	18
19	37	20	80		273	260	1,120	3,310	1,900	145	30	15
20	32	20	70		240	256	1,300	3,490	2,100	131	31	16
21	28	19	63		248	256	1,520	3,670	2,000	123	30	15
22	23	18	59		264	256	1,390	3,580	1,660	120	27	15
23	22	18	49		273	240	1,150	3,400	1,360	132	26	15
24	21	17	45		282	240	1,300	3,490	1,240	202	26	15
25	20	16	54		273	224	1,520	3,810	1,120	171	25	15
26	20	16	48		217	217	1,630	2,860	1,000	133	24	15
27	20	16	41		202	217	1,360	3,400	975	113	23	15
28	19	15	48		202	217	1,030	4,060	950	99	23	14
29	19	15	45		-	224	900	4,060	850	91	22	15
30	20	14	45		-	264	1,030	5,310	734	86	22	15
31	36	-	50		-	318	-	2,410	-	81	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	588	37	13	19.0	1,170
November.....	607	34	14	20.2	1,200
December.....	3,031	960	13	97.8	6,010
Calendar year 1936.....	194,009	3,490	13	530	384,800
January.....	-	-	-	-	-
February 16-28.....	3,559	409	202	274	7,060
March.....	9,442	420	217	305	18,730
April.....	26,536	1,630	348	885	52,630
May.....	106,900	5,180	1,460	3,448	212,000
June.....	59,449	3,600	734	1,982	117,900
July.....	8,109	648	81	262	16,080
August.....	1,152	75	21	37.2	2,280
September.....	508	21	14	16.9	1,000
Water year .....					

## Dinkey Creek at mouth, Calif.

Location.- Water-stage recorder, lat.  $36^{\circ}55'$ , long.  $119^{\circ}08'$ , in sec. 3, T. 12 S., R. 28 E. (unsurveyed), half a mile above mouth. Altitude, about 1,310 feet.

Drainage area.- 136 square miles.

Records available.- January 1920 to September 1937.

Average discharge.- 16 years (1921-37), 180 second-feet.

Extremes.- Maximum discharge during year, 4,320 second-feet Feb. 13 (gage height, 11.87 feet), from rating curve extended above 2,000 second-feet; minimum daily discharge, 5.5 second-feet Oct. 14-16.

1920-37: Maximum discharge, that of Feb. 13, 1937; minimum daily discharge, 0.9 second-foot Aug. 26-30, 1931.

Remarks.- Records fair. Discharge for Oct. 19-24, Dec. 2, 3, 29, 30, Jan. 4-10, 15-25, Feb. 6-10, June 24-29, July 9 to Sept. 30 computed on basis of weather records and records for North Fork of Kings River. No diversions. Gage-height record and results of discharge measurements furnished by San Joaquin Light & Power Corporation.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

3.4	4.4	4.8	94	6.2	350	8.2	1,190
3.6	9.0	5.0	117	6.4	403	8.6	1,440
3.8	16	5.2	145	6.6	472	9.0	1,720
4.0	27	5.4	177	6.8	540	9.4	2,020
4.2	41	5.6	213	7.0	614	9.8	2,340
4.4	57	5.8	253	7.4	780		
4.6	74	6.0	298	7.8	970		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	29	9.5	66	70	247	393	849	872	179		
2	7	18	9.5	62	76	255	558	1,080	920	166		
3	7.5	14	10	61	71	230	427	1,280	945	150		
4	8	14	10	60	79	303	372	1,440	1,020	140		
5	8	14	10	58	336	336	367	1,450	945	136		
6	8	14	10	60	2,000	361	437	1,440	872	132		
7	7	14	10	59	1,500	381	402	1,380	803	125		
8	6.5	12	9.5	58	700	396	402	1,330	715	116		
9	6.5	11	9.5	57	400	405	393	1,410	654			
10	6	11	10	56	250	393	456	1,340	614			
11	6	11	10	55	238	408	489	1,480	576			
12	6	12	9	55	260	456	523	1,720	540			
13	6	12	9.5	55	842	430	614	1,870	523			
14	5.5	12	10	54	2,230	358	780	1,910	489			
15	5.5	12	9.5	54	849	334	896	1,870	506			
16	5.5	12	1,190	56	558	364	849	1,800	523			
17	6.5	12	183	55	440	384	780	1,650	489			
18	20	12	103	55	397	390	803	1,440	437			
19	14	11	82	55	334	326	826	1,280	440			
20	11	11	71	54	296	308	920	1,310	440			
21	10	10	63	52	286	306	1,080	1,310	414			
22	9.5	10	53	52	296	350	995	1,230	390			
23	9.5	10	45	54	300	310	828	1,250	345			
24	9.5	10	41	54	320	318	896	1,250	320			
25	9.5	10	49	53	323	310	1,020	1,220	290			
26	9.5	10	41	53	266	289	1,050	1,020	270			
27	9	10	76	51	249	303	896	1,130	240			
28	9	9.5	52	57	242	286	674	1,250	220			
29	9	9.5	50	63	-	289	595	1,220	205			
30	9.5	9.5	80	73	-	306	614	1,050	195			
31	33	-	70	62	-	339	-	826	-			
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				284.0		33	5.5	9.16	563			
November.....				366.5		29	9.5	12.2	727			
December.....				3,290.5		1,190	9	106	6,530			
Calendar year 1936.....				65,509.0		1,250	5.5	234	169,600			
January.....				1,769		73	51	57.1	3,510			
February.....				14,198		2,230	70	507	28,160			
March.....				10,521		456	247	339	20,870			
April.....				20,333		1,080	367	678	40,330			
May.....				42,215		1,910	826	1,362	83,730			
June.....				16,212		1,020	195	540	32,160			
July.....				2,639		179	-	85.1	5,230			
August.....				775		-	-	25	1,540			
September.....				300		-	-	10	595			
Water year 1936-37.....				112,903.0		2,230	5.5	309	223,900			

## Los Gatos Creek near Coalinga, Calif.

Location.- Water-stage recorder, lat.  $36^{\circ}13'$ , long.  $120^{\circ}27'$ , in SW $\frac{1}{4}$  sec. 4, T. 20 S., R. 14 E., at mouth of canyon, 3 miles below Diaz Creek and  $7\frac{1}{2}$  miles northwest of Coalinga. Altitude, about 1,000 feet.

Drainage area.- 105 square miles.

Records available.- October 1931 to September 1937.

Extremes.- Maximum discharge during year, 700 second-feet Feb. 6 (gage height, 3.6 feet), from rating curve extended above 300 second-feet parallel to previous curve; minimum, probably less than 0.1 second-foot at times.

1931-37: Maximum discharge, about 1,050 second-feet Dec. 28, 1931 (gage height, 4.68 feet, present datum), from rating curve extended above 300 second-feet on basis of slope-area computations; no flow during parts of nearly every year.

Remarks.- Records poor. Discharge estimated for period of missing gage heights, Oct. 1-5, for period when intake was partly clogged, June 9 to July 18, and for period when water was below intake, July 19 to Sept. 30. No diversions or regulation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.2	0.2	4.2	7.5	4.5	29	6.5	1.5			
2	.1	.2	.2	1.8	8.5	4.2	27	6	1.5			
3	.1	.2	.2	1.3	6.5	4.0	24	5.5	1.2			
4	.1	.2	.2	1.0	4.6	3.8	22	5	.8			
5	.1	.2	.2	.9	56	3.4	20	5	.8			
6	.1	.2	.2	1.5	325	3.4	19	4.8	1.2			
7	.1	.2	.2	.9	92	3.4	18	4.5	1.5			
8	.1	.2	.2	.6	35	3.2	16	4.5	1.0			
9	.1	.2	.2	.4	30	3.2	15	4.5	1.0			
10	.1	.2	.2	.3	28	3.2	14	4.2	1.0			
11	.1	.2	.2	.3	25	3.4	13	4.2	.9			
12	.1	.2	.2	.4	18	21	12	3.8	.9			
13	.1	.2	.2	.4	74	36	11	3.2	.9			
14	.1	.2	.3	.3	197	17	10	3.0	.8			
15	.1	.2	.3	.3	44	16	10	2.8	.8			
16	.1	.2	.2	.3	30	43	10	2.8	.8			
17	.1	.2	.2	.3	21	19	10	2.5	.7			
18	.1	.2	.2	.3	16	15	9.5	2.5	.7			
19	.1	.2	.2	.4	13	13	9	2.8	.7			
20	.1	.2	.2	.4	10	10	8.5	2.5	.6			
21	.1	.2	.2	.3	9.5	27	8	2.5	.6			
22	.1	.2	.2	.3	7.5	147	8	2.0	.6			
23	.1	.2	.2	.3	6.5	55	7.5	2.0	.5			
24	.1	.2	.2	.3	6	100	7.5	2.2	.5			
25	.1	.2	.3	.3	10	71	7.5	2.5	.5			
26	.1	.2	.3	.3	7	54	7.5	2.5	.5			
27	.1	.2	14	.3	5.5	43	9.5	2.0	.4			
28	.1	.2	6.5	.4	5	40	9	1.7	.4			
29	.1	.2	3.2	9.5	-	36	8	1.7	.4			
30	.2	.2	37	75	-	33	7	1.8	.4			
31	.2	-	16	26	-	32	-	1.7	-			
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				3.3	0.2	0.1	0.11	6.5				
November.....				6.0	.2	.2	.20	12				
December.....				82.3	37	.2	2.65	163				
Calendar year 1936.....				1,487.0	235	.1	4.06	2,950				
January.....				127.1	73	.3	4.10	252				
February.....				1,097.1	325	4.6	39.2	2,180				
March.....				867.7	147	3.2	28.0	1,720				
April.....				386.5	29	7	12.9	767				
May.....				103.2	6.5	1.7	3.33	205				
June.....				24.1	1.5	.4	.80	48				
July.....				7.8	-	-	.25	15				
August.....				6.2	-	-	.20	12				
September.....				3.0	-	-	.10	6.0				
Water year 1936-37.....				2,714.3	325	.1	7.44	5,390				

## SAN JOAQUIN RIVER AND TRIBUTARIES ABOVE FRESNO RIVER

Florence Lake near Big Creek, Calif.

Location.- Water-stage recorder, lat.  $37^{\circ}17'$ , long.  $118^{\circ}58'$ , in SE $\frac{1}{4}$  sec. 36, T. 7 S., R. 27 E., in gatehouse of Ward Tunnel (formerly known as Florence Lake Tunnel), 16 miles northeast of Big Creek.

Records available.- November 1925 to September 1937.

Remarks.- Florence Lake on South Fork of San Joaquin River is one of main storage units of Big Creek system of Southern California Edison Co. Elevation of crest of dam is 7,329 feet above mean sea level; elevation of top of spillway gates is 7,327.5 feet above mean sea level; elevation of top of spillway gates is 7,327.5 feet above mean sea level (capacity, 84,403 acre-feet). Ward Tunnel diverts water into Huntington Lake. Record of contents, furnished by Southern California Edison Co. shows amount available for diversion.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23,169	482	65	166	167	311	378	716	64,753	64,521	64,329	50,851
2	22,123	347	69	183	166	322	340	856	64,415	64,512	64,262	50,567
3	21,083	237	75	183	163	354	310	1,679	64,936	64,502	64,041	50,638
4	20,080	178	75	175	163	347	323	3,325	64,917	64,387	63,676	50,718
5	19,047	130	76	166	186	340	323	5,316	64,512	64,310	63,321	50,789
6	17,991	112	74	159	224	342	323	6,812	64,358	64,319	63,034	50,860
7	16,921	101	71	158	194	346	359	8,197	64,253	64,319	63,034	50,922
8	15,861	107	69	169	214	353	372	9,793	64,127	64,348	63,206	50,985
9	14,822	105	70	179	297	339	371	11,569	64,108	64,271	62,948	51,038
10	13,777	99	68	150	313	340	372	12,867	63,973	64,300	62,462	51,092
11	12,754	99	66	137	299	335	367	14,007	63,849	64,541	61,995	51,154
12	11,752	96	65	132	249	324	409	15,931	64,041	64,348	61,606	51,217
13	10,704	101	66	129	351	295	512	18,497	64,579	64,560	61,217	51,271
14	9,616	83	80	126	380	308	659	21,660	64,676	64,570	60,838	51,306
15	8,613	95	202	122	323	307	697	24,874	64,659	64,521	60,621	51,378
16	8,396	95	190	121	308	321	592	28,635	64,483	64,676	60,337	51,476
17	8,041	90	144	120	293	334	535	32,525	64,387	64,570	59,904	51,539
18	7,598	88	128	119	277	325	548	35,397	64,579	64,512	59,452	51,610
19	7,042	90	123	120	249	305	562	36,966	64,897	64,329	58,992	51,664
20	6,500	91	127	119	219	287	696	38,748	64,801	64,089	58,524	51,727
21	5,967	83	130	118	210	293	869	40,784	64,550	63,916	58,029	51,780
22	5,365	81	127	116	214	311	731	42,896	64,521	64,002	57,629	51,825
23	4,770	79	123	115	217	345	629	44,960	64,377	64,291	57,136	51,870
24	4,147	77	122	114	238	356	662	47,077	64,464	64,329	56,552	51,924
25	3,535	77	114	116	267	357	750	48,958	64,483	64,570	55,916	51,969
26	2,952	76	117	124	275	350	758	50,398	64,560	64,348	55,225	52,004
27	2,713	74	102	130	277	339	1,122	52,382	64,541	64,291	54,527	52,049
28	1,970	80	111	130	265	328	1,085	55,351	64,608	64,214	53,824	52,094
29	1,350	79	131	130	-	325	724	58,874	64,502	64,185	53,251	52,130
30	950	69	151	131	-	346	631	61,976	64,339	64,098	52,554	52,166
31	671	-	154	134	-	370	-	64,464	-	64,098	51,700	-

## South Fork of San Joaquin River near Florence Lake, Calif.

Location.- Water-stage recorder, lat. 37°16'20", long. 118°57'50", in SE¼ sec. 36, T. 7 S., R. 27 E., just below spillway of Florence Lake Dam, 6 miles above mouth of Bear Creek. Altitude, about 7,200 feet.

Drainage area.- 171 square miles.

Records available.- December 1921 to September 1937.

Average discharge.- Combined flow of South Fork of San Joaquin River and Ward (formerly known as Florence Lake Tunnel) Tunnel at intake, 14 years (1922-31, 1932-37), 249 second-feet.

Extremes.- Maximum discharge during year, 3,000 second-feet June 4 (gage height, 14.10 feet); no flow at times during Nov. 3-5.

1921-37: Maximum discharge, 3,460 second-feet June 4, 1922 (gage height, 13.75 feet); practically no flow at times during 1924, 1925, 1935 to 1937.

Remarks.- Records good except those interpolated, Nov. 1-4, Jan. 1, 8, 9, 11-19, 21-27, Aug. 8, 9, Sept. 5-8, 13-19. Storage and diversion above station. See records for Florence Lake and Ward Tunnel at intake. Gage-height record and results of discharge measurements furnished by Southern California Edison Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	0.1	0.5	0.8	0.8	1.0	1.4	0.1	556	570	2.1	0.5
2	1.3	.1	.5	.8	.8	1.1	1.4	.1	690	825	1.9	.5
3	1.1	.1	.6	2.6	.9	1.3	1.1	.1	836	750	1.9	.4
4	1.1	.1	.6	.9	.9	1.3	1.0	.1	2,080	750	1.7	.4
5	1.1	8.5	.6	.9	2.3	1.4	1.0	.1	2,300	630	1.7	.4
6	1.1	3.0	.6	.9	3.0	1.5	1.1	.1	1,380	386	1.5	.4
7	1.1	2.0	.6	.9	1.2	1.5	1.2	.1	1,240	210	1.5	.5
8	1.1	1.6	.6	.9	1.0	1.7	1.2	.1	900	5	1.4	.5
9	1.1	1.6	.6	.9	1.0	1.7	1.4	.1	650	5	1.4	.5
10	1.1	1.6	.6	.9	1.0	1.8	1.4	.1	428	5	1.3	.5
11	1.1	1.5	.6	.9	1.0	1.7	1.3	.1	103	68	1.3	.5
12	1.1	1.5	.6	.8	1.0	1.6	1.4	.1	3.2	462	1.5	.5
13	1.4	1.4	.6	.8	4.2	1.5	1.8	.1	336	369	1.5	.5
14	1.5	1.4	.9	.8	2.7	1.4	2.4	.1	570	349	1.3	.5
15	1.5	1.4	2.5	.7	1.3	1.3	2.4	.1	800	287	1.3	.5
16	1.5	1.4	1.7	.7	1.1	1.3	.2	.1	1,120	40	1.3	.5
17	1.6	1.4	.7	.7	1.1	1.3	.2	.1	765	165	1.3	.5
18	1.5	1.4	.6	.6	1.1	1.2	.3	.1	800	464	1.3	.5
19	1.4	1.4	.5	.6	1.0	1.0	.3	.1	1,420	136	1.3	.5
20	1.4	.7	.5	.6	1.0	1.0	.3	.1	1,720	6	1.1	.5
21	1.4	.6	.5	.6	1.0	1.0	.3	.1	1,560	6	1.1	.5
22	1.4	.6	.4	.6	1.0	1.0	.1	.1	841	6	1.1	.5
23	1.4	.5	.4	.6	1.0	1.0	.1	.1	515	6	1.1	.5
24	1.3	.5	.5	.6	1.0	1.0	.2	.1	498	5	.9	.5
25	1.3	.6	.5	.7	1.0	1.0	.2	.1	570	209	1.1	.7
26	1.2	.5	.6	.7	1.0	1.0	.2	.2	590	229	.9	.7
27	1.2	.5	.8	.7	1.0	1.0	.1	.3	730	2.1	.7	.7
28	1.2	.5	.7	.7	1.0	.9	.1	.3	800	1.9	.7	.7
29	1.1	.5	.7	.9	-	1.0	.1	.3	825	1.9	.7	.7
30	.6	.5	.8	.9	-	1.0	.1	.3	690	1.9	.7	.7
31	.1	-	.8	.8	-	1.4	-	.4	-	1.9	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	37.6	1.6	0.1	1.21	75
November.....	37.4	8.5	.1	1.25	74
December.....	21.6	2.5	.4	.70	43
Calendar year 1936.....	12,804.3	1,490	.1	35.0	25,400
January.....	25.5	2.6	.6	.82	51
February.....	36.3	4.2	.8	1.30	72
March.....	38.9	1.8	.9	1.25	77
April.....	24.3	2.4	.1	.81	48
May.....	4.3	.4	.1	.14	8.5
June.....	26,318.2	2,300	3.2	877	52,200
July.....	6,953.7	825	1.9	224	13,790
August.....	39.3	2.1	.7	1.27	78
September.....	15.8	.7	.4	.53	31
Water year 1936-37.....	33,552.9	2,300	.1	91.9	66,550

## San Joaquin River above Big Creek, Calif.

Location.- Water-stage recorder, lat. 37°15'00", long. 119°19'10", in NW¼ sec. 11, T. 8 S., R. 24 E., 3 miles above mouth of Big Creek. Altitude, about 2,500 feet.

Drainage area.- 1,042 square miles.

Records available.- March 1922 to September 1937.

Average discharge.- 12 years (1925-37), period since diversion began through Ward Tunnel (formerly known as Florence Lake Tunnel), 1,128 second-feet.

Extremes.- Maximum discharge during year, 15,000 second-feet Feb. 6 (gage height, 18.58 feet); minimum, 74 second-feet Dec. 3 (gage height, 6.83 feet).

1922-37: Maximum discharge, 18,000 second-feet June 5, 1922 (gage height, 17.34 feet); minimum, 52 second-feet Sept. 24, 25, 1931.

Remarks.- Records excellent except those for Aug. 1-16 (computed on basis of records for upstream tributaries), which are fair. Large diversions and storage on South Fork of San Joaquin River and tributaries. Gage-height record and results of discharge measurements furnished by Southern California Edison Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

6.6	70	7.8	338	10.0	1,450	12.5	3,800
6.8	96	8.0	408	10.4	1,730	13.0	4,610
7.0	130	8.4	568	10.8	2,050	14.0	6,800
7.2	172	8.8	745	11.2	2,370	15.0	9,600
7.4	222	9.2	950	11.6	2,740	16.0	12,900
7.6	276	9.6	1,180	12.0	3,160		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	154	90	279	282	922	1,560	3,280	6,200	3,400	460	154
2	95	138	83	309	338	978	2,090	4,260	7,320	3,530	430	148
3	109	125	86	316	328	1,090	1,930	5,100	7,580	3,530	400	142
4	125	119	99	309	341	1,240	1,700	6,080	9,900	3,530	380	136
5	119	128	106	312	1,000	1,380	1,700	6,800	10,500	3,460	360	134
6	110	128	101	297	7,210	1,450	1,930	6,800	9,000	3,100	360	132
7	104	125	96	273	3,550	1,560	1,770	6,200	8,140	2,370	350	130
8	101	125	102	259	1,420	1,620	1,730	5,840	7,060	2,050	330	126
9	96	114	99	273	1,030	1,700	1,610	6,320	5,840	1,770	310	125
10	95	114	99	270	895	1,620	2,090	6,080	5,400	1,280	300	121
11	92	114	99	253	868	1,730	2,090	6,080	4,430	1,090	290	119
12	92	116	95	256	1,030	1,810	2,170	6,700	3,600	1,120	290	117
13	90	116	90	254	2,580	1,810	2,420	10,200	4,100	1,620	280	119
14	90	112	98	256	7,720	1,560	3,050	11,500	4,430	1,380	270	123
15	89	110	649	251	2,460	1,380	3,880	11,200	4,900	1,340	270	123
16	88	114	1,850	268	1,770	1,490	3,660	10,800	6,440	1,210	265	121
17	90	114	632	254	1,520	1,620	2,940	9,900	5,730	895	270	117
18	121	112	362	254	1,800	1,730	3,000	8,140	4,700	1,030	259	116
19	157	109	291	254	1,810	1,380	3,100	6,320	5,840	1,090	254	114
20	165	106	259	238	1,090	1,280	3,340	6,680	7,320	840	245	116
21	163	106	238	222	1,060	1,210	4,260	7,320	7,860	700	238	116
22	146	104	227	251	1,120	1,380	4,180	7,320	7,580	700	230	112
23	134	102	217	235	1,150	1,240	3,160	6,800	5,840	700	222	110
24	126	101	206	230	1,210	1,240	3,160	7,320	4,900	1,060	212	109
25	121	99	214	225	1,510	1,180	3,730	6,440	4,430	1,000	199	107
26	119	99	235	219	1,060	1,120	4,020	5,100	4,100	1,000	189	104
27	117	99	332	219	950	1,150	3,660	6,320	4,020	868	177	102
28	114	96	254	240	895	1,090	2,790	8,420	4,260	655	172	101
29	110	95	262	259	-	1,120	2,420	9,000	4,260	589	170	102
30	109	93	279	268	-	1,150	2,500	7,860	4,020	539	168	104
31	168	-	282	248	-	1,310	-	5,840	-	506	163	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				3,549	168	88	114	7,040				
November.....				3,388	154	93	113	6,720				
December.....				8,132	1,850	83	262	16,130				
Calendar year 1936.....				506,831	6,440	83	1,385	1,005,000				
January.....				8,057	316	219	260	15,980				
February.....				45,777	7,210	282	1,535	90,800				
March.....				42,530	1,310	322	1,372	84,360				
April.....				81,840	4,260	1,550	2,728	162,300				
May.....				224,020	11,500	3,280	7,226	444,500				
June.....				179,900	10,500	3,800	5,997	356,800				
July.....				47,952	3,530	506	1,547	95,110				
August.....				8,513	460	163	275	16,890				
September.....				3,600	154	101	120	7,140				
Water year 1936-37.....				657,257	11,500	83	1,801	1,504,000				

San Joaquin River below Kerckhoff power house, Calif.

Location.- Water-stage recorder, lat.  $37^{\circ}05'$ , long.  $119^{\circ}34'$ , in SW $\frac{1}{4}$  sec. 3, T. 10 S., R. 22 E., three-quarters of a mile below Kerckhoff power house and 2 miles above Big Sandy Creek. Altitude, about 605 feet.

Drainage area.- 1,480 square miles.

Records available.- December 1936 to September 1937.

Extremes.- Maximum discharge during period, 32,000 second-feet Feb. 6 (gage height, 33.6 feet), from rating curve extended above 14,000 second-feet; minimum, 63 second-feet Dec. 20 (gage height, 5.15 feet), regulated.

Remarks.- Records excellent. Four storage reservoirs and six power plants above station. See records for Florence Lake, Huntington Lake, and Shaver Lake. Storage in Crane Valley Reservoir was 24,960 acre-feet on Sept. 30, 1936, and 24,709 acre-feet on Sept. 30, 1937.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

9.5	746	15.0	3,470
10.0	890	16.0	4,210
10.5	1,055	18.0	5,910
11.0	1,230	20.0	7,900
11.5	1,420	22.0	10,300
12.0	1,650	24.0	13,200
13.0	2,170	26.0	16,500
14.0	2,770		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	988	1,270	2,120	3,190	4,610	6,510	4,850	1,470	1,470
2			-	904	1,490	2,400	4,210	5,370	7,940	4,850	1,440	1,430
3			-	785	1,490	2,340	3,750	6,560	8,120	4,850	1,550	1,430
4			-	1,020	1,640	2,220	3,260	7,540	9,860	4,370	1,560	1,350
5			-	1,240	4,210	2,260	3,550	7,570	11,000	4,370	1,560	1,020
6			-	1,340	14,800	2,590	3,610	8,340	9,280	4,450	1,600	986
7			-	1,040	8,490	2,580	3,680	7,900	8,800	3,890	1,550	1,430
8			-	1,070	3,860	2,770	3,400	7,160	8,010	3,470	1,590	1,470
9			-	1,120	2,910	2,930	3,440	7,360	6,960	3,020	1,600	1,400
10			-	1,100	2,520	2,810	3,580	7,460	6,660	2,680	1,600	1,410
11			-	1,040	1,650	2,910	3,470	7,060	5,820	2,190	1,600	1,400
12			-	1,090	2,340	3,120	3,750	8,950	5,100	1,880	1,550	977
13			-	1,070	3,710	3,500	3,970	10,600	4,690	2,840	1,800	1,440
14			-	1,140	13,600	2,750	4,590	12,000	5,730	2,770	1,560	1,430
15			-	1,100	5,650	2,650	5,640	12,000	5,920	2,460	1,310	1,440
16			-	1,070	3,570	3,110	5,800	11,100	6,960	2,580	1,430	1,330
17			-	925	3,190	3,270	4,380	11,000	7,160	2,120	1,550	1,290
18			-	1,080	3,030	3,990	4,530	9,640	5,900	2,000	1,520	1,090
19			1,240	1,120	2,730	3,260	4,770	7,780	6,550	1,890	1,700	1,010
20			778	1,230	2,490	2,840	5,010	7,460	7,680	2,220	1,550	1,240
21			1,060	1,010	2,340	2,580	6,090	7,900	8,440	2,090	1,310	1,240
22			1,140	1,170	2,050	3,610	6,270	8,340	8,460	2,000	1,200	1,300
23			1,120	1,160	2,400	3,460	5,100	7,160	7,160	2,000	1,430	1,310
24			1,100	1,000	2,400	3,610	4,850	7,900	6,090	1,950	1,520	1,260
25			770	1,070	3,190	3,750	5,280	7,900	5,820	2,120	1,560	1,080
26			884	1,240	2,700	3,450	5,910	6,360	5,370	2,000	1,560	987
27			1,180	1,200	2,400	3,560	5,910	6,560	4,930	2,280	1,470	1,156
28			1,210	1,270	2,170	3,190	4,770	8,450	5,370	2,060	1,590	1,290
29			1,180	1,580	-	3,050	4,050	9,520	5,460	1,900	1,160	1,290
30			1,150	1,450	-	2,740	4,290	8,560	5,370	1,900	1,350	1,250
31			1,500	1,320	-	2,970	-	6,520	-	1,800	1,520	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	-	-	-	-	-
November.....	-	-	-	-	-
December 19-31.....	14,312	1,500	770	1,101	28,390
Calendar year .....					
January.....	34,942	1,580	785	1,127	69,310
February.....	104,290	14,800	1,270	3,725	206,900
March.....	92,490	3,990	2,120	2,934	135,500
April.....	134,000	6,270	3,190	4,467	285,800
May.....	252,660	12,000	4,610	8,150	501,100
June.....	207,110	11,000	4,690	6,904	410,800
July.....	85,850	4,850	1,800	2,769	170,300
August.....	46,660	1,700	1,160	1,505	92,550
September.....	38,200	1,470	977	1,275	75,770
The period.....					2,004,000



San Joaquin River near Friant, Calif.

Location.- Water-stage recorder, lat. 37°00'35", long. 119°41'44", in NE $\frac{1}{4}$  sec. 5, T. 11 S., R. 21 E., 1 mile above Cottonwood Creek and  $\frac{1}{2}$  miles northeast of Friant. Zero of gage is 315.03 feet above mean sea level.

Drainage area.- 1,632 square miles.

Records available.- December 1913 to September 1937. October 1907 to December 1913, at 2 miles upstream.

Average discharge.- 30 years (1907-37), 2,249 second-feet.

Extremes.- Maximum discharge during year, 36,400 second-feet Feb. 6 (gage height, 19.2 feet); minimum, 122 second-feet Dec. 8.

1907-37: Maximum discharge, about 54,000 second-feet (revised) Jan. 25, 1914 (gage height, 21.72 feet); minimum, 44 second-feet Sept. 15, 1924, Sept. 14, Oct. 12, 1931, regulated.

Remarks.- Records excellent. Four storage reservoirs and six power plants above station. See Record for San Joaquin River below Kerckhoff power house.

Rating table, water year 1936-37 (gage height, in feet, and discharge in second-feet)

4.0	454	7.0	2,320
4.4	610	8.0	3,450
4.8	790	9.0	5,000
5.2	995	10.0	7,040
5.6	1,220	11.0	9,540
6.0	1,480	12.0	12,200
6.5	1,860	14.0	18,600

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,180	568	1,120	1,100	1,320	2,190	3,320	4,650	6,380	4,820	1,520	1,440
2	1,280	886	1,070	970	1,640	2,420	4,400	5,560	8,240	4,650	1,290	1,380
3	1,070	958	1,050	764	1,590	2,420	3,980	6,580	8,500	4,820	1,620	1,340
4	1,120	970	1,050	1,010	1,630	2,250	3,490	7,860	9,800	4,310	1,520	1,340
5	1,160	978	906	1,230	5,610	2,360	3,490	8,500	11,100	4,150	1,520	1,090
6	1,230	1,010	854	1,380	17,900	2,560	3,880	8,760	9,800	4,310	1,550	915
7	1,240	1,050	826	1,080	13,200	2,570	3,810	8,240	8,020	3,720	1,580	1,280
8	1,210	806	1,000	1,080	4,320	2,850	3,560	7,280	8,240	3,320	1,380	1,380
9	1,150	936	968	1,100	3,650	2,920	3,500	7,520	7,040	2,600	1,520	1,310
10	1,170	1,040	1,010	1,090	2,840	2,720	3,680	7,760	6,820	2,620	1,520	1,310
11	1,100	910	1,050	1,080	1,900	3,010	3,490	7,040	5,960	2,220	1,520	1,310
12	1,180	978	852	1,050	2,370	3,000	3,710	9,280	5,180	1,700	1,590	1,030
13	1,190	992	809	1,040	3,080	3,760	4,010	10,500	4,650	2,520	1,520	1,220
14	987	1,050	818	1,110	17,300	2,850	4,790	12,200	5,370	2,620	1,520	1,400
15	973	675	1,300	1,070	7,040	2,750	5,690	12,200	5,960	2,470	1,310	1,330
16	1,080	916	3,140	1,100	4,270	3,020	6,070	11,400	6,820	2,420	1,310	1,310
17	874	1,120	2,250	973	3,450	3,260	4,580	11,400	7,520	2,220	1,620	1,230
18	533	1,070	1,190	949	3,190	4,320	4,560	10,100	5,960	1,900	1,480	1,130
19	716	1,080	1,190	1,110	2,800	3,520	4,820	8,000	6,380	1,740	1,580	1,040
20	759	1,100	844	1,220	2,760	2,950	5,000	7,760	7,760	2,180	1,620	1,080
21	803	1,070	984	1,050	2,560	2,660	6,160	8,000	8,500	2,000	1,310	1,220
22	740	766	1,100	1,130	2,080	4,360	6,380	8,500	8,760	1,860	1,250	1,260
23	776	947	1,090	1,150	2,420	4,080	5,180	7,520	7,520	1,900	1,280	1,260
24	666	1,240	1,080	1,000	2,470	4,400	5,000	8,000	6,380	1,900	1,410	1,180
25	489	1,080	830	1,050	3,580	4,730	5,370	8,000	5,960	2,000	1,520	1,090
26	716	751	810	1,190	3,070	3,940	5,960	6,600	5,370	1,860	1,520	1,020
27	804	901	1,310	1,200	2,520	4,090	6,160	6,820	5,000	2,180	1,410	984
28	734	930	1,240	1,240	2,360	3,600	4,820	8,240	5,180	2,000	1,310	1,220
29	795	801	1,180	1,850	-	3,490	4,310	9,800	5,560	1,860	1,190	1,220
30	746	913	1,150	1,800	-	3,070	4,150	8,760	5,370	1,820	1,220	1,190
31	856	-	1,950	1,630	-	3,130	-	6,820	-	1,700	1,480	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	29,326	1,280	489	946	58,170
November.....	28,472	1,240	568	949	56,470
December.....	36,011	3,140	809	1,912	71,430
Calendar year 1936.....	939,026	10,500	468	2,566	1,863,000
January.....	35,806	1,850	764	1,155	71,020
February.....	122,940	17,900	1,320	4,391	243,600
March.....	99,220	4,730	2,190	3,201	196,800
April.....	137,320	6,380	3,320	4,577	272,400
May.....	259,350	12,200	4,650	8,366	514,400
June.....	210,100	11,100	4,650	7,003	416,700
July.....	82,690	4,820	1,700	2,667	164,000
August.....	44,980	1,620	1,190	1,451	89,220
September.....	36,489	1,440	915	1,217	72,390
Water year 1936-37.....	1,122,714	17,900	489	3,076	2,227,000

## San Joaquin River near Newman, Calif.

Location.— Water-stage recorder, lat. 37°21'02", long. 120°58'34", in SW $\frac{1}{4}$  sec. 3, T. 7 S., R. 9 E., at bridge on Hills Ferry road 300 feet below mouth of Merced River and  $\frac{3}{4}$  miles northeast of Newman. Zero of gage is 51.0 feet above mean sea level (datum of Corps of Engineers, U. S. Army).

Records available.— April 1912 to September 1937.

Average discharge.— 25 years, 2,208 second-feet.

Extremes.— Maximum discharge during year, 12,800 second-feet Feb. 19-20 (gage height, 15.9 feet); minimum discharge, 324 second-feet Aug. 21; minimum gage height, 2.36 feet Nov. 5.

1912-37: Maximum discharge, 20,700 second-feet Jan. 27, 1914 (gage height, 18.0 feet); minimum, 15 second-feet Aug. 9, 10, 1924.

Remarks.— Records good. Practically entire flow of main river and tributaries diverted during irrigation season, low-water records showing mainly amount of return water. During high-water period, February to June, it is probable that some unmeasured flow passed around the station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	453	363	995	2,010	2,430	9,740	9,900	5,930	11,400	5,230	534	410
2	497	354	972	2,130	2,880	8,880	9,740	5,630	11,400	4,870	568	404
3	504	348	995	2,190	3,370	8,180	9,440	5,630	11,000	4,180	534	404
4	532	342	972	2,190	3,580	7,790	9,160	6,030	10,600	3,540	534	417
5	561	336	995	2,190	3,650	7,400	8,740	6,240	10,300	3,240	494	439
6	561	348	1,040	2,010	3,970	7,040	9,320	6,350	10,000	3,100	517	462
7	543	348	1,090	1,770	5,440	6,570	8,050	6,460	9,680	2,960	474	462
8	536	357	1,140	1,660	5,930	6,130	7,790	6,720	9,520	2,750	494	430
9	525	375	1,160	1,720	6,240	5,730	7,530	6,840	9,360	2,480	500	410
10	521	429	1,160	1,770	7,530	5,440	7,280	7,200	8,920	2,300	466	420
11	500	480	1,120	1,770	8,880	5,170	6,800	7,440	8,640	2,060	423	420
12	497	561	1,060	1,770	9,160	5,170	6,460	7,680	8,500	1,900	401	417
13	493	636	1,060	1,720	9,440	5,440	6,240	7,800	8,360	1,650	395	436
14	493	695	1,060	1,660	9,900	6,460	6,130	8,060	8,080	1,600	401	414
15	497	755	1,120	1,600	11,000	6,240	5,930	8,220	8,080	1,350	407	404
16	463	775	1,160	1,550	11,700	5,830	5,830	8,500	7,940	1,190	436	417
17	420	775	1,140	1,550	12,500	5,630	5,630	8,920	7,940	1,060	401	426
18	442	715	1,120	1,550	12,800	5,630	5,440	9,200	7,800	990	377	423
19	449	675	1,140	1,550	12,800	5,530	5,260	9,520	7,680	950	356	436
20	442	636	1,290	1,500	12,800	5,440	5,260	9,680	7,560	990	338	461
21	429	617	1,600	1,500	12,500	5,350	6,030	10,000	7,200	830	333	484
22	426	636	1,830	1,500	12,100	5,530	6,680	10,200	6,840	770	350	467
23	446	675	1,770	1,500	11,700	6,570	7,160	10,300	6,480	731	389	494
24	429	755	1,600	1,500	11,400	7,530	6,570	10,500	6,120	712	386	467
25	401	838	1,360	1,500	10,900	8,180	5,830	10,600	5,820	676	386	461
26	369	882	1,220	1,500	11,000	9,020	5,730	10,800	5,420	640	365	484
27	357	892	1,340	1,500	11,000	9,440	5,930	11,000	5,230	604	365	462
28	351	882	1,440	1,500	10,500	9,900	6,350	11,200	5,230	551	377	481
29	354	928	1,550	1,440	-	10,200	6,570	11,200	5,230	517	407	455
30	363	950	1,720	1,550	-	10,100	6,460	11,200	5,230	517	433	423
31	369	-	1,890	1,890	-	10,100	-	11,400	-	517	410	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					14,223	561	351	459	28,210			
November.....					18,348	950	336	612	36,390			
December.....					39,109	1,890	972	1,262	77,570			
Calendar year 1936.....					1,076,622	14,400	336	2,939	2,133,000			
January.....					52,740	2,190	1,440	1,701	104,600			
February.....					247,100	12,800	2,430	8,825	490,100			
March.....					221,360	10,200	5,170	7,141	439,100			
April.....					208,240	9,900	5,260	6,941	413,000			
May.....					266,470	11,400	5,630	8,596	529,500			
June.....					241,560	11,400	5,230	8,052	479,100			
July.....					55,255	5,230	517	1,782	109,600			
August.....					13,250	568	333	427	26,280			
September.....					13,260	494	404	442	26,300			
Water year 1936-37.....					1,390,915	12,800	333	3,811	2,759,000			

## San Joaquin River near Vernalis, Calif.

Location.— Water-stage recorder, lat.  $37^{\circ}40'34''$ , long.  $121^{\circ}15'51''$ , in El Pescadero grant, at Durham Farley highway bridge, 3 miles below Stanislaus River and  $\frac{3}{4}$  miles northeast of Vernalis, San Joaquin County. Altitude, about 10 feet.

Records available.— July 1922 to September 1937, 1922-23 and 1925-29, for low water periods only.

Extremes.— Maximum discharge during year, 26,000 second-feet June 1 (gage height, 24.29 feet), including flow through break in levee: maximum gage height, 24.65 feet May 18, before break in levee; minimum discharge, 920 second-feet Aug. 27.

1922-37: Maximum discharge determined, 28,700 second-feet (revised), Feb. 25, 1936 (gage height, 28.47 feet); minimum, 184 second-feet Aug. 14, 1931.

Remarks.— Records good. Practically entire flow of main river and tributaries is diverted during irrigation season, and records for low-water periods show mainly amount of return water. Discharge Feb. 25 to Mar. 10, 1936 and May 18 to June 10, 1937 includes estimated flow through break in right-bank levee of Stanislaus River, 500 feet upstream from junction with San Joaquin River.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,620	1,930	2,280	2,780	3,420	26,200	7,860	16,200	15,500	7,260	1,250	1,160
2	1,720	1,930	2,280	2,780	3,260	24,600	7,860	15,300	14,600	6,080	1,280	1,130
3	1,900	1,760	2,280	2,630	3,660	24,000	7,860	14,100	13,500	5,990	1,310	1,100
4	2,000	1,720	2,210	2,630	3,820	23,100	8,060	13,400	12,100	5,720	1,260	1,130
5	2,070	1,760	2,210	2,630	4,060	21,900	8,560	13,200	11,000	5,450	1,190	1,130
6	2,070	1,720	2,210	2,700	4,060	21,000	9,000	13,600	10,000	4,910	1,130	1,220
7	2,140	1,760	2,280	2,630	4,140	20,000	9,330	14,400	9,220	4,300	1,100	1,250
8	2,070	1,760	2,350	2,560	4,220	18,700	9,660	14,700	9,530	3,740	1,040	1,220
9	2,070	1,760	2,420	2,700	4,380	17,500	9,880	14,700	11,300	3,660	1,040	1,190
10	2,070	1,760	2,420	2,940	4,220	16,800	10,200	14,400	12,400	4,140	1,100	1,100
11	2,000	1,720	2,490	3,420	3,660	13,600	10,600	14,100	12,200	4,140	1,070	1,100
12	2,000	1,680	2,630	4,060	3,900	12,000	10,900	14,100	11,500	3,420	1,040	1,070
13	2,000	1,680	2,630	4,550	5,360	11,200	11,300	14,200	11,400	3,180	980	1,100
14	2,000	1,760	2,630	5,820	6,760	11,600	11,800	14,800	12,100	3,020	1,010	1,190
15	2,070	1,790	2,560	4,060	8,890	12,200	12,400	16,200	12,800	2,860	1,010	1,250
16	2,210	1,820	2,560	4,640	9,440	12,500	12,900	18,400	13,200	2,630	1,040	1,250
17	2,140	1,660	2,490	4,060	10,200	12,700	13,800	20,700	13,200	2,420	1,130	1,250
18	2,140	1,900	2,490	3,820	12,500	12,800	14,700	22,000	12,100	2,070	1,100	1,250
19	2,210	1,900	2,560	3,580	14,400	12,700	15,600	22,200	10,400	1,900	1,040	1,250
20	2,280	1,930	2,630	3,500	16,000	12,500	16,500	22,000	9,770	1,860	1,040	1,250
21	2,210	1,960	2,630	3,260	18,100	11,800	17,500	21,700	10,200	1,760	1,040	1,250
22	2,140	2,070	2,630	3,180	20,700	11,600	17,500	21,200	10,800	1,650	1,070	1,190
23	2,070	2,140	2,630	3,100	22,800	11,200	17,500	19,500	11,500	1,490	1,190	1,280
24	2,000	2,210	2,630	3,180	26,700	10,700	17,300	17,900	10,800	1,430	1,310	1,490
25	2,000	2,280	2,700	3,420	28,600	10,200	17,100	16,900	9,220	1,370	1,280	1,550
26	2,000	2,280	2,780	3,420	28,600	9,660	17,300	16,300	8,560	1,370	1,190	1,550
27	2,000	2,280	2,700	3,540	28,500	9,000	17,100	16,700	8,780	1,370	1,130	1,580
28	2,000	2,350	2,700	2,940	28,300	7,660	17,100	16,900	8,690	1,400	1,070	1,620
29	1,960	2,350	2,780	3,260	27,100	6,960	16,900	17,100	9,110	1,340	1,070	1,620
30	1,930	2,350	2,940	3,420	-	6,760	16,700	17,100	8,780	1,280	1,100	1,680
31	1,930	-	2,860	3,420	-	7,160	-	16,300	-	1,280	1,160	-
	Month				Second-foot-days		Maximum	Minimum	Mean		Run-off in acre-feet	
October					63,020		2,280	1,620	2,033		125,000	
November					58,170		2,350	1,680	1,939		115,400	
December					78,590		2,940	2,210	2,555		155,900	
Calendar year 1935							2,116,750	23,600	850	5,799	4,199,000	
January					102,430		4,640	2,560	3,504		203,200	
February					359,750		28,600	3,260	12,410		713,600	
March					439,300		26,200	6,760	14,170		871,500	
April					390,670		17,500	7,860	15,020		774,900	
May					520,300		22,200	13,200	16,780		1,032,000	
June					333,560		15,300	8,560	11,120		661,600	
July					94,490		7,260	1,280	3,048		187,400	
August					34,760		1,310	980	1,121		68,950	
September					38,430		1,680	1,070	1,281		76,220	
Water year 1935-36							2,513,470	28,600	980	6,867	4,985,000	

Note.— The above records supersede those published in Water-Supply Paper 811.

## San Joaquin River near Vernalis, Calif.

(Continued)

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,720	1,820	2,230	3,500	4,300	16,700	16,900	14,700	26,000	7,560	1,300	1,130
2	1,650	1,760	2,280	3,580	4,140	15,600	16,700	14,200	25,400	7,360	1,350	1,100
3	1,820	1,650	2,350	3,500	4,460	15,000	16,900	13,600	24,500	7,060	1,350	1,160
4	1,900	1,650	2,350	3,500	5,090	13,800	16,900	13,500	23,600	6,660	1,300	1,160
5	1,960	1,680	2,350	3,500	5,460	12,800	16,500	13,600	22,400	6,080	1,280	1,160
6	1,960	1,650	2,350	3,500	7,360	12,100	16,200	14,100	20,600	5,360	1,280	1,250
7	2,000	1,620	2,350	3,580	9,880	11,400	15,600	14,500	18,600	4,910	1,220	1,280
8	2,000	1,620	2,420	3,420	11,000	10,500	15,300	15,000	16,900	4,460	1,200	1,220
9	2,000	1,620	2,850	3,340	9,550	9,660	14,800	15,200	16,200	4,140	1,250	1,190
10	2,000	1,620	3,020	3,260	9,000	9,550	14,400	15,200	16,500	3,820	1,200	1,280
11	2,000	1,650	3,020	3,260	9,330	9,330	13,900	15,200	14,700	3,580	1,150	1,400
12	2,000	1,720	3,100	3,260	9,880	9,550	13,800	15,300	13,800	3,420	1,090	1,430
13	1,960	1,790	3,100	3,180	10,600	10,100	13,800	15,500	13,200	3,170	1,050	1,460
14	1,930	2,000	3,100	3,260	11,300	11,600	13,800	16,900	12,900	2,940	1,050	1,490
15	1,900	2,210	3,020	3,340	13,100	12,200	13,600	19,300	13,400	2,660	1,070	1,490
16	1,960	2,350	3,100	3,340	14,200	12,100	13,500	22,200	13,900	2,450	1,070	1,400
17	2,000	2,210	2,940	3,260	14,500	12,100	13,600	24,500	13,900	2,310	1,090	1,370
18	1,960	2,140	2,860	3,180	15,600	11,800	13,600	25,100	14,700	2,240	1,070	1,340
19	1,930	2,140	2,860	3,020	17,500	11,300	13,200	25,400	15,500	2,100	1,070	1,570
20	1,960	2,140	2,860	3,020	18,800	10,800	12,900	24,900	15,500	1,970	1,010	1,460
21	1,930	2,140	2,860	3,100	19,000	10,800	12,900	24,500	15,000	1,850	1,010	1,490
22	1,930	2,070	2,940	3,180	18,400	11,200	12,900	23,800	14,700	1,730	1,010	1,520
23	1,900	2,070	3,100	3,180	17,300	12,900	13,500	23,600	14,500	1,670	1,070	1,550
24	1,860	2,140	3,260	3,180	17,300	14,200	13,900	23,900	13,800	1,610	1,070	1,550
25	1,820	2,140	3,260	3,180	17,500	15,200	13,900	24,400	12,700	1,610	1,040	1,620
26	1,860	2,210	3,100	3,100	17,700	17,300	13,600	25,000	10,600	1,550	1,010	1,620
27	1,790	2,280	2,940	2,940	17,500	19,000	13,600	25,800	9,440	1,450	950	1,650
28	1,720	2,280	3,020	3,020	17,300	18,400	14,100	25,800	8,670	1,400	980	1,680
29	1,720	2,210	3,020	3,180	-	17,700	14,800	25,400	8,160	1,350	1,100	1,580
30	1,680	2,210	3,100	3,420	-	17,500	14,800	25,600	7,760	1,300	1,160	1,580
31	1,760	-	3,340	3,740	-	17,300	-	25,900	-	1,300	1,160	-
Month	Second-foot-days					Maximum	Minimum	Mean	Run-off in acre-feet			
October.....	58,580					2,000	1,650	1,890	116,200			
November.....	58,790					2,350	1,620	1,960	116,600			
December.....	88,510					3,340	2,280	2,855	175,600			
Calendar year 1936.....	2,502,870					27,400	980	6,838	4,965,000			
January.....	102,020					3,740	2,940	3,291	202,400			
February.....	347,040					19,000	4,140	12,390	688,500			
March.....	409,490					19,000	9,330	13,210	812,200			
April.....	433,900					16,900	12,900	14,460	360,600			
May.....	621,600					25,800	13,500	20,050	1,235,000			
June.....	456,750					25,000	7,760	15,560	925,700			
July.....	101,070					7,560	1,300	3,260	200,500			
August.....	35,010					1,350	950	1,129	69,440			
September.....	41,880					1,650	1,100	1,396	83,070			
Water year 1936-37.....	2,764,620					26,000	950	7,574	5,484,000			

## Ward Tunnel at intake, Calif.

(Formerly published as Florence Lake Tunnel at intake, Calif.)

Location.— Water-stage recorders and venturi meter, lat. 37°17', long. 118°58', in SE $\frac{1}{4}$  sec. 36, T. 7 S., R. 27 E., in gatehouse at entrance to tunnel. Altitude, about 7,350 feet.

Records available.— April 1925 to September 1937.

Average discharge.— 11 years (1925-31, 1932-37), 222 second-feet.

Extremes.— Maximum daily discharge during year, 1,320 second-feet June 23; minimum, 0.5 second-foot May 4.

1925-37: Maximum daily discharge, 1,990 second-feet Apr. 30, 1926; no flow at times.

Remarks.— Records good. Ward Tunnel diverts water from Florence Lake, a storage reservoir on South Fork of San Joaquin River, to Huntington Lake for use in Big Creek power plants of Southern California Edison Co., who furnished gage-height record and results of discharge measurements.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	556	142	13	67	64	86	156	385	618	693	157	480
2	554	109	12	80	80	96	193	472	994	544	313	179
3	552	103	15	88	81	102	175	260	572	650	342	1.3
4	548	71	19	83	77	135	135	.5	113	744	394	1.3
5	542	59	12	77	85	149	139	.6	185	840	397	1.3
6	552	45	17	72	114	150	137	.7	554	782	356	1.3
7	556	37	15	69	107	149	137	.8	539	737	192	1.3
8	550	25	14	54	108	158	152	.8	602	840	89	1.3
9	542	33	12	57	142	170	188	.8	636	813	303	1.3
10	537	33	14	72	181	152	197	245	764	764	408	1.3
11	526	32	12	60	188	147	212	506	928	493	386	1.2
12	518	32	11	56	161	147	222	514	885	322	355	1.2
13	550	26	11	54	145	142	267	533	502	316	355	1.2
14	566	32	14	53	243	114	364	518	502	330	355	1.2
15	418	31	51	51	209	114	457	512	502	403	263	1.2
16	226	30	104	49	184	113	436	205	539	497	296	1.2
17	226	29	68	47	177	114	351	1.3	550	425	369	1.3
18	280	27	50	47	146	114	337	186	366	61	375	1.3
19	330	28	44	47	134	112	342	497	171	429	372	1.3
20	326	23	46	47	123	111	373	499	546	595	369	1.3
21	320	26	48	44	116	99	468	506	871	566	366	1.3
22	333	24	46	44	115	97	512	512	1,240	457	323	1.3
23	342	22	44	41	117	100	592	514	1,320	457	361	1.3
24	333	21	41	41	109	103	568	495	1,120	615	389	1.3
25	320	21	42	41	93	103	418	499	964	201	416	1.3
26	310	20	36	45	94	103	468	499	925	390	428	1.3
27	163	18	37	51	95	102	171	502	757	495	428	1.3
28	402	15	32	54	97	100	324	506	688	480	428	1.3
29	361	17	41	51	-	99	457	514	655	426	364	1.3
30	278	17	57	55	-	99	367	163	797	426	410	1.3
31	196	-	64	53	-	116	-	1.8	-	343	484	-
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
October.....							12,813	566	163	413	25,410	
November.....							1,148	142	15	38.3	2,280	
December.....							1,042	104	11	33.6	2,070	
Calendar year 1936.....							123,123.8	1,440	.3	336	244,200	
January.....							1,750	88	41	56.5	3,470	
February.....							3,579	243	64	128	7,100	
March.....							3,696	170	86	119	7,330	
April.....							8,904	512	136	297	17,660	
May.....							10,039.3	533	5	324	19,910	
June.....							20,305	1,320	113	677	40,270	
July.....							16,137	840	61	521	32,010	
August.....							10,843	494	89	350	21,510	
September.....							694.8	480	1.2	23.2	1,380	
Water year 1936-37.....							90,951.1	1,320	.5	249	180,400	

## Ward Tunnel at outlet, Calif.

(Formerly published as Florence Lake Tunnel at outlet, Calif.)

Location.— Water-stage recorder, lat.  $37^{\circ}16'$ , long.  $119^{\circ}09'$ , in SE $\frac{1}{4}$  sec. 5, T. 8 S., R. 28 E., just above tunnel outlet at east end of Huntington Lake, 6 miles northeast of Big Creek. Altitude, about 7,200 feet.

Records available.— November 1927 to September 1937.

Extremes.— Maximum daily discharge during year, 1,330 second-feet June 23; minimum, 5.5 second-feet May 31.

1927-37: Maximum daily discharge, 2,080 second-feet June 21, 1935; minimum, 3.2 second-feet Oct. 23, 1929.

Remarks.— Records excellent. Tunnel diverts water from Florence Lake to Huntington Lake. See record for Ward Tunnel at intake. Between intake and outlet, tunnel receives water diverted from Bear Creek, Mono Creek, and at times from several other small tributaries of South Fork of San Joaquin River. Gage-height record and results of discharge measurements furnished by Southern California Edison Co.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	602	195	36	140	128	157	276	789	486	723	352	530
2	605	154	38	159	147	172	316	964	998	522	500	286
3	607	151	43	164	150	184	296	931	642	555	511	51
4	596	127	52	154	146	222	252	678	164	735	564	51
5	586	110	39	143	153	248	250	687	105	847	556	50
6	591	92	49	133	193	255	247	683	570	796	528	48
7	597	78	46	129	187	257	248	679	512	744	372	47
8	589	59	44	124	189	274	265	679	612	827	202	46
9	581	75	40	94	223	295	306	683	631	1,120	423	44
10	573	75	41	128	275	269	334	860	764	1,320	524	43
11	565	75	38	112	281	256	349	1,150	919	1,060	509	42
12	556	76	36	106	256	253	374	1,150	958	784	465	42
13	581	64	37	103	230	241	462	1,160	506	897	463	43
14	599	73	36	103	340	214	637	1,150	506	847	463	44
15	465	73	87	99	318	211	793	1,150	506	881	383	44
16	265	71	176	97	286	210	746	861	532	966	378	44
17	276	69	125	96	274	216	620	540	554	888	479	45
18	343	66	103	96	236	211	624	809	473	430	479	44
19	400	89	99	96	216	208	642	1,120	84	740	471	42
20	390	58	109	97	204	206	714	1,130	471	951	463	41
21	379	63	112	96	196	195	913	1,130	810	935	456	40
22	383	60	104	94	195	186	933	1,130	1,230	822	409	39
23	393	56	97	94	197	206	741	1,130	1,330	863	410	40
24	379	54	89	92	188	202	724	1,120	1,150	1,180	458	38
25	367	53	92	90	168	198	854	1,120	980	791	474	37
26	350	52	79	92	168	195	926	1,120	838	732	490	22
27	242	48	79	98	167	194	613	1,120	760	852	427	42
28	406	41	75	102	164	189	565	1,120	696	814	485	35
29	407	44	94	98	-	189	744	1,130	645	730	428	35
30	334	44	119	108	-	194	688	554	789	697	448	34
31	240	-	135	113	-	212	-	5.5	-	639	536	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						14,267	607	240	460		28,300	
November.....						2,325	195	41	77.5		4,610	
December.....						2,349	176	36	75.8		4,660	
Calendar year 1936.....						214,307	1,950	36	586		425,100	
January.....						3,450	164	90	111		6,840	
February.....						5,875	340	128	210		11,650	
March.....						6,719	295	157	217		13,530	
April.....						16,452	933	247	548		32,630	
May.....						28,632.5	1,160	5.5	924		56,790	
June.....						20,221	1,330	84	674		40,110	
July.....						25,788	1,320	430	832		51,150	
August.....						14,166	564	202	457		28,100	
September.....						1,989	530	22	66.3		3,950	
Water year 1936-37.....						142,233.5	1,330	5.5	390		282,100	

## SAN JOAQUIN RIVER BASIN

Bear Creek near Vermilion Valley, Calif.

Location.- Water-stage recorder, lat. 37°20', long. 118°58', in SW $\frac{1}{4}$  sec. 12, T.7 S., R. 27 E., 2 miles above mouth and 4 miles by trail south of Vermilion Valley, from which it is separated by Bear Ridge. Altitude, about 7,400 feet.

Drainage area.- 53.5 square miles.

Records available.- November 1921 to September 1937.

Average discharge.- 13 years (1922-30, 1932-37), 75.3 second-feet.

Extremes.- Maximum discharge during year, 846 second-feet May 14 (gage height, 5.81 feet); minimum, 2.0 second-feet Dec. 1.

1921-37: Maximum discharge, 1,530 second-feet July 21, 1936 (gage height, 6.90 feet); minimum recorded, 1.2 second-feet Sept. 29 to Oct. 5, 1924.

Remarks.- Records good except those for periods of ice effect, Nov. 28, Dec. 1 to Feb. 28, and of missing gage heights, Mar. 8-18, which were computed on basis of three discharge measurements and records for Mono Creek near Vermilion Valley and Ward Tunnel at intake and outlet and are fair. No storage or diversions above station. Gage-height record and results of discharge measurements furnished by Southern California Edison Co.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

3.0	4	4.0	104	5.0	404
3.2	M	4.2	140	5.2	500
3.4	24	4.4	184	5.4	600
3.6	44	4.6	244	5.6	720
3.8	71	4.8	320		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	12	* 3.7			24	45	136	387	370	81	16
2	13	13				26	47	177	418	387	70	15
3	16	16				30	42	228	455	396	63	13
4	14	15				33	37	284	555	400	58	14
5	12	13				37	36	312	576	396	56	14
6	11	11				37	34	304	535	337	54	13
7	10	8.5				36	35	292	480	251	52	13
8	10	11				38	37	276	413	225	49	12
9	9.5	12				40	40	304	379	206	45	12
10	9	11				38	45	284	354	209	43	12
11	8.5	10				36	48	354	266	182	42	12
12	8	10				36	57	470	273	193	41	12
13	8	9.5				34	84	560	328	244	41	12
14	7.5	9.5				34	118	648	320	190	41	12
15	7	10		*13		32	131	636	387	184	41	12
16	8	10				30	102	624	422	172	40	12
17	16	9.5				34	84	575	366	152	44	12
18	23	9.5				33	92	470	366	138	40	12
19	22	9.5				33	94	366	480	133	37	11
20	20	7.5			*27	31	118	409	595	135	35	11
21	19	8				29	158	441	636	136	33	11
22	19	8				33	127	422	585	142	31	11
23	17	7.5				37	99	432	485	189	28	10
24	16	7.5				33	111	413	450	238	27	10
25	16	7				32	140	366	427	179	25	9.5
26	15	7				31	138	341	397	148	23	8.5
27	15	7				28	111	413	404	135	22	8
28	13	6				28	84	560	450	124	21	8
29	13	6			-	28	73	600	427	115	20	8
30	15	4.6			-	30	92	505	396	104	20	7.5
31	15	-			-	35	-	370	-	96	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	416.5	23	7	13.4	826
November.....	286.1	16	4.6	9.54	567
December.....	341	-	-	11	676
Calendar year 1936 .....	40,663.6	624	-	111	80,660
January.....	465	-	-	15	922
February.....	700	-	-	25	1,390
March.....	1,016	40	24	32.8	2,020
April.....	2,459	158	34	82.0	4,880
May.....	12,602	648	136	407	25,000
June.....	13,001	636	266	433	25,790
July.....	6,511	400	96	210	12,310
August.....	1,241	81	18	40.0	2,460
September.....	343.5	16	7.5	11.4	681
Water year 1936-37 .....	39,382.1	648	-	108	78,120

\*Discharge measurement.

## Mono Creek near Vermilion Valley, Calif.

Location.- Water-stage recorder, lat. 37°22', long. 118°59', in SW¼ sec. 35, T. 6 S., R. 27 E (unsurveyed), 1 mile below lower end of Vermilion Valley and 6 miles below mouth of North Fork. Altitude, about 7,400 feet.

Drainage area.- 92.0 square miles.

Records available.- November 1921 to September 1937.

Average discharge.- 13 years (1922-30, 1932-37), 130 second-feet.

Extremes.- Maximum discharge during year, 1,210 second-feet May 14 (gage height, 7.79 feet); minimum, 12 second-feet Nov. 2.

1921-37: Maximum discharge, 1,420 second-feet June 18, 1927, June 22, 1932 (gage height, 8.10 feet); minimum, 7.5 second-feet Dec. 6, 1932.

Remarks.- Records good except those for periods of ice effect, Nov. 24 to Mar. 25, and missing gage heights, July 18, 19, which were computed on basis of four discharge measurements and records for Bear Creek near Vermilion Valley and Ward Tunnel at intake and outlet and are fair. No storage or diversions above station. Gage-height record and results of discharge measurements furnished by Southern California Edison Co.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge in second-feet)

4.6	10.5	5.4	111	6.2	365	7.0	745
4.8	22	5.6	161	6.4	450	7.2	855
5.0	41	5.8	217	6.6	540	7.4	970
5.2	70	6.0	285	6.8	640	7.6	1,090

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	24	*19				68	253	670	508	138	34
2	25	22					72	305	723	526	123	32
3	30	27					70	377	772	531	116	31
4	26	26					65	450	940	540	109	30
5	24	24					65	508	970	540	104	29
6	22	23					64	508	910	486	104	28
7	21	21					65	495	855	401	98	28
8	21	25					70	482	772	365	91	27
9	21	24					74	508	696	337	85	26
10	20	24					83	486	655	321	81	25
11	19	23					85	540	555	278	78	25
12	19	22					93	701	526	278	76	25
13	19	21				60	118	882	565	333	76	26
14	18	21				158	1,030	550	293	78	27	27
15	18	23				185	1,030	630	285	76	27	27
16	19	21		*28			174	1,000	734	267	72	27
17	25	21					164	970	645	239	76	28
18	31	21					177	855	605	230	72	27
19	34	22				*77	185	680	745	223	67	26
20	32	20				217	690	910	217	64	26	26
21	30	20			*47		263	745	1,000	211	60	25
22	28	20					246	740	970	211	57	25
23	27	21					214	696	828	253	54	25
24	26	20					227	696	728	313	50	24
25	26	20					267	630	680	267	48	22
26	26	19				57	274	565	610	223	45	22
27	24	18				56	236	650	595	211	42	21
28	24	18				53	202	882	630	194	42	21
29	23	17				53	194	1,030	635	183	41	21
30	25	16				54	214	940	560	166	40	21
31	25	-				57	-	670	-	156	38	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						749	34	18	24.2	1,490		
November.....						644	27	16	21.5	1,280		
December.....						775	-	-	25	1,540		
Calendar year 1936.....						64,744	882	-	177	128,400		
January.....						930	-	-	30	1,840		
February.....						1,400	-	-	50	2,780		
March.....						1,830	-	-	59.0	3,630		
April.....						4,589	274	64	153	9,100		
May.....						20,994	1,030	253	677	41,840		
June.....						21,664	1,000	526	722	42,970		
July.....						9,586	540	156	309	19,010		
August.....						2,301	138	38	74.2	4,560		
September.....						781	34	21	26.0	1,550		
Water year 1936-37.....						66,243	1,030	-	181	131,400		

\*Discharge measurement.



## Huntington Lake near Big Creek, Calif.

Location.- Water-stage recorder, lat.  $37^{\circ}14'$ , long.  $119^{\circ}13'$ , in SW $\frac{1}{4}$  sec. 14, T. 8 S., R. 25 E., at dam 1, 2 miles northeast of Big Creek.

Records available.- October 1926 to September 1937.

Remarks.- Huntington Lake on Big Creek is original storage reservoir of Big Creek system of Southern California Edison Co. Elevation of crest of main dam is 6,955.5 (revised) feet above mean sea level; elevation of crest of overflow spillway is 6,950 feet above mean sea level (capacity, 88,334 acre-feet). Water is received from South Fork of the Joaquin River, Bear Creek, and Mono Creek through Ward Tunnel (formerly known as Florence Lake Tunnel) and released through Big Creek power house 1. Surplus water flows through Huntington-Shaver conduit to Shaver Lake. Record of contents, furnished by Southern California Edison Co., shows amount available for release.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
1	87,876	85,816	55,957	30,167	8,456	5,905	4,294	26,243	64,388	65,952	68,120	68,0
2	87,890	85,066	54,848	29,516	8,227	5,970	4,401	27,339	65,358	65,914	67,979	67,8
3	87,919	84,229	53,749	28,965	7,981	5,798	4,504	28,029	65,914	65,902	67,954	66,6
4	87,947	83,361	52,683	28,229	7,816	5,684	4,582	28,329	65,739	66,141	67,979	65,7
5	87,933	82,468	51,604	27,495	7,472	5,672	4,586	28,754	65,150	66,634	67,954	65,2
6	87,933	81,489	50,750	26,584	7,482	5,681	4,467	29,278	65,463	67,177	67,903	64,6
7	87,919	80,484	49,702	25,656	7,331	5,828	4,548	29,660	65,313	67,026	67,788	64,0
8	87,933	79,595	48,619	24,942	6,968	5,356	4,238	30,133	65,062	66,735	67,750	62,9
9	87,962	78,602	47,537	24,062	6,638	5,985	4,238	30,853	64,774	66,584	67,712	61,6
10	88,005	77,558	46,467	23,299	6,534	6,016	4,355	31,528	64,587	66,266	67,776	60,7
11	88,005	76,549	45,375	22,442	6,459	6,046	4,747	32,943	64,799	68,221	67,827	59,7
12	87,947	75,519	44,265	21,634	6,306	6,068	4,997	34,912	65,501	68,272	67,758	58,6
13	88,005	74,495	43,199	20,769	6,281	5,917	5,511	37,415	65,426	68,336	67,737	57,6
14	88,233	73,463	42,289	19,894	6,764	5,908	6,475	40,146	65,313	68,247	67,737	56,6
15	88,233	72,530	42,196	19,005	6,748	5,604	7,801	42,990	65,250	68,170	68,030	55,6
16	87,782	71,511	42,207	18,194	6,485	5,198	9,036	45,439	65,238	68,298	67,928	54,6
17	87,461	70,511	41,572	17,454	6,479	4,848	10,002	46,962	65,188	68,362	67,816	53,4
18	87,461	69,452	40,689	16,610	6,385	4,425	11,270	48,206	64,974	68,132	67,903	52,4
19	87,476	68,413	39,824	15,697	6,227	4,000	12,320	49,813	64,090	67,979	67,941	51,2
20	87,418	67,355	39,238	14,763	6,056	3,724	13,558	51,537	64,612	68,043	67,877	50,2
21	87,305	66,318	38,498	13,909	6,068	3,597	15,319	53,417	64,500	68,158	67,776	49,1
22	87,234	65,413	37,706	13,016	6,294	3,398	17,035	55,209	65,025	68,183	68,043	48,0
23	87,149	64,576	36,905	12,126	6,139	3,431	18,389	56,863	65,626	68,280	67,954	46,9
24	87,120	63,283	36,090	11,203	5,982	3,389	19,793	58,442	65,852	68,464	67,865	45,8
25	87,120	62,309	35,381	10,538	5,780	3,445	21,711	59,775	65,827	68,511	67,827	44,7
26	86,964	61,281	34,651	10,084	5,583	3,489	23,658	60,757	65,827	68,170	67,788	43,6
27	86,595	60,260	34,057	9,640	5,723	3,657	24,887	62,174	65,889	68,158	67,750	42,5
28	86,553	59,174	33,178	9,298	5,890	4,101	25,745	64,028	65,852	68,234	67,737	41,4
29	86,496	58,121	32,293	8,973	-	4,227	25,879	65,952	65,777	68,170	68,030	40,2
30	86,392	57,064	31,564	8,671	-	4,345	25,816	66,242	65,859	68,234	67,967	39,1
31	86,297	-	30,826	8,724	-	4,294	-	64,924	-	68,397	68,005	38,0

## Big Creek below Huntington Lake, Calif.

Location.- Water-stage recorder, lat. 37°13'10", long. 119°12'50", in NW¼ sec. 23, T. 8 S., R. 25 E., 800 feet above Grouse Creek and 1 mile below Huntington Lake. Altitude, about 6,800 feet.

Records available.- June 1925 to September 1937. Records prior to October 1929 cover only periods of spill from Huntington Lake.

Extremes.- Maximum discharge during year, 40 second-feet Oct. 15 (gage height, 3.90 feet); minimum, 0.3 second-foot Dec. 29 to Feb. 4, Aug. 18 to Sept. 2, Sept. 8-30. 1925-37: Maximum discharge, 2,040 second-feet June 23, 1925 (gage height, 10.3 feet, siphon spillways operating at Huntington Lake); minimum, 0.1 second-foot Sept. 10-13, Oct. 7-18, Dec. 5-16, 1931.

Remarks.- Records good except those for Jan. 5-7, Apr. 19-27, June 30, July 1, July 21 to Aug. 10 (interpolated or computed on basis of weather records), which are fair. Natural flow of Big Creek is regulated at Huntington Lake and during most of year is diverted for use through Big Creek power house 1. Gage-height record and results of discharge measurements furnished by Southern California Edison Co., Ltd.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.6	0.7	0.3	0.3	0.9	2.2	6.5	3.2	1.0	0.5	0.3
2	1.2	1.5	.7	.3	.3	.9	2.7	7	2.9	1.0	.5	.3
3	1.2	1.5	.7	.3	.3	1.0	2.6	7	2.7	.9	.5	.4
4	1.2	1.4	.7	.3	.3	1.3	2.4	7	2.6	.9	.5	.4
5	1.2	1.3	.6	.3	1.1	1.3	2.4	7.5	2.4	.9	.5	.4
6	1.2	1.3	.6	.3	6.5	1.4	2.6	7.5	2.3	.9	.5	.4
7	1.3	1.3	.5	.3	2.7	1.6	2.6	7	2.3	.9	.5	.4
8	1.3	1.3	.5	.3	1.5	1.7	2.6	7	2.3	.9	.4	.3
9	1.3	1.2	.5	.3	1.2	1.7	2.6	7	2.2	.8	.4	.3
10	1.3	1.2	.5	.3	.9	1.9	2.8	7	2.1	.8	.4	.3
11	1.3	1.2	.5	.3	.8	2.0	2.9	7	2.1	.8	.4	.3
12	1.3	1.1	.5	.3	.9	2.0	3.1	7	2.0	.8	.4	.3
13	1.3	1.0	.5	.3	3.4	1.7	3.4	7.5	1.9	.8	.4	.3
14	1.3	1.0	.3	.3	1.6	3.9	3.9	7.5	1.7	.8	.4	.3
15	5.6	.9	3.7	.3	2.6	1.6	4.2	7.5	1.6	.8	.4	.3
16	4.0	.9	6	.3	2.0	1.7	4.2	7	1.6	.8	.4	.3
17	1.6	.9	1.6	.3	1.7	1.9	4.2	7	1.6	.8	.4	.3
18	1.6	.9	1.3	.3	1.6	1.6	4.3	6.5	1.6	.8	.3	.3
19	1.5	.9	1.0	.3	1.3	1.6	4.3	6	1.6	.7	.3	.3
20	1.4	.9	.8	.3	1.2	1.6	5	6	1.5	.7	.3	.3
21	1.3	.9	.8	.3	1.1	1.6	5	5.5	1.4	.7	.3	.3
22	1.3	.9	.7	.3	1.2	1.6	5	5.5	1.4	.7	.3	.3
23	1.3	.8	.6	.3	1.2	1.5	4.8	5	1.4	.7	.3	.3
24	1.3	.8	.5	.3	1.2	1.4	4.8	4.9	1.4	.7	.3	.3
25	1.4	.8	.5	.3	1.1	1.5	4.8	4.7	1.4	.6	.3	.3
26	1.4	.8	.5	.3	.9	1.5	5	4.5	1.3	.6	.3	.3
27	1.4	.8	.6	.3	.9	1.5	4.8	4.2	1.2	.6	.3	.3
28	1.4	.8	.4	.3	.9	1.5	4.8	4	1.2	.6	.3	.3
29	1.4	.8	.3	.3	-	1.6	4.6	3.7	1.1	.6	.3	.3
30	1.4	.8	.3	.3	-	1.6	5	3.4	1.1	.6	.3	.3
31	1.6	-	.3	.3	-	1.9	-	3.3	-	.6	.3	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						48.3	5.5	1.2	1.56	96		
November.....						31.6	1.6	.6	1.06	62		
December.....						28.0	6	.3	.90	56		
Calendar year 1936.....						824.8	55	.3	2.25	1,640		
January.....						9.5	.3	.3	.30	18		
February.....						44.0	6.5	.3	1.67	87		
March.....						46.2	2.0	.9	1.55	96		
April.....						113.6	5	2.2	3.79	226		
May.....						188.2	7.5	3.3	6.07	373		
June.....						55.1	3.2	1.1	1.84	109		
July.....						23.8	1.0	.6	.77	47		
August.....						11.7	.5	.3	.38	23		
September.....						9.6	.4	.3	.32	19		
Water year 1936-37.....						611.2	7.5	.3	1.67	1,210		

## Shaver Lake near Big Creek, Calif.

Location.- Water-stage recorder, lat. 37°09', long. 119°18', in SE¼ sec. 13, T. 9 S., R. 24 E., at dam on Stevenson Creek 6 miles southwest of Big Creek.

Records available.- January 1927 to September 1937.

Remarks.- This is largest storage unit of Big Creek system of Southern California Edison Co. Elevation of crest of dam is 5,371 feet above mean sea level; elevation of crest of spillway is 5,370 feet above mean sea level (capacity, 135,283 acre-feet). Water is received from Huntington Lake Reservoir and Pitman Creek through Huntington-Shaver conduit and is released through power house 2A on Big Creek. Record of contents, furnished by Southern California Edison Co., shows amount available for release.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66,202	51,849	36,707	30,865	15,611	11,177	4,412	17,503	102,563	134,652	132,332	96,473
2	67,199	51,272	38,212	30,908	14,386	10,392	4,538	19,731	104,769	134,108	131,612	95,254
3	66,347	50,696	37,709	30,897	13,194	10,068	4,664	21,945	106,637	133,978	130,460	94,039
4	65,791	50,111	37,207	30,628	12,092	9,942	4,892	24,309	108,429	134,391	129,497	92,831
5	64,857	49,612	36,790	30,413	11,099	9,942	4,745	26,792	110,616	134,739	128,579	91,637
6	63,896	48,822	36,590	30,155	12,979	10,068	4,731	29,130	113,124	134,195	127,602	90,413
7	62,928	48,361	36,145	29,847	13,672	10,308	4,684	31,496	114,996	134,043	126,434	89,273
8	61,965	48,253	35,641	29,488	13,430	10,120	4,674	34,172	115,757	134,195	125,251	88,289
9	61,017	47,808	35,146	29,153	12,986	10,051	4,701	37,255	118,507	134,604	124,030	87,308
10	60,018	47,309	34,674	28,004	12,356	10,040	4,917	39,899	120,185	135,131	122,855	86,374
11	59,230	46,811	34,138	28,641	11,721	10,017	5,396	42,705	121,726	135,305	121,664	85,478
12	58,270	46,364	33,652	28,341	11,446	9,994	5,504	45,721	122,876	135,152	120,475	85,017
13	57,270	45,965	33,652	28,010	12,486	10,114	5,760	48,740	124,408	135,065	119,294	84,167
14	56,507	45,329	33,346	27,654	14,336	10,409	6,197	51,656	125,188	135,022	118,094	83,200
15	55,476	45,329	34,116	27,339	14,685	10,217	6,702	54,602	125,822	135,022	116,881	82,204
16	54,901	44,901	34,697	27,054	14,749	10,280	7,168	58,063	126,455	135,044	115,712	81,252
17	54,630	44,408	34,501	27,044	14,756	10,392	7,747	60,853	127,070	135,131	114,465	80,269
18	54,701	43,944	34,240	26,752	14,628	10,421	8,518	63,503	127,644	135,239	113,306	79,364
19	54,445	43,432	33,912	26,373	14,499	10,397	8,956	66,054	128,239	135,065	112,109	79,023
20	54,288	42,920	33,686	25,963	14,499	10,362	9,452	68,609	128,622	135,065	110,899	78,224
21	54,103	42,478	33,212	25,396	14,364	10,647	10,040	71,181	129,540	134,978	109,712	77,263
22	53,875	42,263	32,633	24,833	13,831	10,205	10,595	73,803	130,503	134,739	108,489	76,357
23	53,718	41,509	32,023	24,261	13,692	9,413	10,372	77,010	131,469	134,522	107,293	75,474
24	53,619	41,248	31,518	24,233	13,560	8,661	11,379	79,603	132,353	134,957	106,080	74,579
25	53,493	40,776	31,562	23,314	13,382	7,845	12,310	82,239	133,108	135,305	104,877	73,886
26	53,199	40,689	31,617	22,141	13,107	7,038	12,700	84,981	133,652	135,044	103,717	73,671
27	52,807	40,256	31,825	20,969	12,362	6,284	12,999	87,835	134,587	134,848	102,485	72,918
28	52,541	39,815	31,551	19,986	11,997	5,832	13,247	90,633	134,826	134,600	101,301	71,972
29	52,220	39,680	31,244	18,998	-	5,225	14,307	93,611	134,783	134,087	100,100	71,117
30	52,055	39,240	31,048	17,887	-	4,674	15,748	96,760	134,783	133,434	98,888	70,311
31	51,959	-	30,854	16,692	-	4,490	-	100,023	-	132,741	97,698	-

## Fine Gold Creek near Friant, Calif.

Location.- Water-stage recorder, lat. 37°03', long. 119°39', in NW¼ sec. 14, T. 10 S., R. 21 E., 1,000 feet below Willow Creek, 1½ miles above mouth, and 5½ miles north-east of Friant. Altitude, about 680 feet.

Drainage area.- 89.2 square miles.

Records available.- October 1936 to September 1937.

Extremes.- Maximum discharge during year, 6,780 second-feet Feb. 6 (gage height, 16.45 feet); no flow at times.

Remarks.- Records good. No storage or diversions above station.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	1.9	45	74	146	198	48	10	3.7	0.1	
2		0	2.0	24	144	131	208	45	9.5	3.4	.1	
3		0	2.0	18	87	124	168	42	9	3.4	.1	
4		0	2.1	16	91	110	158	40	8	3.2	.1	
5		0	2.1	23	1,500	106	151	40	8	2.9	.1	
6		0	2.1	38	3,910	102	198	36	8	2.7	.1	
7		0	2.1	26	1,090	96	148	36	8	2.6	.1	
8		0.6	2.3	19	422	90	133	35	8	2.4	0	
9		1.1	2.3	16	290	82	125	33	8	2.1	0	
10		1.1	2.3	15	226	80	116	32	8	2.0	0	
11		1.2	2.4	15	190	78	106	31	8	1.9	0	
12		1.2	2.3	16	188	113	99	29	8	2.1	0	
13		1.3	2.3	16	588	160	92	28	8	2.6	0	
14		1.4	2.4	15	1,760	98	90	26	8	2.1	0	
15		1.4	13	15	669	84	87	25	7.5	1.8	0	
16		1.5	15	23	412	119	85	23	7.5	1.6	0	
17		1.5	7	23	294	102	80	22	7.5	1.5	0	
18		1.7	4.1	20	244	216	76	21	7.5	1.5	0	
19		1.7	3.4	25	216	144	73	21	7	1.5	0	
20		1.7	2.9	21	176	120	70	19	6.5	1.4	0	
21		1.7	2.7	17	149	116	67	18	6	1.2	0	
22		1.7	2.5	16	141	566	63	17	6	1.0	0	
23		1.7	2.5	15	134	324	60	17	6	.9	0	
24		1.7	2.7	16	157	692	58	16	5.5	.8	0	
25		1.8	3.9	15	417	666	55	16	5.5	.7	0	
26		1.8	3.8	16	264	432	57	17	5	.5	0	
27		1.8	57	17	190	402	32	14	4.5	.4	0	
28		1.8	59	51	164	362	62	13	4.3	.3	0	
29		1.8	22	158	-	286	56	12	4.8	.2	0	
30		1.9	22	213	-	258	50	12	4.3	.1	0	
31		-	181	145	-	220	-	11	-	.1	0	
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					0	0	0	0	0			
November.....					55.1	1.9	0	1.17	70			
December.....					435.1	181	1.9	14.0	863			
Calendar year .....												
January.....					1,108	213	15	35.7	2,200			
February.....					14,187	3,910	74	507	28,140			
March.....					6,655	692	78	215	13,200			
April.....					3,071	208	50	102	6,090			
May.....					797	48	11	25.7	1,550			
June.....					211.9	10	4.3	7.06	420			
July.....					52.6	3.7	.1	1.70	104			
August.....					.7	.1	0	.02	1.4			
September.....					0	0	0	0	0			
Water year 1936-37.....					26,553.4	3,910	0	72.7	52,670			

## Fresno River near Knowles, Calif.

Location.- Water-stage recorder, lat.  $37^{\circ}14'$ , long.  $119^{\circ}46'$ , in NW $\frac{1}{4}$  sec. 15, T. 8 S., R. 20 E., at Fresno Crossing, 0.1 mile below Bean Gulch and 6 miles northeast of Knowles. Altitude, about 1,140 feet.

Drainage area.- 132 square miles.

Records available.- September 1911 to January 1914, November 1915 to September 1937.

Average discharge.- 22 years (1911-12, 1916-37), 70.3 second-feet.

Extremes.- Maximum discharge during year, 6,880 second-feet Feb. 6 (gage height, 8.16 feet), from rating curve extended above 1,200 second-feet; minimum, 2.5 second-feet Sept. 17 (gage height, 0.97 foot).

1911-14: 1915-37: Maximum discharge, that of Feb. 6, 1937; no flow at times in 1919, 1924, 1928, 1928-31, 1933-34.

Remarks.- Records good. Water is brought into this drainage basin from San Joaquin and Merced River basins. Small diversions above station for irrigation.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	20	9.5	44	70	206	306	199	204	73	18	6
2	3.0	16	9.5	36	107	192	323	214	204	68	18	7
3	3.7	12	10	32	92	192	278	240	204	63	17	7.5
4	5	10	10	28	95	198	256	251	204	61	16	5.5
5	5.5	11	11	30	1,220	188	240	267	199	57	15	7
6	6.5	11	11	38	4,020	192	351	262	199	55	15	9
7	6	10	10	30	1,620	192	264	267	199	52	17	9.5
8	5.5	10	11	18	491	188	251	267	189	50	14	6.5
9	5.5	11	11	21	310	183	235	267	174	50	13	5.5
10	5.5	10	11	24	245	174	224	267	170	46	12	5
11	5.5	10	12	27	221	179	219	267	161	45	11	5
12	5	10	10	28	275	250	208	267	153	46	13	5.5
13	5	10	11	28	574	335	209	262	149	50	12	5.5
14	5	10	12	27	2,360	235	214	256	145	45	10	6
15	5.5	10	53	27	919	202	224	256	136	41	9.5	6.5
16	5	10	107	40	509	240	214	246	136	40	11	7
17	5	10	56	36	384	280	189	246	136	38	10	3.7
18	8	10	30	34	325	425	184	246	129	38	10	3.0
19	14	10	22	38	290	174	246	246	125	38	8.5	4.5
20	17	10	19	24	240	245	174	246	122	34	8	5
21	12	10	17	24	221	235	199	240	122	33	8	6.5
22	11	10	16	26	216	750	199	235	115	33	7.5	6.5
23	10	9.5	16	27	202	467	174	235	112	31	7.5	6
24	10	10	16	32	250	706	170	235	105	27	7.5	6.5
25	9	10	18	30	554	615	174	229	101	27	7.5	7.5
26	8.5	9	20	28	310	458	194	224	95	27	8.5	5.5
27	7	9.5	75	33	245	496	246	219	87	24	9.5	5.5
28	6.5	10	66	52	226	410	219	219	87	21	8	5.5
29	7	10	42	118	-	357	214	209	87	19	6	4.6
30	7.5	9.5	36	140	-	328	199	214	81	18	7	4.0
31	16	-	66	98	-	323	-	204	-	18	6.5	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					228.7	17	3.0	7.38	454			
November.....					318.5	20	9	10.6	632			
December.....					824.0	107	9.5	26.6	1,630			
Calendar year 1936.....					38,926.7	1,980	2.7	106	77,210			
January.....					1,220	140	13	39.4	2,420			
February.....					16,591	4,020	70	593	32,910			
March.....					9,721	750	174	314	19,280			
April.....					6,746	351	170	225	13,380			
May.....					7,502	267	199	242	14,880			
June.....					4,330	204	81	144	8,590			
July.....					1,268	73	18	40.9	2,520			
August.....					341.5	18	6	11.0	677			
September.....					177.8	9.5	3.0	5.93	353			
Water year 1936-37.....					49,268.5	4,020	3.0	135	97,730			

## Chowchilla River at Buchanan dam site, Calif.

Location.- Water-stage recorder, lat. 37°13', long. 120°00', in SW¼ sec. 22, T. 8 S., 18 E., 1.4 miles above Raynor Creek and 5 miles west of Raymond. Altitude, about 390 feet.

Drainage area.- 238 square miles.

Records available.- October 1921 to September 1923, October 1930 to September 1937.

Extremes.- Maximum discharge during year, 12,000 second-feet Feb. 6 (gage height, 13.0 feet), from rating curve extended above 5,000 second-feet; minimum, 0.3 second-foot Sept. 19.

1921-23, 1930-37: Maximum discharge, that of Feb. 6, 1937; no flow for part of each year except 1937.

Remarks.- Records good except those for low stages, which are fair. Discharge for Oct. 1-5 computed on basis of recorded range of stage and records for Fresno River near Knowles. No large diversions.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.6	0.2	1.4	7.6	3.0	133	4.6	544	7.0	1,930
.8	.8	1.8	19.5	3.4	202	5.0	702	8.0	2,960
1.0	2.2	2.2	43	3.8	294	5.5	940	9.0	4,260
1.2	4.4	2.6	80	4.2	408	6.0	1,220	10.0	5,810
								12.0	9,660

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	16	6.5	108	188	351	563	162	45	14	2.4	0.7
2	.5	12	6.5	57	239	331	544	154	42	13	2.5	1.2
3	.7	9.5	7	45	213	320	494	145	40	12	2.5	1.3
4	.9	8	7	40	170	307	450	138	37	11	2.5	1.7
5	1.1	7	8	41	3,550	302	421	136	35	10	2.5	1.7
6	1.2	6.5	8	70	8,890	294	526	130	35	10	2.1	1.8
7	1.2	6.5	8	57	2,350	292	437	123	35	9	2.0	1.8
8	1.0	6.5	8	45	940	282	396	120	35	8.5	1.8	1.8
9	.9	6.5	8	34	620	268	381	116	35	8	1.7	1.9
10	.7	6.5	8	32	481	258	348	113	35	7.5	1.6	1.9
11	.6	6.5	8	34	399	253	331	109	35	7	1.6	1.8
12	.6	6.5	8	34	488	310	315	104	34	7	1.6	1.7
13	.7	6	8	36	1,180	411	302	97	33	7	1.4	1.6
14	.7	6	8.5	34	5,010	342	292	90	33	7	1.2	1.6
15	.8	6	27	33	1,580	282	289	84	32	6.5	1.2	1.6
16	.8	6	151	41	940	304	280	79	31	6	1.0	1.5
17	.9	6	69	60	724	390	263	74	31	5.5	1.0	.7
18	1.9	6	34	47	620	640	251	71	30	5.5	.9	.4
19	6	6	65	54	447	237	70	22	5	5	.8	.4
20	6	6	19	57	467	360	228	69	26	5	.7	.4
21	6	6	16	42	421	328	222	66	24	4.7	.7	.5
22	4.4	6	15	40	402	1,320	213	62	24	4.5	.7	.7
23	4.0	6	14	36	381	769	196	60	22	4.5	.8	1.0
24	3.8	6	14	40	375	1,920	188	62	22	4.2	.7	1.2
25	3.6	6	19	37	746	1,850	182	59	20	3.9	.7	1.3
26	3.3	6	22	35	582	1,040	177	61	19	3.7	.7	1.3
27	3.2	6	148	37	430	1,020	205	57	18	3.3	.9	1.3
28	3.1	6	151	64	384	890	204	53	16	3.1	.7	1.2
29	3.1	6.5	80	407	724	724	200	49	16	3.0	.6	1.2
30	3.7	6.5	63	490	-	660	173	49	16	2.8	.7	1.3
31	6.5	-	182	419	-	601	-	47	-	2.7	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	71.4	6.5	0.5	2.30	142
November.....	207.0	16	6	6.90	411
December.....	1,155.5	182	6.5	37.3	2,290
Calendar year 1936.....	60,501.6	3,530	.2	165	120,000
January.....	2,618	490	32	84.5	5,190
February.....	33,314	8,890	170	1,190	66,080
March.....	17,866	1,920	253	576	35,440
April.....	9,309	563	173	310	18,460
May.....	2,809	162	47	90.6	5,570
June.....	884	45	16	29.5	1,750
July.....	204.9	14	2.7	6.61	406
August.....	40.7	2.5	.6	1.31	81
September.....	58.5	1.9	.4	1.28	76
Water year 1936-37.....	68,518.0	8,890	.4	188	135,900

Merced River at Happy Isles Bridge, near Yosemite, Calif.

Location.- Water-stage recorder, lat.  $37^{\circ}43'54''$ , long.  $119^{\circ}33'28''$ , in Yosemite National Park, at Happy Isles Bridge, 0.4 mile below Illilouette Creek and  $1\frac{1}{2}$  miles southeast of Yosemite Lodge, Mariposa County. Altitude, about 4,000 feet.

Drainage area.- 181 square miles.

Records available.- August 1915 to September 1937.

Average discharge.- 22 years, 314 second-feet.

Extremes.- Maximum discharge during year, 3,020 second-feet May 14 (gage height, 6.42 feet); minimum, 3.7 second-feet Dec. 5.

1915-37: Maximum discharge, 3,800 second-feet May 28, 1919 (gage height, 7.10 feet); minimum, 1.5 second-feet Sept. 30, 1926.

Remarks.- Records good. Small diversion above station for water supply of Yosemite Valley.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 18 to Dec. 14)

0.6	4.3	2.2	182	4.6	1,385
.8	11	2.6	290	5.0	1,700
1.0	22	3.0	432	5.5	2,140
1.3	44	3.4	622	6.0	2,620
1.6	77	3.8	845	6.4	3,025
1.9	122	4.2	1,100		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.5	19	5.5	28	36	91	204	827	1,620	785	116	21
2	10	17	6	30	38	94	227	1,100	1,850	763	102	18
3	12	16	6	29	38	106	216	1,350	1,920	741	91	16
4	12	16	7	25	42	124	194	1,580	2,190	758	84	14
5	12	16	5.5	31	65	142	189	1,700	2,190	774	77	13
6	12	16										
7	12	16	6.5	31	166	158	194	1,740	1,960	648	75	12
8	12	14	6	25	150	178	187	1,620	1,740	470	72	11
9	12	14	5.5	25	116	196	189	1,500	1,540	409	70	11
10	11	13	5.5	25	104	199	199	1,620	1,350	375	64	10
11	11	12	5.5	26	91	194	243	1,500	1,310	371	58	9.5
12	10	12										
13	9.5	12	4.9	27	91	192	254	1,620	1,060	342	54	9
14	8.5	12	4.9	29	92	189	275	2,140	998	353	51	8.5
15	8.5	12	5	29	116	175	356	2,420	1,100	432	50	8
16	8	12		28	249	160	497	2,720	1,060	356	51	7.5
17	8	12	130	26	169	154	697	2,720	1,200	312	53	7
18	8	12										
19	10	11	144	27	148	154	670	2,570	1,420	296	54	7
20	10	11	49	28	135	169	530	2,420	1,240	260	51	7
21	11	11	36	27	127	160	555	2,100	1,100	229	48	7.5
22	18	11	30	27	119	144	575	1,660	1,310	209	46	7.5
23	18	9	28	26	106	140	708	1,740	1,580	206	45	8.5
24	19	9	27	27	104	136	947	1,960	1,660	211	43	8
25	20	8.5	23	27	108	175	875	2,100	1,740	214	41	8.5
26	19	8	23	27	111	178	692	2,000	1,460	252	38	8.5
27	18	8	23	27	112	169	730	1,960	1,240	606	35	8
28	17	8	24	27	108	160	893	1,920	1,100	428	33	7.5
29	16	7.5	20	26	94	152	917	1,420	998	284	30	7.5
30	16	7.5	21	26	91	150	780	1,780	965	227	27	7
31	15	7	26	27	91	144	586	2,280	965	192	25	7
32	14	7	24	26	-	133	502	2,470	965	167	24	7
33	15	6	25	30	-	140	550	2,140	905	146	23	6.5
34	19	-	26	29	-	160	-	1,540	-	131	21	-
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
October.....							410.0	20	8	13.2	813	
November.....							342.5	19	6	11.4	679	
December.....							758.8	144	4.9	24.5	1,510	
Calendar year 1936.....							146,622.8	2,100	4.9	401	290,800	
January.....							849	31	25	27.4	1,680	
February.....							3,017	249	36	108	5,980	
March.....							4,816	199	21	155	9,550	
April.....							14,631	947	187	488	29,020	
May.....							58,217	2,720	827	1,878	115,500	
June.....							41,716	2,190	905	1,391	82,740	
July.....							11,947	785	131	385	23,700	
August.....							1,652	116	21	53.3	3,280	
September.....							298.5	21	6.5	9.62	572	
Water year 1936-37.....							138,644.8	2,720	4.9	380	275,000	

Merced River at Pohono Bridge, near Yosemite, Calif.

Location.- Water-stage recorder, lat. 37°43'01", long. 119°39'55", 0.4 mile above Artist Creek and 5 miles below Yosemite Lodge, in Yosemite National Park, Mariposa County. Altitude, about 3,870 feet.

Drainage area.- 321 square miles.

Records available.- November 1916 to September 1937.

Average discharge.- 20 years (1917-37), 537 second-feet

Extremes.- Maximum discharge during year, 6,010 second-feet May 15 (gauge height, 10.25 feet); minimum, 20 second-feet Dec. 6-14 (gauge height, 1.00 foot).

1916-37: Maximum discharge, 6,370 second-feet June 5, 1922; minimum, 3.3 second-feet Sept. 29, Oct. 1, 1924.

Remarks.- Records excellent. Discharge for Feb. 18-24, computed on basis of records for station at Happy Isles Bridge near Yosemite. Small diversion above station for Yosemite Valley water supply.

Rating table, water year 1936-37 (gauge height, in feet, and discharge, in second-feet)

1.0	20	2.4	194	3.8	615	7.0	2,640
1.2	33	2.6	236	4.0	695	7.5	3,100
1.4	50	2.8	286	4.5	930	8.0	3,600
1.6	70	3.0	340	5.0	1,200	9.5	4,120
1.8	93	3.2	400	5.5	1,500	9.0	4,670
2.0	122	3.4	465	6.0	1,850	9.5	5,220
2.2	156	3.6	535	6.5	2,230	10.0	5,770

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	34	22	52	63	210	437	1,600	2,880	1,030	167	40
2	24	33	21	53	70	212	500	2,150	3,200	980	149	39
3	26	31	21	56	68	232	476	2,640	3,300	930	135	36
4	27	31	21	53	71	268	415	3,100	3,700	930	125	35
5	27	31	21	56	125	307	403	3,400	3,700	930	118	33
6	27	31	20	60	366	337	427	3,500	3,200	850	110	31
7	27	30	20	52	403	379	400	3,300	2,820	675	106	30
8	26	28	20	50	273	421	400	3,100	2,470	595	101	29
9	26	28	20	51	227	444	406	3,300	2,190	535	96	28
10	25	28	20	56	202	415	496	3,000	2,160	518	88	27
11	25	28	20	57	196	415	518	3,100	1,820	493	85	26
12	24	28	20	58	206	415	555	4,120	1,640	486	80	26
13	24	27	20	57	263	394	695	4,890	1,740	595	77	25
14	22	27	20	58	575	358	930	5,440	1,640	496	76	25
15	22	27	205	57	427	343	1,320	5,440	1,780	437	76	24
16	22	27	519	58	373	340	1,290	5,220	2,110	412	76	24
17	23	27	142	56	329	373	1,060	4,960	1,880	375	74	24
18	25	27	93	59	280	355	1,140	5,230	1,640	332	72	23
19	26	27	74	59	260	318	1,200	3,300	1,820	302	70	23
20	32	26	67	54	250	318	1,440	3,400	2,110	291	68	24
21	32	26	57	52	240	307	1,880	3,800	2,190	289	66	24
22	33	25	54	58	245	309	1,850	3,900	2,310	291	63	24
23	33	25	51	56	260	299	1,500	3,600	1,960	299	60	24
24	32	26	50	57	250	294	1,570	3,700	1,680	655	58	24
25	32	24	50	54	241	278	1,820	3,500	1,470	555	56	24
26	31	23	47	55	214	265	1,880	2,730	1,350	370	53	22
27	30	23	57	56	206	273	1,680	3,400	1,290	291	49	22
28	29	22	50	57	208	263	1,260	4,230	1,260	248	46	22
29	29	22	50	58	-	265	1,080	4,450	1,260	223	45	22
30	29	22	50	57	-	289	1,140	3,900	1,170	202	43	22
31	34	-	52	55	-	354	-	2,820	-	184	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	850	34	22	27.4	1,690
November.....	813	34	22	27.1	1,610
December.....	1,954	519	20	63.0	3,880
Calendar year 1936.....	254,784	4,010	20	696	506,500
January.....	1,727	60	50	55.7	3,430
February.....	6,901	575	63	246	13,690
March.....	10,030	444	210	324	19,890
April.....	30,168	1,880	400	1,006	59,840
May.....	113,450	5,440	1,600	3,660	228,000
June.....	63,870	3,700	1,170	2,122	126,300
July.....	18,777	1,030	184	509	31,290
August.....	2,529	167	41	81.6	5,020
September.....	801	40	22	26.7	1,590
Water year 1936-37.....	248,670	5,440	20	681	493,200



## Merced River at Kittridge, Calif.

Location.- Water-stage recorder, lat. 37°39', long. 120°11', in sec. 26, T. 3 S., R. 16 E., 0.2 mile below Whites Gulch, a quarter of a mile below Kittridge, and 3 miles above Horseshoe Bend. Altitude, about 750 feet.

Drainage area.- 935 square miles.

Records available.- November 1928 to September 1937, November 1922 to November 1928 at site 1½ miles downstream.

Average discharge.- 11 years (1923-27, 1929-30, 1931-37), 1,060 second-feet.

Extremes.- Maximum discharge during year, 33,200 second-feet Feb. 6 (gage height, 22.6 feet, from flood marks); from rating curve extended above 7,500 second-feet on basis of velocity-area studies, and of records of storage increase in Lake McClure; minimum, 47 second-feet Oct. 17.  
1922-37: Maximum discharge, that of Feb. 6, 1937; minimum, 13 second-feet Oct. 5, 1925.

Remarks.- Records good except those for Feb. 6-8, 11-12, 14-15, 21-22, July 9-16, which were computed on basis of range of stage, change in storage in Lake McClure, and records for station at Pohono Bridge are fair. No large diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	124	75	318	456	1,320	2,160	3,000	4,370	1,430	275	86
2	51	111	75	258	672	1,260	2,330	4,040	4,960	1,340	256	84
3	55	100	72	242	612	1,290	2,120	4,720	4,840	1,260	236	82
4	57	91	74	236	643	1,320	1,880	5,680	5,560	1,240	220	79
5	61	88	75	246	6,750	1,370	1,740	6,190	5,680	1,240	208	78
6	61	89	76	301	22,000	1,430	2,080	6,320	4,960	1,180	194	77
7	59	89	75	272	12,000	1,490	1,880	5,930	4,480	1,000	183	75
8	59	88	74	228	2,700	1,550	1,740	5,440	5,930	840	178	74
9	55	84	75	190	1,710	1,590	1,710	5,930	5,400	800	173	71
10	54	84	74	208	1,340	1,520	1,740	5,560	5,400	750	164	69
11	54	82	75	222	1,180	1,550	1,780	5,200	3,000	700	157	67
12	53	81	73	220	1,460	1,610	1,820	6,980	2,610	650	149	65
13	53	81	72	222	2,410	1,850	2,000	7,990	2,700	600	142	64
14	53	80	75	208	17,000	1,550	2,380	8,920	2,610	710	138	62
15	55	79	139	210	7,100	1,400	3,200	8,920	2,700	600	134	62
16	50	79	1,920	280	3,400	1,400	3,300	8,440	3,000	580	134	60
17	49	80	792	255	2,520	1,620	2,800	7,840	3,000	548	134	58
18	58	80	362	244	2,080	2,000	2,800	6,980	2,520	500	131	56
19	74	80	250	258	1,820	1,740	2,900	5,560	2,520	455	128	56
20	89	79	208	224	1,520	1,610	3,100	5,560	2,900	426	122	56
21	84	79	190	194	1,400	1,550	3,930	6,080	3,000	412	117	59
22	80	77	164	201	1,370	2,800	4,150	6,320	3,100	412	114	61
23	79	77	153	208	1,340	2,700	3,400	6,190	2,800	398	111	61
24	76	77	146	204	1,400	3,710	3,500	5,800	2,580	516	111	61
25	73	76	159	199	2,300	3,710	3,710	6,190	2,080	750	106	61
26	74	76	159	190	1,780	2,900	4,040	4,480	1,880	548	103	60
27	74	75	509	197	1,520	2,700	3,710	5,200	1,740	440	98	58
28	73	74	449	345	1,400	2,380	3,000	6,450	1,710	384	94	57
29	72	74	304	872	-	2,340	2,480	6,980	1,740	345	90	56
30	73	74	272	772	-	2,200	2,380	6,320	1,610	319	88	56
31	96	-	427	652	-	2,160	-	4,600	-	296	88	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						2,000	96	49	64.5	3,970		
November.....						2,507	124	74	85.6	4,970		
December.....						7,653	1,920	72	246	15,140		
Calendar year 1936.....						550,440	10,600	49	1,504	1,092,000		
January.....						8,676	772	190	280	17,210		
February.....						101,883	22,000	456	3,639	202,100		
March.....						59,510	3,710	1,260	1,920	118,000		
April.....						79,610	4,150	1,710	2,684	157,900		
May.....						189,790	8,920	3,000	6,122	376,400		
June.....						95,180	5,680	1,610	3,173	188,500		
July.....						21,669	1,430	296	699	42,980		
August.....						4,576	275	88	148	9,080		
September.....						1,971	86	56	65.7	3,910		
Water year 1936-37.....						575,005	22,000	49	1,575	1,140,000		

## Lake McClure at Exchequer, Calif.

Location.- Staff gage, lat. 37°35', long. 120°16', in SW¼ sec. 13, T. 4 S., R. 15 E., at Exchequer Dam on Merced River 5 miles northeast of Merced Falls. Zero of gage is at mean sea level.

Drainage area.- 1,020 square miles.

Records available.- April 1926 to September 1937.

Remarks.- This is main storage unit for Merced Irrigation District. Elevation of crest of dam is 714.0 feet, of top of spillway gate 707.0 feet, and of spillway 693.0 feet above mean sea level. Released water passes through power house at dam and down Merced River to diversion dam below Merced Falls, where it enters main irrigation canal. Gage-height record furnished by Merced Irrigation District.

Gage height, in feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	602.1	583.4	585.7	600.0	612.8	690.0	687.3	694.5	699.6	707.0	678.7	632.5
2	600.7	583.6	585.8	600.5	612.4	689.8	687.6	694.9	699.4	706.6	677.3	630.9
3	599.3	583.7	585.8	601.0	611.9	689.6	687.7	694.8	699.4	706.4	675.9	629.2
4	597.9	583.8	585.9	601.5	611.7	689.4	687.6	695.2	700.1	706.0	674.5	627.7
5	596.5	583.9	585.9	602.1	623.7	689.3	687.3	695.7	701.3	705.6	673.1	626.0
6	595.1	584.0	586.0	602.6	652.7	689.2	687.4	696.5	702.1	705.1	671.7	624.4
7	593.7	584.1	586.0	603.1	650.7	689.2	687.2	696.9	702.6	704.5	670.3	622.9
8	592.3	584.2	586.1	603.5	652.6	689.2	687.0	696.9	703.0	703.8	668.9	621.2
9	590.8	584.3	586.1	603.8	653.2	689.2	686.9	697.2	703.4	703.1	667.5	619.7
10	589.3	584.3	586.2	604.1	653.4	689.2	687.1	697.2	703.7	702.3	666.0	618.1
11	587.8	584.4	586.3	604.6	653.5	689.2	687.3	696.9	703.9	701.5	664.6	616.6
12	586.3	584.5	586.3	605.0	653.8	689.9	687.6	697.9	704.1	700.7	663.1	615.0
13	585.0	584.6	586.4	605.2	659.0	687.8	688.0	699.8	704.6	699.9	661.7	613.6
14	583.6	584.7	586.4	605.6	655.4	687.2	688.8	702.3	705.0	699.1	660.2	612.0
15	582.2	584.8	586.8	606.0	659.6	687.1	690.1	704.3	705.6	698.2	658.7	610.5
16	582.1	584.8	590.3	606.5	691.3	687.0	691.5	705.5	706.4	697.3	657.1	609.0
17	582.1	584.9	591.9	606.9	692.2	687.0	692.6	706.3	707.1	696.3	655.7	607.5
18	582.1	585.0	592.5	607.2	692.8	687.6	693.6	706.5	707.2	695.2	654.1	606.0
19	582.2	585.1	593.0	607.6	693.1	687.9	694.0	705.4	707.2	694.2	652.6	604.5
20	582.3	585.1	593.3	608.0	693.1	688.0	693.0	704.4	707.4	693.1	651.1	603.0
21	582.4	585.2	593.6	608.4	693.1	688.1	692.4	704.0	707.3	691.9	649.5	601.5
22	582.5	585.3	593.9	608.6	693.0	688.7	691.8	703.9	707.3	690.7	648.0	600.0
23	582.6	585.3	594.1	609.0	692.9	688.0	693.0	703.6	707.4	689.5	646.4	598.6
24	582.7	585.4	594.3	609.3	692.3	688.6	693.5	703.0	707.5	688.4	644.9	597.1
25	582.7	585.4	594.6	609.6	692.0	688.5	694.0	702.9	707.6	687.5	643.5	595.7
26	582.8	585.5	594.8	609.9	691.1	687.7	694.5	701.7	707.6	686.4	642.0	594.4
27	582.9	585.5	595.9	610.2	690.3	686.9	694.6	700.9	707.5	685.3	640.4	593.0
28	583.0	585.6	596.9	610.8	690.1	686.6	694.2	701.1	707.4	684.0	639.9	591.6
29	583.0	585.6	597.4	612.1	-	687.0	694.1	701.9	707.4	682.7	637.3	590.3
30	583.1	585.7	598.9	613.0	-	687.1	694.1	702.0	707.2	681.4	635.7	588.9
31	583.2	-	599.6	613.5	-	687.3	-	700.8	-	680.0	634.0	-

## Merced River at Exchequer, Calif.

Location.- Water-stage recorder, lat.  $37^{\circ}35'$ , long.  $120^{\circ}17'$ , about on line between secs. 14 and 23, T. 4 S., R. 15 E., at Exchequer, half a mile below Lake McClure, 0.7 mile below Cotton Creek, and 5 miles northeast of Merced Falls. Altitude, about 400 feet.

Drainage area.- 1,035 square miles.

Records available.- October 1922 to September 1937. November 1915 to October 1922 at site 1 mile upstream.

Average discharge.- 21 years (1916-37), 1,114 second-feet: affected by storage in Lake McClure since Apr. 20, 1926.

Extremes.- Maximum discharge during year, 7,690 second-feet May 16 (gage height, 9.23 feet); minimum, 18 second-feet Jan. 29.

1915-37: Maximum discharge, about 22,000 second-feet Jan. 17, 1916 (gage height, 20.0 feet, former site and datum): minimum, 5 second-feet Jan. 5, 1935.

Remarks.- Records excellent. No large diversions. See records for Lake McClure, which stores water above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.0	19	1.0	172	2.0	480	4.0	1,690	6.5	4,040
.2	38	1.2	220	2.4	655	4.5	2,090	7.0	4,640
.4	64	1.4	274	2.8	875	5.0	2,520	7.7	5,530
.6	94	1.6	336	3.2	1,130	5.5	2,980	8.5	6,640
.8	130	1.8	402	3.6	1,410	6.0	3,480	9.1	7,540

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	875	38	39	31	1,050	1,520	2,170	2,520	6,080	1,910	1,770	1,500
2	875	39	40	31	1,070	1,520	2,170	3,700	5,140	1,810	1,770	1,500
3	845	39	40	31	1,060	1,550	2,170	5,010	5,010	1,770	1,770	1,500
4	845	39	40	31	1,050	1,580	2,170	5,530	4,760	1,770	1,730	1,270
5	815	39	40	31	1,100	1,550	2,170	5,800	4,280	1,770	1,690	1,240
6	815	39	40	31	1,200	1,550	2,170	5,660	4,040	1,770	1,690	1,240
7	815	39	40	31	1,220	1,550	2,170	5,660	3,920	1,730	1,620	1,200
8	815	38	40	31	1,230	1,550	2,170	5,660	3,480	1,730	1,620	1,200
9	815	38	39	31	1,110	1,550	1,950	5,800	2,980	1,690	1,620	1,160
10	815	38	39	31	1,230	1,550	1,580	5,800	2,880	1,690	1,620	1,130
11	815	38	39	31	1,210	1,550	1,580	5,800	2,700	1,730	1,620	1,100
12	788	38	40	31	1,230	2,340	1,580	5,940	2,540	1,730	1,580	1,060
13	705	38	40	31	1,240	3,190	1,580	6,080	2,170	1,730	1,580	1,060
14	705	38	40	31	1,280	2,050	1,580	6,220	2,010	1,730	1,580	1,000
15	705	38	42	40	1,580	1,550	1,550	6,940	1,890	1,730	1,580	1,000
16	102	38	42	43	1,550	1,550	1,550	7,540	1,690	1,730	1,580	1,000
17	55	38	42	38	1,550	1,550	1,550	7,540	2,090	1,770	1,520	968
18	38	40	42	31	1,550	1,550	1,620	7,540	2,520	1,770	1,520	935
19	38	37	40	31	1,550	1,550	2,420	7,390	2,520	1,770	1,520	935
20	38	38	40	31	1,550	1,550	4,400	7,240	2,700	1,770	1,520	935
21	38	38	40	32	1,550	1,690	4,760	6,940	3,080	1,770	1,520	905
22	38	38	40	32	1,550	3,440	4,880	7,060	3,080	1,810	1,440	905
23	38	38	40	32	1,550	4,040	1,690	6,940	2,790	1,810	1,440	845
24	38	38	40	30	2,210	4,160	2,700	6,940	2,250	1,810	1,410	845
25	38	93	40	32	3,180	4,520	3,080	6,640	2,010	1,810	1,380	815
26	38	40	40	32	3,180	4,160	3,480	6,500	1,970	1,810	1,380	788
27	38	38	42	52	2,440	3,920	3,810	6,500	1,890	1,810	1,380	760
28	38	38	37	49	1,690	2,820	3,700	6,500	1,810	1,810	1,380	732
29	38	38	31	45	-	2,170	2,790	6,500	1,810	1,810	1,380	732
30	39	45	31	516	-	2,170	2,340	6,500	1,810	1,810	1,380	732
31	39	-	31	514	-	2,170	-	6,500	-	1,810	1,380	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					12,739	275	38	411	25,270			
November.....					1,211	93	37	40.4	2,400			
December.....					1,216	42	31	39.2	2,410			
Calendar year 1936.....					579,865	13,200	23	1,584	1,150,000			
January.....					2,014	516	30	65.0	3,990			
February.....					42,960	3,180	1,050	1,534	85,210			
March.....					69,030	4,520	1,520	2,227	136,900			
April.....					73,630	4,890	1,550	2,454	145,000			
May.....					192,920	7,540	2,520	6,223	382,700			
June.....					87,900	6,080	1,810	2,930	174,300			
July.....					54,870	1,810	1,690	1,770	108,800			
August.....					47,970	1,770	1,390	1,547	95,150			
September.....					30,392	1,500	732	1,013	60,280			
Water year 1936-37.....					616,852	7,540	30	1,690	1,223,000			

## Merced River near Livingston, Calif.

Location.- Water-stage recorder, lat. 37°23'29", long. 120°47'10", in SE¼ sec. 20, T. 6 S., R. 11 E., 3½ miles west of Livingston. Altitude, about 82 feet.

Records available.- March 1922 to September 1924, October 1925 to September 1937.

Average discharge.- 12 years (1925-37), 536 second-feet.

Extremes.- Maximum discharge during year, 5,480 second-feet May 18 (gage height, 14.10 feet); minimum, 134 second-feet Dec. 1.

1922-24; 1925-37: Maximum discharge, 9,560 second-feet Feb. 24, 1936 (gage height, 19.24 feet); minimum discharge observed, 18 second-feet Aug. 30, 1924.

Remarks.- Records good. Practically entire flow diverted above station during irrigation season; return water enters above station. Storage at Lake McClure. Gage-height record furnished by Merced Irrigation District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	163	154	179	662	1,860	2,340	1,740	4,520	375	254	218
2	246	154	139	180	950	1,700	2,380	1,900	4,160	364	276	222
3	258	151	137	168	1,140	1,700	2,380	2,810	3,420	354	240	231
4	276	150	139	162	1,100	1,700	2,340	3,720	3,250	354	236	240
5	256	147	137	158	1,270	1,660	2,340	4,220	2,990	364	223	254
6	248	146	137	160	2,820	1,660	2,420	4,340	2,600	334	223	257
7	254	144	137	172	3,580	1,660	2,500	4,280	2,420	324	236	257
8	252	144	137	195	1,820	1,660	2,340	4,280	2,320	314	246	240
9	250	144	139	177	1,560	1,660	2,180	4,340	1,910	294	229	229
10	244	144	139	166	1,340	1,660	1,780	4,340	1,570	261	189	225
11	240	144	140	166	1,420	1,660	1,480	4,340	1,500	280	177	198
12	234	144	141	169	1,520	1,740	1,420	4,280	1,290	280	182	222
13	228	144	141	185	1,520	3,240	1,380	4,280	1,040	254	174	229
14	224	143	141	171	2,420	3,170	1,380	4,280	862	233	171	205
15	218	143	147	160	2,960	2,290	1,380	4,400	752	222	214	181
16	216	144	154	151	2,020	1,820	1,340	4,960	635	216	223	188
17	220	145	153	144	1,860	1,780	1,310	5,410	609	229	213	188
18	236	151	151	139	1,790	1,740	1,310	5,490	661	232	188	188
19	202	177	147	137	1,740	1,740	1,280	5,410	918	252	177	225
20	183	158	146	144	1,700	1,700	1,900	5,280	978	218	172	252
21	168	148	141	160	1,700	1,700	3,210	5,150	1,160	205	176	238
22	163	143	140	156	1,660	2,440	3,510	4,960	1,430	209	202	250
23	163	140	157	151	1,660	4,220	3,320	4,960	1,430	227	213	250
24	157	139	177	148	1,660	4,220	1,420	4,960	1,160	220	200	248
25	156	139	160	147	2,400	4,960	1,820	4,960	862	252	181	250
26	156	137	151	146	3,160	4,700	2,100	4,700	674	294	166	250
27	153	137	160	144	3,060	4,280	2,540	4,520	595	227	182	254
28	150	136	169	144	2,420	3,940	2,840	4,520	512	214	189	235
29	148	136	166	153	-	2,930	2,750	4,520	441	205	213	216
30	148	136	171	224	-	2,500	2,140	4,520	408	196	220	222
31	168	-	175	538	-	2,380	-	4,520	-	213	220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	6,434	276	148	208	12,760
November.....	4,369	177	136	146	8,670
December.....	4,603	177	134	148	9,130
Calendar year 1936.....	383,177	9,000	128	1,047	760,000
January.....	5,394	538	137	174	10,700
February.....	52,802	3,580	662	1,886	104,700
March.....	76,070	4,960	1,660	2,454	150,900
April.....	62,830	3,510	1,280	2,094	124,600
May.....	136,380	5,490	1,740	4,399	270,500
June.....	47,078	4,520	408	1,569	93,380
July.....	8,236	375	196	266	16,340
August.....	6,405	276	166	207	12,700
September.....	6,862	257	151	229	13,610
Water year 1936-37.....	417,463	5,480	134	1,144	828,000

## Tenaya Creek near Yosemite, Calif.

Location.- Water-stage recorder, lat. 37°44'33", long. 119°33'25", in Yosemite National Park, at Tenaya bridge, 0.7 mile above junction with Merced River and 1.9 miles east of Yosemite Lodge. Mariposa County. Altitude, about 4,000 feet.

Drainage area.- 47 square miles.

Records available.- July 1904 to June 1909, January 1912 to September 1937.

Average discharge.- 24 years (1913-37), 101 second-feet.

Extremes.- Maximum discharge during year, 1,310 second-feet May 14 (gage height, 5.80

feet); minimum, 0.9 second-foot Dec. 1-13 and part of Dec. 14.

1904-9; 1912-37: Maximum discharge, 1,730 second-feet May 28, 1919 (gage height, 7.05 feet); minimum, 0.6 second-foot Dec. 18-22, 1929.

Remarks.- Records good. No diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	1.5	0.9	6	8.5	35	87	289	607	98	11	4.4
2	2.1	1.5	.9	6	9.5	36	97	399	646	86	11	4.2
3	2.1	1.4	.9	6	9	39	85	501	686	78	10	4.2
4	2.1	1.4	.9	6.5	11	45	73	607	746	70	9	4.2
5	1.9	1.4	.9	7.5	22	51	72	666	686	64	8	4.2
6	1.9	1.4	.9	8	66	57	77	666	607	59	8	4.0
7	1.9	1.3	.9	8	80	64	71	626	535	52	7.5	4.0
8	1.9	1.3	.9	7.5	57	72	70	626	469	47	7	3.9
9	1.8	1.3	.9	7.5	46	74	70	646	435	42	6.5	3.9
10	1.8	1.3	.9	7.5	39	70	85	588	392	38	6.5	3.7
11	1.7	1.3	.9	7.5	36	70	90	626	340	36	6	3.6
12	1.7	1.3	.9	7.5	36	72	97	830	322	37	6	3.4
13	1.7	1.2	.9	7.5	51	71	128	977	300	40	5.5	3.4
14	1.7	1.2	1.0	7.5	110	65	178	1,060	287	33	5.5	3.2
15	1.7	1.2	.52	7.5	83	61	241	1,040	294	30	5.5	3.1
16	1.7	1.2	89	8	71	60	224	977	322	26	4.9	3.1
17	1.7	1.1	24	7.5	60	65	199	914	287	25	4.7	2.9
18	1.7	1.1	16	8	53	64	241	788	266	23	4.7	2.8
19	1.7	1.1	11	8	49	59	271	626	271	20	4.6	2.8
20	1.7	1.1	9	7.5	41	61	340	686	276	18	4.6	2.6
21	1.7	1.1	8	7	39	57	440	746	279	17	4.6	2.5
22	1.6	1.1	7	7.5	39	55	454	767	274	16	4.6	2.4
23	1.6	1.0	6	7.5	39	51	437	746	244	19	4.6	2.4
24	1.6	1.0	6	7.5	41	51	396	726	212	25	4.6	2.2
25	1.6	1.0	6	7.5	42	49	392	666	188	20	4.6	2.1
26	1.6	1.0	6	7.5	39	47	369	569	162	19	4.6	2.0
27	1.6	1.0	7.5	7.5	36	48	310	746	144	17	4.4	2.0
28	1.6	1.0	6	8	36	47	229	872	140	15	4.4	1.9
29	1.6	1.0	5.5	8	-	47	188	872	129	14	4.6	1.8
30	1.5	1.0	6	8	-	53	197	746	113	13	4.4	1.6
31	1.5	-	6.5	7.5	-	65	-	588	-	12	4.4	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						54.1	2.1	1.5	1.75		107	
November.....						35.8	1.5	1.0	1.19		71	
December.....						264.2	89	.9	8.52		524	
Calendar year 1936.....						47,136.4	851	.9	129		93,490	
January.....						230.5	8	6	7.44		457	
February.....						1,249.0	110	8.5	44.6		2,480	
March.....						1,761	74	35	56.3		3,490	
April.....						6,208	454	70	207		12,310	
May.....						22,132	1,060	239	716		44,000	
June.....						10,657	746	113	355		21,140	
July.....						1,109	98	12	35.8		2,200	
August.....						186.3	11	4.4	6.01		370	
September.....						92.5	4.4	1.6	3.08		183	
Water year 1936-37.....						44,029.4	1,060	.9	121		87,330	

## Orestimba Creek near Newman, Calif.

Location.- Water-stage recorder, lat. 37°19'09", long. 121°07'14", in NW¼ sec. 20, T. 7 S., R. 8 E., 3 miles below Oso Creek, at highway bridge 5 miles west of Newman. Altitude, about 190 feet.

Records available.- January 1932 to September 1937.

Extremes.- Maximum discharge during year, 2,180 second-feet Feb. 13 (gage height, 4.28 feet); no flow for several months.

1932-37: Maximum discharge, 5,440 second-feet Feb. 8, 1932 (gage height, 5.15 feet); no flow for several months each year.

Remarks.- Records good. No large diversions.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.4	0	1.0	6.5	2.0	200
.5	.1	1.1	11	2.2	275
.6	.2	1.2	18	2.4	370
.7	.3	1.4	44	2.6	490
.8	1.5	1.6	97	2.8	615
.9	3.2	1.8	138	3.0	770

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	17	10	41	5.5				
2				0	45	9.5	34	4.5				
3				0	28		28	3.5				
4				0	14	8	25	3.0				
5				0	376	7.5	23	2.7				
6				0	551	6.5	22	2.4				
7				0	270	6	20	2.2				
8				0	100	6	18	2.2				
9				0	50	5	17	2.4				
10				0	30	5	16	2.9				
11				0	26	5.5	14	2.7				
12				0	38	65	13	2.5				
13				0	452	197	12	2.4				
14				0	774	120	12	2.2				
15				0	190	71	11	2.2				
16				0	100	62	10	2.0				
17				0	62	44	9.5	1.8				
18				0	44	36	9	1.8				
19				0	31	26	8.5	1.7				
20				0	26	26	8	1.5				
21				0	20	313	7.5	1.4				
22				0	17	768	6	1.0				
23				0	15	235	5.5	.7				
24				0	14	247	5	.4				
25				0	17	228	5	.2				
26				0	15	159	5	.1				
27				0	12	122	6	.1				
28				0	11	97	7.5	0				
29				0	-	71	9	0				
30				49	-	56	6	0				
31				75	-	46	-	0				
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						0	0	0	0	0		
Calendar year 1936.....						4,694.1	630	0	12.8	9,310		
January.....						124	75	0	4.00	246		
February.....						3,345	774	11	119	6,630		
March.....						3,067.0	768	5	98.9	6,080		
April.....						413.5	41	5	13.8	820		
May.....						56.0	5.5	0	1.81	111		
June.....						0	0	0	0	0		
July.....						0	0	0	0	0		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						7,005.5	774	0	19.2	13,390		

## Hetch Hetchy Reservoir at Hetch Hetchy, Calif.

Location.— Staff gage, lat. 37°57', long. 119°47', at O'Shaughnessy Dam, in sec. 16, T. 1 N., R. 20 E., on Tuolumne River at Hetch Hetchy.

Records available.— May 1923 to September 1937 (gage heights only, 1923-30).

Remarks.— This reservoir is main storage unit of Hetch Hetchy water-supply system for San Francisco. Crest of dam has been raised from 3,726.5 feet to 3,812.0 feet above mean sea level. Work of construction not completed Sept. 30, 1937. Released water flows down natural channel of Tuolumne River for 15 miles to Early intake, where it is diverted through Hetch Hetchy Aqueduct to Moccasin Creek power plant. At Moccasin Creek diversion dam water again enters Hetch Hetchy Aqueduct and is discharged into Crystal Springs Reservoir, which supplies city of San Francisco. Surplus water is wasted into Don Pedro Reservoir at Red Mountain Bar. Table shows total contents, all of which is available for release. Staff gage read once daily Dec. 3, 1935, to Sept. 30, 1937; water-stage recorder removed while dam was being raised.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	141,200	107,530	75,440	43,280	15,550	22,820	20,420	67,360	135,900	187,520	202,050	172,630
2	140,120	106,630	74,390	42,400	14,730	22,360	21,100	70,640	134,860	190,560	201,420	171,600
3	139,040	105,740	73,330	41,520	13,990	22,000	21,780	75,060	140,260	193,200	200,630	170,580
4	137,830	104,730	72,180	40,730	13,190	21,850	22,080	81,000	148,860	198,990	199,540	169,380
5	136,620	103,720	70,930	39,940	12,720	21,780	22,300	86,200	158,940	199,570	199,050	168,190
6	135,540	102,710	69,590	39,160	13,590	21,850	22,520	92,170	167,900	201,100	198,260	167,160
7	134,590	101,590	68,340	38,310	18,020	21,920	22,750	94,800	175,150	203,000	197,470	166,270
8	133,510	100,470	67,090	37,290	18,860	22,150	22,900	95,840	181,540	204,420	196,520	165,230
9	132,440	99,460	65,950	36,360	19,380	22,380	23,060	96,160	182,140	204,100	195,410	164,200
10	131,290	98,460	64,720	35,420	18,920	22,680	23,790	96,480	181,540	204,420	194,470	163,160
11	130,140	97,340	63,480	34,480	18,550	22,750	24,680	95,950	180,170	204,420	193,520	162,120
12	129,120	96,260	62,240	33,550	18,400	22,820	25,740	97,220	177,740	204,420	192,570	160,940
13	128,090	95,320	60,920	32,620	18,250	23,060	27,440	100,920	175,300	204,890	191,460	159,920
14	126,940	94,270	59,680	31,680	21,020	23,060	27,840	106,860	172,630	205,370	190,360	158,940
15	125,790	93,220	58,350	30,760	23,060	22,980	29,780	114,050	171,600	205,680	189,440	157,960
16	124,640	92,060	56,440	29,870	23,950	22,820	32,360	119,550	171,150	205,840	188,530	156,980
17	123,100	91,020	55,820	28,980	24,280	22,680	35,080	124,250	171,890	205,840	187,770	155,000
18	122,080	89,960	54,260	28,080	24,440	22,900	36,610	127,320	170,410	205,680	186,860	154,880
19	120,920	88,810	52,130	27,110	24,600	22,980	37,630	127,450	169,080	205,530	185,940	153,760
20	119,900	87,660	50,400	26,140	24,600	22,750	39,680	126,170	169,380	205,370	185,030	152,780
21	119,080	86,400	55,310	25,170	24,360	22,520	42,840	125,790	170,410	205,210	183,970	151,940
22	118,030	85,300	54,120	24,200	24,200	22,300	46,190	126,940	172,190	204,890	182,900	150,960
23	116,980	84,200	52,940	23,220	24,120	22,000	48,660	128,990	173,820	204,680	181,990	149,980
24	116,040	83,200	51,760	22,300	24,200	21,780	50,120	130,270	173,820	204,580	180,930	149,000
25	114,990	82,100	50,480	21,400	24,200	21,580	53,490	131,800	172,480	204,740	180,020	148,020
26	114,050	81,000	49,210	20,580	23,950	21,320	56,670	131,680	172,190	204,740	178,950	147,040
27	112,880	79,900	48,040	19,680	23,710	21,100	59,870	129,760	174,410	204,740	177,890	145,800
28	111,830	78,800	47,070	18,850	23,300	20,800	62,340	131,040	177,280	204,420	176,820	144,720
29	110,770	77,700	46,100	18,020	-	20,500	64,050	134,860	180,320	204,100	175,610	143,770
30	109,720	76,600	45,130	17,200	-	20,350	65,380	138,100	184,270	203,470	174,700	142,820
31	108,670	-	44,160	16,380	-	20,350	-	137,960	-	202,680	173,520	-

## Tuolumne River near Hetch Hetchy, Calif.

Location.- Water-stage recorder, lat. 37°56', long. 119°48', in SE¼ sec. 17, T. 1 N., R. 20 E., in Yosemite National Park, three-quarters of a mile below O'Shaughnessy Dam at Hetch Hetchy. Altitude, about 3,450 feet.

Drainage area.- 462 square miles.

Records available.- December 1914 to September 1937.

Average discharge.- 22 years (1915-37), 911 second-feet.

Extremes.- Maximum discharge during year, 5,690 second-feet May 30 (gage height, 11.25 feet); minimum, 15 second-feet Mar. 4, 1915-37: Maximum discharge, 12,000 second-feet June 16, 1929 (gage height, 13.58 feet); minimum, 1.2 second-feet Jan. 18, 1931.

Remarks.- Records excellent. Discharge for Feb. 14 to Mar. 3 computed on basis of records of flow over O'Shaughnessy Dam. No diversions. See record for Hetch Hetchy Reservoir in which water above station is stored.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	615	565	590	590	565	590	590	460	5,290	590	565	520
2	615	520	602	590	565	590	578	440	3,540	578	540	552
3	615	540	615	565	565	630	565	450	1,540	578	565	602
4	590	590	628	530	590	576	565	1,000	1,600	590	578	602
5	565	590	715	520	602	640	565	1,360	1,640	590	565	578
6	565	590	670	520	760	590	530	2,400	1,680	530	578	530
7	590	565	640	578	510	602	510	3,290	1,710	490	602	510
8	602	578	640	615	552	615	490	3,870	3,120	923	615	510
9	615	578	655	590	552	615	440	3,870	4,350	994	602	540
10	615	565	670	590	540	615	321	3,870	4,350	950	615	565
11	590	565	685	575	552	615	265	3,870	4,350	830	628	565
12	578	590	700	578	602	615	370	3,870	4,350	590	615	540
13	602	602	670	565	640	602	490	4,190	4,190	602	615	520
14	615	602	640	565	585	602	578	4,350	4,190	602	602	530
15	615	615	578	565	470	602	615	4,710	4,190	602	565	530
16	615	628	520	552	400	602	552	4,890	4,190	602	530	552
17	615	615	565	552	400	602	500	4,890	4,190	615	540	590
18	590	640	590	552	420	590	460	5,090	4,190	615	552	590
19	540	615	628	578	450	602	420	5,090	4,190	565	565	540
20	540	615	628	565	490	640	430	4,890	4,190	540	578	490
21	578	615	615	565	500	640	490	4,890	4,190	578	640	510
22	602	615	640	565	510	628	540	5,090	4,350	615	578	520
23	590	602	628	578	490	628	540	5,290	4,350	640	552	530
24	590	590	655	578	490	615	552	5,490	4,190	685	565	540
25	590	602	670	565	630	590	565	5,490	3,520	655	565	565
26	590	615	640	565	610	590	578	5,490	1,950	565	578	552
27	590	615	602	578	600	590	590	5,490	1,260	590	602	520
28	590	615	602	565	590	590	552	5,490	1,330	615	615	530
29	578	615	615	565	-	590	510	5,490	698	615	590	520
30	590	590	602	565	-	532	470	5,690	628	602	552	610
31	602	-	602	565	-	590	-	5,490	-	602	530	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						18,377	615	540	593	36,450		
November.....						17,842	640	520	595	35,390		
December.....						19,500	715	520	629	35,680		
Calendar year 1936.....						441,972	7,310	135	1,208	876,600		
January.....1936.....						17,592	615	520	567	34,990		
February.....						15,330	760	400	548	30,410		
March.....						18,718	640	532	604	37,130		
April.....						15,221	615	265	507	30,190		
May.....						126,240	5,690	440	4,072	250,400		
June.....						97,206	5,290	628	3,240	192,500		
July.....						19,738	994	490	637	39,150		
August.....						17,982	640	530	580	35,670		
September.....						16,243	602	480	541	32,220		
Water year 1936-37.....						399,989	5,690	265	1,096	793,400		



## TUOLUMNE RIVER BASIN

Don Pedro Reservoir near La Grange, Calif.

Location.- Staff gage, lat. 37°42'48", long. 120°24'14", in SW $\frac{1}{4}$  sec. 35, T. 2 S., R. 14 E., at Don Pedro Dam on Tuolumne River, 1 mile below Rogers Creek and 5.5 miles above La Grange.

Records available.- October 1924 to September 1937 (gage heights only, 1924-30).

Remarks.- This is a joint storage reservoir for Turlock and Modesto Irrigation Districts. Elevation of crest of dam is 613.5 feet above mean sea level. Water released from reservoir passes through power plant at Don Pedro Dam and is diverted into Turlock and Modesto Canals at La Grange Dam, 4 miles downstream. Table shows total contents, but storage below 30,000 acre-feet is seldom used. Record of daily elevation furnished by Turlock and Modesto Irrigation Districts.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123,000	99,800	70,800	57,900	82,000	214,800	256,300	219,900	266,400	282,000	241,000	172,800
2	121,900	98,700	69,500	58,500	82,600	215,100	256,300	217,600	266,100	280,100	238,000	170,500
3	120,900	98,400	67,100	58,500	83,400	217,300	257,200	217,300	264,200	278,200	236,500	168,200
4	120,100	98,100	65,500	58,600	83,400	220,200	256,900	218,800	262,100	276,700	234,800	166,200
5	118,600	97,900	64,500	59,000	91,700	223,100	255,400	217,100	264,800	274,500	233,000	163,900
6	117,700	97,700	62,800	59,700	118,200	226,300	255,400	226,900	266,400	272,900	231,500	160,900
7	116,900	97,700	61,100	60,400	158,700	229,500	255,400	232,800	267,000	272,300	229,500	158,200
8	116,000	97,600	59,500	60,600	167,800	232,100	254,800	239,500	268,900	271,300	227,500	156,000
9	115,400	96,500	58,500	60,700	171,800	235,600	253,800	250,200	272,900	270,700	225,100	153,800
10	114,700	96,300	57,100	61,400	173,100	239,500	252,300	255,100	278,900	271,000	222,800	151,100
11	113,700	96,100	56,600	62,200	173,800	241,300	250,200	260,500	284,200	271,000	220,800	148,600
12	112,200	95,700	55,700	62,600	174,300	241,900	247,800	266,100	288,600	270,100	219,100	146,200
13	111,400	94,800	54,300	63,400	174,900	245,700	245,400	268,200	292,100	269,500	217,300	143,400
14	110,600	93,800	52,700	64,100	196,500	245,700	243,600	269,200	291,800	268,600	215,100	140,500
15	109,500	92,400	51,600	64,500	219,600	243,900	242,700	269,800	291,500	267,500	212,500	137,900
16	108,900	90,900	52,800	65,100	227,500	241,900	243,900	269,500	291,200	266,100	209,700	135,600
17	108,100	89,500	56,500	65,800	227,500	240,400	244,500	268,900	291,800	264,800	207,700	133,000
18	107,300	88,300	57,000	67,100	225,400	238,300	243,600	268,600	289,300	263,500	205,700	130,000
19	105,700	87,200	56,800	68,100	222,800	241,300	241,300	267,600	286,400	260,800	203,200	127,500
20	105,300	85,800	56,600	68,600	220,800	242,700	238,900	267,000	285,600	259,900	201,000	123,700
21	104,500	84,600	55,900	69,500	219,900	242,200	237,700	267,000	284,400	258,700	199,000	121,000
22	104,000	83,600	55,900	69,900	219,400	245,700	237,700	267,600	277,600	257,200	196,800	118,600
23	103,400	82,000	55,700	70,800	218,800	248,700	237,700	268,200	277,000	256,500	194,100	115,800
24	103,000	80,700	55,700	71,500	216,500	250,800	235,900	268,200	279,200	254,800	191,600	113,200
25	102,800	79,600	55,700	72,100	216,800	257,500	234,200	268,200	283,300	252,900	189,200	110,300
26	101,800	78,300	55,400	72,500	217,900	259,300	233,300	267,900	287,000	251,100	187,000	107,700
27	101,500	76,800	55,800	73,200	216,800	259,300	232,400	267,600	288,600	249,600	184,800	104,200
28	100,900	75,400	55,400	73,900	216,300	259,600	231,000	267,900	287,400	248,100	182,700	101,500
29	100,100	73,900	56,700	76,100	-	258,700	228,000	268,600	286,400	246,600	180,300	98,600
30	99,800	72,400	57,000	78,100	-	257,800	226,300	268,200	284,200	244,800	177,700	95,900
31	99,800	-	57,400	81,000	-	256,900	-	267,600	-	243,300	175,100	-

Tuolumne River above La Grange Dam, near La Grange, Calif.

Location.- Water-stage recorder, lat. 37°42'35", long. 120°24'45", in NE¼ sec. 3, T. 3 S., R. 14 E., half a mile below Don Pedro Dam, 3½ miles above La Grange Dam, and 5 miles above La Grange. Altitude, about 330 feet.

Drainage area.- 1,540 square miles.

Records available.- March 1915 to September 1937, 1895 to 1917 at site at La Grange Dam.

Average discharge.- 21 years (1916-37), 2,115 second-feet; 42 years (1895-1937), using record for 1895-1916 of combined flow of river and canals, 2,525 second-feet.

Extremes.- Maximum discharge during year, 12,700 second-feet May 15 (gage height, 16.3 feet); minimum, 41 second-feet Jan. 9 (result of regulation).  
1915-37: Maximum discharge, 38,100 second-feet Mar. 25, 1928 (gage height, 29.6 feet); minimum, about 0.5 second-foot momentarily, many days in October and November 1931.

On Jan. 31, 1911, there was a maximum discharge of 60,300 second-feet (gage height, 16.45 feet) at former site at La Grange Dam.

Remarks.- Records good. A small amount of water is diverted for irrigation; diversion through Hetch Hetchy Aqueduct to San Francisco began Oct. 19, 1934. See records for Don Pedro Reservoir, Hetch Hetchy Reservoir and Lake Eleanor, which store water above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,130	895	1,550	683	852	2,460	3,750	5,260	8,900	2,750	1,720	1,970
2	1,160	976	1,750	734	1,120	1,130	3,750	5,260	8,600	2,570	1,810	1,950
3	1,100	956	1,490	637	1,200	952	3,750	5,260	7,100	2,320	1,840	1,980
4	1,010	938	1,480	754	1,250	952	3,650	5,390	5,270	2,320	1,830	2,020
5	1,080	929	1,500	761	1,250	946	3,750	5,520	4,630	1,840	1,820	1,860
6	1,100	932	1,390	760	1,160	920	3,650	5,520	4,510	1,840	1,830	1,890
7	1,080	928	1,500	786	1,000	866	3,650	5,520	4,390	1,640	1,820	1,950
8	1,090	866	1,320	794	1,030	928	3,750	5,520	3,710	1,640	1,770	2,000
9	1,090	861	1,270	604	1,230	926	3,750	5,520	4,040	1,650	1,870	2,030
10	1,060	946	1,290	494	1,560	1,480	3,960	5,660	4,040	1,640	1,880	2,020
11	984	892	1,300	586	1,560	2,380	4,640	5,800	4,040	1,560	1,910	2,010
12	1,070	1,210	1,350	574	1,590	2,710	4,760	8,150	4,150	1,650	1,900	1,940
13	1,070	1,340	1,250	560	1,620	3,250	4,640	9,900	5,680	1,640	1,880	2,030
14	1,070	1,350	1,390	557	1,590	3,550	4,640	10,900	6,660	1,640	1,890	2,060
15	1,080	1,270	1,010	565	1,740	3,750	4,640	11,700	6,660	1,650	1,830	2,030
16	1,060	1,350	924	581	3,240	3,650	4,640	11,400	7,100	1,660	1,900	2,060
17	1,040	1,350	939	488	4,070	3,250	4,760	11,200	8,300	1,640	1,920	2,010
18	941	1,350	914	581	4,070	2,710	5,130	10,400	7,850	1,570	1,900	2,030
19	1,020	1,350	904	572	3,850	2,800	5,520	9,520	7,850	1,620	1,940	1,940
20	1,010	1,370	813	605	3,160	2,800	5,520	9,060	7,700	1,660	1,930	2,020
21	992	1,370	898	610	2,300	2,710	5,520	9,360	7,550	1,650	1,930	2,060
22	954	1,300	906	567	2,300	3,450	5,520	9,520	7,100	1,670	1,830	2,020
23	974	1,380	900	568	2,690	3,750	5,520	9,820	5,950	1,660	1,930	2,060
24	983	1,400	904	490	3,250	3,750	5,520	10,300	4,270	1,670	1,950	2,050
25	916	1,400	757	576	3,250	3,750	5,390	10,100	3,400	1,590	1,930	2,080
26	994	1,330	650	579	3,250	3,750	5,660	9,820	3,110	1,660	1,960	2,020
27	975	1,380	792	556	3,160	3,750	5,520	9,520	3,020	1,700	1,940	2,080
28	970	1,430	888	572	2,410	3,650	5,390	9,820	3,110	1,680	1,930	2,060
29	978	1,360	910	548	-	3,750	5,390	10,100	3,110	1,760	1,860	2,070
30	998	1,490	906	548	-	3,750	5,390	9,980	3,110	1,830	1,970	2,090
31	952	-	892	604	-	3,750	-	9,200	-	1,790	2,010	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						31,965	1,160	918	1,031	63,400		
November.....						35,979	1,490	866	1,199	71,560		
December.....						34,889	1,750	757	1,125	69,200		
Calendar year 1936.....						1,055,507	10,400	592	2,878	2,090,000		
January.....						18,893	794	488	609	37,470		
February.....						60,932	4,070	852	2,176	120,900		
March.....						82,220	3,750	868	2,652	163,100		
April.....						141,120	5,660	3,650	4,704	279,900		
May.....						259,990	11,700	5,260	9,387	515,700		
June.....						165,220	8,900	3,020	5,507	327,700		
July.....						55,160	2,750	1,560	1,779	109,400		
August.....						58,430	2,010	1,720	1,885	115,900		
September.....						60,410	2,090	1,860	2,013	119,600		
Water year 1936-37.....						1,005,206	11,700	488	2,754	1,994,000		

## Falls Creek near Hetch Hetchy, Calif.

Location.— Water-stage recorder, lat.  $37^{\circ}58'$ , long.  $119^{\circ}46'$ , in NE $\frac{1}{4}$  sec. 3, T. 1 N., R. 20 E., in Yosemite National Park, a quarter of a mile above Wampana Falls, 1 mile above mouth, and 2 miles northeast of Hetch Hetchy. Altitude, about 5,600 feet.

Drainage area.— 45.2 square miles.

Records available.— November 1915 to September 1937.

Average discharge.— 21 years (1916-37), 132 second-feet.

Extremes.— Maximum discharge during year, 1,100 second-feet May 29 (gage height, 5.35 feet); practically no flow Oct. 1 to Dec. 9.  
1915-37: Maximum discharge, 1,740 second-feet Mar. 25, 1928 (gage height, 6.45 feet); no flow at times during summers of 1921, 1924, 1926, 1928-31, 1933, 1934, 1937.

Remarks.— Records good except those for periods of ice effect, Jan. 7-11, 20-28, which were computed on basis of weather records and records for nearby streams and are fair. No diversions.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.4	0.00	.9	.6	1.8	17.0	2.8	144	3.8	426
.5	.01	1.0	1.2	2.0	29	3.0	190	4.0	494
.6	.02	1.2	2.8	2.2	47	3.2	244	4.4	647
.7	.1	1.4	5.3	2.4	71	3.4	300	4.8	820
.8	.2	1.6	9.5	2.6	104	3.6	362	5.2	1,020

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	39	30	54	127	294	568	280	16	0.8
2			0	34	43	62	148	410	689	258	14	.6
3			0	31	38	74	121	568	798	238	12	.6
4			0	28	42	84	106	689	915	250	11	.4
5			0	29	219	95	99	754	940	255	9.5	.3
6			0	29	327	104	104	754	798	227	8.5	.2
7			0	29	134	115	86	710	732	171	7.5	.2
8			0	30	68	127	86	668	689	144	7	.2
9			0	28	82	119	100	668	606	123	6.5	.2
10			.1	25	68	121	125	587	587	110	6	.1
11			.1	23	62	110	127	549	491	86	5	.1
12			.1	21	76	95	148	775	413	74	4.6	.1
13			.1	20	164	84	183	940	450	77	4.1	.1
14			.1	19	252	74	247	1,020	446	71	3.8	.1
15			57	19	134	71	315	1,020	512	64	3.6	.1
16			183	20	93	77	275	940	689	58	3.6	.1
17			52	19	77	91	244	891	647	52	3.8	.1
18			25	21	71	77	275	798	494	47	3.8	.1
19			16	22	59	64	306	549	512	41	3.4	.1
20			12	20	54	64	349	568	647	36	2.3	.1
21			12	21	56	58	361	689	689	35	3.0	.1
22			10	20	62	63	368	775	754	33	2.6	.1
23			9	18	86	55	356	891	775	31	2.3	.1
24			8.5	17	66	51	356	775	606	37	2.1	.1
25			11	17	59	51	372	915	467	43	1.9	.1
26			13	15	50	51	410	626	364	37	1.7	.1
27			29	15	52	50	388	710	365	33	1.6	.1
28			38	17	49	51	283	915	368	29	1.4	.1
29			33	26	-	59	216	1,020	327	25	1.2	.1
30			37	28	-	74	219	891	333	21	1.1	.1
31			45	31	-	91	-	568	-	18	1.0	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						591.0	183	0	19.1	1,170		
Calendar year 1936.....						66,002.2	965	0	180	130,900		
January.....						731	39	15	23.6	1,450		
February.....						2,573	327	30	91.9	5,100		
March.....						2,416	127	50	77.9	4,790		
April.....						6,920	410	86	231	13,750		
May.....						22,927	1,020	294	740	45,480		
June.....						17,681	940	327	590	35,090		
July.....						3,004	280	18	96.9	5,960		
August.....						156.9	16	1.0	5.06	311		
September.....						5.5	.8	.1	.18	11		
Water year 1936-37.....						57,015.4	1,020	0	156	113,100		

## Cherry Creek near Hetch Hetchy, Calif.

Location.— Water-stage recorder, lat. 38°00', long. 119°54', in SW $\frac{1}{4}$  sec. 28, T. 2 N., R. 19 E., 3 miles by trail northwest from Lake Eleanor, 4 miles above Eleanor Creek, and  $\frac{7}{8}$  miles northwest of Hetch Hetchy. Altitude, about 4,800 feet.

Drainage area.— 111 square miles.

Records available.— April 1910 to September 1937.

Average discharge.— 27 years, 350 second-feet.

Extremes.— Maximum discharge during year, 3,640 second-feet June 16 (gage height, 8.54 feet); minimum, 4.3 second-feet Sept. 10 (gage height, 1.04 feet).  
1910-37: Maximum discharge, about 7,750 second-feet June 16, 1929 (gage height, 13.57 feet); no flow Sept. 6-12, 1910.

Remarks.— Records excellent except those for Jan. 8 to Feb. 7 (computed on basis of records for Falls Creek near Hetch Hetchy), which are fair. No diversions above station. Release from small reservoirs increases normal summer flow.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.0	3.3	2.2	124	3.4	560	5.4	1,500
1.2	8.5	2.4	182	3.8	720	5.8	1,730
1.4	17.0	2.6	248	4.2	900	6.2	1,970
1.6	31	2.8	322	4.6	1,080	6.6	2,220
1.8	52	3.0	400	5.0	1,280	7.0	2,500
2.0	80					7.4	2,790

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	50	6.5	71	74	144	349	922	1,340	424	14	5.5
2	7.5	29	5.5	71	107	167	356	1,200	1,610	360	12	5.5
3	40	16	6.5	66	95	204	295	1,560	1,790	326	11	5.5
4	14	14	7	66	116	234	241	1,850	2,030	330	11	5.5
5	11	14	7.5	71	1,500	259	231	1,850	1,850	318	10	5.5
6	9	13	7	72	2,600	284	255	1,790	1,580	270	9	5.5
7	8.5	12	7	70	650	311	214	1,670	1,420	198	8.5	5
8	8	10	7	70	388	345	221	1,660	1,280	167	8	4.7
9	7.5	9	7	69	231	314	259	1,530	1,130	141	7.5	4.5
10	7.5	8.5	6.5	60	158	288	337	1,280	1,060	144	7.5	4.5
11	7	8.5	6.5	55	127	277	337	1,530	878	122	7	5
12	7	8.5	6.5	49	214	322	388	2,160	765	100	7	5
13	6.5	8.5	6.5	47	962	256	504	2,500	900	102	7	5
14	6.5	8	7	45	1,870	214	700	2,640	878	84	7	5
15	6.5	8	1,210	45	456	208	945	2,500	1,010	76	7	5
16	6	8	1,070	47	262	238	832	2,360	2,230	68	7	5
17	7.5	8	122	45	214	330	680	2,100	1,260	60	7	5
18	10	8	68	49	192	238	680	1,730	968	53	7	5
19	28	7.5	51	52	158	182	742	1,280	990	46	7	5
20	26	7.5	41	47	138	176	922	1,500	1,180	41	7	4.7
21	15	7.5	44	49	152	158	1,200	1,730	1,200	37	6.5	5
22	12	7.5	38	47	170	155	1,060	1,850	1,340	34	6.5	5
23	10	7	29	42	179	149	788	1,970	1,280	32	6	5
24	9	7	24	39	173	141	878	1,850	1,010	30	6	5.5
25	9	7	42	39	149	138	1,080	1,970	788	31	6	5.5
26	8.5	7	41	34	127	135	1,060	1,470	700	30	6	5.5
27	8.5	7	33	34	119	135	832	1,850	620	28	6	5.5
28	8	7	56	39	127	130	576	2,220	620	25	6	5
29	8	7	70	62	-	149	464	2,220	536	21	5.5	5
30	8	7	72	69	-	204	584	1,730	536	18	5.5	5.5
31	50	-	66	76	-	273	-	1,180	-	16	5.5	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						377.0	50	6	12.2	748		
November.....						327.0	50	7	10.9	649		
December.....						3,171.0	1,210	5.5	102	6,290		
Calendar year 1936.....						153,922.0	3,260	5.5	421	305,300		
January.....						1,697	76	34	54.7	3,370		
February.....						11,708	2,600	74	418	23,220		
March.....						6,767	345	130	218	13,400		
April.....						18,010	1,200	214	600	36,720		
May.....						55,562	2,640	922	1,792	110,200		
June.....						34,729	2,230	536	1,168	68,880		
July.....						3,732	424	16	120	7,400		
August.....						234.0	14	5.5	7.55	464		
September.....						153.9	5.5	4.5	5.13	305		
Water year 1936-37 .....						136,447.9	2,640	4.5	374	270,600		

## TUOLUMNE RIVER BASIN

Lake Eleanor near Hetch Hetchy, Calif.

Location.-- Water-stage recorder, lat. 37°58', long. 119°53', in NW¼ sec. 3, T. 1 N., R. 19 E., at dam on Eleanor Creek 1.7 miles above Miguel Creek and 5½ miles northwest of Hetch Hetchy.

Records available.-- October 1919 to September 1937 (gage heights only, 1919-30).

Remarks.-- This reservoir is part of Hetch Hetchy water-supply system for San Francisco. Elevation of crest of dam is 4,661.0 feet above mean sea level. Water is released down natural channel of Eleanor Creek, tributary to Cherry Creek, and discharged into Tuolumne River at Early intake. Table shows total contents, of which 1,800 acre-feet is not available for release.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,050	12,560	6,710	9,200	6,480	17,360	25,860	26,230	26,320	26,200	27,250	20,900
2	17,790	12,200	6,540	9,270	6,370	17,440	25,950	26,600	26,320	26,200	27,070	20,630
3	17,620	12,040	6,310	9,270	6,260	17,620	25,950	26,880	26,420	26,230	26,970	20,360
4	17,440	11,850	6,090	9,270	6,200	17,870	25,950	27,160	26,510	26,490	26,790	20,090
5	17,270	11,640	5,980	9,270	7,620	18,130	25,860	27,160	26,600	26,680	26,600	19,820
6	17,100	11,480	5,980	9,270	8,360	18,480	25,960	27,160	26,420	26,680	26,320	19,640
7	16,930	11,320	5,860	9,270	9,820	18,830	25,860	27,070	26,320	26,680	26,140	19,370
8	16,760	11,170	5,750	9,270	10,370	19,280	25,760	26,970	26,230	26,680	25,950	19,100
9	16,580	10,930	5,640	9,270	10,690	19,640	25,760	26,970	26,140	26,680	25,760	18,850
10	16,410	10,770	5,520	9,270	10,850	20,090	25,860	26,880	26,040	26,680	25,580	18,560
11	16,240	10,610	5,470	9,270	10,930	20,540	25,950	26,790	25,950	26,580	25,390	18,390
12	16,070	10,370	5,410	9,200	11,090	20,990	26,040	27,160	25,950	26,580	25,200	18,130
13	15,810	10,230	5,350	9,200	11,250	21,360	26,040	27,440	25,950	26,580	25,020	17,870
14	15,640	10,030	5,240	9,200	13,070	21,720	26,230	27,440	25,950	26,680	24,830	17,620
15	15,460	9,890	5,410	9,060	14,620	21,990	26,600	27,440	25,950	26,580	24,550	17,360
16	15,210	9,690	6,930	9,000	15,290	22,440	26,600	27,340	26,040	26,580	24,370	17,100
17	15,030	9,550	7,960	9,000	15,720	22,980	26,600	27,160	26,140	26,580	24,180	16,840
18	14,860	9,340	8,240	8,860	15,900	23,620	26,320	26,970	26,140	26,580	24,000	16,500
19	14,600	9,200	8,380	8,720	16,150	24,180	26,420	26,790	26,040	26,580	23,810	16,240
20	14,430	9,000	8,450	8,510	16,320	24,550	26,510	26,690	26,140	26,560	23,530	15,900
21	14,270	8,790	8,510	8,310	16,410	24,930	26,690	26,790	26,230	26,580	23,440	15,720
22	14,110	8,580	8,590	8,100	16,500	25,300	26,790	26,790	26,970	26,490	23,160	15,460
23	13,950	8,380	8,580	7,900	16,670	25,480	26,510	26,970	27,810	26,390	22,980	15,120
24	13,790	8,170	8,650	7,760	16,840	25,580	26,510	26,880	28,200	26,390	22,710	14,860
25	13,630	7,960	8,650	7,550	17,100	25,580	26,600	26,880	28,390	26,290	22,530	14,600
26	13,390	7,760	8,720	7,410	17,180	25,580	26,690	26,690	28,390	26,200	22,350	14,350
27	13,230	7,550	8,790	7,210	17,270	25,580	26,510	26,690	28,290	26,100	22,080	14,110
28	13,070	7,350	9,000	7,070	17,270	25,580	26,320	26,790	28,200	27,910	21,900	13,870
29	12,920	7,070	9,130	6,930	-	25,580	26,140	26,880	28,100	27,810	21,720	13,650
30	12,680	6,860	9,200	6,760	-	25,670	26,040	26,790	28,100	27,620	21,540	13,510
31	12,520	-	9,200	6,650	-	25,760	-	26,510	-	27,440	21,170	-

## Eleanor Creek near Hetch Hetchy, Calif.

Location.- Water-stage recorder, lat. 37°58', long. 119°53', in SW $\frac{1}{4}$  sec. 3, T 1 N., R. 19 E., in Yosemite National Park, 0.6 mile below Lake Eleanor Dam, 1.1 miles above Miguel Creek, and 5 $\frac{1}{2}$  miles northwest of Hetch Hetchy. Altitude, about 4,600 feet.

Drainage area.- 79 square miles (above dam site in sec. 3, T. 1 N., R. 19 E.).

Records available.- November 1915 to September 1937. June to October 1901, November 1909 to November 1915 at site 1 mile upstream.

Average discharge.- 27 years (1910-37), 213 second-feet.

Extremes.- Maximum discharge during year, 1,790 second-feet May 15 (gage-height, 6.35 feet); minimum, 0.8 second-foot Dec. 17 (gage height, 1.46 feet).  
1909-37: Maximum discharge, 6,400 second-feet Mar. 25, 1928 (gage height, 11.0 feet); no flow Sept. 8-14, 1910, Oct. 15-21, 1930, Nov. 19, 22, 23, 1931, Dec. 6, 1933.

Remarks.- Records good. No diversions. See record for Lake Eleanor, which stores water above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.4	0.5	2.2	20	3.0	100	3.8	295
1.6	2.0	2.4	32	3.2	137	4.0	365
1.8	5	2.6	49	3.4	185	4.5	580
2.0	11	2.8	72	3.6	235	5.0	850
						5.5	1,150
						6.0	1,510
						6.5	1,910

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	80	100	77	117	121	292	548	625	144	85	142
2	98	95	102	76	117	112	405	802	625	129	103	142
3	98	95	100	76	117	112	393	1,080	670	62	103	142
4	98	95	89	76	117	112	344	1,290	760	9	112	139
5	98	96	31	76	127	114	309	1,550	790	78	119	139
6	97	94	29	76	148	114	326	1,360	710	125	114	142
7	97	94	50	76	129	114	298	1,260	625	119	103	144
8	97	94	50	76	129	115	280	1,180	558	107	103	144
9	97	94	50	75	127	115	280	1,150	490	97	103	142
10	97	96	50	75	127	115	320	1,060	445	91	103	139
11	97	97	42	75	127	115	354	1,000	393	65	103	139
12	96	97	20	75	127	117	377	1,290	354	60	102	139
13	96	97	27	75	133	117	450	1,550	340	60	102	139
14	96	97	51	103	137	117	558	1,710	337	60	102	139
15	96	96	22	119	131	34	814	1,670	344	59	102	139
16	96	96	1.2	119	133	2.5	860	1,550	429	38	102	139
17	96	95	3.0	119	135	3.2	710	1,490	522	30	100	139
18	96	102	21	119	131	3.2	640	1,260	445	30	100	139
19	96	100	21	119	127	2.9	658	1,000	389	36	100	137
20	96	100	21	117	127	2.9	715	910	405	39	84	137
21	94	102	21	117	127	6	940	970	166	45	84	137
22	94	102	21	117	127	64	1,030	1,030	11	48	100	137
23	94	102	21	117	129	133	784	1,150	90	48	100	139
24	92	102	21	115	129	182	700	1,090	253	47	102	142
25	92	102	22	115	129	188	796	1,120	316	57	102	142
26	91	100	22	117	129	175	940	970	312	80	102	142
27	96	100	22	119	129	178	826	910	309	80	103	139
28	98	100	22	119	129	172	630	1,000	302	80	103	139
29	98	100	39	119	119	170	481	1,090	295	80	103	139
30	97	100	65	117	-	190	433	1,000	212	80	115	142
31	97	-	77	117	-	228	-	754	-	80	139	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						2,979	98	91	96.1	5,910		
November.....						2,928	102	80	97.5	5,800		
December.....						1,233.2	102	1.2	39.8	2,450		
Calendar year 1936.....						99,247.6	1,780	1.2	271	196,800		
January.....						3,068	119	75	99.6	6,120		
February.....						3,591	148	117	128	7,120		
March.....						3,344.7	228	2.5	108	6,630		
April.....						16,960	1,030	280	565	33,640		
May.....						35,494	1,710	548	1,145	70,400		
June.....						12,622	790	11	417	24,840		
July.....						2,163	144	9	69.8	4,290		
August.....						3,198	139	84	103	6,340		
September.....						4,199	144	137	140	8,330		
Water year 1936-37.....						91,697.9	1,710	1.2	251	181,900		

## South Fork of Tuolumne River near Oakland Recreation Camp, Calif.

Location.- Water-stage recorder, lat.  $37^{\circ}49'$ , long.  $120^{\circ}00'$ , in SE $\frac{1}{4}$  sec. 29, T. 1 S., R. 18 E., 75 feet below highway bridge on Big Oak Flat road, half a mile southwest of Oakland Recreation Camp, and 0.6 mile above junction with Middle Tuolumne River. Altitude, about 2,800 feet.

Drainage area.- 87.6 square miles.

Records available.- March 1923 to September 1937.

Average discharge.- 14 years, 68.7 second-feet.

Extremes.- Maximum discharge during year, 1,860 second-feet Feb. 13 (gage height, 6.70 feet), from rating curve extended above 600 second-feet on basis of velocity-area studies; minimum, 4.0 second-feet Dec. 1.

1923-37: Maximum discharge, 1,960 second-feet Apr. 8, 1935 (gage height, 7.07 feet), from rating curve extended above 600 second-feet on basis of velocity-area studies; minimum, 0.3 second-foot Aug. 23, 1934.

Remarks.- Records good except those for periods of ice effect, Jan. 1-3, 5, 9-12, 16-18, 20-28 and Feb. 1-3, which were computed on basis of weather records and records for nearby streams and are fair. No diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	18	8	18	18	114	247	318	244	58	22	13
2	8	15	10	18	19	119	328	391	256	55	22	13
3	9.5	13	11	18	20	136	279	442	263	53	21	13
4	11	13	12	18	30	187	247	498	261	49	20	13
5	9.5	13	10	18	219	177	333	497	239	47	20	13
6	9.5	12	11	18	1,020	191	318	476	215	46	19	13
7	8.5	12	11	18	446	205	267	450	200	44	19	12
8	8.5	12	12	18	189	212	256	442	175	44	18	12
9	8	12	11	18	135	223	258	459	168	43	13	12
10	8	12	10	18	104	223	267	422	164	42	18	12
11	8	11	10	18	96	228	264	430	151	42	18	11
12	8	11	11	18	119	288	270	513	133	41	17	11
13	8	11	12	18	567	297	294	579	138	41	17	11
14	8	11	12	18	1,200	236	339	592	127	38	16	11
15	7.5	11	57	18	492	215	402	566	127	36	16	11
16	7.5	11	119	18	301	220	372	544	135	35	16	10
17	7.5	11	39	18	228	267	335	497	124	34	16	10
18	3.5	11	24	18	193	253	332	434	111	33	16	10
19	16	11	20	18	166	210	335	375	107	32	15	10
20	13	11	18	18	143	196	368	383	104	31	15	11
21	12	11	18	18	138	193	418	402	100	30	14	11
22	11	11	16	18	146	196	402	402	95	28	14	11
23	11	11	16	18	160	175	339	414	90	28	14	11
24	11	11	16	18	177	179	346	394	84	27	14	11
25	11	11	18	18	186	166	383	360	78	26	14	11
26	11	11	23	18	138	162	394	314	73	26	14	10
27	10	11	26	18	120	168	368	350	69	25	14	10
28	10	11	20	18	116	164	308	368	66	24	13	9.5
29	10	10	20	18	-	182	279	346	67	23	13	10
30	11	10	20	18	-	203	276	301	62	22	13	10
31	21	-	17	18	-	223	-	250	-	22	13	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					309.5	21	7.5	9.98	614			
November.....					350	18	10	11.7	594			
December.....					637	119	8	20.5	1,260			
Calendar year 1936.....					38,385.0	834	7.5	105	76,130			
January.....					658	18	18	18.0	1,110			
February.....					6,880	1,200	18	246	13,650			
March.....					6,189	297	114	200	12,280			
April.....					9,524	418	233	317	18,890			
May.....					13,199	592	260	426	26,180			
June.....					4,216	261	62	141	8,360			
July.....					1,125	58	22	36.3	2,230			
August.....					609	22	13	16.4	1,010			
September.....					336.5	13	9.5	11.2	667			
Water year 1936-37.....					43,833.0	1,200	7.5	120	86,940			

## Middle Tuolumne River near Buck Meadows, Calif.

Location.- Water-stage recorder, lat. 37°50', long. 120°00', in NW $\frac{1}{4}$  sec. 28, T. 1 S., R. 18 E., half a mile above junction with South Fork of Tuolumne River and 4 Miles east of Buck Meadows. Altitude, about 2,800 feet.

Drainage area.- 71.0 square miles.

Records available.- November 1916 to September 1937.

Average discharge.- 20 years (1917-37), 62.5 second-feet.

Extremes.- Maximum discharge during year, 1,280 second-feet Feb. 13 (gage height, 7.75 feet); minimum, 1.3 second-feet Sept. 19 (gage height, 0.91 foot).

1917-37: Maximum discharge, 1,330 second-feet May 28, 1919 (gage height, 8.15 feet); no flow Sept. 4-14, 1924, Aug. 12 to Oct. 5, 1931, Sept. 11-17, 1934.

Remarks.- Records good except those for periods of ice effect, Jan. 9-13, Jan. 17 to Feb. 3 which were computed on basis of weather records and records for nearby stations and are fair. Small diversion above station for irrigation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	4.2	2.0	5.5	6	58	128	208	340	50	10	2.2
2	1.5	3.8	2.1	6	7	60	159	275	371	50	10	2.4
3	1.7	3.0	2.4	6	7.5	68	137	340	360	48	9	2.4
4	1.9	2.7	2.7	5.5	50	76	120	393	371	44	9	2.2
5	1.9	2.6	2.2	6	174	52	114	426	340	41	8	2.2
6	1.8	2.6	2.2	6	552	88	138	437	300	38	7.5	3.8
7	1.7	2.6	2.6	5.5	187	92	119	426	280	37	7	2.6
8	1.6	2.6	2.7	5.5	76	98	114	415	244	34	7	2.2
9	1.5	2.4	2.6	5.5	63	98	113	448	228	32	6.5	2.1
10	1.5	2.4	2.4	5.5	52	98	117	426	222	31	6.5	2.1
11	1.5	2.6	2.2	6	48	99	117	426	202	34	5.5	2.0
12	1.4	2.6	2.3	6	54	116	117	552	181	31	4.8	1.8
13	1.5	2.6	2.6	6	401	114	126	642	179	36	4.6	1.8
14	1.5	2.4	2.9	6	588	99	137	698	166	31	4.5	1.8
15	1.6	2.4	14	6	217	92	165	684	163	26	4.2	1.6
16	2.1	2.4	76	6	130	94	166	656	172	24	4.3	1.6
17	2.6	2.6	24	5.5	101	111	154	616	159	22	4.0	1.5
18	3.7	2.6	13	5.5	88	109	156	552	142	21	3.4	1.4
19	5.5	2.7	9.5	5.5	79	90	163	459	132	20	3.4	1.4
20	4.9	2.6	8	5	69	86	182	470	128	19	3.2	1.4
21	3.7	2.6	7	5	66	92	221	516	119	18	3.1	1.5
22	2.6	2.4	6	5.5	69	100	224	540	112	17	2.8	1.6
23	2.1	2.4	4.0	5.5	72	92	197	516	104	16	2.7	1.6
24	2.0	2.4	4.4	5.5	87	109	203	528	96	15	2.7	1.6
25	1.9	2.4	5	5.5	97	94	230	504	89	14	2.7	1.6
26	1.9	2.3	15	6	68	89	253	393	80	14	2.7	1.6
27	1.9	2.3	16	6	60	97	244	459	73	13	2.7	1.5
28	1.9	2.2	5.5	6	58	92	194	528	66	12	2.6	1.4
29	1.9	2.2	5.5	6	-	99	169	504	50	12	2.5	1.5
30	2.1	2.1	6.5	6	-	108	168	448	50	10	2.4	1.6
31	4.2	-	6.5	6	-	114	-	340	-	10	2.2	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						69.0	5.5	1.4	2.23	137		
November.....						77.7	4.2	2.1	2.59	154		
December.....						259.8	76	2.0	8.38	515		
Calendar year 1936.....						33,495.9	528	1.3	91.5	66,430		
January.....						177.5	6	5	5.73	352		
February.....						3,506.5	568	6	125	6,960		
March.....						2,914	115	58	94.0	5,780		
April.....						4,845	253	113	162	9,610		
May.....						14,825	698	208	478	29,400		
June.....						5,519	371	50	184	10,950		
July.....						820	50	10	26.5	1,630		
August.....						151.5	10	2.2	4.89	300		
September.....						56.0	3.8	1.4	1.57	111		
Water year 1936-37.....						33,221.0	698	1.4	91.0	65,900		



## Woods Creek near Jacksonville, Calif.

Location.- Water-stage recorder, lat. 37°51', long. 120°24', in SW $\frac{1}{4}$  sec. 12, T. 1 S., R. 14 E.,  $\frac{1}{2}$  miles above mouth and  $\frac{1}{2}$  miles northwest of Jacksonville. Altitude, about 645 feet.

Drainage area.- 98.4 square miles.

Records available.- October 1925 to September 1937.

Average discharge.- 12 years, 51.7 second-feet.

Extremes.- Maximum discharge during year, 10,600 second-feet Feb. 6 (gage height, 9.12 feet), from rating curve extended above 1,800 second-feet on basis of trend of measurements made in previous years; minimum, 0.6 second-foot Oct. 1.  
1925-37: Maximum discharge, that of Feb. 6, 1937; no flow at times during summers of 1929-36.

Remarks.- Records good except those for Oct. 1-16 (computed on basis of field estimate of discharge Oct. 1), those for May 7-11, May 18 to June 3 (interpolated), and those for Aug. 10 to Sept. 30 (computed on basis of two discharge measurements), all of which are fair. At times water from Stanislaus drainage is spilled into Woods Creek above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	15	7	25	68	117	194	36	12	5.5	2.2	2.1
2	.7	22	7.5	13	226	102	254	35	10	8	2.5	2.1
3	.8	22	7.5	15	123	95	188	35	9	7.5	2.8	2.1
4	.9	22	7.5	14	814	89	132	33	8.5	7	2.8	2.1
5	.9	22	7	24	3,840	83	119	32	8.5	6.5	2.5	2.1
6	.9	19	7	29	7,290	77	286	30	8	6	2.2	2.2
7	.8	15	6	21	929	72	144	29	8	4.8	2.4	2.2
8	.8	13	5.5	17	263	69	125	28	12	3.8	2.0	2.2
9	.8	13	6	15	150	66	114	26	11	3.0	1.8	2.2
10	.7	13	6	14	106	62	101	25	11	2.8	2.0	2.3
11	.7	11	6	13	101	64	95	24	11	2.8	2.0	2.3
12	.8	7	6	13	142	372	89	22	13	2.5	2.0	2.3
13	.8	5.5	6.5	14	552	653	82	22	14	2.4	2.0	2.3
14	.9	5.5	7	30	2,570	189	80	20	15	2.2	2.0	2.3
15	.8	6	14	28	496	138	75	19	15	2.0	2.0	2.3
16	.7	6.5	28	51	257	126	72	19	23	1.9	2.0	2.3
17	17	7	16	36	184	201	69	20	28	1.9	2.0	2.2
18	9	7	11	28	150	337	67	18	24	1.9	2.0	2.2
19	7	7	9.5	34	125	215	64	18	21	1.8	2.0	2.2
20	7.5	7	9	24	104	228	62	17	19	1.6	2.0	2.2
21	6.5	6.5	9	19	95	351	61	16	18	1.6	2.0	2.2
22	5.5	6.5	8	17	88	1,280	59	15	16	1.5	2.0	2.2
23	4.8	7.5	8	15	82	705	54	14	16	1.9	2.0	2.2
24	4.0	9.5	8.5	15	109	1,730	39	14	16	1.9	2.0	2.1
25	4.0	10	12	15	775	773	51	14	15	1.8	2.0	2.1
26	4.0	13	14	15	298	422	53	14	13	1.4	2.0	2.1
27	3.8	13	96	18	184	477	56	14	11	1.0	2.0	2.1
28	3.8	13	76	128	144	347	55	14	11	1.5	2.0	2.1
29	3.8	10	42	197	-	283	47	13	10	1.6	2.0	2.1
30	4.0	7.5	28	553	-	233	39	13	10	1.6	2.0	2.1
31	10	-	61	134	-	206	-	13	-	1.9	2.0	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					107.5	17	0.6	3.46	213			
November.....					342.0	22	5.5	11.4	678			
December.....					542.5	96	5.5	17.5	1,080			
Calendar year 1936.....					37,038.9	3,160	0	101	73,470			
January.....					1,399	363	13	45.1	2,770			
February.....					20,265	7,290	68	724	40,200			
March.....					10,147	1,730	62	327	20,130			
April.....					2,905	286	38	96.8	5,760			
May.....					662	56	13	21.4	1,310			
June.....					417.0	29	8	15.9	827			
July.....					96.2	8.5	1.0	3.10	191			
August.....					65.2	2.8	1.8	2.10	129			
September.....					65.5	2.3	2.1	2.18	130			
Water year 1936-37.....					37,013.7	7,290	.6	101	73,420			

## Modesto Canal near La Grange, Calif.

Location.- Water-stage recorder, lat.  $37^{\circ}40'04''$ , long.  $120^{\circ}27'26''$ , in SW $\frac{1}{4}$  sec. 17, T. 3 S., R. 14 E., half a mile northeast of La Grange and about a mile below intake at La. Grange Dam on Tuolumne River. Altitude, about 260 feet.

Records available.- April 1905 to September 1937.

Average discharge.- 34 years, 332 second-feet.

Extremes.- Maximum daily discharge during year, 1,620 second-feet May 15, 16; no flow at times.  
1903-37: Maximum daily discharge, 1,820 second-feet July 1, 1935; no flow at times.

Remarks.- Records excellent except those for Nov. 17 to Mar. 28, when recorder was not operating and discharge was estimated by Modesto Irrigation District. Canal diverts from right bank of Tuolumne River at La Grange Dam. Water used for irrigation in Modesto and Waterford irrigation districts. Gage-height record and results of several discharge measurements furnished by Modesto Irrigation District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	461	450	4.0	4.0	6	6	496	496	745	998	874	576
2	460	432	4.0	4.0	6	6	496	496	745	1,020	869	550
3	463	405	4.0	4.0	6	6	494	496	735	679	859	545
4	453	366	4.0	4.0	6	6	492	496	742	485	837	541
5	446	365	4.0	4.0	6	6	491	752	747	496	874	487
6	443	366	4.0	4.0	6	6	492	1,010	750	489	807	482
7	446	362	4.0	4.0	6	6	492	1,000	1,060	546	783	483
8	445	350	4.0	4.0	6	6	492	1,000	1,310	491	750	485
9	481	349	4.0	4.0	6	6	492	1,000	1,330	492	703	480
10	508	357	4.0	4.0	6	0	494	1,000	1,330	498	712	483
11	499	347	4.0	4.0	6	5	496	1,090	1,320	501	740	487
12	510	350	4.0	4.0	6	6	492	1,410	1,320	503	747	480
13	515	357	4.0	4.0	6	6	492	1,590	1,330	501	747	480
14	474	355	4.0	4.0	6	6	491	1,570	1,400	507	742	485
15	451	355	4.0	4.0	6	5	491	1,620	1,510	507	733	492
16	450	113	0	4.0	6	5	489	1,620	1,520	507	740	480
17	451	4.0	0	4.0	6	5	489	1,470	1,510	500	771	478
18	451	4.0	0	4.0	6	5	487	1,410	1,500	492	764	459
19	451	4.0	0	4.0	6	0	485	1,390	1,500	494	752	485
20	451	4.0	0	4.0	6	0	489	1,390	1,500	496	745	485
21	448	4.0	0	4.0	6	5	491	1,320	1,500	494	707	487
22	446	4.0	0	5	6	5	489	1,210	1,100	492	674	491
23	446	4.0	0	5	6	5	491	1,010	998	492	654	489
24	448	4.0	0	5	6	5	491	1,010	1,000	489	668	489
25	448	4.0	0	5	6	5	491	1,000	992	485	679	487
26	448	4.0	4.0	5	6	5	496	804	992	487	698	478
27	448	4.0	4.0	6	6	5	501	742	987	489	705	478
28	446	4.0	4.0	6	6	5	503	747	990	489	663	480
29	448	4.0	4.0	6	-	349	503	745	992	709	604	480
30	453	4.0	4.0	6	-	491	500	747	990	916	590	482
31	453	-	4.0	6	-	494	-	747	-	885	582	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				14,241	515	443	459	28,250				
November.....				5,735	450	4.0	191	11,380				
December.....				84.0	4.0	0	2.71	167				
Calendar year 1936.....				182,251	1,410	0	498	361,500				
January.....				140.0	6	4.0	4.52	278				
February.....				168	6	6	6.00	333				
March.....				1,471	494	0	47.5	2,920				
April.....				14,788	503	465	493	29,330				
May.....				32,378	1,620	496	1,044	64,220				
June.....				34,445	1,520	735	1,140	68,320				
July.....				17,629	1,020	485	569	34,970				
August.....				22,823	897	582	735	45,270				
September.....				14,792	576	478	493	29,340				
Water year 1936-37.....				168,694.0	1,620	0	435	314,800				

## Turlock Canal near La Grange, Calif.

Location.- Water-stage recorder, lat. 37°40'00", long. 120°26'25", near north line of NW $\frac{1}{4}$  sec. 21, T. 3 S., R. 14 E., 2,400 feet below intake at La Grange Dam and 1.2 miles east of La Grange. Altitude, about 265 feet.

Records available.- October 1898 to September 1937.

Average discharge.- 39 years, 454 second-feet.

Extremes.- Maximum daily discharge during year, 1,760 second-feet May 17; no irrigation flow Oct. 2-13, Oct. 18 to Nov. 14, Dec. 8 to Mar. 21, Apr. 28, 29.  
1898-1937: Maximum daily discharge, 1,900 second-feet several days in May 1928; no irrigation flow during some periods of each year.

Remarks.- Records excellent except those for very low stages, which are good. Canal diverts from left bank of Tuolumne River at La Grange Dam. Water is used for irrigation in Turlock Irrigation District and to supply town of La Grange. During fall and winter water is diverted from canal at tunnel 0.3 mile above gage, and after passing through La Grange power plant it is returned to river. Gage-height record furnished by Turlock Irrigation District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	0	901			0	554	1,680	1,200	1,720	803	1,320
2	0	0	1,050			0	554	1,690	1,290	1,450	858	1,330
3	0	0	874			0	550	1,700	1,270	1,670	928	1,370
4	0	0	868			0	547	1,700	1,270	1,740	885	1,360
5	0	0	866			0	758	1,690	1,350	1,510	906	1,360
6	0	0	789			0	864	1,520	1,450	1,290	958	1,380
7	0	0	122			0	864	1,670	1,490	1,130	1,010	1,430
8	0	0	0			0	864	1,680	1,550	1,140	965	1,070
9	0	0	0			0	866	1,680	1,690	1,130	1,110	1,120
10	0	0	0			0	864	1,620	1,720	1,120	1,140	1,150
11	0	0	0			0	864	1,580	1,720	1,050	1,140	1,150
12	0	0	0			0	871	1,600	1,720	1,110	1,120	1,100
13	0	0	0			0	874	1,600	1,710	1,120	1,110	1,170
14	80	0	0			0	974	1,590	1,720	1,100	1,090	1,210
15	126	326	0			0	1,080	1,570	1,720	1,110	1,070	1,190
16	89	613	0			0	1,090	1,560	1,740	1,120	1,110	1,230
17	12	734	0			0	1,090	1,570	1,760	1,140	1,110	1,180
18	0	743	0			0	1,080	1,550	1,700	1,030	1,100	1,160
19	0	750	0			0	1,080	1,550	1,690	1,090	1,130	1,080
20	0	758	0			0	1,210	1,550	1,710	1,130	1,150	1,050
21	0	758	0			0	1,360	1,580	1,710	1,170	1,180	1,050
22	0	647	0			129	1,460	1,440	1,540	1,140	1,130	1,040
23	0	769	0			221	1,300	1,310	1,420	1,140	1,210	1,070
24	0	759	0			223	1,630	1,290	1,420	1,140	1,270	1,080
25	0	772	0			221	1,620	1,140	1,440	1,070	1,210	1,110
26	0	747	0			316	1,620	1,070	1,420	1,130	1,200	1,070
27	0	800	0			545	568	1,080	1,430	1,160	1,210	1,120
28	0	827	0			547	0	1,090	1,500	1,150	1,220	1,100
29	0	766	0			550	0	1,108	1,490	1,010	1,210	1,090
30	0	872	0			552	947	1,100	1,500	828	1,300	1,110
31	0	-	0			554	-	1,070	-	806	1,400	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						350	126	0	11.3	694		
November.....						11,640	872	0	588	23,090		
December.....						5,470	1,050	0	176	10,860		
Calendar year 1936.....						251,150.6	1,810	0	686	498,100		
January.....						0	0	0	0	0		
February.....						0	0	0	0	0		
March.....						3,868	554	0	124	7,660		
April.....						28,003	1,630	0	933	55,540		
May.....						45,620	1,700	1,070	1,472	90,490		
June.....						46,340	1,760	1,200	1,545	91,910		
July.....						36,444	1,740	806	1,176	72,230		
August.....						34,253	1,400	803	1,105	67,940		
September.....						35,240	1,430	1,040	1,175	69,900		
Water year 1936-37.....						247,218	1,760	0	677	490,400		

Middle Fork of Stanislaus River at Sand Bar Flat, near Avery, Calif.

Location.- Water-stage recorder, lat. 38°11', long. 120°09', in sec. 19, T. 4 N., R. 17 E., about a mile (revised) upstream from diversion dam of Pacific Gas & Electric Co. at Sand Bar Flat and 11 miles southeast of Avery. Altitude, about 2,450 feet.

Drainage area.- 329 square miles (above diversion dam).

Records available.- September 1905 to September 1937.

Average discharge.- 31 years (1905-8, 1909-37), 669 second-feet.

Extremes.- Maximum discharge during water year 1934-35, 5,190 second-feet May 25 (gage height, 11.75 feet); maximum daily, 4,340 second-feet (revised) May 26, 27 (revised); minimum, 124 second-feet Dec. 31 (gage height, 4.10 feet); minimum daily, 154 second-feet (revised) Dec. 29.

Maximum discharge during water year 1935-36, 4,580 second-feet (revised) May 13 (revised) (gage height, 11.30 feet); minimum, 74 second-feet (revised) Nov 1 (gage height, 3.65 feet).

Maximum discharge during water year 1936-37, 5,320 second-feet May 14 (gage height, 11.90 feet); minimum, 69 second-feet Dec. 13.

1905-37: Maximum daily discharge, 9,760 second-feet Mar. 19, 1907; minimum, 30 second-feet Aug. 24, 1924. Instantaneous extremes not known.

Remarks.- Records good except those for period of ice effect, Jan. 6 to Feb. 5, 1937, which are fair. Diversion of 30 to 50 second-feet into Middle Fork from South Fork above station. Storage at Relief Reservoir above station. Gage-height records furnished by Pacific Gas & Electric Co. Revised records for water years 1934-35 and 1935-36 supersede those in previous Water-Supply Papers 791 and 811.

Rating table, Oct. 1, 1934 to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)

3.6	69	6.5	675
3.8	88	7.0	880
4.0	111	7.5	1,120
4.4	168	8.0	1,420
4.8	236	9.0	2,180
5.2	316	10.0	3,120
5.6	408	11.0	4,220
6.0	516	12.0	5,450

Discharge, in second-feet, 1934-37  
1934-35

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	211	252	286	156	276	327	812	1,820	2,720	1,210	372	179
2	209	242	262	164	286	327	790	1,630	3,320	1,070	338	170
3	207	236	266	165	306	316	1,180	1,520	3,760	995	316	190
4	205	252	270	197	316	327	1,240	1,560	3,870	970	316	264
5	205	266	260	272	384	296	995	1,940	3,980	970	296	276
6	200	254	238	222	561	316	858	2,500	3,970	970	286	286
7	207	248	222	218	531	316	1,190	2,820	3,540	880	286	286
8	214	242	232	222	447	296	2,120	3,120	3,430	812	286	276
9	205	240	179	231	408	286	1,270	3,220	3,120	750	296	276
10	204	236	165	214	372	296	1,070	3,120	3,020	750	296	276
11	204	234	164	213	360	296	1,100	2,720	3,120	710	306	272
12	204	231	166	204	338	338	1,150	2,540	3,430	710	306	270
13	205	231	161	195	327	396	1,270	2,500	3,120	750	296	268
14	205	231	327	207	327	502	1,940	2,630	2,720	880	296	268
15	207	276	306	200	306	516	2,720	2,630	2,220	1,150	286	270
16	213	306	244	197	306	447	1,940	2,500	2,020	925	286	266
17	225	286	225	200	306	421	1,560	2,100	2,100	812	276	266
18	227	306	204	200	338	408	1,420	2,060	2,180	710	276	264
19	223	316	202	189	372	396	1,630	2,320	2,400	640	274	260
20	223	286	204	181	408	384	2,060	2,630	2,320	576	276	258
21	225	272	195	181	396	384	2,360	2,920	2,180	502	276	268
22	238	274	196	186	396	349	2,220	3,320	2,220	474	276	270
23	234	306	181	195	408	372	2,220	3,760	2,020	421	286	270
24	229	286	173	204	372	360	2,360	3,760	1,780	421	286	270
25	229	286	184	220	349	372	2,180	4,100	1,600	408	276	270
26	229	286	171	236	338	396	2,270	4,340	1,630	396	286	268
27	225	276	176	242	349	434	2,500	4,540	1,630	384	327	266
28	225	274	165	240	338	474	2,580	3,980	1,560	384	316	258
29	225	274	154	244	-	561	3,020	3,540	1,490	372	232	272
30	227	276	176	256	-	675	2,220	2,720	1,360	360	286	276
31	231	-	159	262	-	770	-	2,270	-	360	252	-

Discharge, in second-feet, of Middle Fork of Stanislaus River at Sand Bar Flat, near Avery, Calif.,  
1934-37--Continued

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	276	87	125	131	296	640	624	1,660	1,300	1,210	296	286
2	286	120	124	147	349	692	608	2,180	1,150	1,210	296	286
3	270	114	128	187	276	750	640	2,920	1,270	1,150	276	306
4	262	118	127	187	262	790	624	3,320	1,210	1,100	286	306
5	270	124	127	200	262	790	576	3,320	1,270	1,070	296	306
6	270	140	125	165	248	770	576	2,720	1,640	995	306	276
7	270	141	127	152	242	790	658	2,100	3,220	970	296	274
8	270	147	127	148	236	858	812	2,100	2,130	995	286	276
9	266	146	127	225	234	970	948	2,360	1,980	858	296	276
10	264	142	123	316	238	1,040	1,210	2,820	2,060	730	316	286
11	270	137	127	474	380	1,020	1,520	3,120	2,360	692	316	262
12	270	135	141	306	608	1,070	1,860	3,020	2,720	640	286	236
13	264	132	127	274	531	1,100	2,100	3,650	2,630	658	276	240
14	272	127	110	356	561	1,070	2,400	4,100	2,540	658	286	250
15	274	127	97	396	516	1,040	2,720	3,760	2,100	561	296	252
16	240	137	118	421	516	1,070	3,120	3,320	2,020	576	296	250
17	252	144	119	306	447	1,100	3,220	3,120	2,140	576	296	246
18	276	146	121	256	421	1,100	3,220	3,120	2,320	531	306	244
19	274	134	118	254	408	1,120	2,820	2,920	2,220	531	296	242
20	262	131	127	229	396	1,180	3,020	2,820	2,270	531	296	240
21	248	138	132	218	539	1,240	2,920	2,060	2,140	546	296	236
22	240	137	130	214	1,980	1,210	3,120	2,060	2,220	516	286	232
23	242	140	127	213	1,460	995	3,220	2,360	2,270	488	286	231
24	236	138	125	214	948	880	3,020	2,630	2,450	474	286	227
25	252	135	125	222	812	790	2,720	2,920	2,100	447	286	225
26	256	132	127	223	692	710	2,720	2,720	1,620	408	286	223
27	276	130	132	220	658	692	2,630	2,820	1,700	384	276	234
28	130	130	130	229	624	675	2,360	2,450	1,660	349	286	238
29	91	128	150	244	624	675	1,980	1,860	1,300	306	286	238
30	86	127	146	229	692	692	1,660	1,560	1,180	306	286	234
31	81	-	141	225	-	675	-	1,460	-	296	286	-

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	135	104	131	95	296	640	1,860	2,180	902	286	274
2	236	135	99	132	90	516	750	2,530	2,360	790	286	274
3	252	125	105	134	90	360	692	2,630	2,540	835	286	272
4	250	125	114	131	95	396	624	3,020	2,920	902	276	270
5	244	128	101	137	200	447	608	3,220	2,720	902	276	266
6	231	127	110	132	719	488	640	3,220	2,450	858	286	266
7	232	124	112	120	460	531	624	2,920	2,180	675	276	264
8	232	120	111	120	272	561	624	2,920	2,020	640	272	262
9	231	120	115	120	223	592	658	2,920	1,780	592	272	260
10	227	121	109	120	187	576	750	2,580	1,660	561	274	258
11	250	120	109	120	176	592	770	2,720	1,420	516	276	270
12	252	121	101	120	204	624	770	3,430	1,270	502	274	272
13	270	119	101	120	275	624	925	3,980	1,330	546	272	270
14	218	118	111	120	835	576	1,150	4,460	1,360	488	286	266
15	218	118	134	120	561	561	1,740	4,220	1,460	474	286	264
16	200	118	396	120	434	576	1,740	3,870	2,100	447	276	264
17	252	118	223	120	372	608	1,360	3,540	1,760	408	276	262
18	258	115	158	120	349	592	1,360	3,120	1,460	372	274	256
19	270	114	144	115	327	531	1,420	2,500	1,490	360	274	256
20	272	114	137	115	296	502	1,660	2,500	1,780	360	276	258
21	250	115	132	105	296	488	2,270	2,720	1,780	360	274	268
22	209	114	128	110	316	488	2,220	2,920	1,900	349	276	268
23	144	112	121	110	358	460	1,700	2,920	1,940	349	276	270
24	135	111	121	110	380	447	1,780	2,920	1,630	505	276	270
25	130	111	128	110	349	434	2,140	3,120	1,360	447	276	276
26	127	111	130	90	306	421	2,270	2,630	1,210	384	274	274
27	127	110	118	90	296	434	1,940	2,920	1,180	349	276	270
28	124	109	114	90	296	421	1,460	3,430	1,150	316	276	268
29	121	107	123	92	-	434	1,270	3,650	1,040	306	274	266
30	121	107	134	92	-	480	1,330	3,120	995	286	272	272
31	132	-	137	95	-	516	-	2,320	-	286	270	-

Discharge, in second-feet, of Middle Fork of Stanislaus River at Sand Bar Flat, near Avery, Calif., 1934-37--Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1934.....	6,720	238	200	217	13,330
November.....	7,981	316	231	266	16,830
December.....	6,537	327	154	211	12,970
Calendar year 1934.....	126,844	1,110	87	348	251,600
January 1935.....	6,513	272	156	210	12,920
February.....	10,221	561	276	365	20,270
March.....	12,354	770	236	399	24,500
April.....	52,245	3,020	790	1,742	103,600
May.....	86,930	4,340	1,520	2,804	172,400
June.....	77,760	3,980	1,360	2,592	154,200
July.....	21,702	1,210	360	700	43,050
August.....	9,065	372	232	292	17,980
September.....	7,829	286	170	261	15,530
Water year 1934-35.....	305,857	4,340	154	838	606,600
October 1935.....	7,486	286	81	241	14,850
November.....	3,964	147	87	132	7,860
December.....	3,930	150	97	127	7,800
Calendar year 1935.....	299,999	4,340	81	822	595,000
January 1936.....	7,563	474	131	244	15,000
February.....	15,764	1,980	234	544	31,270
March.....	28,194	1,240	640	909	55,920
April.....	59,626	3,220	576	1,988	118,300
May.....	82,150	4,100	1,460	2,650	162,900
June.....	59,340	3,220	1,150	1,978	117,700
July.....	20,762	1,210	296	670	41,180
August.....	9,046	316	276	292	17,940
September.....	7,658	306	223	255	15,190
Water year 1935-36.....	305,483	4,100	81	835	605,900
October 1936.....	6,447	272	121	208	12,790
November.....	3,542	135	107	118	7,030
December.....	4,080	396	99	132	8,090
Calendar year 1936.....	304,172	4,100	99	831	603,300
January 1937.....	3,561	137	90	115	7,060
February.....	8,817	835	90	315	17,490
March.....	15,352	624	296	495	30,450
April.....	37,885	2,270	608	1,263	75,140
May.....	94,660	4,460	1,860	3,054	187,800
June.....	52,445	2,920	995	1,748	104,000
July.....	16,067	902	286	518	31,870
August.....	8,580	286	270	277	17,020
September.....	8,008	276	256	267	15,860
Water year 1936-37.....	259,444	4,460	90	711	514,600

## Melones Reservoir at Melones Dam, Calif.

Location.— Staff gage and reference point, lat. 37°57'15", long. 120°30'45", near center of sec. 11, T. 1 N., R. 13 E., at Melones Dam on Stanislaus River, 0.1 mile below Bear Creek.

Records available.— June 1927 to September 1937.

Remarks.— Water is stored in reservoir for irrigation and power. Top of spillway of dam is 723 feet above mean sea level, and top of radial gates is 735 feet above mean sea level. Released water passes through power house 1 mile below Melones Dam and flows down Stanislaus River to Goodwin Dam, where it is diverted into Oakdale and South San Joaquin Canals. Table of daily contents, furnished by Pacific Gas & Electric Co., shows total amount, of which 2,630 acre-feet is not available for release.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,477	7,550	10,275	13,630	13,780	60,848	93,645	94,483	94,650	98,190	61,831	16,128
2	9,870	7,880	10,113	13,880	13,780	59,750	93,980	96,488	94,483	97,850	60,116	15,397
3	9,186	8,118	10,032	13,880	13,980	58,664	94,148	96,158	94,650	97,170	58,426	14,861
4	8,678	8,354	9,870	14,230	13,880	57,831	93,980	96,660	94,818	96,660	56,760	14,280
5	7,880	8,570	9,794	14,280	18,280	56,760	94,148	97,000	94,985	95,990	54,998	13,680
6	7,914	8,894	9,832	14,594	28,100	57,117	93,813	97,000	95,488	95,488	53,371	13,047
7	8,050	9,110	10,072	14,754	41,400	55,735	93,813	96,660	95,153	94,985	51,646	12,430
8	8,186	9,414	9,911	14,807	44,960	61,336	93,645	96,660	94,315	94,315	50,057	11,800
9	8,254	9,642	9,870	14,807	44,752	62,208	93,645	96,830	93,813	93,478	48,172	11,360
10	8,390	9,832	9,794	14,807	44,440	62,208	93,813	96,493	93,645	92,660	46,550	10,639
11	8,426	9,991	9,794	15,236	41,900	64,743	93,980	95,990	93,310	91,685	44,856	10,072
12	8,354	10,113	9,680	14,969	40,430	65,395	94,148	97,000	92,985	90,548	43,200	9,566
13	8,462	10,194	9,680	14,648	39,178	69,400	93,813	97,510	93,148	89,434	41,400	8,894
14	8,534	10,315	9,911	14,230	44,440	72,200	94,148	98,530	93,813	88,495	39,751	8,462
15	8,576	10,275	9,870	13,780	55,720	74,353	94,650	98,700	93,310	87,556	38,238	8,354
16	8,534	10,558	10,032	13,480	58,545	75,654	95,320	98,190	93,645	86,178	36,488	8,320
17	8,534	10,518	10,807	13,980	59,384	76,530	94,985	97,850	96,493	84,974	34,870	8,286
18	8,570	10,396	11,317	14,280	59,384	77,990	94,650	96,830	95,320	83,622	32,510	8,220
19	8,570	10,234	11,402	13,980	59,140	79,465	94,985	95,823	94,315	82,132	31,659	8,320
20	8,678	10,194	11,530	13,630	58,426	80,940	94,650	95,320	94,315	80,645	29,979	8,152
21	8,750	10,113	11,845	13,095	58,664	81,685	95,320	95,655	95,320	79,170	28,500	8,186
22	8,822	10,032	11,755	12,620	59,872	85,425	95,623	95,990	95,320	77,698	26,838	8,220
23	8,786	10,275	11,620	12,025	59,750	88,495	95,320	96,660	95,990	76,092	25,319	8,254
24	8,678	10,153	11,665	11,710	57,950	90,873	94,985	97,170	96,325	74,496	23,722	8,220
25	8,606	10,072	11,665	12,070	58,545	96,660	95,320	96,158	97,510	73,348	22,322	8,220
26	8,281	9,911	11,575	11,980	59,140	94,148	95,990	95,655	98,020	71,920	21,042	7,914
27	8,220	10,275	11,845	11,530	58,664	93,645	95,488	95,655	95,020	70,520	20,065	8,220
28	8,084	10,194	12,620	11,105	59,140	93,645	94,985	95,823	98,020	68,725	19,128	8,220
29	7,914	10,234	12,858	11,755	-	93,813	94,483	96,493	98,360	67,240	18,280	8,186
30	7,710	10,396	12,953	11,980	-	93,478	94,148	96,660	98,360	65,395	17,450	8,118
31	7,550	-	13,333	13,142	-	93,310	-	95,823	-	63,714	16,638	-

## Stanislaus River below Melones power house, Calif.

Location.— Water-stage recorder, lat. 37°56'50", long. 120°31'45", near line between secs. 10 and 15, T. 1 N., R. 13 E., 300 feet below power house, half a mile above Bear Gulch, and 1 mile below Melones Dam. Altitude, about 500 feet.

Drainage area.— 898 square miles.

Records available.— January 1931 to September 1937.

Extremes.— Maximum discharge during year, 10,600 second-feet May 15 (gauge height, 12.55 feet); minimum, 3.4 second-feet Dec. 10.

1931-37: Maximum discharge, 17,200 second-feet Feb. 22, 1936 (gauge height, 16.1 feet), from rating curve extended above 8,000 second-feet; minimum, about 1 second-foot (regulated) Feb. 6, 1933.

Remarks.— Records excellent. Discharge Mar. 2-15, Apr. 15-23 computed on basis of records for Melones Reservoir and records of flow through power house. Numerous diversions and several storage reservoirs above station. See record for Melones Reservoir, which stores water above station. Gauge-height record furnished by Pacific Gas & Electric Co.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	592	25	209	222	466	1,110	2,120	3,210	3,930	1,350	1,230	622
2	592	61	208	221	466	1,520	2,550	4,050	3,930	1,330	1,210	615
3	592	69	208	22	466	1,500	2,500	5,390	4,180	1,350	1,190	615
4	592	92	206	224	473	1,380	1,870	6,280	4,570	1,360	1,200	615
5	447	52	208	218	778	1,500	2,330	6,760	4,440	1,350	1,200	615
6	222	50	9	219	928	776	2,220	6,920	3,930	1,290	1,190	608
7	198	49	206	218	687	51	2,220	6,280	4,050	1,190	1,190	600
8	212	16	208	218	1,050	1,130	1,970	5,830	3,450	1,190	1,190	600
9	231	51	213	221	1,480	984	1,770	5,830	3,100	1,200	1,180	592
10	250	144	201	16	1,430	984	2,120	5,680	2,720	1,190	1,180	592
11	236	52	204	379	1,430	1,060	1,870	4,970	2,330	1,180	1,170	592
12	248	146	190	460	1,430	1,320	2,500	6,800	1,970	1,170	1,160	585
13	245	116	9	475	1,430	1,460	2,330	7,560	1,870	1,170	1,160	543
14	243	190	213	469	1,240	950	2,550	9,070	2,330	1,160	1,160	393
15	246	19	212	466	1,480	1,320	3,460	9,070	2,120	1,180	1,150	287
16	251	203	215	20	1,480	1,320	4,050	8,220	2,220	1,200	1,150	326
17	250	216	218	26	1,480	1,320	3,490	8,220	3,330	1,190	1,150	326
18	251	223	217	473	1,480	1,340	2,740	7,240	2,920	1,180	1,140	268
19	241	215	218	455	1,480	1,340	3,600	5,530	2,120	1,170	1,130	295
20	254	213	19	465	1,310	1,340	3,460	5,110	1,770	1,160	1,130	244
21	256	217	220	468	49	1,020	4,240	5,530	2,500	1,160	1,120	244
22	254	22	218	460	1,100	1,380	4,960	5,680	2,280	1,170	1,110	248
23	261	215	217	464	1,480	1,380	3,980	5,680	2,220	1,190	1,120	276
24	261	215	212	27	1,480	2,170	3,570	7,080	1,870	1,190	1,090	272
25	230	217	210	230	1,480	3,570	3,810	6,440	1,620	1,180	954	308
26	240	8	214	456	1,480	2,500	4,970	5,530	1,570	1,170	863	233
27	245	203	18	459	1,360	2,070	4,310	5,390	1,480	1,190	791	264
28	247	202	213	463	49	1,520	3,570	5,980	1,380	1,240	743	278
29	241	8	212	466	-	2,120	2,880	6,440	1,350	1,240	743	278
30	235	203	224	472	-	1,720	2,720	5,830	1,350	1,230	712	277
31	235	-	220	32	-	1,520	-	5,110	-	1,230	622	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						9,098	592	198	293	18,050		
November.....						3,732	223	8	124	7,623		
December.....						5,769	224	9	186	11,440		
Calendar year 1936.....						685,217	12,100	8	1,872	1,306,000		
January.....						9,484	475	16	306	18,810		
February.....						30,942	1,480	49	1,105	61,370		
March.....						44,675	3,570	51	1,441	88,620		
April.....						90,750	4,970	1,770	3,025	180,000		
May.....						192,510	9,070	3,210	6,210	381,900		
June.....						78,800	4,570	1,350	2,627	156,300		
July.....						37,750	1,360	1,160	1,218	74,880		
August.....						33,328	1,230	622	1,075	66,110		
September.....						12,601	622	233	420	24,990		
Water year 1936-37.....						549,439	9,070	8	1,505	1,090,000		



## North Fork of Stanislaus River near Avery, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}14'$ , long.  $120^{\circ}17'$ , in sec. 35, T. 5 N., R. 15 E., 700 feet above intake of Utica Mining Co.'s canal,  $3\frac{1}{2}$  miles above Beaver Creek, and 5 miles northeast of Avery. Altitude, about 3,400 feet.

Drainage area.- 163 square miles.

Records available.- July 1914 to September 1922, November 1928 to September 1937.

Average discharge.- 16 years (1914-22, 1929-37), 394 second-feet.

Extremes.- Maximum discharge during year, 5,010 second-feet May 13 (gage height, 8.35 feet), from rating curve extended above 2,400 second-feet on basis of area-velocity studies; minimum, 24 second-feet Feb. 1 (gage height, 0.81 foot).  
1914-22, 1928-37: Maximum discharge, 5,250 second-feet May 11, 1915 (gage height, 8.7 feet), from rating curve extended above 2,400 second-feet on basis of area-velocity studies; minimum, 5.5 second-feet Dec. 6, 7, 1929.

Remarks.- Records excellent except those for period of ice effect, Jan. 9-24, which were computed on basis of weather records and records for nearby streams and are fair. Storage in three reservoirs above station and diversion from Beaver Creek.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

O.S	24	1.6	82	2.4	185	3.4	430	5.0	1,220	6.6	2,750
1.0	34	1.8	102	2.6	224	3.8	565	5.4	1,530	7.0	3,220
1.2	47	2.0	125	2.8	268	4.2	740	5.8	1,900	7.3	3,580
1.4	63	2.2	152	3.0	317	4.6	960	6.2	2,310	7.6	3,970

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	60	46	64	30	148	512	1,490	1,180	170	59	49
2	54	56	46	59	31	158	585	1,900	1,290	152	67	49
3	51	53	46	57	29	193	512	2,360	1,330	138	66	49
4	46	53	46	55	38	228	433	2,920	1,350	129	62	48
5	44	52	43	66	150	266	421	3,040	1,220	123	60	48
6	41	52	49	62	558	282	450	2,860	1,020	112	59	47
7	39	51	47	53	282	320	427	2,580	930	99	58	46
8	39	50	47	46	145	354	436	2,480	840	99	57	46
9	38	50	49	45	99	377	478	2,480	715	82	57	46
10	38	49	51	45	81	354	585	2,050	668	79	53	45
11	38	49	50	45	73	386	585	2,310	565	80	52	44
12	38	49	50	45	99	512	606	3,160	495	83	51	44
13	38	49	50	45	231	512	790	3,580	495	106	50	44
14	38	49	54	45	1,050	445	990	3,710	512	102	50	45
15	38	50	38	45	460	418	1,410	3,340	478	84	49	44
16	37	51	175	45	294	445	1,290	3,160	925	74	48	44
17	39	50	80	46	228	495	1,020	2,800	870	67	45	44
18	47	49	77	47	214	433	1,050	2,420	565	61	44	44
19	53	49	74	46	194	354	1,120	1,800	495	67	43	46
20	52	49	62	50	171	353	1,370	2,000	495	53	42	47
21	50	49	60	51	173	314	1,760	2,260	478	47	41	50
22	48	49	57	52	193	304	1,580	2,310	460	44	40	55
23	46	49	54	52	200	268	1,150	2,530	421	41	46	54
24	46	48	55	53	214	256	1,330	2,800	371	39	48	54
25	46	47	60	53	191	247	1,660	2,360	314	38	49	53
26	45	47	61	52	162	230	1,710	1,900	261	36	51	53
27	45	47	60	48	146	232	1,330	2,100	234	35	50	51
28	45	47	65	36	146	224	930	2,260	220	41	49	50
29	44	47	62	32	-	237	765	2,150	214	40	49	49
30	47	46	68	30	-	275	900	1,710	198	43	49	48
31	60	-	73	30	-	-	-	1,180	-	53	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,383	60	37	44.6	2,740
November.....	1,498	60	46	49.9	2,970
December.....	1,903	175	43	61.4	3,770
Calendar year 1936 .....	184,699	4,100	29	505	366,400
January.....	1,502	66	30	48.5	2,980
February.....	5,862	1,050	29	209	11,630
March.....	9,951	512	148	321	19,740
April.....	28,194	1,760	421	940	55,920
May.....	76,000	3,710	1,180	2,452	150,700
June.....	19,569	1,530	198	653	38,650
July.....	2,397	170	35	77.3	4,750
August.....	1,593	67	40	51.4	3,160
September.....	1,456	55	44	47.9	2,850
Water year 1936-37.....	151,306	3,710	29	415	300,100

## South San Joaquin Canal near Knights Ferry, Calif.

Location.- Water-stage recorder, lat. 37°51'20", long. 120°38'15", in sec. 15, T. 1 S., R. 12 E., three-quarters of a mile below head gate at Goodwin Dam on Stanislaus River and 4 miles above Knights Ferry. Altitude, about 345 feet.

Records available.- May 1914 to September 1937.

Extremes.- Maximum daily discharge during year, 1,030 second-feet May 12, 13, and June 5; no flow Jan. 4-31, Mar. 25-29, Apr. 1-14.

1914-37: Maximum daily discharge, 1,070 second-feet July 1-3, 1921; no flow at times during each year.

Remarks.- Records good. Canal diverts water for irrigation from Stanislaus River on right bank, at Goodwin Dam. Water is used in Oakdale and South San Joaquin irrigation districts.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	377	127	14	0.2	0.2	0.1	0	528	801	958	825	397
2	370	5	9	.2	.2	.2	0	532	798	949	809	400
3	368	8.5	7	.1	.2	.2	0	590	827	951	771	400
4	370	10	3.4	0	.8	.2	0	732	1,020	956	779	398
5	324	10	1.0	0	1.3	.2	0	884	1,030	949	777	397
6	136	11	1.0	0	1.0	.5	0	993	1,010	896	776	394
7	116	5.5	1.5	0	.2	1.0	0	1,010	1,010	771	774	391
8	72	2.4	1.3	0	.1	1.3	0	1,020	1,000	736	774	391
9	69	3.0	2.2	0	.1	1.9	0	1,000	1,000	734	769	391
10	74	3.7	2.4	0	.1	2.2	0	1,010	1,010	732	764	390
11	98	4.4	2.2	0	.1	274	0	1,010	1,010	781	763	390
12	95	4.8	2.4	0	.1	574	0	1,030	1,010	729	761	385
13	98	5	2.7	0	.1	652	0	1,030	1,010	728	759	332
14	118	5	1.9	0	.1	691	0	1,020	1,010	724	760	249
15	156	5.5	3.0	0	.1	716	74	1,020	1,010	731	758	117
16	167	13	2.4	0	.2	715	143	1,020	1,010	760	755	146
17	166	19	2.4	0	.2	715	279	1,020	1,000	777	753	174
18	165	19	2.4	0	.2	713	542	915	1,000	777	737	168
19	180	20	2.4	0	.2	559	654	819	1,000	774	740	151
20	156	19	2.4	0	.2	349	673	811	1,000	764	723	179
21	157	10	1.9	0	.2	107	756	812	1,000	761	732	167
22	158	19	1.6	0	.1	.1	864	814	997	763	731	164
23	153	20	1.3	0	.1	.1	908	814	993	764	729	167
24	154	20	1.3	0	.1	.1	986	828	995	761	710	179
25	153	17	1.3	0	.1	0	1,010	825	1,000	753	627	194
26	143	15	1.0	0	.1	0	1,000	819	997	750	568	227
27	142	13	1.0	0	.1	0	929	816	993	760	535	171
28	142	15	1.0	0	.1	0	734	820	990	825	493	179
29	142	16	.8	0	-	0	654	819	963	827	494	185
30	148	14	.5	0	-	45	540	820	961	822	486	188
31	156	-	.2	0	-	33	-	812	-	824	396	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				5,301	377	69	171	10,510				
November.....				468.8	127	2.4	15.6	930				
December.....				77.9	14	.2	2.51	155				
Calendar year .....												
January.....				.5	.2	0	.02	1.0				
February.....				6.6	1.3	.1	.24	15				
March.....				6,151.1	716	0	198	12,200				
April.....				10,746	1,010	0	358	21,310				
May.....				26,993	1,030	528	871	53,540				
June.....				29,555	1,030	798	985	58,620				
July.....				24,737	958	724	798	49,070				
August.....				21,832	825	396	704	43,300				
September.....				8,061	400	117	269	15,990				
Water year 1936-37.....				133,829.9	1,030	0	367	265,600				

## Oakdale Canal near Knights Ferry, Calif.

Location.- Water-stage recorder, lat. 37°51'30", long. 120°38'00", in SE $\frac{1}{4}$  sec. 10, T. 1 S., R. 12 E., half a mile below head gate at Goodwin Dam on Stanislaus River and 4 miles above Knights Ferry. Altitude, about 350 feet.

Records available.- May 1914 to September 1937.

Extremes.- Maximum daily discharge during year, 390 second-feet June 2; no flow Nov. 2 to Apr. 14.

1914-37: Maximum daily discharge, that of June 2, 1937; no flow for some periods of each year.

Remarks.- Records good. Canal diverts water for irrigation from Stanislaus River on left bank, at Goodwin Dam. Water is used in Oakdale irrigation district. Gage-height record furnished by Oakdale Irrigation District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	189	46					0	281	368	386	375	213
2	190	0					0	296	390	384	374	210
3	193	0					0	308	388	386	372	207
4	193	0					0	313	388	386	370	207
5	183	0					0	340	337	384	368	207
6	97	0					0	351	387	382	369	204
7	103	0					0	358	388	372	368	202
8	137	0					0	363	386	369	368	198
9	140	0					0	370	388	370	367	197
10	146	0					0	374	388	370	367	195
11	159	0					0	377	388	371	367	194
12	151	0					0	380	388	370	365	194
13	148	0					0	377	388	369	364	193
14	118	0					0	378	389	368	361	177
15	92	0					45	377	388	374	359	154
16	88	0					85	377	389	380	357	152
17	86	0					109	380	388	380	357	161
18	88	0					143	381	388	380	356	150
19	90	0					204	379	388	380	357	149
20	85	0					263	381	388	382	352	134
21	88	0					286	385	388	383	349	114
22	84	0					319	385	388	381	345	111
23	91	0					349	384	388	380	348	114
24	90	0					362	383	387	378	332	116
25	88	0					364	382	388	377	274	112
26	86	0					327	383	387	378	267	127
27	88	0					201	384	387	378	221	90
28	89	0					212	386	388	377	221	105
29	88	0					275	386	388	376	220	111
30	82	0					273	387	386	377	218	111
31	60	-					-	387	-	377	212	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						3,610	193	60	116	7,160		
November.....						46	46	0	1.53	61		
December.....						0	0	0	0	0		
Calendar year .....												
January.....						0	0	0	0	0		
February.....						0	0	0	0	0		
March.....						0	0	0	0	0		
April.....						3,817	364	0	127	7,570		
May.....						11,373	387	281	367	22,560		
June.....						11,585	390	337	386	22,980		
July.....						11,705	386	368	378	23,280		
August.....						10,300	375	212	332	20,430		
September.....						4,799	213	90	160	9,520		
Water year 1936-37.....						57,235	390	0	157	113,500		

## Calaveras River at Jenny Lind, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}05'$ , long.  $120^{\circ}52'$ , in SW $\frac{1}{4}$  sec. 22, T. 3 N., R. 10 E., at bridge on Milton road a quarter of a mile south of Jenny Lind and  $6\frac{1}{2}$  miles below Cosgrove Creek. Altitude, about 220 feet.

Drainage area.- 395 square miles.

Records available.- January 1907 to September 1937.

Average discharge.- 28 years (1908-23, 1924-37), 257 second-feet.

Extremes.- Maximum discharge during year, 8,760 second-feet Feb. 6 (gage height, 9.02 feet); no flow Oct. 1 to Dec. 13, Aug. 22, 23, and Aug. 31 to Sept. 30.

1907-37: Maximum discharge observed, about 69,600 second-feet Jan. 31, 1911; stage was reported higher about midnight; no flow during late summer 1913-15, 1917-22, 1924-37.

Remarks.- Records good. Hogan Reservoir (Stockton flood-control dam), above station regulates flow to some extent; small storage on and diversion from North Fork of Calaveras River into Mokelumne River Basin; also diversion from North Fork of Stanislaus River into Calaveras River above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	227	595	444	712	206	62	24	1.1	
2			0	131	744	370	753	196	59	22	1.1	
3			0	90	750	328	712	186	55	19	1.0	
4			0	75	1,090	305	609	181	51	18	1.0	
5			0	69	4,200	284	536	178	50	17	1.0	
6			0	97	7,380	276	686	178	48	16	.8	
7			0	108	6,580	268	692	168	48	13	.9	
8			0	84	4,290	260	566	162	48	13	1.0	
9			0	66	2,920	253	512	153	48	26	.6	
10			0	56	1,520	249	465	147	48	37	.4	
11			0	56	526	241	437	141	46	42	.3	
12			0	84	488	423	394	136	34	41	.2	
13			0	86	698	1,990	374	131	27	32	.2	
14			4	71	3,260	1,470	349	126	36	24	.2	
15			9.5	67	3,540	792	339	121	41	19	.1	
16			24	32	2,660	595	339	116	46	16	.1	
17			59	125	1,470	532	320	109	57	14	.1	
18			61	118	898	737	310	106	68	11	.1	
19			46	115	539	704	292	106	59	10	.1	
20			34	110	438	1,340	283	104	52	9	.1	
21			33	88	360	2,300	278	96	45	9	.1	
22			28	71	319	3,680	270	92	41	9.5	0	
23			23	66	301	3,450	256	90	38	9.5	0	
24			22	61	310	3,920	244	86	36	9	14	
25			24	61	1,660	4,160	231	84	35	7	7	
26			38	59	1,540	3,450	227	84	34	5.5	.7	
27			95	64	750	3,090	256	82	30	3.9	.4	
28			154	405	548	2,320	296	76	27	2.9	.2	
29			120	980	-	1,390	270	72	25	2.3	.1	
30			115	1,620	-	948	227	69	24	1.9	.1	
31			388	1,470	-	795	-	66	-	1.5	0	
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0		0	0	0	0			
November.....				0		0	0	0	0			
December.....				1,276.5		388	0	41.2	2,530			
Calendar year 1936.....				144,876.9		9,500	0	396	287,400			
January.....				6,758		1,620	56	218	13,400			
February.....				49,752		7,580	301	1,777	98,680			
March.....				41,364		4,160	241	1,334	82,040			
April.....				12,235		753	227	408	24,270			
May.....				3,849		206	66	124	7,630			
June.....				1,517		66	24	43.9	2,610			
July.....				485.0		42	1.5	15.6	962			
August.....				33.0		14	0	1.06	65			
September.....				0		0	0	0	0			
Water year 1936-37.....				117,069.5		7,580	0	321	232,200			

## Cosgrove Creek near Valley Springs, Calif.

Location.- Water-stage recorder, lat. 38°09', long. 120°50', in SE¼ sec. 35, T. 4 N., R. 10 E., 0.4 mile above mouth and 2.5 miles south of Valley Springs. Altitude, about 580 feet.

Drainage area.- 20.6 square miles.

Records available.- October 1929 to September 1937.

Extremes.- Maximum discharge during year, 2,030 second-feet Mar. 21 (gage height, 7.15 feet), from rating curve extended above 800 second-feet on basis of slope-area computations; no flow for several months.  
1929-37: Maximum discharge, 2,420 second-feet Feb. 22, 1936 (gage height, 7.80 feet), from rating curve extended above 800 second-feet on basis of slope-area computations; no flow for several months each year.

Remarks.- Records good. No diversions.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.8	0	3.0	55
2.0	.2	3.5	154
2.2	1.7	4.0	296
2.4	7.7	4.5	495
2.6	17	5.0	740

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	10	18	12	14	1.5	0.2			
2			0	3.8	52	10	16	1.4	.1			
3			0	2.1	18	8.5	11	1.2	.1			
4			0	1.2	338	6.5	9.5	1.1	.1			
5			0	2.7	348	6	9	1.1	.1			
6			0	3.8	498	5	14	1.1	.1			
7			0	1.7	79	4.4	8.5	1.0	.1			
8			0	.9	31	3.8	7.5	1.0	.1			
9			0	.5	20	3.5	6.5	.9	.1			
10			0	.4	16	3.5	5.5	.9	.1			
11			0	.5	16	3.5	5	.7	.1			
12			0	10	33	56	4.8	.6	.1			
13			0	6	103	55	4.4	.5	.1			
14			0	3.8	227	17	4.1	.3	.1			
15			0	6.5	45	12	3.8	.3	.1			
16			0	14	24	10	3.5	.2	.2			
17			0	6	18	15	3.2	.2	.2			
18			0	4.4	16	27	2.9	.2	.2			
19			0	12	14	18	2.7	.2	.2			
20			0	6	11	97	2.5	.2	.1			
21			0	2.9	9	546	2.3	.2	.1			
22			0	2.3	7.5	344	1.9	.2	.1			
23			0	1.9	6.5	147	1.7	.2	.1			
24			0	1.7	40	352	1.5	.2	.1			
25			0	2.3	284	104	1.4	.2	.1			
26			0	2.7	40	40	2.1	.2	.1			
27			0	9	21	173	5	.2	0			
28			0	122	15	45	4.8	.2	0			
29			0	68	-	25	2.5	.2	0			
30			20	162	-	18	1.9	.2	0			
31			64	34	-	14	-	.1	-			
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				0		0	0	0	0			
November.....				0		0	0	0	0			
December.....				84		64	0	2.71	167			
Calendar year 1936.....				6,691.3		1,090	0	18.3	13,270			
January.....				505.1		162	.4	16.3	1,000			
February.....				2,336.0		498	6.5	83.3	4,630			
March.....				2,179.7		546	3.5	70.3	4,320			
April.....				165.5		16	1.4	5.45	324			
May.....				16.7		1.5	.1	.54	33			
June.....				3.1		.2	0	.10	6.1			
July.....				0		0	0	0	0			
August.....				0		0	0	0	0			
September.....				0		0	0	0	0			
Water year 1936-37.....				5,288.1		546	0	14.5	10,480			

## Salt Springs Reservoir near West Point, Calif.

Location.— Staff gage, lat.  $38^{\circ}30'$ , long.  $120^{\circ}12'$ , in SW $\frac{1}{4}$  sec. 33, T. 8 N., R. 16 E., at Salt Springs Dam on North Fork of Mokelumne River 2 miles above Cold Creek and 18 miles northeast of West Point.

Drainage area.— 160 square miles.

Records available. March 1931 to September 1937.

Remarks.— This is largest storage unit on Mokelumne system of Pacific Gas & Electric Co. Elevation of crest of dam, 3,958 feet above mean sea level. Water is released through power house just below dam and discharges into Tiger Creek conduit. Table of daily contents, furnished by Pacific Gas & Electric Co., shows amount available for release.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77,586	51,704	29,566	20,009	10,880	13,323	20,415	59,847	126,210	129,171	113,415	94,775
2	76,759	50,779	28,996	19,647	10,694	12,587	21,197	62,574	127,686	128,892	113,415	93,714
3	75,861	49,862	28,430	19,368	10,447	12,888	21,909	65,146	129,822	128,520	113,150	92,740
4	75,042	48,895	27,869	19,090	10,234	13,187	22,598	67,406	130,568	128,428	112,866	91,690
5	74,153	47,936	27,729	18,814	10,032	13,394	22,845	69,538	130,568	128,520	112,534	90,885
6	73,342	46,927	27,543	18,501	11,544	13,429	22,974	70,929	130,756	128,242	112,270	90,164
7	72,461	45,931	27,081	18,190	12,323	13,600	23,406	72,827	130,475	127,686	111,919	89,285
8	71,584	45,060	26,759	17,921	12,621	14,222	23,686	74,153	130,475	127,040	112,006	88,330
9	70,783	44,085	26,484	17,652	12,521	14,573	24,326	75,415	130,288	126,302	111,655	87,380
10	69,914	43,121	26,074	17,500	12,554	14,927	24,993	76,235	130,288	125,750	111,305	86,513
11	69,122	42,168	25,802	17,348	12,587	15,284	25,666	76,909	130,102	125,383	110,967	85,649
12	67,905	41,171	25,441	17,160	12,567	16,009	26,530	79,324	130,009	124,741	110,430	84,102
13	67,406	40,241	25,082	16,897	12,061	16,934	27,451	82,849	-	124,009	109,994	84,566
14	66,555	39,266	24,725	16,598	14,118	17,538	28,450	87,301	-	123,188	109,384	83,700
15	65,708	38,676	24,370	16,265	14,927	17,921	30,332	91,529	130,102	122,460	109,123	82,849
16	64,865	38,088	24,893	15,936	15,608	18,268	32,780	95,184	131,223	121,734	108,602	82,000
17	64,167	37,399	24,769	15,681	15,936	18,579	34,289	98,236	130,288	120,919	107,995	81,155
18	63,472	36,716	24,681	15,464	15,899	19,011	35,778	100,071	130,009	120,106	107,304	80,313
19	62,712	36,037	24,548	15,212	15,862	19,268	37,188	100,522	130,009	119,586	106,528	79,704
20	61,955	35,210	24,326	14,998	15,753	19,567	38,943	101,531	130,009	118,576	106,840	79,172
21	61,203	34,597	24,106	14,643	15,393	19,807	41,448	103,022	130,009	117,680	104,897	78,339
22	60,455	34,137	23,842	14,222	14,927	19,567	44,200	105,410	130,009	116,787	104,213	77,434
23	59,712	33,733	23,406	13,771	14,397	19,607	46,047	107,822	129,915	115,986	103,277	76,534
24	58,773	33,080	23,017	13,594	13,600	19,847	47,876	110,779	129,822	115,274	102,259	75,638
25	57,976	32,482	22,460	13,022	12,720	19,727	50,228	113,680	129,636	114,742	101,247	74,746
26	57,063	32,037	22,078	12,720	12,192	19,647	52,888	114,742	129,642	114,122	100,322	74,301
27	56,139	31,497	21,531	12,388	12,061	19,647	55,042	116,787	129,542	113,415	99,255	73,562
28	55,171	31,010	20,907	12,028	12,159	19,607	56,465	119,746	129,542	113,327	98,319	72,754
29	54,275	30,670	20,415	11,704	-	19,808	57,448	123,097	129,542	113,327	97,573	71,876
30	53,453	30,188	20,050	11,384	-	19,848	58,374	125,108	129,449	113,327	96,746	71,001
31	52,576	-	-	11,131	-	20,090	-	125,659	-	113,238	95,759	-

## North Fork of Mokelumne River below Salt Springs Dam, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}29'$ , long.  $120^{\circ}13'$ , in SW $\frac{1}{4}$  sec. 33, T. 8 N., R. 18 E., 0.3 mile below Salt Springs Dam and  $3\frac{1}{2}$  miles above Moore Creek. Altitude, about 3,600 feet.

Drainage area.- 160 square miles.

Records available.- September 1926 to September 1937.

Average discharge.- 10 years (1927-37), 221 second-feet.

Extremes.- Maximum discharge during year, 3,100 second-feet June 16 (gage height, 7.20 feet); minimum, 1.3 second-feet Jan. 25 and Feb. 1.

1926-37: Maximum discharge, 8,740 second-feet Mar. 25, 1928 (gage height, 13.62 feet); minimum, 0.2 second-foot Mar. 31, 1931.

Remarks.- Records good except those for October to April which are fair. Discharge Jan. 22 to Feb. 3, computed on basis of occasional staff-gage readings. Storage and diversion above station. See records for Salt Springs Reservoir and Tiger Creek power-house conduit. Gage-height record and results of several discharge measurements furnished by Pacific Gas & Electric Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

-0.6	0.9	0.6	50	1.8	220	4.5	1,225
-0.4	2.7	.8	68	2.0	270	5.0	1,520
-0.2	7	1.0	88	2.5	410	5.5	1,820
.0	13	1.2	112	3.0	564	6.0	2,170
.2	22	1.4	142	3.5	750	6.3	2,380
.4	35	1.6	178	4.0	970		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	7.5	3.8	2.9	1.3	4.5	6	46	1,310	16	14	12
2	10	7.5	3.6	167	1.3	3.6	7	117	1,250	16	14	12
3	10	7	3.6	169	2.0	3.6	6	564	1,370	16	14	11
4	10	7	3.6	174	4.1	4.0	6	1,100	2,380	16	14	11
5	10	7	3.6	147	9.5	4.0	6	1,280	2,240	16	14	11
6	10	7	3.6	120	17	4.0	7	1,220	1,760	17	14	11
7	10	6.5	3.6	113	7	4.0	6	1,200	1,890	16	14	11
8	10	6	3.4	115	4.3	4.0	5	1,200	1,580	16	14	11
9	10	6	3.2	118	3.4	4.0	5	1,220	1,340	28	14	11
10	10	6	3.1	128	3.4	4.0	5	1,200	1,250	16	14	10
11	10	6	3.1	107	3.6	4.3	5	1,140	995	16	14	10
12	10	6	3.1	89	84	6	5	1,200	880	16	13	10
13	10	6	3.1	134	233	6	5	1,250	790	16	13	10
14	10	6	3.1	132	18	5	5	1,250	948	16	13	10
15	9.5	6	4.1	136	8.5	4.5	6	1,220	790	16	13	9.5
16	8.5	6	4.1	142	6	4.3	6	1,170	1,950	15	13	9.5
17	8.5	6	3.6	111	95	34	5.5	1,280	1,370	15	13	9.5
18	8.5	5	3.2	87	186	57	5.5	1,460	790	15	13	9.5
19	8.5	5	3.1	70	190	33	14	1,200	690	15	13	9
20	8.5	5	3.4	25	262	90	5	1,070	750	15	13	9
21	8.5	5	3.2	2.3	267	107	5.5	1,040	690	15	13	9
22	8.5	4.8	3.1	2.0	275	103	6	1,040	554	15	13	9
23	8	4.8	3.1	1.8	374	14	6	1,120	440	15	13	9
24	8	4.8	3.2	1.5	410	4.8	6	1,370	327	14	13	9
25	7.5	4.8	3.4	1.3	455	4.8	6	1,400	220	14	12	9
26	7.5	4.8	3.6	1.3	425	4.8	14	1,370	81	14	12	9
27	7.5	4.8	3.4	1.3	150	4.8	36	1,370	17	14	12	9
28	7.5	4.8	3.2	1.3	60	4.8	46	1,450	16	14	12	9
29	7.5	4.8	3.1	1.3	-	4.8	44	1,580	16	14	12	8.5
30	7.5	4.5	3.2	1.3	-	5	45	1,580	16	14	12	8
31	7.5	-	2.9	1.3	-	5	-	1,250	-	14	12	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				278.5		10	7.5	8.98	552			
November.....				172.4		7.5	4.5	5.75	342			
December.....				104.4		4.1	2.9	3.37	207			
Calendar year 1936.....				111,109.0		3,640	2.2	304	220,400			
January.....				2,303.6		174	1.3	74.3	4,570			
February.....				3,555.4		455	1.3	127	7,080			
March.....				546.8		107	3.6	17.5	1,080			
April.....				333.6		46	5	11.1	651			
May.....				35,939		1,560	48	1,159	71,280			
June.....				28,690		2,580	16	956	56,910			
July.....				485		28	14	15.6	962			
August.....				407		14	12	13.1	807			
September.....				295.5		12	8	9.85	586			
Water year 1936-37.....				75,111.1		2,380	1.3	200	145,000			

## Mokelumne River near Mokelumne Hill, Calif.

Location.- Water-stage recorder, lat. 38°18'40", long. 120°43'10", in sec. 1, T. 5 N., R. 11 E., at highway bridge, 1.2 miles northwest of Mokelumne Hill and 8 miles below junction of North and South Forks. Altitude, about 650 feet.

Drainage area.- 538 square miles.

Records available.- November 1927 to September 1937.

Extremes.- Maximum discharge during year, 5,540 second-feet Feb. 14 (gage height, 7.88 feet); minimum, 46 second-feet Dec. 6.  
1927-37: Maximum discharge, 23,300 second-feet Mar. 25, 1928 (gage height, 16.10 feet); minimum, 14 second-feet Oct. 27, 1929.

Remarks.- Records excellent. Diversions, three power plants, and several storage reservoirs above station. See record for Salt Springs Reservoir.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	527	397	267	209	232	435	1,080	1,480	2,340	669	398	498
2	542	547	335	121	356	431	1,440	1,820	2,460	664	453	555
3	527	507	333	232	263	439	1,200	2,420	2,520	642	498	489
4	435	537	322	267	590	578	1,060	3,520	3,350	503	606	507
5	522	562	224	270	1,700	673	1,060	3,730	3,390	269	570	402
6	547	542	76	244	3,430	745	1,300	3,800	2,750	360	494	423
7	542	512	149	223	1,800	745	1,140	3,520	2,750	589	579	476
8	542	413	202	211	736	662	1,120	3,320	2,480	594	355	499
9	552	527	216	211	478	890	1,080	3,320	2,150	879	434	476
10	502	547	204	211	478	802	1,080	3,200	2,020	647	503	503
11	422	517	218	211	418	860	970	3,060	1,610	421	536	570
12	497	547	196	197	568	1,080	1,000	3,730	1,360	565	466	359
13	517	507	126	197	1,290	1,570	1,180	4,090	1,340	615	522	382
14	522	456	253	197	4,130	1,090	1,300	4,240	1,580	615	484	494
15	492	317	279	203	1,660	955	1,510	4,090	1,520	594	340	464
16	448	389	386	229	700	1,030	1,400	3,590	2,840	610	436	540
17	418	365	401	208	830	1,060	1,200	3,590	2,930	579	522	494
18	381	381	236	232	860	1,240	1,240	3,660	1,840	494	507	507
19	479	373	213	214	802	1,120	1,400	3,060	1,620	531	560	382
20	497	381	90	200	773	1,160	1,510	2,940	1,500	605	507	432
21	479	317	260	217	745	1,450	1,980	3,130	1,460	589	436	476
22	512	150	226	347	830	1,590	2,070	3,200	1,500	599	366	517
23	502	236	227	332	890	1,480	1,620	3,000	1,230	517	456	498
24	439	413	270	280	1,180	1,700	1,550	3,260	1,130	494	531	526
25	422	413	404	247	1,470	1,400	1,820	3,320	1,060	398	484	512
26	552	216	317	257	1,120	1,140	2,020	2,810	850	444	517	382
27	547	295	416	287	803	1,270	1,780	3,000	696	531	517	458
28	547	350	373	307	609	1,090	1,480	3,200	760	560	480	498
29	479	131	482	300	-	942	1,340	3,260	626	471	427	536
30	547	257	426	319	-	1,020	1,240	3,060	615	507	463	512
31	532	-	350	241	-	1,060	-	2,410	-	521	526	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						15,469	552	381	499	30,680		
November.....						12,177	562	131	406	24,150		
December.....						8,466	482	76	273	16,770		
Calendar year 1936.....						444,713	11,400	76	1,215	882,100		
January.....						7,390	347	121	238	14,660		
February.....						29,742	4,130	232	1,062	58,990		
March.....						31,697	1,700	431	1,022	62,870		
April.....						41,170	2,070	970	1,372	81,660		
May.....						99,830	4,240	1,480	3,220	198,000		
June.....						54,507	5,590	615	1,610	107,700		
July.....						16,776	669	269	541	33,270		
August.....						14,912	605	335	481	29,560		
September.....						14,386	570	359	480	28,530		
Water year 1936-37.....						346,312	4,240	76	949	686,900		



## MOKELUMNE RIVER BASIN

## Mokelumne River at Lancha Plana, Calif.

Location.— Water-stage recorder, lat. 38°13'25", long. 120°53'20", in SW¼ sec. 4, T. 4 N., R. 10 E., 1 mile east of Lancha Plana, 3 miles downstream from Pardee Dam, and 5 miles above Camanche Creek. Zero of gage is 158.95 feet above mean sea level, from benchmark of East Bay Municipal Utility District.

Drainage area.— 584 square miles.

Records available.— June 1926 to September 1937.

Extremes.— Maximum discharge during year, 2,940 second-feet June 4 (gage height, 6.28 feet); minimum, 245 second-feet June 29.  
1926-37: Maximum discharge, 27,300 second-feet Mar. 25, 1928 (gage height, 19.65 feet); minimum, 5.5 second-feet Nov. 21, 1929.

Remarks.— Records excellent. Pardee and Salt Springs Reservoirs, several smaller Reservoirs, four hydroelectric plants, and several diversions are above station. East Bay Municipal Utility District Aqueduct is largest diversion.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	604	461	599	489	590	1,090	1,420	1,470	2,860	565	445	560
2	633	580	609	609	585	935	1,420	1,460	2,870	583	543	560
3	493	585	614	506	595	947	1,450	1,460	2,890	560	566	565
4	457	595	609	614	739	953	1,450	1,460	2,910	445	543	560
5	576	590	485	638	688	953	1,440	1,600	2,860	409	554	449
6	590	590	473	619	766	947	1,420	1,810	2,820	560	538	449
7	576	590	609	588	614	972	1,420	1,890	2,800	569	534	556
8	585	473	599	638	595	966	1,420	1,840	2,390	522	445	560
9	576	590	590	576	595	966	1,430	1,960	1,970	521	538	556
10	493	599	595	497	590	960	1,430	1,880	1,120	529	556	565
11	453	595	604	628	595	966	1,460	1,880	929	431	547	565
12	576	572	477	619	590	978	1,440	1,880	935	501	534	449
13	562	572	481	604	610	1,100	1,420	1,920	922	516	529	569
14	572	461	619	609	649	1,190	1,420	2,340	935	514	449	565
15	567	540	633	623	609	1,180	1,430	2,450	788	514	445	574
16	567	604	633	317	595	1,190	1,430	2,500	843	522	534	565
17	457	604	572	286	576	1,190	1,420	2,520	2,060	551	534	578
18	461	609	595	528	567	1,180	1,460	2,490	1,740	441	529	569
19	558	595	489	688	576	1,190	1,420	2,470	1,460	534	543	467
20	576	585	481	668	567	1,210	1,410	2,450	1,340	534	538	556
21	549	457	614	668	477	1,550	1,410	2,440	1,370	496	529	547
22	549	457	580	668	465	1,540	1,460	2,460	1,380	488	445	543
23	554	609	604	663	590	1,460	1,470	2,460	1,260	514	538	560
24	457	604	609	663	595	1,560	1,460	2,420	998	513	547	560
25	457	633	481	663	741	1,460	1,460	2,430	963	445	529	578
26	562	465	489	663	1,100	1,420	1,440	2,440	904	529	534	464
27	562	599	489	658	1,370	1,480	1,450	2,450	846	525	551	534
28	562	619	595	673	1,360	1,420	1,440	2,450	597	521	538	538
29	558	523	609	668	-	1,420	1,410	2,590	577	525	453	543
30	562	576	619	648	-	1,420	1,450	2,620	525	521	543	543
31	510	-	580	510	-	1,420	-	2,830	-	464	521	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						16,614	633	453	542	33,350		
November.....						16,932	633	457	564	33,580		
December.....						17,635	633	473	569	34,980		
Calendar year 1936.....						435,292	4,270	435	1,184	869,500		
January.....						18,469	673	286	596	36,630		
February.....						18,699	1,370	485	667	37,070		
March.....						37,213	1,560	935	1,200	73,810		
April.....						43,060	1,470	1,410	1,435	85,390		
May.....						67,520	2,630	1,460	2,178	133,900		
June.....						46,562	2,910	525	1,552	92,330		
July.....						15,852	583	409	511	31,440		
August.....						16,142	556	445	521	32,020		
September.....						16,237	578	449	541	32,210		
Water year 1936-37.....						331,106	2,910	286	907	656,700		

Mokelumne River near Clements, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}12'25''$ , long.  $121^{\circ}05'20''$ , in NW $\frac{1}{4}$  sec. 15, T. 4 N., R. 8 E., 700 feet above highway bridge, 1 mile north of Clements, and 3 miles below Murphy Creek. Altitude, about 80 feet.

Drainage area.- 630 square miles.

Records available.- October 1904 to September 1937.

Average discharge.- 24 years (1904-28), 1,110 second-feet. Storage and diversion by East Bay Municipal Utility District began March 1929.

Extremes.- Maximum discharge during year, 5,790 second-feet Mar. 21 (gage height, 11.75 feet); minimum, 248 second-feet during part of Jan. 17-18.  
1904-37: Maximum discharge, 25,600 second-feet Mar. 25, 1928 (gage height, 22.45 feet, at station below bridge); no flow July 9, Aug. 15, 20-23, 1924.

Remarks.- Records excellent. Diversions and storage above station. See Mokelumne River at Lancha Plana.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	563	463	593	525	593	1,200	1,450	1,460	2,850	576	451	537
2	642	533	619	576	700	960	1,460	1,460	2,650	597	504	550
3	542	589	619	537	611	980	1,460	1,460	2,820	580	546	572
4	461	597	615	576	1,230	980	1,450	1,470	2,810	492	546	554
5	537	602	525	646	1,260	975	1,440	1,560	2,780	410	537	479
6		597	580	475	642	1,690	970	1,440	1,760	2,760	516	529
7		584	589	559	585	741	970	1,420	1,900	2,780	572	537
8		589	512	633	637	642	965	1,420	1,870	2,380	513	459
9		589	546	615	593	628	945	1,430	1,940	2,100	504	500
10		616	606	616	512	624	945	1,430	1,930	1,240	554	537
11		475	611	611	576	619	950	1,440	1,900	930	467	546
12		537	580	521	718	664	1,040	1,440	1,910	925	476	550
13		572	572	475	633	699	1,130	1,440	1,900	915	532	533
14		563	492	567	611	848	1,210	1,420	2,220	915	529	463
15		559	496	660	642	650	1,200	1,420	2,390	833	529	440
16		559	615	642	408	650	1,170	1,430	2,420	723	524	504
17		479	611	589	270	628	1,200	1,420	2,420	2,020	572	521
18		465	619	597	421	615	1,200	1,450	2,420	1,900	483	525
19		529	611	537	682	611	1,210	1,430	2,420	1,440	504	508
20		580	597	475	668	611	1,340	1,400	2,420	1,370	529	525
21		559	496	567	650	516	2,920	1,400	2,410	1,340	533	546
22		580	451	693	650	492	2,330	1,440	2,440	1,350	471	463
23		550	554	602	642	572	1,610	1,470	2,450	1,310	476	504
24		521	606	615	642	611	2,620	1,480	2,420	1,010	546	533
25		444	637	525	642	759	1,820	1,460	2,430	970	463	529
26		529	500	496	646	1,020	1,590	1,450	2,430	865	500	537
27		567	554	500	646	1,380	1,770	1,460	2,410	673	516	537
28		563	642	567	735	1,350	1,540	1,450	2,410	597	512	546
29		559	546	615	779	-	1,480	1,410	2,500	589	512	471
30		576	563	673	1,010	-	1,470	1,430	2,810	492	516	512
31		537	-	650	589	-	1,460	-	2,830	-	451	525
Month	Second-foot-days					Maximum	Minimum	Mean	Run-off in acre-feet			
October.....	16,873					642	444	544	33,470			
November.....	16,970					642	451	566	33,660			
December.....	17,945					673	475	579	35,590			
Calendar year 1936.....	434,851					4,970	428	1,188	862,500			
January.....	19,136					1,010	270	617	37,980			
February.....	22,014					1,690	492	786	43,680			
March.....	42,050					2,920	945	1,366	85,400			
April.....	43,140					1,480	1,400	1,439	85,570			
May.....	66,770					2,830	1,460	2,154	132,400			
June.....	46,507					2,850	492	1,560	92,250			
July.....	16,955					597	410	515	31,650			
August.....	15,964					550	440	515	31,660			
September.....	16,364					589	436	545	32,460			
Water year 1936-37.....	339,688					2,920	270	931	673,700			

## Mokelumne River at Woodbridge, Calif.

Location.-- Water-stage recorder, lat. 38°09'30", long. 121°18'10", in NE¼ sec. 34, T. 4 N., R. 6 E., three-eighths of a mile downstream from dam of Woodbridge Irrigation District at Woodbridge. Altitude, about 30 feet.

Drainage area.-- 644 square miles.

Records available.-- May 1924 to September 1937 (for 1924 and 1925 low-water records only).

Average discharge.-- 10 years (1926-27, 1928-37), 552 second-feet.

Extremes.-- Maximum discharge during year, 2,720 second-feet Mar. 22 (gage height, 16.66 feet); minimum, 57 second-feet June 25.

1924-37: Maximum stage, 28.58 feet, former datum (about 30.6 feet, present datum), Mar. 26, 1928 (discharge not determined); minimum discharge, 0.9 second-foot Sept. 3, 1924.

Remarks.-- Records excellent. Storage, power plants, and many diversions above station. See records for Woodbridge Canal and Mokelumne River at Lancha Plana.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	372	433	566	600	600	1,310	1,480	1,360	2,460	165	119	224
2	407	408	578	511	680	1,030	1,480	1,360	2,470	213	106	256
3	407	528	564	603	653	962	1,470	1,320	2,460	246	137	314
4	335	678	630	513	669	952	1,470	1,300	2,470	256	158	324
5	301	697	576	618	1,400	944	1,470	1,300	2,500	171	166	304
6	340	614	468	636	1,420	957	1,480	1,350	2,500	107	192	229
7	427	607	468	600	1,280	957	1,460	1,570	2,480	170	218	210
8	418	603	570	620	700	960	1,440	1,670	2,450	177	238	269
9	412	291	568	622	686	947	1,430	1,640	2,160	155	124	261
10	429	468	568	574	666	952	1,440	1,700	1,720	170	213	253
11	356	490	570	515	655	957	1,440	1,570	88Q	234	229	279
12	318	490	574	662	666	1,010	1,440	1,610	751	137	206	290
13	467	482	470	640	675	1,080	1,430	1,610	704	124	184	199
14	422	468	460	611	864	1,150	1,420	1,680	664	165	177	282
15	422	416	600	618	751	1,180	1,410	1,650	648	172	142	304
16	433	486	629	603	700	1,170	1,410	2,020	515	180	131	309
17	420	540	677	362	671	1,180	1,400	2,110	834	190	174	314
18	340	536	616	315	655	1,180	1,400	2,100	1,420	224	196	317
19	344	538	635	562	651	1,170	1,250	2,140	1,340	166	211	338
20	414	536	500	647	644	1,270	1,120	2,170	1,210	178	222	247
21	425	522	492	649	622	1,400	1,270	2,140	1,030	180	261	303
22	407	412	596	649	535	2,390	1,250	2,150	1,050	184	266	312
23	451	408	578	651	528	2,270	1,270	2,170	1,050	174	128	316
24	435	555	603	653	629	1,920	1,290	2,170	1,570	171	149	340
25	354	603	603	649	689	2,180	1,210	2,070	482	192	220	404
26	344	585	495	649	827	1,790	1,250	2,080	543	148	248	382
27	398	472	513	653	1,160	1,660	1,340	2,080	486	150	242	292
28	392	572	523	696	1,280	1,720	1,390	2,170	238	167	248	421
29	398	581	592	796	-	1,580	1,560	2,150	237	142	280	426
30	425	511	622	845	-	1,530	1,530	2,220	164	149	179	430
31	563	-	692	877	-	1,510	-	2,390	-	137	234	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						12,376	563	301	399	24,550		
November.....						15,550	697	291	518	30,840		
December.....						17,587	692	458	567	34,880		
Calendar year 1936.....						379,452	4,570	65	1,037	752,600		
January.....						19,199	877	315	619	38,080		
February.....						21,957	1,420	528	784	43,550		
March.....						41,268	2,390	944	1,331	81,850		
April.....						41,300	1,480	1,120	1,377	81,920		
May.....						57,220	2,390	1,500	1,846	115,600		
June.....						39,556	2,500	164	1,318	78,420		
July.....						5,384	256	107	174	10,680		
August.....						5,998	280	106	193	11,900		
September.....						9,149	430	199	305	18,150		
Water year 1936-37.....						286,524	2,500	106	785	568,300		

Tiger Creek power-house conduit below Salt Springs Dam, Calif.

Location.- Water-stage recorder, lat. 38°30', long. 120°13', in SW¼ sec. 33, T. 8 N., R. 16 E., 1,000 feet below Salt Springs Dam and power house. Altitude, about 3,700 feet.

Records available.- June 1931 to September 1937.

Extremes.- Maximum daily discharge during year, 535 second-feet July 26; no flow May 24 to June 12.

1931-37: Maximum daily discharge, 548 second-feet July 29, 1931; no flow at times during each year.

Remarks.- Records good. Conduit conveys water of North Fork of Mokelumne River from tailrace of Salt Springs power house to forebay of Tiger Creek power house, picking up water from Bear River and several small creeks en route. Gage-height record and results of discharge measurements furnished by Pacific Gas & Electric Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	444	449	266	23	166	20	161	101	0	394	276	474
2	443	465	262	18	165	46	111	20	0	396	486	478
3	444	482	269	12	161	108	48	5.5	0	362	502	479
4	446	474	263	7	166	161	47	4.8	0	185	480	482
5	442	476	3.3	32	66	186	163	4.6	0	186	474	335
6	440	475	97	41	53	210	88	52	0	401	448	365
7	439	477	281	33	36	114	110	68	0	466	426	451
8	437	477	123	31	78	135	113	74	0	480	194	440
9	436	477	169	32	175	185	127	30	0	408	437	412
10	433	477	143	26	82	180	26	75	0	468	425	418
11	433	478	174	61	77	150	1.8	118	0	347	397	389
12	435	477	192	71	180	160	78	69	0	472	455	165
13	418	474	189	26	160	22	61	36	32	478	454	341
14	387	392	189	22	17	22	32	69	178	478	474	390
15	386	310	163	16	11	147	1.7	68	224	478	270	394
16	386	333	41	12	11	191	1.6	56	224	479	442	394
17	386	356	73	37	13	153	1.5	123	245	485	440	394
18	387	366	123	70	13	91	1.6	127	258	372	440	397
19	388	366	68	86	6.5	79	2.4	183	266	616	460	176
20	388	362	123	147	.1	76	1.6	229	279	616	476	360
21	387	206	125	233	54	93	1.6	240	294	518	474	396
22	387	196	132	237	108	103	1.6	240	317	494	261	396
23	402	342	176	237	150	226	9	120	354	478	438	398
24	418	343	291	223	160	221	10	0	372	438	460	400
25	419	312	192	215	91	238	18	0	370	315	478	400
26	433	197	297	168	12	251	23	0	366	535	480	182
27	442	300	256	171	12	236	29	0	372	518	490	400
28	442	193	334	174	12	115	54	0	369	508	488	397
29	447	201	304	167	-	197	126	0	361	509	263	397
30	449	266	243	168	-	208	170	0	380	509	478	406
31	449	-	150	172	-	178	-	0	-	510	478	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						13,072	449	385	422	25,930		
November.....						11,166	482	193	372	22,160		
December.....						5,681.3	334	3.3	183	11,270		
Calendar year 1936.....						86,882.2	523	0	237	172,300		
January.....						2,955	237	7	95.3	5,860		
February.....						2,225.6	180	.1	79.6	4,410		
March.....						4,498	261	20	145	8,920		
April.....						1,609.4	170	1.5	53.6	3,190		
May.....						2,152.8	240	0	69.4	4,270		
June.....						5,261	380	0	176	10,440		
July.....						13,697	535	186	442	27,170		
August.....						13,243	502	194	427	26,270		
September.....						11,498	482	165	383	22,810		
Water year 1936-37.....						87,069.1	535	0	239	172,700		

## Cold Creek near Mokelumne Peak, Calif.

Location.- Water-stage recorder, lat. 38°31', long. 120°13', in sec. 28, T. 8 N., R. 16 E., 1½ miles north of Salt Springs Dam and 6 miles southwest of Mokelumne Peak. Altitude, about 6,000 feet.

Drainage area.- 23 square miles.

Records available.- July 1927 to September 1937.

Average discharge.- 10 years, 50.9 second-feet.

Extremes.- Maximum discharge during year, 965 second-feet May 13 (gage height, 5.45 feet); minimum, 0.1 second-foot Aug. 29 to Sept. 28.

1927-37: Maximum discharge, 2,330 second-feet Mar. 25, 1928 (gage height, 7.79 feet); practically no flow Aug. 17 to Oct. 7, 1931.

Remarks.- Records fair. Discharge for periods of ice effect, Dec. 15-19, Dec. 27 to Mar. 11, computed on basis of weather records and records for nearby streams. No storage or diversions. Gage-height record and results of discharge measurements furnished by Pacific Gas & Electric Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.2	0	1.4	14	3.2	200
.4	.2	1.6	23	3.6	288
.6	.6	1.8	35	4.0	392
.8	2.0	2.0	49	4.6	550
1.0	4.5	2.4	84	5.0	765
1.2	8.5	2.5	132		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.3	0.2			11	66	246	280	17	0.5	0.1
2	.2	.3				11	55	320	339	15	.5	.1
3	.3	.2	.2			11	48	392	340	12	.5	.1
4	.3	.2	.3			11	33	420	321	11	.5	.1
5	.2	.2	.3			12	30	435	263	10	.4	.1
6	.2	.2	.3			12	28	392	218	9	.4	.1
7	.2	.2	.3			13	28	359	194	7.5	.4	.1
8	.2	.2	.4			13	34	341	159	6.5	.4	.1
9	.2	.2	.3			14	32	322	149	6	.4	.1
10	.2	.2	.3			14	51	274	131	8.5	.4	.1
11	.2	.2	.3			20	55	425	107	6.5	.3	.1
12	.2	.2	.4			45	67	515	104	5.5	.3	.1
13	.2	.2	.4			36	96	592	108	5	.3	.1
14	.2	.2	.5			30	159	590	98	4.5	.3	.1
15	.2	.2	1.4			30	210	515	107	3.9	.3	.1
16	.2	.2	4.0			38	143	465	324	3.1	.3	.1
17	.2	.2	2.0			37	114	420	132	2.9	.2	.1
18	.2	.2	1.5			31	129	312	97	2.6	.2	.1
19	.3	.2	1.0			26	146	274	92	2.2	.2	.1
20	.3	.2	.8			22	222	374	90	2.0	.2	.1
21	.3	.2	.6			20	276	417	90	1.6	.2	.1
22	.2	.2	.6			30	210	411	66	1.3	.2	.1
23	.2	.2	.6			27	156	453	58	1.1	.2	.1
24	.2	.2	.6			31	214	460	49	1.0	.2	.1
25	.2	.2	.9			27	281	351	41	.9	.2	.1
26	.2	.2	.7			18	253	344	35	.8	.2	.1
27	.2	.2	.6			16	160	429	30	.7	.2	.2
28	.2	.2	.6			17	104	476	27	.6	.2	.2
29	.2	.2	.6			19	92	399	26	.6	.1	.2
30	.2	.2	.6			24	125	264	22	.5	.1	.2
31	.3	-	.6			40	-	231	-	.5	.1	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						6.8	0.3	0.2	0.22	13		
November.....						6.2	.3	.2	.21	12		
December.....						22.1	4.0	.2	.71	44		
Calendar year 1936.....						31,225.6	600	.1	85.3	61,930		
January.....						15.5	-	-	.5	31		
February.....						140	-	-	5	278		
March.....						705	45	11	22.7	1,400		
April.....						3,607	281	28	120	7,160		
May.....						12,217	592	231	594	24,230		
June.....						4,089	340	136	136	8,110		
July.....						150.3	17	.5	4.85	298		
August.....						8.9	.5	.1	.29	18		
September.....						3.4	.2	.1	.11	6.7		
Water year 1936-37.....						20,971.2	592	.1	57.5	41,590		

Bear River at Pardoe Camp, Calif.

Location.- Water-stage recorder, lat. 38°32', long. 120°15', in sec. 18, T. 8 N., R. 15 E., 2 miles below Bear River Reservoir of Pacific Gas & Electric Co. Altitude, about 5,650 feet.

Drainage area.- 32.5 square miles.

Records available.- July 1927 to September 1937.

Average discharge.- 10 years, 81.7 second-feet.

Extremes.- Maximum discharge during year, 1,350 second-feet May 13 (gage height, 6.22 feet); minimum, 0.2 second-foot Dec. 2-10, 12-15.  
1927-37: Maximum discharge, 3,350 second-feet Mar. 25, 1928 (gage height, 9.75 feet); no flow Sept. 8-30, Oct. 1-4, 7-29, 1928.

Remarks.- Records good except those for Dec. 29 to Mar. 31, which were computed on basis of unpublished records of Pacific Gas & Electric Co. About 6,000 acre-feet is stored each year at reservoir above station and usually released during late summer and early winter. Gage-height record and results of discharge measurements furnished by Pacific Gas & Electric Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	3.9	0.3				30	372	508	32	11	6
2	57	3.2	.2				40	548	578	26	11	8
3	57	2.4	.2				35	670	595	20	11	8
4	57	1.7	.2				30	750	578	18	11	8
5	57	1.4	.2				30	770	490	16	11	8
6	57	1.2	.2				31	710	418	15	11	8
7	57	1.0	.2				31	618	364	14	11	8
8	57	.8	.2				33	600	307	14	11	34
9	57	.7	.2				40	566	270	14	11	67
10	57	.6	.2				47	465	233	14	10	67
11	56	.6	.3				46	618	188	13	10	92
12	56	.5	.2				53	850	170	13	10	96
13	56	.5	.2				58	930	181	13	10	96
14	57	.5	.2				77	990	156	13	10	94
15	57	.5	.4				88	890	168	13	10	93
16	58	.8	58				92	830	662	13	10	93
17	58	.7	65				83	770	260	13	10	94
18	58	.6	60				158	612	163	13	9.5	93
19	62	.5	54				275	508	145	12	9.5	94
20	60	.5	46				354	650	145	13	9.5	93
21	58	.4	37				480	730	138	13	9.5	94
22	56	.4	22				459	730	118	13	9.5	92
23	56	.3	9				290	770	104	13	9	92
24	51	.3	5.5				358	790	93	13	9	92
25	48	.3	4.1				480	710	76	13	9	91
26	44	.3	4.9				465	595	66	13	8.5	94
27	39	.3	6				290	750	58	13	8.5	93
28	34	.3	4.1				184	810	52	12	8	94
29	28	.3	4.0				147	730	55	12	8	92
30	20	.3	4.0				180	642	43	12	8	90
31	8	-	4.0				-	433	-	12	8	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				1,589		62	8	51.3	3,150			
November.....				25.8		3.9	.3	.56	51			
December.....				391.0		65	.2	12.6	776			
Calendar year 1936.....				50,768.3		1,080	.2	139	100,700			
January.....				155		-	-	5	307			
February.....				420		-	-	15	833			
March.....				465		-	-	15	922			
April.....				4,934		480	30	164	9,790			
May.....				21,306		990	372	687	42,260			
June.....				7,382		662	43	246	14,640			
July.....				461		32	12	14.5	895			
August.....				502.5		11	8	9.76	600			
September.....				2,086		96	8	69.5	4,140			
Water year 1936-37.....				39,507.3		990	.2	108	78,560			

## Middle Fork of Mokelumne River at West Point, Calif.

Location.- Water-stage recorder, lat. 38°23'15", long. 120°31'40", in sec. 10, T. 6 N., R. 13 E., 200 feet below highway bridge, 1 mile south of West Point, and 3½ miles above junction with South Fork. Altitude, about 2,500 feet.

Drainage area.- 67.2 square miles.

Records available.- October 1926 to September 1937; October 1911 to October 1926, at site about 1,200 feet upstream.

Average discharge.- 25 years (1912-37), 49.6 second-feet.

Extremes.- Maximum discharge during year, 1,080 second-feet Feb. 14 (gage height, 5.41 feet); minimum, 2.4 second-feet Oct. 18.  
1911-37: Maximum discharge, 2,550 second-feet Jan. 23, 1914 (gage height, 10.0 feet, former site and datum); practically no flow Aug. 23 to Sept. 14, 1931, and no flow during part of Sept. 9-10, 1934.

Remarks.- Records excellent except those for period of ice effect, Jan. 10-20, which were computed on basis of weather records and are fair. Several small diversions above station.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)  
(Shifting control method used Jan. 21-24, July 9-20)

0.8	2.0	2.0	106	3.3	392
1.0	7.6	2.2	141	3.6	473
1.2	18	2.4	180	4.0	585
1.4	32	2.6	222	4.5	735
1.6	51	2.8	268	5.0	915
1.8	75	3.0	316		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	7.5	4.5	14	15	78	188	174	76	25	3.5	4.9
2	3.8	7	6	14	17	7	247	188	71	23	8	4.9
3	4.2	6	6	13	17	78	209	207	67	22	7.5	5.5
4	4.2	5	6	12	76	84	186	229	64	20	7.5	6.5
5	4.5	6	6	13	269	92	176	236	62	21	5.5	7.5
6	4.9	6	6	9	615	95	243	238	61	20	6.5	7.5
7	4.5	6	6.5	9	242	100	201	229	56	21	6	6.5
8	4.2	6	6.5	9	95	104	188	212	53	19	6	5.5
9	4.2	6	6.5	9	63	111	184	205	51	17	6	6
10	4.2	6	6.5	9	50	111	182	195	50	17	5	3.8
11	3.8	6	6.5	8	48	118	174	184	47	17	5	4.0
12	3.8	6	7	8	111	210	172	197	45	17	4.9	4.2
13	3.5	6	7	9	353	270	178	212	45	16	4.9	4.2
14	3.5	6	7.5	9	765	801	168	222	44	14	4.9	3.5
15	3.5	6	19	10	285	166	224	216	41	14	4.5	2.9
16	3.5	6	44	10	168	154	220	205	58	16	4.9	2.9
17	6.5	6	16	11	130	168	207	188	53	15	4.9	3.1
18	6.5	6	11	11	118	178	203	176	47	13	4.5	3.1
19	7	6	9.5	12	104	162	205	168	43	12	4.5	3.5
20	8.5	6	9	12	93	186	209	147	41	12	4.5	4.2
21	7	5	9.5	12	86	201	236	141	38	12	3.8	4.2
22	6.5	4.2	8.5	13	86	212	243	137	35	11	3.8	4.2
23	6	4.0	8	13	86	182	218	132	31	11	4.0	4.2
24	5.5	4.0	9.5	12	109	197	207	127	31	11	4.2	4.2
25	5.5	4.0	11	11	141	172	216	123	30	12	4.5	4.2
26	5.5	4.0	15	12	106	160	224	114	30	13	4.2	4.2
27	5	4.5	22	13	88	156	220	106	28	12	4.2	4.0
28	4.0	4.5	14	16	82	150	197	103	27	11	4.0	4.0
29	3.8	4.5	12	14	-	158	180	96	28	11	3.8	4.0
30	4.5	4.5	13	14	-	164	168	90	26	9	3.8	4.0
31	7.5	-	13	14	-	164	-	84	-	8	4.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	153.4	8.5	3.5	4.95	304
November.....	164.7	7.5	4.0	5.49	327
December.....	331.5	44	4.5	10.7	668
Calendar year 1936.....	26,947.0	1,490	2.8	73.6	53,450
January.....	355	16	8	11.5	704
February.....	4,421	765	15	158	8,770
March.....	4,657	270	75	150	9,240
April.....	6,095	247	168	205	12,090
May.....	5,271	238	84	170	10,450
June.....	1,379	76	28	46.0	2,740
July.....	472	25	8	15.2	936
August.....	159.8	8.5	3.8	5.15	317
September.....	135.4	7.5	2.9	4.51	269
Water year 1936-37.....	25,692.8	765	2.9	64.6	46,800

South Fork of Mokelumne River near West Point, Calif.

Location.- Water-stage recorder, lat. 38°22'00", long. 120°33'00", in SW¼ sec. 16, T. 6 N., R. 13 E., 300 feet above Sawyer Bridge, 2 miles above junction with Middle Fork, and 2½ miles southwest of West Point. Altitude, about 2,000 feet.

Drainage area.- 73.8 square miles.

Records available.- October 1933 to September 1937.

Extremes.- Maximum discharge during year, 1,600 second-feet Feb. 6 (gage height, 7.15 feet); minimum, 7.5 second-feet during parts of Sept. 9-11.

1933-37: Maximum discharge, 3,600 second-feet Feb. 22, 1936 (gage height, 8.90 feet) from rating curve extended above 710 second-feet; no flow Aug. 6, 7, and Aug. 12 to Sept. 26, 1934.

Remarks.- Records good except those for period of ice effect, Jan. 7-27, which were computed on basis of weather records and one discharge measurement and are fair. Small diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	14	9	19	24	103	244	188	63	33	17	12
2	11	14	9	18	30	97	324	211	76	32	17	12
3	11	12	9	17	22	100	290	234	76	32	16	12
4	11	12	9	16	194	106	258	262	72	31	17	11
5	11	11	9	17	553	114	238	272	68	31	18	10
6	11	11	9	17	1,260	119	308	280	65	30	16	10
7	11	11	9.5	14	373	123	269	262	65	30	17	9
8	9.5	11	9.5	10	168	130	248	258	68	29	18	9.5
9	9	10	9.5	8	112	134	244	258	68	29	19	9
10	9	10	9	9	97	136	241	221	65	28	18	8.5
11	9.5	10	9	8	91	142	231	205	63	28	17	8.5
12	9	10	9	8	152	278	224	221	59	27	17	8.5
13	9	10	9	8	454	376	234	241	55	27	16	8
14	9	10	9	8	1,200	269	255	248	54	26	15	8
15	9	9.5	22	8	448	218	308	244	52	26	14	8.5
16	9	9.5	56	8	258	205	301	224	69	25	14	8.5
17	9	9.5	20	8	179	224	280	205	63	25	12	9
18	10	9.5	15	8	153	241	266	194	56	24	15	8.5
19	13	9.5	14	8	134	224	258	189	53	24	14	8.5
20	14	9.5	13	8	116	290	272	151	50	23	14	8.5
21	14	9	13	8	106	298	301	144	48	23	14	9
22	13	9	13	9	103	335	308	138	48	22	12	9
23	13	9	12	10	103	320	272	133	45	22	12	9.5
24	11	9	14	11	137	405	258	128	45	21	12	10
25	11	9	16	12	215	332	269	123	41	21	12	9
26	11	9	22	14	151	276	272	115	38	20	12	9
27	11	9	40	16	122	269	266	107	36	20	12	9
28	11	9	24	31	111	238	231	102	34	19	12	8.5
29	11	9	20	30	-	234	199	97	36	19	12	8.5
30	11	9	20	30	-	228	185	93	35	18	12	9
31	15	-	20	24	-	221	-	86	-	18	12	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						336	15	9	10.8	666		
November.....						303	14	9	10.1	601		
December.....						480.5	56	9	15.5	953		
Calendar year 1936.....						37,314	2,560	7	102	74,020		
January.....						419	31	8	13.5	831		
February.....						7,059	1,260	22	252	14,000		
March.....						6,784	405	97	219	13,460		
April.....						7,854	324	185	262	15,580		
May.....						5,774	280	86	186	11,450		
June.....						1,682	83	35	56.1	3,540		
July.....						733	33	19	25.3	1,550		
August.....						457	19	12	14.7	906		
September.....						278	12	8	9.27	551		
Water year 1936-37.....						32,209.5	1,260	8	86.2	63,890		



## MOKELUMNE RIVER BASIN

Woodbridge Canal at Woodbridge, Calif.

Location.— Three water-stage recorders, lat. 38°09'10", long. 121°18'00", in S $\frac{1}{4}$  sec. 34, T. 4 N., R. 6 E., at Woodbridge, at point of diversion. Zero of gage is 32.18 feet above mean sea level.

Records available.— April 1926 to September 1937.

Average discharge.— 11 years (1926-37), 96.8 second-feet.

Extremes.— Maximum daily discharge during year, 368 second-feet June 30; no flow Nov. 25 to Dec. 1, Dec. 16 to Apr. 19.

1926-37: Maximum daily discharge, that of June 30, 1937; no flow during part of each year.

Remarks.— Records excellent. Discharge computed from records of gate openings and effective head as shown by recorders. Canal diverts from reservoir on Mokelumne River in sec. 34, T. 4 N., R. 6 E., in Woodbridge. Water is used for irrigation of lands south and west of Woodbridge.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	'pr.	May	June	July	Aug.	Sept.
1	175	71	0				0	71	254	350	328	264
2	185	34	28				0	98	261	342	341	264
3	174	12	26				0	132	283	330	355	258
4	148	12	20				0	146	279	305	343	248
5	153	2	22				0	149	268	292	342	244
6	173	0	22				0	165	260	303	333	240
7	160	0	22				0	176	265	338	299	248
8	150	0	22				0	147	264	337	277	270
9	134	37	22				0	163	258	337	286	294
10	116	75	21				0	178	252	337	296	299
11	112	81	19				0	216	260	294	286	289
12	119	76	14				0	228	265	299	304	265
13	112	71	14				0	229	264	315	304	264
14	120	64	18				0	236	275	321	300	256
15	111	44	8.5				0	250	265	314	288	248
16	106	44	0				0	246	263	315	300	245
17	120	35	0				0	243	275	318	304	233
18	106	35	0				0	245	278	307	296	228
19	97	35	0				0	235	268	297	292	210
20	110	35	0				48	222	246	303	275	221
21	113	50	0				108	233	265	305	278	214
22	119	49	0				143	227	268	292	265	219
23	112	44	0				154	221	275	277	286	219
24	114	16	0				151	219	0	281	306	212
25	96	0	0				144	259	115	284	291	195
26	97	0	0				159	271	304	296	288	184
27	131	0	0				115	265	297	321	283	175
28	139	0	0				58	230	314	329	288	182
29	132	0	0				72	206	364	321	238	190
30	108	0	0				72	213	368	336	252	184
31	80	-	0				-	244	-	338	260	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						3,922	185	80	127	7,780		
November.....						925	81	0	30.8	1,830		
December.....						278.5	28	0	8.98	552		
Calendar year 1936.....						42,895.5	329	0	117	85,080		
January.....						0	0	0	0	0		
February.....						0	0	0	0	0		
March.....						0	0	0	0	0		
April.....						1,224	159	0	40.8	2,430		
May.....						6,361	271	71	205	12,620		
June.....						7,873	368	0	262	15,620		
July.....						9,734	350	277	314	19,310		
August.....						9,113	355	238	294	18,090		
September.....						7,062	299	175	235	14,010		
Water year 1936-37.....						46,492.5	368	0	127	92,230		



## North Fork of Cosummes River near El Dorado, Calif.

Location.- Water-stage recorder, lat. 38°38', long. 120°51', in NE¼ sec. 35, T. 9 N., R. 10 E., 1 mile north of Nashville, 2.7 miles above mouth, and 6 miles south of El Dorado. Altitude, about 910 feet.

Drainage area.- 202 square miles.

Records available.- October 1933 to September 1937; August 1911 to September 1933 at site 1½ miles upstream.

Average discharge.- 26 years, 189 second-feet.

Extremes.- Maximum discharge during year, 2,890 second-feet Feb. 6 (gage height, 5.75 feet); minimum, 3.1 second-feet Sept. 18.  
1911-37: Maximum discharge, about 7,600 second-feet Mar. 25, 1928 (gage height, 15.2 feet, former site and datum); no flow during part of 1924, 1926, 1931, 1933 and 1934.

Remarks.- Records good. Irrigation diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	15	11	33	62	230	550	500	215	46	12	6.5
2	4.7	16	10	30	169	219	540	540	207	42	12	6
3	5.5	15	10	28	107	226	753	609	196	40	13	6
4	7	13	11	27	786	238	670	693	193	37	12	7
5	7.5	12	11	28	1,430	268	604	729	179	34	12	7
6	7.5	12	11	36	2,490	289	554	723	169	32	11	6.5
7	7	12	12	27	925	302	699	693	153	30	11	6.5
8	7	11	12	18	415	320	642	636	147	29	10	6.5
9	7	11	12	19	255	342	620	604	135	28	9.5	6.5
10	7.5	11	12	25	193	360	614	555	130	27	9	6.5
11	7	11	12	29	165	370	592	520	120	27	9	6
12	7	11	12	29	276	540	570	555	114	26	8.5	5
13	7	11	12	29	316	777	582	604	107	26	8	5
14	7	11	12	30	1,660	604	614	642	102	24	8	5
15	7	11	16	35	873	510	747	636	96	22	8	4.8
16	6.5	11	68	55	510	475	765	592	130	21	7.5	4.6
17	6.5	11	70	42	390	500	699	545	186	20	7	4.3
18	4.7	11	36	36	338	587	664	515	122	20	7.5	4.1
19	7	11	27	36	307	565	642	450	107	19	7	4.3
20	8	11	24	26	263	783	663	415	96	18	6.5	4.3
21	12	10	23	19	234	1,320	723	400	91	17	6.5	4.6
22	11	10	20	29	230	1,270	771	390	86	16	6.5	4.8
23	10	11	19	29	234	1,020	693	376	80	14	6.5	5
24	9	12	20	30	280	1,100	643	365	76	14	6	5
25	8.5	11	39	29	505	777	653	360	70	14	6	5.5
26	8.5	10	32	29	352	604	687	334	66	13	6	5
27	8.5	10	68	35	285	729	681	311	60	13	6	4.8
28	8	10	53	96	251	620	614	302	55	13	6	4.6
29	8	10	36	93	-	555	535	298	55	12	6	4.8
30	8.5	11	32	102	-	510	490	276	51	12	6.5	5
31	12	-	40	72	-	495	-	230	-	12	6.5	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						237.1	12	4.7	7.65	470		
November.....						343	16	10	11.4	680		
December.....						783	70	10	25.3	1,660		
Calendar year 1936 .....						108,393.4	5,480	3.9	296	215,000		
January.....						1,181	102	18	38.1	2,340		
February.....						14,301	2,490	62	511	28,370		
March.....						17,505	1,320	219	565	34,720		
April.....						19,869	654	490	662	39,410		
May.....						15,397	729	230	497	30,640		
June.....						3,594	215	51	120	7,130		
July.....						715	46	12	23.2	1,420		
August.....						257.0	13	6	8.29	510		
September.....						161.6	7	4.1	5.38	320		
Water year 1936-37.....						74,346.6	2,490	4.1	204	147,500		

## Cosummes River at Michigan Bar, Calif.

**Location.**— Water-stage recorder, lat. 38°30'00", long. 121°02'45", in SE¼ sec. 36, T. 8 N., R. 8 E., at highway bridge at Michigan Bar, 5½ miles southwest of Latrobe. North and Middle Forks unite 12 miles above station. Altitude, about 190 feet.

**Drainage area.**— 537 square miles.

**Records available.**— October 1907 to September 1937.

**Average discharge.**— 30 years, 449 second-feet.

**Extremes.**— Maximum discharge during year, 15,300 second-feet Mar. 21 (gage height, 9.50 feet); minimum, 1.8 second-feet Sept. 24.

1907-37: Maximum discharge, 23,800 second-feet Feb. 6, 1925 (gage height, 11.2 feet), from rating curve extended above 14,000 second-feet; no flow during part of 1908, 1918, 1919, 1924-26, 1931 and 1934.

**Remarks.**— Records excellent except those for Mar. 7-10, May 2-9 (computed on basis of records for North Fork of Cosummes River near El Dorado and weather records), which are fair. Irrigation diversions above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.8	2.0	3.2	212	5.2	2,180
2.0	10	3.4	292	5.6	2,930
2.2	24	3.6	398	6.0	3,780
2.4	44	3.8	530	6.4	4,760
2.6	72	4.0	685	6.8	5,850
2.8	108	4.4	1,080	7.2	7,050
3.0	153	4.8	1,560	7.6	8,260

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	18	16	89	274	645	1,410	1,160	488	110	21	4.7
2	4.7	27	17	79	804	590	1,190	1,190	460	98	20	4.7
3	6.5	29	16	69	488	582	1,800	1,300	441	91	20	5
4	6	24	16	63	3,030	598	1,630	1,400	429	86	21	5
5	7	21	17	63	5,550	637	1,470	1,550	410	80	19	6
6	9	18	18	86	7,800	694	2,150	1,500	381	75	18	6
7	9	19	17	77	3,340	720	1,740	1,400	359	69	16	6
8	9.5	19	19	53	1,370	770	1,560	1,350	332	69	15	6
9	16	18	21	41	851	820	1,500	1,310	312	72	14	5.5
10	12	16	21	53	605	860	1,460	1,240	292	68	14	5.5
11	8	16	21	69	545	890	1,410	1,170	274	58	13	5
12	8.5	17	21	108	920	1,390	1,360	1,240	252	57	12	4.7
13	8	16	20	79	1,020	2,060	1,360	1,330	234	56	11	5.5
14	9	16	19	79	5,000	1,530	1,410	1,410	230	54	11	6
15	7	16	25	86	2,640	1,290	1,620	1,410	216	50	10	4.7
16	6.5	16	65	118	1,550	1,170	1,730	1,330	237	47	9.5	4.4
17	9.5	16	161	121	1,170	1,210	1,570	1,240	429	44	9	3.5
18	10	16	95	97	1,010	1,570	1,470	1,170	292	45	9	2.9
19	8	16	62	108	900	1,620	1,430	1,020	241	41	8	2.6
20	6.5	16	52	84	787	2,670	1,430	940	219	41	8	2.6
21	9	16	49	56	669	7,070	1,550	900	206	39	7.5	2.3
22	13	16	45	57	613	5,700	1,670	880	193	37	7	2.9
23	14	16	42	68	613	3,560	1,530	851	177	35	6	3.2
24	14	15	41	80	645	4,620	1,430	822	166	32	5.5	2.6
25	12	16	54	72	1,690	2,930	1,420	813	156	31	5.5	3.5
26	12	15	79	74	1,140	2,030	1,480	757	148	31	5	3.8
27	12	16	134	118	842	2,710	1,520	694	136	30	4.7	4.1
28	11	16	151	558	712	2,150	1,410	677	125	28	4.7	4.1
29	11	16	97	613	-	1,690	1,230	669	121	26	4.7	4.1
30	11	16	91	1,060	-	1,470	1,100	629	121	23	4.7	3.8
31	15	-	108	454	-	1,380	-	545	-	22	4.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	298.1	16	4.4	9.62	591
November.....	528	29	15	17.6	1,050
December.....	1,610	161	16	51.9	3,190
Calendar year 1936.....	262,960.1	15,600	3.8	718	521,600
January.....	4,632	1,060	41	156	9,580
February.....	46,548	7,800	274	1,662	92,330
March.....	57,626	7,070	582	1,859	114,300
April.....	46,880	2,150	1,102	1,529	91,000
May.....	33,897	1,550	545	1,093	67,230
June.....	8,077	488	121	289	16,020
July.....	1,643	110	22	53.0	3,260
August.....	338.2	21	4.4	10.9	671
September.....	128.7	6	2.3	4.32	257
Water year 1936-37.....	201,407.0	7,800	2.3	552	399,500

## Drew Creek near Lakeview, Oreg.

Location.- Staff gage, lat.  $42^{\circ}07'$ , long.  $120^{\circ}36'$ , in SE $\frac{1}{4}$  sec. 4, T. 40 S., R. 18 E., at highway bridge half a mile below mouth of Willow Creek, 1 mile below Drew Creek Dam, and 13 miles southwest of Lakeview.

Drainage area.- 211 square miles.

Records available.- January 1909 to September 1921 and October 1925 to September 1937 in reports of U. S. Geological Survey; January 1909 to September 1936 in reports of State engineer.

Average discharge.- 21 years, (1909-30), including diversion by North Drew Canal, 60.8 second-feet.

Extremes.- Maximum discharge observed during period, 396 second-feet Apr. 15 (gage height, 3.68 feet); no flow at times.

1909-37: Maximum discharge (estimated), 3,000 second-feet Mar. 1, 2, 1910; no flow at times.

Remarks.- Records fair except those for periods of missing gage heights (computed from known or estimated time of gate openings or by interpolation or extrapolation) and those above 100 second-feet, which are poor. Staff gage read about twice a week. Considerable regulation caused by operation of Drew Creek Reservoir, 1 mile above station. Since March 1914 North Drew Canal of Goose Lake Valley Irrigation Co. has diverted water around station (see next page).

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							8	16	44	32	58	13
2							8	16	45	29	52	12
3							16	†16	46	†26	†46	†12
4							10	21	†46	26	46	11
5			‡1.6				†12	27	50	†26	46	10
6							12	33	54	26	†45	†10
7							13	39	59	26	44	10
8							13	†45	†64	26	42	10
9							14	47	62	26	40	10
10							†16	†49	60	†26	†38	†10
11							15	52	†59	†8	38	11
12							15	56	59	17	38	10
13							116	60	59	26	†38	†10
14							†348	64	†59	†35	36	10
15							†396	†68	55	43	34	11
16							396	62	50	51	†31	12
17							†396	†55	45	†59	31	†12
18							396	56	†40	32	31	12
19							†380	58	38	†64	31	13
20							†380	60	37	66	31	†13
21							380	62	†56	69	†31	†17
22							380	†64	36	†72	30	17
23							380	64	36	†72	†28	4
24							†380	†64	35	72	25	0
25							380	†55	35	72	22	0
26							†380	†51	†55	†72	18	0
27							370	50	36	72	†15	0
28							360	49	†56	72	15	0
29							279	†48	†40	†72	14	0
30							†16	46	36	†72	†14	0
31							-	†43	-	65	14	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....												
November.....												
December.....												
Calendar year .....												
January.....						-	-	-	-	-		
February.....						-	-	-	-	-		
March.....						-	-	-	-	-		
April.....						6,248	396	8	208	12,390		
May.....						1,496	68	16	48.3	2,970		
June.....						1,392	64	35	46.4	2,760		
July.....						1,482	72	8	47.8	2,940		
August.....						1,022	58	14	35.0	2,050		
September.....						260	17	0	8.7	516		
The period.....						11,900	-	-	-	23,610		

\*Discharge measurement.  
†Gage read.

## Drew Creek near Lakeview, Oreg.

(Continued)

Monthly stage and contents of Drew Creek Reservoir near Lakeview, Oreg.,  
water year 1936-37

Date	Gage height in feet	Contents in acre-feet	Change in contents during month in acre-feet
Sept. 30	-	*35,890	-
Oct. 31	47.5	34,650	-1,240
Nov. 30	47.3	34,030	-620
Dec. 31	47.3	34,030	0
Jan. 31	-	*34,030	0
Feb. 28	-	*35,000	+970
Mar. 31	49.0	39,400	+4,400
Apr. 30	54.7	61,170	+21,770
May 31	55.0	62,500	+1,330
June 30	53.5	55,970	-6,530
July 31	51.0	46,270	-9,700
Aug. 31	48.5	37,800	-8,470
Sept. 30	47.6	34,960	-2,840
The water year	-	-	-930

\*Estimated.

Note.- Maximum observed contents during year, 62,900 acre-feet May 6-22  
(gage height, 55.1 feet).Run-off, in acre-feet, of North Drew Canal near Lakeview, Oreg.,  
water year 1936-37

May	978
June	4,100
July	4,440
August	4,150
September	1,470
The water year	15,138

Note.- No flow during months omitted.

## Cottonwood Creek near Lakeview, Oreg.

Location.— Water-stage recorder, lat.  $42^{\circ}14'$ , long.  $120^{\circ}30'$ , in SW $\frac{1}{4}$  sec. 29, T. 38 S., R. 19 E., 200 yards below Cottonwood Reservoir and 10 miles northwest of Lakeview.

Drainage area.— 30 square miles.

Records available.— November 1908 to September 1919 and October 1925 to September 1937 in reports of U. S. Geological Survey; November 1908 to September 1919 and October 1924 to September 1936 in reports of State engineer.

Average discharge.— 21 years (1909-19, 1924-35), 20.5 second-feet.

Extremes.— Maximum discharge recorded during year, 129 second-feet June 1 (gage height, 5.15 feet); minimum discharge not determined.

1908-19, 1924-37: Maximum discharge, 500 to 1,000 second-feet during period Apr. 26 to May 1, 1927, when natural mean flow, estimated as 170 second-feet, was augmented by water escaping from reservoir through break in outlet conduit above control gate; no flow at times.

Remarks.— Records fair except those for Oct. 1-6, 8, Nov. 26-30, and May 1, which were estimated and are poor. Considerable regulation since 1923 caused by operation of Cottonwood Reservoir, 200 yards above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.				
1	2.0	1.5	*1.6					80	117	39	30	1.0				
2		1.5						89	116	37	29	1.0				
3		1.5						97	95	37	28	1.0				
4		2.0						100	81	37	26	1.0				
5		2.0						75	81	37	25	1.0				
6	1.0	2.0	1.5					62	81	33	24	1.0				
7		2.0						78	79	10	21	1.0				
8		2.0						51	80	1.5	15	1.0				
9		2.0						50	77	2.0	10	1.0				
10		2.0						50	76	1.5	1.0	1.0				
11	1.0	2.0							58	68	1.5	.5	1.0			
12	1.0	2.0							61	51	1.5	1.0	1.0			
13	1.0	2.0							56	48	1.5	1.0	1.0			
14	1.5	2.0							48	47	4.5	.5	1.0			
15	1.5	2.0							72	47	15	.5	1.0			
16	1.5	2.0					1.0		60	27	16	.5	1.0			
17	1.5	2.0							44	14	16	.5	1.0			
18	1.5	2.0							44	19	17	.5	1.0			
19	1.5	2.0							44	22	20	.5	1.0			
20	1.5	2.0							44	22	20	.5	1.0			
21	1.5	2.0							40	22	19	.5	1.0			
22	1.5	2.0							32	22	19	.5	1.5			
23	1.5	2.0							31	22	25	.5	1.0			
24	1.5	2.0							35	20	34	.5	1.0			
25	1.5	2.0							37	14	34	.5	1.0			
26	1.5	1.8							48	9.5	34	.5	1.0			
27	1.5								44	6.5	33	.5	1.5			
28	1.5								42	19	33	.5	1.5			
29	1.5								41	39	32	.5	1.5			
30	1.5								65	39	31	.5	1.5			
31	1.5	-							82	-	30	.5	-			
Month									Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....									46.0	-	1.0	1.48	91			
November.....									57.5	2.0	1.5	1.92	114			
December.....									-	-	-	-	-			
Calendar year .....																
January.....						-	-	-	-	-						
February.....						-	-	-	-	-						
March.....						-	-	-	-	-						
April.....						-	-	-	-	-						
May.....						1,760	100	31	56.8	3,490						
June.....						1,461.0	117	6.5	48.7	2,900						
July.....						672.0	39	1.5	21.7	1,330						
August.....						220.5	30	0.5	7.11	437						
September.....						32.5	1.5	1.0	1.08	64						
Water year .....																

\*Discharge measurement.

## SACRAMENTO RIVER MAIN STEM

Sacramento River at Antler, Calif.

**Location.**— Water-stage recorder, lat.  $40^{\circ}53'$ , long.  $122^{\circ}23'$ , in SE $\frac{1}{4}$  sec. 13, T. 35 N., R. 5 W., a quarter of a mile below highway bridge at Antler. Gregory Creek enters 1,000 feet above gage and Pit River 14 miles below. Zero of gage is 934.4 feet above mean sea level.

**Drainage area.**— 461 square miles.

**Records available.**— December 1930 to September 1937; November 1910 to December 1911 and April 1919 to December 1930 at staff-gage site 1,200 feet upstream.

**Average discharge.**— 18 years (1919-37), 911 second-feet.

**Extremes.**— Maximum discharge during year, 9,500 second-feet Apr. 14 (gage height, 8.73 feet); minimum, 135 second-feet Jan. 21.

1910-11, 1919-37: Maximum discharge, 34,000 second-feet Mar. 26, 1928 (gage height, 19.4 feet, former site and datum); minimum, 95 second-feet Aug. 19, 28, 29, Sept. 3, 4, 1931.

**Remarks.**— Records excellent. No diversions.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.2	105	2.2	435	3.2	1,020	4.0	1,700	5.6	3,700	7.2	6,420
1.4	155	2.4	530	3.4	1,170	4.4	2,110	6.0	4,340	7.6	7,200
1.6	215	2.6	635	3.6	1,330	4.8	2,580	6.4	4,980	8.0	8,000
1.8	280	2.8	750	3.8	1,510	5.2	3,120	6.8	5,700	8.5	9,060
2.0	355	3.0	880								

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	150	170	167	209	259	854	3,050	2,400	1,250	591	245	179
2	150	170	170	200	273	1,090	3,050	2,840	1,250	555	239	179
3	152	170	176	200	331	1,280	2,820	3,330	1,290	530	236	179
4	158	173	173	200	591	1,330	2,160	3,700	1,210	500	230	179
5	158	173	176	212	403	1,510	2,060	3,190	1,090	476	230	188
6												
7	152	173	179	203	335	1,700	2,400	2,910	985	462	224	182
8	150	170	182	173	290	1,850	2,110	2,770	915	444	218	176
9	150	170	185	179	266	1,950	2,160	2,400	880	427	215	173
10	148	170	182	194	256	3,700	2,460	2,400	1,420	411	215	170
11	148	167	179	227	259	3,330	2,340	2,220	2,340	403	212	167
12	148	167	176	233	319	3,470	2,340	2,060	1,850	397	206	164
13	148	167	176	212	359	7,400	2,220	2,580	1,460	379	200	164
14	145	167	176	209	495	6,800	6,190	3,050	1,210	375	197	164
15	145	167	176	215	980	4,280	9,060	3,190	1,090	367	194	161
16	145	167	176	218	535	3,190	8,000	2,910	1,130	355	194	161
17	145	167	179	215	462	2,520	5,340	2,910	2,840	343	191	158
18	148	167	179	203	471	2,340	4,100	2,700	2,340	327	191	155
19	152	167	179	209	505	2,110	3,540	2,980	1,750	319	188	155
20	158	167	179	212	480	2,060	3,400	2,280	1,510	312	185	167
21	158	167	182	191	453	2,000	3,470	2,060	1,330	301	182	173
22	155	167	185	194	466	2,910	3,860	2,110	1,210	294	179	170
23	158	167	188	215	550	2,460	3,330	2,160	1,090	284	176	167
24	158	167	197	212	696	2,700	2,910	2,280	985	280	179	164
25	155	167	252	209	1,090	4,680	2,840	2,340	915	276	179	164
26	155	167	218	203	1,330	2,840	3,190	2,280	628	290	179	161
27	155	167	248	221	915	2,220	3,260	1,900	763	273	176	158
28	155	167	243	233	750	2,220	2,770	1,800	702	262	176	158
29	155	167	233	230	738	2,280	2,340	1,850	657	256	173	158
30	158	170	212	230	-	2,280	2,110	1,700	646	248	173	164
31	161	170	236	212	-	2,220	2,110	1,420	652	245	173	167
30	170	-	224	218	-	2,460	-	1,330	-	245	176	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	4,743	170	145	153	9,410
November.....	5,052	173	167	168	10,020
December.....	5,988	252	167	193	11,880
Calendar year 1936.....	329,705	13,900	140	901	654,000
January.....	6,491	233	173	209	12,870
February.....	14,757	1,330	255	527	29,270
March.....	83,964	7,400	884	2,709	166,500
April.....	100,690	9,060	2,080	3,356	193,700
May.....	75,990	3,700	1,330	2,451	150,700
June.....	37,588	2,840	646	1,253	74,550
July.....	11,217	591	245	362	22,250
August.....	6,131	245	173	198	12,160
September.....	5,025	188	155	168	9,970
Water year 1936-37.....	357,636	9,060	145	950	709,300



## SACRAMENTO RIVER MAIN STEM

Sacramento River at Kennett, Calif.

Location.— Water-stage recorder, lat. 40°44', long. 122°24', in SW $\frac{1}{4}$  sec. 2, T. 33 N., R. 5 W., at highway bridge at Kennett. Zero of gage is 618.26 feet above mean sea level. Gage set to read 2.00 feet more than U. S. Weather Bureau staff gage at same location.

Drainage area.— 6,600 square miles (not including Goose Lake Basin).

Records available.— November 1925 to September 1937.

Average discharge.— 11 years (1926-37), 5,750 second-feet.

Extremes.— Maximum discharge during year, 32,600 second-feet Apr. 14 (gage height, 12.33 feet); minimum, 2,500 second-feet Sept. 2, 16, 17 (gage height, 0.60 foot).  
1925-37: Maximum discharge, 94,900 second-feet Mar. 26, 1926 (gage height, 25.1 feet); minimum, 2,290 second-feet Oct. 4, 1934.

Remarks.— Records excellent. Storage and many diversions above station in Pit River Basin.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.6	2,500	1.8	3,870	4.5	8,550	8.0	17,600
.8	2,700	2.0	4,150	5.0	9,680	9.0	20,700
1.0	2,910	2.5	4,820	5.5	10,900	10.0	24,000
1.2	3,130	3.0	5,590	6.0	12,100	11.0	27,600
1.4	3,370	3.5	6,460	6.5	13,400	12.0	31,400
1.6	3,610	4.0	7,460	7.0	14,700	13.0	35,500

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,700	2,750	2,750	2,860	3,250	4,970	13,700	9,920	5,590	4,260	3,020	2,700
2	2,650	2,750	2,750	2,860	3,610	5,590	15,300	10,400	5,430	4,000	3,020	2,600
3	2,650	2,650	2,750	2,910	3,870	6,280	14,500	11,400	5,330	3,740	2,910	2,600
4	2,650	2,650	2,750	2,900	8,770	5,460	13,400	12,100	5,270	3,610	2,910	2,700
5	2,700	2,650	2,750	2,860	5,750	7,050	12,400	11,600	4,970	3,610	3,020	2,800
6	2,650	2,700	2,750	2,860	4,130	7,670	12,100	10,900	4,970	3,610	2,910	2,800
7	2,650	2,800	2,750	2,900	3,610	8,330	11,400	10,400	4,970	3,490	2,910	2,750
8	2,700	2,750	2,750	2,900	3,490	9,210	11,100	9,680	4,820	3,490	2,910	2,800
9	2,700	2,750	2,800	2,700	3,250	11,100	12,100	9,680	5,120	3,490	2,910	2,650
10	2,650	2,750	2,750	2,800	3,130	13,100	11,600	8,550	6,460	3,610	2,910	2,700
11	2,600	2,800	2,750	2,800	3,490	14,700	10,900	8,770	5,750	3,490	2,860	2,650
12	2,650	2,800	2,800	3,370	3,870	25,100	11,100	9,210	5,430	3,490	2,800	2,600
13	2,650	2,750	2,800	2,800	4,820	25,100	20,300	9,920	5,120	3,490	2,750	2,700
14	2,650	2,750	2,800	2,860	7,890	19,400	31,800	10,400	4,820	3,370	2,750	2,700
15	2,650	2,750	2,750	2,800	5,430	17,000	30,600	9,920	4,970	3,250	2,800	2,600
16	2,650	2,750	2,750	2,860	4,540	14,700	23,700	9,680	8,330	3,250	2,800	2,500
17	2,600	2,800	2,750	2,860	4,260	15,600	18,500	9,440	8,990	3,370	2,800	2,600
18	2,650	2,860	2,750	2,910	4,680	16,100	15,900	9,920	7,050	3,370	2,750	2,700
19	2,700	2,800	2,750	2,860	4,400	15,000	15,000	8,770	6,280	3,250	2,700	2,750
20	2,800	2,750	2,860	2,800	4,260	16,700	14,700	7,890	5,920	3,250	2,700	2,750
21	2,700	2,750	2,800	2,800	4,130	17,900	15,300	7,890	5,590	3,130	2,700	2,700
22	2,600	2,700	2,800	2,800	4,260	16,700	13,900	7,890	5,270	3,130	2,700	2,650
23	2,650	2,750	2,800	2,800	4,680	16,700	12,600	7,990	4,970	3,130	2,750	2,650
24	2,650	2,750	3,020	2,860	5,430	25,400	12,100	7,890	4,680	3,250	2,750	2,650
25	2,650	2,750	3,130	2,750	7,460	17,900	12,100	7,890	4,680	3,250	2,750	2,600
26	2,650	2,750	3,250	2,860	5,750	13,900	12,600	7,250	4,540	3,130	2,700	2,550
27	2,700	2,750	3,130	3,020	5,120	13,100	11,800	6,850	4,260	3,130	2,650	2,600
28	2,650	2,750	3,130	3,130	4,970	12,600	10,900	6,650	4,130	3,020	2,650	2,650
29	2,700	2,750	3,020	3,020	-	12,600	9,920	6,460	4,130	3,020	2,700	2,650
30	2,750	2,750	3,130	3,020	-	12,100	9,680	6,280	4,400	3,020	2,750	2,650
31	2,750	-	3,020	3,130	-	11,600	-	5,920	-	3,020	2,750	-
Month												
	Second-foot-days				Maximum		Minimum		Mean		Run-off in acre-feet	
October.....	82,750				2,800		2.6		2,669		164,100	
November.....	82,460				2,850		2,650		2,749		163,600	
December.....	86,540				3,250		2,750		2,856		175,600	
Calendar year 1936.....	2,298,160				65,500		2,400		6,279		4,558,000	
January.....	89,560				3,370		2,700		2,883		177,200	
February.....	132,300				8,770		3,130		4,725		262,400	
March.....	429,660				25,400		4,970		13,860		852,200	
April.....	441,000				31,800		9,680		14,700		974,700	
May.....	277,410				12,100		5,920		8,949		550,200	
June.....	162,540				6,990		4,130		5,411		322,000	
July.....	104,720				4,260		3,020		3,378		207,700	
August.....	86,990				3,020		2,650		2,806		172,500	
September.....	80,000				2,600		2,600		2,667		158,700	
Water year 1936-37.....	2,057,530				31,800		2,500		5,637		4,081,000	

## Sacramento River near Red Bluff, Calif.

Location.— Water-stage recorder, lat. 40°13'55", long. 122°10'50", in SE¼ sec. 34, T. 28 N., R. 3 W., at lower end of Iron Canyon, half a mile below Severnille Creek and 4 miles northeast of Red Bluff. Altitude, about 250 feet.

Drainage area.— 9,300 square miles (not including Goose Lake Basin).

Records available.— January 1902 to September 1937. April 1895 to June 1902 at Jellys Ferry, 12 miles above Red Bluff.

Average discharge.— 42 years, 11,150 second-feet.

Extremes.— Maximum discharge during year, 82,000 second-feet Mar. 13 (gage height, 17.72 feet); minimum, 2,780 second-feet Sept. 17 (gage height, 0.13 foot).  
1895-1937: Maximum discharge, 278,000 second-feet Feb. 3, 1909 (gage height, 35.2 feet); minimum, 2,400 second-feet Aug. 13, 1931, Sept. 9, 1934.

Remarks.— Records excellent except those for Dec. 7-18, which were computed on basis of recorded range of stage and records for station at Kennett and are good. Storage and many diversions above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

-0.1	2,400	4.0	12,100	10.0	35,900
.2	2,860	5.0	15,300	11.0	41,100
.5	3,350	6.0	18,700	12.0	46,500
1.0	4,280	7.0	22,400	14.0	58,000
2.0	6,470	8.0	26,500	16.0	70,600
3.0	9,150	9.0	31,000		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,860	3,180	3,350	4,360	4,870	8,050	17,700	12,400	7,510	5,080	3,280	3,020
2	3,020	3,180	3,350	3,880	8,320	8,590	21,600	12,700	6,980	4,760	3,260	2,940
3	3,020	3,180	3,350	3,790	8,870	9,720	20,100	13,400	6,720	4,460	3,180	2,860
4	3,020	3,180	3,350	3,700	34,600	9,720	18,400	14,700	6,720	4,260	3,180	2,860
5	3,020	3,180	3,350	3,700	38,200	9,720	16,700	14,700	6,470	4,260	3,180	3,020
6	3,020	3,180	3,350	3,700	13,100	10,600	17,300	14,000	6,220	4,160	3,180	3,100
7	2,940	3,180	3,350	3,610	9,150	11,500	16,000	13,400	6,220	4,070	3,180	3,100
8	2,940	3,180	3,350	3,440	6,980	12,100	15,000	12,700	5,980	3,980	3,180	3,020
9	3,020	3,180	3,350	3,520	5,980	12,700	17,300	11,800	6,100	3,980	3,180	3,020
10	3,020	3,180	3,350	3,610	5,520	17,700	16,300	11,500	6,980	3,880	3,180	2,940
11	3,020	3,180	3,350	3,610	6,470	17,700	15,300	10,900	7,780	3,980	3,100	2,940
12	2,940	3,440	3,440	3,980	9,720	45,900	14,700	11,200	6,980	3,880	3,020	2,940
13	2,940	3,440	3,440	3,880	12,900	66,600	16,300	11,800	6,470	3,880	3,020	2,860
14	3,020	3,350	3,440	3,880	36,900	35,900	35,900	12,700	6,100	3,790	2,940	2,940
15	3,020	3,350	3,350	4,260	14,700	26,100	39,000	12,400	5,980	3,700	3,020	2,940
16	3,020	3,350	3,350	5,520	10,000	22,000	34,400	12,100	8,590	3,610	3,020	2,860
17	3,020	3,350	3,350	4,870	8,590	21,300	25,700	11,800	12,700	3,610	3,020	2,780
18	2,940	3,440	3,350	4,560	8,590	25,200	21,500	11,800	9,720	3,700	3,020	2,860
19	3,020	3,440	3,350	4,160	8,320	20,500	19,400	11,800	8,320	3,700	2,940	3,020
20	3,180	3,350	3,440	3,790	7,240	24,800	18,700	10,600	7,780	3,610	2,940	3,020
21	3,180	3,350	3,440	3,610	6,720	31,500	18,700	10,000	7,240	3,440	2,860	3,020
22	3,020	3,350	3,440	3,700	6,980	34,400	18,700	9,720	6,720	3,440	2,860	2,940
23	3,020	3,350	3,440	3,700	7,240	24,400	17,000	10,000	6,340	3,440	2,860	2,940
24	3,020	3,350	3,700	3,790	8,590	46,500	15,600	10,000	5,980	3,440	2,940	2,940
25	3,020	3,350	3,790	3,880	17,700	35,900	15,300	10,000	5,750	3,520	2,940	2,940
26	3,020	3,350	4,460	3,880	12,100	24,000	15,600	9,720	5,520	3,520	2,940	2,860
27	3,020	3,350	4,870	4,260	9,430	27,400	15,300	8,870	5,190	3,440	2,940	2,860
28	3,020	3,350	4,460	5,520	8,320	21,600	14,700	8,590	4,980	3,560	2,860	2,940
29	3,020	3,350	4,070	5,080	-	19,100	13,400	8,590	4,760	3,260	2,860	2,940
30	3,180	3,350	4,260	5,860	-	18,000	12,400	8,050	4,980	3,260	3,020	3,020
31	3,260	-	4,870	6,300	-	17,000	-	7,780	-	3,260	2,940	-
Month						Second-foot-days	Maximum	Minimum	Mean		Run-off in acre-feet	
October.....						93,780	3,260	2,860	3,025		186,000	
November.....						98,990	3,440	3,180	3,300		196,500	
December.....						112,160	4,870	3,350	3,618		222,500	
Calendar year 1936.....						3,314,610	120,000	2,700	9,056		6,575,000	
January.....						128,400	5,860	3,440	4,142		254,700	
February.....						336,100	38,200	4,870	12,000		666,600	
March.....						716,200	66,600	8,050	25,100		1,421,000	
April.....						573,900	59,000	12,400	19,150		1,158,000	
May.....						349,720	14,700	7,780	11,250		693,700	
June.....						203,780	12,700	4,760	6,793		404,200	
July.....						117,720	5,080	3,260	3,797		233,500	
August.....						94,020	3,260	2,860	3,033		186,500	
September.....						88,440	3,100	2,780	2,948		175,400	
Water year 1936-37.....						2,913,110	66,600	2,780	7,981		5,778,000	

## Sacramento River at Butte City, Calif.

Location.— Water-stage recorder, lat.  $39^{\circ}27'35''$ , long.  $121^{\circ}59'35''$ , in NE $\frac{1}{4}$  sec. 32, T. 19 N., R. 1 W., half a mile (revised) south of Butte City. Gage is set to datum of Corps of Engineers, U. S. Army.

Records available.— April 1921 to October 1937 (low-water periods only). Gage-height records for high-water periods in years 1914-17, 1920-21, 1923-37 published by Division of Water Resources, Department of Public Works, State of California.

Extremes.— Minimum discharge June to October 1937, 1,400 second-feet Aug. 30 (gage height, 68.17 feet).  
1921-37: Minimum discharge recorded, 1,050 second-feet July 15, 25, 26, 1931 (gage height, 67.49 feet).

Remarks.— Records good except those for June 26-29, July 18 to Aug. 3 which were computed on basis of records for station at Colusa and are fair. Storage and many irrigation diversions above station.

Rating table, 1937 (gage height, in feet, and discharge, in second-feet)  
(Table not applicable during October 1936)

68.1	1,320	68.8	2,190	69.8	3,680
68.2	1,440	68.9	2,330	70.0	4,020
68.3	1,580	69.0	2,470	70.4	4,760
68.4	1,680	69.2	2,750	70.8	5,560
68.5	1,800	69.4	3,050	71.2	6,440
68.6	1,930	69.6	3,360	71.6	7,400
68.7	2,060				

Discharge, in second-feet, 1936-37

Day	Oct.					June	July	Aug.	Sept.	Oct.
1	2,470					-	3,680	1,850	1,520	2,610
2	2,470					-	3,680	1,800	1,550	3,050
3	2,690					-	3,520	1,750	1,630	7,090
4	2,690					-	3,360	1,740	1,540	6,210
5	2,690					-	3,120	1,670	1,510	4,480
6	2,690					-	2,980	1,640	1,610	3,940
7	2,690					-	2,900	1,660	1,700	3,690
8	2,690					-	2,820	1,630	1,750	3,520
9	2,690					-	2,750	1,610	1,740	3,440
10	2,690					-	2,680	1,620	1,720	3,360
11	2,690					-	2,540	1,600	1,700	3,280
12	2,690					-	2,540	1,570	1,730	3,280
13	2,690					-	2,470	1,550	1,780	3,280
14	2,690					-	2,470	1,500	1,790	3,440
15	2,690					-	2,400	1,460	1,860	4,110
16	2,760					-	2,260	1,440	1,860	5,460
17	2,760					-	2,190	1,450	1,930	4,570
18	2,840					-	2,150	1,480	1,930	4,110
19	2,840					-	2,150	1,460	2,000	3,850
20	2,920					-	2,200	1,460	2,190	3,680
21	2,990					-	2,100	1,460	2,330	3,600
22	3,070					-	2,050	1,460	2,330	3,520
23	2,990					-	2,000	1,480	2,330	3,440
24	2,920					-	2,000	1,450	2,330	3,600
25	2,920					-	2,000	1,440	2,400	3,600
26	2,920					4,800	1,950	1,440	2,400	3,580
27	2,920					4,500	1,950	1,450	2,400	3,440
28	2,920					4,300	1,950	1,480	2,470	3,360
29	2,920					4,050	1,900	1,440	2,470	3,360
30	2,920					3,760	1,850	1,430	2,540	3,440
31	2,920					-	1,850	1,490	-	3,440
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
1936						86,440	3,070	2,470	2,788	171,500
1937										
June 26-30.....						21,410	4,800	3,760	4,282	42,470
July.....						76,460	3,680	1,850	2,466	151,700
August.....						47,970	1,850	1,430	1,547	95,150
September.....						59,040	2,540	1,510	1,968	117,100
October.....						118,760	7,090	2,610	3,931	235,600
The period.....										642,000

## Sacramento River at Colusa, Calif.

Location.- Water-stage recorder, lat. 39°12'50", long. 121°59'55", at north end of Jimeno grant, just below highway bridge at Colusa, Colusa County. Gage is set to datum of Corps of Engineers, U. S. Army.

Records available.- April 1921 to October 1937 (low-water periods only). Gage-height record for high-water periods in years 1920-37 published by Division of Water Resources, Department of Public Works, State of California.

Extremes.- Minimum discharge during June to October 1937, 1,300 second-feet Aug. 30 (gage height, 35.48 feet).  
1921-37: Minimum discharge recorded, 820 second-feet July 25, 26, 1931 (gage height, 34.79 feet).

Remarks.- Records good. Storage and many irrigation diversions above station.

Discharge, in second-feet, 1936-37

Day	Oct.						June	July	Aug.	Sept.	Oct.
1	2,590						-	3,840	1,800	1,440	2,580
2	2,520						-	3,920	1,760	1,480	2,900
3	2,660						-	3,760	1,720	1,510	4,430
4	2,740						-	3,670	1,720	1,510	6,430
5	2,740						-	3,420	1,690	1,400	4,620
6	2,740						-	3,240	1,650	1,510	4,140
7	2,740						-	3,080	1,650	1,620	3,800
8	2,740						-	2,990	1,650	1,690	3,620
9	2,740						-	2,900	1,620	1,720	3,540
10	2,740						-	2,820	1,620	1,720	3,460
11	2,740						-	2,740	1,620	1,690	3,460
12	2,740						-	2,660	1,620	1,720	3,380
13	2,740						-	2,660	1,580	1,720	3,460
14	2,740						-	2,580	1,640	1,800	3,460
15	2,740						-	2,500	1,480	1,840	3,620
16	2,620						-	2,340	1,440	1,910	4,990
17	2,320						-	2,260	1,440	1,950	4,820
18	2,900						-	2,260	1,480	1,950	4,300
19	2,900						-	2,180	1,480	1,950	3,960
20	2,900						-	2,260	1,480	2,060	3,800
21	2,980						-	2,180	1,480	2,180	3,710
22	3,060						-	2,100	1,480	2,340	3,620
23	3,060						-	2,100	1,440	2,340	3,620
24	2,980						-	2,020	1,440	2,340	3,620
25	2,980						-	2,020	1,400	2,420	3,710
26	2,980						4,970	2,020	1,400	2,420	3,620
27	2,980						4,700	2,020	1,400	2,500	3,540
28	2,980						4,440	1,950	1,440	2,500	3,540
29	2,980						4,260	1,910	1,400	2,500	3,540
30	2,980						4,010	1,840	1,370	2,500	3,540
31	2,980						-	1,800	1,370	-	3,540
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
1936							87,930	3,060	2,520	2,836	174,400
1937											
June 26-30.....							22,380	4,970	4,010	4,476	44,390
July.....							80,040	3,920	1,800	2,582	158,800
August.....							47,680	1,800	1,370	1,637	94,530
September.....							58,230	2,500	1,400	1,941	115,500
October.....							118,570	6,430	2,580	3,825	235,200
The period.....											648,400

## SACRAMENTO RIVER MAIN STEM

Sacramento River below Wilkins Slough, Calif.

Location.— Water-stage recorder, lat. 39°00'35", long. 121°49'25", in Jimeno grant, Colusa County, 1,500 feet below Wilkins Slough and 8 miles southeast of Grimes. Gage is set to datum of Corps of Engineers, U. S. Army.

Records available.— August 1931 to October 1937 (low-water periods only). Gage-height records for high-water periods in years 1931-37 published by Division of Water Resources, Department of Public Works, State of California.

Extremes.— Minimum discharge June to October 1937, 825 second-feet Aug. 25 (gage height, 17.73 feet).  
1931-37: Minimum discharge recorded, 100 second-feet Aug. 1, 1931 (gage height, 14.20 feet).

Remarks - Records good. Storage and many irrigation diversions above station.

Discharge, in second-feet, 1936-37

Day	Oct.							June	July	Aug.	Sept.	Oct.
1	2,820							-	3,180	1,150	888	2,780
2	2,880							-	3,080	1,150	940	2,980
3	2,880							-	3,080	1,150	1,010	3,470
4	2,980							-	3,020	1,120	1,120	6,060
5	2,980							-	2,800	1,120	1,080	5,920
6	2,930							-	2,580	1,080	1,120	4,860
7	2,980							-	2,430	1,040	1,190	4,380
8	2,980							-	2,280	1,080	1,310	4,080
9	2,930							-	2,180	1,040	1,390	3,960
10	2,880							-	2,080	1,010	1,430	3,860
11	2,880							-	1,980	1,010	1,480	3,800
12	2,880							-	1,880	1,010	1,560	3,740
13	2,880							-	1,880	975	1,630	3,630
14	2,820							-	1,790	975	1,760	3,630
15	2,880							-	1,740	940	1,800	3,800
16	2,930							-	1,700	888	1,890	4,380
17	2,930							-	1,680	870	1,980	5,180
18	2,930							-	1,620	888	2,020	4,800
19	2,980							-	1,520	905	2,020	4,440
20	3,040							-	1,520	905	2,160	4,200
21	3,040							-	1,520	905	2,300	4,080
22	3,100							-	1,430	905	2,430	3,960
23	3,100							-	1,390	888	2,530	3,910
24	3,040							-	1,390	855	2,530	3,860
25	2,980							-	1,390	840	2,530	3,910
26	2,930							4,760	1,310	855	2,580	3,910
27	2,930							4,340	1,310	855	2,580	3,860
28	2,980							4,040	1,310	888	2,680	3,800
29	2,930							3,740	1,310	888	2,730	3,800
30	3,040							3,460	1,230	888	2,780	3,740
31	2,980							-	1,150	855	-	3,800
Month								Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
1936								91,640	3,100	2,820	2,956	181,800
1937												
June 26-30.....								20,340	4,760	3,460	4,068	40,340
July.....								58,840	3,180	1,150	1,888	116,100
August.....								29,928	1,150	840	965	59,560
September.....								55,498	2,780	888	1,860	110,100
October.....								126,700	6,060	2,780	4,087	251,300
The period.....												577,200

## Sacramento River at Knights Landing, Calif.

Location.— Water-stage recorder, lat. 38°48'10", long. 121°42'55", in NE¼ sec. 14, T. 11 N., R. 2 E., just above Southern Pacific Railroad bridge at Knights Landing. Gage is set to datum of Corps of Engineers, U. S. Army.

Records available.— April 1921 to October 1937 (low-water periods only). Gage-height records for high-water periods in years 1926-37 published by Division of Water Resources, Department of Public Works, State of California.

Extremes.— Minimum discharge June to October 1937, 1,020 second-feet Aug. 17. 1921-37: Minimum discharge recorded, 250 second-feet July 23, 1931 (gage height, 7.80 feet).

Remarks.— Records good. Storage, many irrigation diversions, and considerable return water affect flow. Discharge for June 26 to Oct. 31 computed with due allowance for backwater from Feather River.

## Discharge, in second-feet, 1936-37

Day	Oct.						June	July	Aug.	Sept.	Oct.
1	3,120						-	3,520	1,400	1,260	3,340
2	3,180						-	3,340	1,460	1,330	3,400
3	3,180						-	3,340	1,380	1,400	3,760
4	3,240						-	3,160	1,280	1,650	5,760
5	3,180						-	3,040	1,500	1,650	7,020
6	3,180						-	2,920	1,500	1,650	5,920
7	3,240						-	2,680	1,500	1,800	5,080
8	3,310						-	2,510	1,500	1,850	4,720
9	3,310						-	2,340	1,560	2,070	4,480
10	3,180						-	2,290	1,460	2,070	4,240
11	3,180						-	2,240	1,280	1,960	4,120
12	3,180						-	2,120	1,180	1,960	3,940
13	3,120						-	2,070	1,180	2,180	3,940
14	3,180						-	2,020	1,160	2,290	3,940
15	3,240						-	2,020	1,110	2,400	3,940
16	3,240						-	1,960	1,090	2,460	4,180
17	3,240						-	1,800	1,070	2,510	5,260
18	3,310						-	1,680	1,070	2,620	5,140
19	3,310						-	1,740	1,090	2,560	4,720
20	3,240						-	1,740	1,110	2,800	4,360
21	3,240						-	1,680	1,180	2,980	4,120
22	3,310						-	1,680	1,180	3,160	4,000
23	3,310						-	1,630	1,200	3,220	3,880
24	3,310						-	1,680	1,180	3,220	3,820
25	3,240						-	1,650	1,140	3,160	3,940
26	3,180						5,140	1,740	1,160	3,100	3,940
27	3,120						4,780	1,740	1,160	3,160	3,820
28	3,120						4,480	1,800	1,180	3,160	3,820
29	3,180						4,300	1,650	1,230	3,220	3,760
30	3,180						3,880	1,460	1,260	3,220	3,700
31	3,180						-	1,360	1,260	-	3,700
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
1936							99,750	3,310	3,120	3,217	197,800
1937											
June 26-30.....							22,680	5,140	3,880	4,516	44,790
July.....							66,560	5,560	1,560	2,147	152,000
August.....							38,010	1,460	1,070	1,226	75,390
September.....							71,970	3,220	1,260	2,399	142,800
October.....							133,780	7,020	3,340	4,315	266,500
The period.....											660,500

## Sacramento River at Verona, Calif.

Location.- Water-stage recorder, lat. 36°46'50", long. 121°36'15", in SE¼ sec. 23, T. 11 N., R. 3 E., three-quarters of a mile southeast of Verona and 1 mile below Feather River. Gage is set to datum of Corps of Engineers, U. S. Army.

Records available.- May 1926 to September 1937. 1926-29, for low-water periods only.

Extremes.- Maximum discharge during year, 52,900 second-feet Mar. 25 and 26; maximum gage height, 34.66 feet, Mar. 22, backwater; minimum discharge, 1,680 second-feet Aug. 25 (gage height, 8.46 feet).  
1926-37: Maximum discharge recorded, 61,800 second-feet Feb. 25, 1936 (gage height, 36.62 feet); minimum, 281 second-feet July 24, 1931 (gage height, 6.93 feet).

Remarks.- Records good. Storage, many diversions, and considerable return water affect flow. Discharge for Feb. 5 to June 26 computed with due allowance for backwater from American River.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,280	5,020	5,020	7,960	10,000	23,200	47,200	32,600	21,000	6,020	2,230	2,040
2	5,420	5,020	5,150	7,960	9,860	20,800	45,700	30,500	19,200	5,600	2,130	2,080
3	5,420	5,020	5,420	7,480	11,000	19,700	46,700	29,600	17,500	5,470	2,080	2,220
4	5,420	5,020	5,700	7,010	13,000	19,400	46,200	30,000	16,600	5,470	2,040	2,660
5	5,150	5,020	5,700	6,860	27,500	20,100	45,500	31,200	16,100	5,080	2,080	2,660
6	5,020	5,150	5,840	6,860	40,000	20,300	44,500	32,600	15,700	4,600	2,040	2,660
7	5,280	5,150	5,700	7,010	46,900	20,800	44,300	33,500	14,600	4,240	2,040	2,510
8	5,280	5,150	5,420	6,710	44,100	21,000	43,100	33,900	13,200	4,240	2,080	2,560
9	5,150	5,020	5,420	6,560	36,700	22,100	41,200	33,200	12,600	4,120	1,940	2,970
10	5,020	5,020	5,560	6,410	31,200	23,200	40,000	31,400	11,500	3,880	1,990	2,860
11	4,890	5,150	5,700	6,560	27,500	25,000	39,000	30,000	11,100	3,770	1,940	2,760
12	4,760	5,280	5,560	7,160	26,800	29,100	37,800	28,200	11,100	3,560	1,810	3,080
13	4,630	5,150	5,700	7,960	28,000	37,600	36,500	28,000	10,900	3,440	1,810	2,970
14	4,630	5,280	5,560	8,120	35,600	44,500	35,500	29,300	9,880	3,440	1,860	3,190
15	4,760	5,280	5,280	8,120	46,500	49,300	37,200	31,600	9,500	3,440	1,860	3,300
16	4,760	5,280	5,560	9,140	50,300	51,500	41,700	33,500	9,690	3,330	1,760	3,410
17	4,760	5,420	5,980	10,200	49,300	51,600	46,900	33,900	13,000	3,440	1,760	3,410
18	4,890	5,420	6,120	10,200	49,700	51,000	50,100	33,500	17,200	3,550	1,760	3,640
19	4,890	5,420	6,120	9,600	41,200	50,100	50,100	32,300	16,600	3,330	1,760	4,120
20	4,760	5,280	6,120	8,800	35,600	49,800	49,300	30,700	15,300	3,110	1,860	3,880
21	4,890	5,020	5,980	8,120	30,900	49,300	48,600	28,000	13,200	3,110	1,900	4,120
22	4,890	4,890	5,700	7,480	27,700	52,000	47,700	26,600	12,100	3,330	2,080	4,370
23	5,020	4,760	5,840	7,320	24,700	52,700	46,700	25,900	11,300	3,220	1,860	4,630
24	5,020	4,760	5,980	7,160	22,300	52,500	45,700	25,400	10,300	3,000	1,810	4,630
25	4,890	4,760	6,120	7,010	21,400	52,700	44,100	25,400	9,120	3,000	1,810	4,630
26	4,890	4,890	6,410	6,710	22,700	52,900	42,600	25,900	8,380	2,780	1,760	4,890
27	4,630	5,280	6,410	7,010	25,600	52,500	41,200	24,700	7,870	2,680	1,900	4,630
28	4,630	5,150	6,860	7,160	25,600	51,700	40,200	23,800	7,060	2,530	2,040	4,890
29	4,760	4,890	7,320	8,290	-	51,000	38,500	23,600	6,460	2,430	2,040	4,890
30	4,890	5,020	7,800	9,140	-	50,100	35,800	23,600	6,300	2,280	1,990	5,020
31	5,020	-	7,960	10,400	-	48,900	-	23,000	-	2,180	2,040	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						153,700	5,420	4,630	4,958	304,900		
November.....						152,970	5,420	4,760	5,099	303,400		
December.....						186,010	7,960	5,020	5,968	367,000		
Calendar year 1936.....						6,183,730	61,800	2,080	16,900	12,270,000		
January.....						242,380	10,400	6,410	7,819	480,800		
February.....						856,560	50,300	9,260	30,590	1,699,000		
March.....						1,216,300	59,900	19,400	39,240	2,412,000		
April.....						1,298,600	50,100	35,500	43,290	2,576,000		
May.....						906,400	33,900	23,000	29,210	1,796,000		
June.....						374,350	21,000	6,300	12,480	742,500		
July.....						113,660	6,020	2,180	3,666	225,400		
August.....						60,060	2,230	1,760	1,937	119,100		
September.....						105,580	5,020	2,040	3,513	209,000		
Water year 1936-37.....						5,664,370	52,900	1,760	15,520	11,240,000		

## Pit River near Canby, Calif.

Location.- Water-stage recorder, lat. 41°24', long. 120°55', in SW $\frac{1}{4}$  sec. 10, T. 41 N., R. 9 E., at lower end of Warm Spring Valley, about 4 miles southwest of Canby. Altitude, about 4,300 feet.

Drainage area.- 1,500 square miles (not including Goose Lake Basin).

Records available.- January 1904 to December 1905, May 1929 to September 1937 (incomplete 1929-31).

Extremes.- Maximum discharge during year, 1,880 second-feet Mar. 14 (gage height, 5.43 feet); minimum, 2.0 second-feet Aug. 21.

1904-5; 1929-37: Maximum discharge recorded, 14,000 second-feet Mar. 8, 1904 (gage height, 14.0 feet, former datum); minimum, 0.1 second-foot Apr. 29, Aug. 5, Sept. 18, 1934, Aug. 18-21, 1935.

Remarks.- Records good except those for period of ice effect, Nov. 28 to Mar. 2, and those for Oct. 25 to Nov. 2 (computed on basis of weather records), which are fair. Storage and many irrigation diversions above station.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	20	35	27	9	90	541	163	14	75	5.5	11
2	8	24	35	27	9	110	487	98	14	55	5	9.5
3	8	28	34	27	9	142	493	39	16	28	5	9
4	8	36	34	27	9	152	673	24	77	28	5.5	8.5
5	8	39	34	27	9	163	634	25	132	35	5	7.5
6	8	31	34	27	9	255	583	19	123	30	5	10
7	7.5	30	34	26	9	427	499	32	85	19	4.7	108
8	7.5	30	34	25	9	634	415	92	71	14	4.7	160
9	8	28	34	20	9	634	388	95	66	14	4.7	90
10	8	28	32	16	9	764	327	62	55	13	4.4	75
11	8	30	32	14	9	1,000	290	66	48	12	4.1	68
12	8	30	32	13	9	1,520	246	64	37	14	3.8	57
13	8	30	32	12	9	1,800	219	49	31	31	3.8	38
14	8	43	32	10	9	1,640	214	38	27	42	4.7	31
15	8	41	32	10	9	1,320	228	55	24	30	6	25
16	7.5	39	30	10	9	1,060	280	57	20	21	6.5	21
17	11	37	30	10	9	955	398	34	18	17	5	19
18	8	41	30	10	9	790	439	20	18	15	4.1	17
19	6	39	30	10	10	660	368	25	13	14	3.2	16
20	6	39	30	10	15	602	316	24	16	14	2.3	16
21	5.5	39	30	9	20	523	285	20	12	12	2.0	16
22	5.5	39	30	9	25	427	265	19	11	15	2.6	20
23	5.5	39	28	9	30	376	265	21	11	19	9	18
24	5.5	39	28	9	35	338	260	22	10	12	28	16
25	5.5	39	28	9	45	327	210	22	9.5	10	30	15
26	5.5	37	28	9	55	338	152	21	9.5	11	27	14
27	5.5	37	28	9	65	362	210	21	9	12	27	12
28	5.5	36	28	9	75	469	246	20	9	11	24	11
29	5.5	36	28	9	-	493	250	17	9	8	20	10
30	5.5	35	28	9	-	475	210	15	9	6.5	17	9.5
31	10	-	28	9	-	457	-	14	-	6	14	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						224.5	11	5.5	7.24	445		
November.....						1,039	43	20	34.6	2,060		
December.....						962	35	28	31.0	1,910		
Calendar year 1936.....						87,708.7	2,950	1.2	240	174,000		
January.....						457	27	9	14.7	906		
February.....						537	75	9	19.2	1,070		
March.....						19,343	1,800	90	624	38,370		
April.....						10,401	673	152	347	20,630		
May.....						1,293	163	14	41.7	2,560		
June.....						1,004.0	132	9	33.5	1,990		
July.....						643.5	75	6	20.8	1,280		
August.....						235.6	30	2.0	9.47	582		
September.....						938.0	160	7.5	31.3	1,660		
Water year 1936-37.....						37,135.6	1,800	2.0	102	73,660		



## Pit River at Fall River Mills, Calif.

Location.— Water-stage recorder, lat. 41°00', long. 121°26', in NE $\frac{1}{4}$  sec. 6, T. 36 N., R. 5 E., 0.8 mile below Fall River and town of Fall River Mills. Altitude, about 3,235 feet.

Records available.— December 1922 to September 1937; March 1921 to December 1922, at site 0.7 mile upstream.

Average discharge.— 14 years (1923-37), 320 second-feet.

Extremes.— Maximum discharge during year, 5,080 second-feet Mar. 14 (gage height, 5.19 feet); minimum, 12 second-feet Oct. 23.

1921-37: Maximum discharge, 10,800 second-feet Mar. 28, 1928 (gage height, 7.89 feet); minimum, 12 second-feet Aug. 5, 1928, and Oct. 23 1936.

Remarks.— Records fair. Discharge Jan. 3-5, 8, June 20-25 computed on basis of unpublished records for nearby stations. Entire flow of Fall River diverted above station; many small storage reservoirs and irrigation diversions; river receives return water from McArthur, Knoch, and other diversions. Gage-height record and results of discharge measurements furnished by Pacific Gas & Electric Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.2	32	1.4	290	2.6	1,120	3.8	2,630
.4	52	1.6	385	2.8	1,330	4.0	2,950
.6	78	1.8	500	3.0	1,550	4.5	3,800
.8	110	2.0	625	3.2	1,790	5.0	4,700
1.0	155	2.2	770	3.4	2,050	5.5	5,680
1.2	215	2.4	930	3.6	2,350		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	63	84	93	81	124	1,670	440	64	80	58	84
2	78	63	86	90	90	135	3,200	396	71	77	60	87
3	92	64	88	84	90	215	3,380	326	86	70	53	87
4	93	64	84	81	95	304	2,480	226	87	67	64	80
5	87	67	84	78	93	418	1,920	130	84	63	63	80
6	75	67	92	74	92	632	1,860	103	75	64	68	77
7	93	64	90	71	88	866	1,790	107	71	67	70	87
8	88	67	92	70	84	1,100	1,610	93	84	72	64	85
9	88	74	95	70	80	1,920	1,550	82	71	84	60	70
10	88	78	95	74	77	3,120	1,500	78	77	78	57	71
11	87	78	93	75	80	3,980	1,370	71	95	71	67	72
12	87	78	88	74	81	3,950	1,210	75	84	62	71	64
13	87	80	92	72	84	4,250	1,070	84	75	56	68	78
14	87	78	95	71	93	4,790	1,070	93	78	51	72	78
15	92	80	98	74	84	4,160	1,070	90	82	50	72	67
16	80	80	100	75	81	3,720	1,080	86	100	44	65	67
17	71	80	95	74	84	3,460	1,030	90	93	46	62	80
18	65	81	95	74	93	3,120	957	88	90	68	81	84
19	60	84	98	72	96	2,870	930	88	92	70	71	82
20	60	86	96	70	96	2,330	914	74	90	62	57	81
21	56	84	98	68	98	2,190	818	88	74	68	74	82
22	54	84	106	67	100	2,120	732	75	72	78	54	82
23	53	88	107	67	103	1,980	681	88	84	82	32	82
24	53	88	116	71	105	1,790	632	74	84	77	81	82
25	59	90	124	74	108	1,540	566	63	78	65	68	82
26	57	93	122	75	110	1,300	524	63	75	63	75	80
27	57	90	107	78	112	1,260	518	60	70	62	78	78
28	58	88	103	78	116	1,280	424	56	72	68	78	72
29	59	88	122	78	-	1,290	424	51	81	71	74	78
30	60	87	116	78	-	1,370	446	67	82	72	71	78
31	62	-	102	80	-	1,440	-	74	-	67	74	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						2,247	93	33	72.5	4,460		
November.....						2,566	93	63	78.5	4,670		
December.....						3,060	124	84	98.7	6,070		
Calendar year 1936.....						195,132	8,640	33	533	387,000		
January.....						2,330	93	67	75.2	4,620		
February.....						2,694	116	77	92.6	5,160		
March.....						63,054	4,790	124	2,034	125,100		
April.....						37,426	3,380	424	1,248	74,230		
May.....						3,679	440	51	115	7,100		
June.....						2,421	100	64	80.7	4,800		
July.....						2,075	84	44	66.9	4,120		
August.....						2,112	82	53	68.1	4,190		
September.....						2,257	87	57	75.2	4,480		
Water year 1936-37.....						125,511	4,790	33	344	249,000		

## Pit River below Pit No. 4 Dam, Calif.

Location.— Water-stage recorder, lat. 40°59', long. 121°47', in SW¼ sec. 17, T. 36 N., R. 2 E., 1 mile below Pit No. 4 Dam and 3 miles below Screwdriver Creek and Pit No. 3 power house. Altitude, about 2,345 feet.

Drainage area.— 4,860 square miles (not including Goose Lake Basin).

Records available.— July 1927 to September 1937.

Average discharge.— 10 years, 2,112 second-feet.

Extremes.— Maximum discharge during year, 7,660 second-feet Mar. 15 (gage height, 10.73 feet); minimum, 1,430 second-feet Sept. 1.

1927-37: Maximum discharge, 16,400 second-feet Apr. 8 1935 (gage height, 14.7 feet); minimum, 715 second-feet Mar. 21, 1928, regulated.

Remarks.— Records excellent. Discharge for Apr. 27-30 computed on basis of records for other Pit River stations. Storage, power plants, and many diversions above station; daily fluctuations usually reduced by automatic regulator at Pit No. 4 Dam. Gage-height record and results of discharge measurements furnished by Pacific Gas & Electric Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

6.6	1,340	7.8	2,700	9.0	4,650
6.8	1,530	8.0	2,980	9.4	5,230
7.0	1,730	8.2	3,280	9.8	5,920
7.2	1,950	8.4	3,590	10.2	6,660
7.4	2,180	8.6	3,910	10.6	7,460
7.6	2,430	8.8	4,230		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	1,730	1,780	1,730	1,630	1,730	3,630	2,430	2,000	1,950	1,730	1,580
2	1,680	1,680	1,780	1,780	1,580	1,840	4,720	2,300	1,900	1,730	1,680	1,480
3	1,680	1,680	1,730	1,730	1,630	1,950	5,400	2,770	1,840	1,630	1,680	1,580
4	1,680	1,630	1,780	1,680	1,680	2,000	4,890	2,700	1,730	1,680	1,730	1,680
5	1,630	1,680	1,730	1,680	1,730	2,180	4,720	2,770	1,750	1,780	1,730	1,730
6	1,630	1,730	1,730	1,730	1,730	2,360	4,150	2,630	1,950	1,730	1,730	1,680
7	1,680	1,730	1,730	1,780	1,780	2,980	4,150	2,430	1,950	1,680	1,730	1,730
8	1,680	1,730	1,730	1,730	1,780	2,980	3,910	2,600	2,000	1,730	1,780	1,630
9	1,680	1,730	1,730	1,580	1,680	2,980	3,830	2,240	1,840	1,780	1,780	1,630
10	1,630	1,730	1,730	1,580	1,630	4,190	3,280	2,180	1,840	1,840	1,730	1,630
11	1,630	1,730	1,780	2,000	1,630	5,400	3,080	2,700	1,840	1,840	1,680	1,580
12	1,680	1,730	1,780	1,780	1,730	5,920	3,750	2,580	1,950	1,780	1,630	1,630
13	1,680	1,730	1,780	1,630	1,780	5,920	3,360	2,500	1,950	1,730	1,630	1,680
14	1,680	1,730	1,780	1,580	1,900	6,470	3,200	2,500	2,000	1,680	1,630	1,630
15	1,680	1,730	1,730	1,530	2,000	6,860	3,750	2,430	1,950	1,680	1,680	1,530
16	1,680	1,780	1,730	1,630	1,840	6,100	3,750	2,430	1,900	1,730	1,680	1,580
17	1,630	1,840	1,730	1,680	1,730	6,100	3,200	2,500	2,060	1,780	1,680	1,630
18	1,680	1,840	1,730	1,680	1,730	5,920	3,130	2,500	2,180	1,780	1,630	1,730
19	1,730	1,780	1,780	1,680	1,780	5,400	3,870	2,860	2,180	1,730	1,580	1,730
20	1,730	1,730	1,840	1,730	1,840	4,890	3,510	2,240	2,060	1,680	1,630	1,730
21	1,630	1,730	1,780	1,680	1,780	4,390	3,360	2,300	2,000	1,730	1,630	1,630
22	1,630	1,730	1,780	1,680	1,730	4,890	3,200	2,300	2,000	1,730	1,630	1,680
23	1,630	1,730	1,730	1,680	1,730	4,550	2,980	2,300	1,950	1,780	1,680	1,680
24	1,680	1,780	1,840	1,680	1,780	4,310	2,980	2,240	2,000	1,780	1,680	1,680
25	1,730	1,780	1,950	1,630	1,840	4,070	2,840	2,240	1,950	1,780	1,680	1,580
26	1,730	1,780	1,840	1,680	1,840	3,510	2,910	2,180	1,840	1,780	1,630	1,580
27	1,730	1,780	1,840	1,680	1,840	3,200	2,910	2,180	1,780	1,730	1,580	1,630
28	1,730	1,780	1,900	1,730	1,780	3,560	2,770	2,120	1,680	1,680	1,630	1,680
29	1,730	1,780	1,840	1,730	-	4,070	2,700	2,180	1,950	1,680	1,680	1,680
30	1,730	1,780	1,780	1,730	-	3,670	2,560	2,180	2,000	1,680	1,680	1,630
31	1,730	-	1,730	1,780	-	3,510	-	2,180	-	1,730	1,680	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	52,080	1,730	1,630	1,680	103,300
November.....	52,320	1,840	1,630	1,744	103,800
December.....	55,120	1,950	1,730	1,778	109,300
Calendar year 1936.....	838,080	11,100	1,370	2,290	1,662,000
January.....	52,650	2,000	1,530	1,698	104,400
February.....	49,130	2,000	1,580	1,755	97,450
March.....	127,700	6,860	1,730	4,119	253,300
April.....	106,470	5,400	2,560	3,549	211,200
May.....	74,070	2,770	2,120	2,389	146,900
June.....	58,050	2,180	1,680	1,935	115,100
July.....	54,020	1,950	1,630	1,743	107,100
August.....	51,930	1,780	1,580	1,675	103,000
September.....	49,250	1,730	1,480	1,642	97,690
Water year 1936-37.....	782,790	6,860	1,480	2,145	1,553,000

## Pit River at Big Bend, Calif.

Location.— Water-stage recorder, lat. 41°01', long. 121°55', in sec. 31, T. 37 N., R. 1 E., a quarter of a mile above Big Bend. Nelson Creek enters half a mile above and Kosk Creek 1 mile below station. Altitude, about 1,700 feet.

Drainage area.— 4,920 square miles (not including Goose Lake Basin). (Figure as published in Water-Supply Paper 811 is in error.)

Records available.— September 1910 to September 1937.

Average discharge.— 26 years (1911-37), 2,751 second-feet.

Extremes.— Maximum discharge during year, 8,860 second-feet Mar. 15 (gauge height, 11.26 feet); minimum, 1,400 second-feet Sept. 1 (gauge height, 7.52 feet).

1910-37: Maximum discharge, 16,100 second-feet Apr. 8, 1935 (gauge height, 13.96 feet); minimum, 664 second-feet July 9, 10, 1925, regulated; minimum daily discharge, 692 second-feet July 9, 1925, regulated.

Remarks.— Records good except those for Nov. 1-8, Jan. 11-16, which were computed on basis of records for other Pit River stations and are fair. Storage, power plants, and many diversions above station; daily fluctuations usually reduced by automatic regulator at Pit No. 4 Dam.

Rating table, water year 1936-37 (gauge height, in feet, and discharge, in second-feet)

7.6	1,510	8.6	2,860	9.6	4,730
7.8	1,740	8.8	3,190	9.8	5,160
8.0	1,990	9.0	3,530	10.0	5,520
8.2	2,260	9.2	3,910	10.5	6,840
8.4	2,550	9.4	4,310	11.0	8,090

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	1,720	1,800	1,740	1,740	1,800	4,420	2,860	2,260	2,060	1,800	1,680
2	1,680	1,700	1,800	1,800	1,620	1,920	5,390	2,700	2,120	1,860	1,740	1,560
3	1,680	1,700	1,740	1,800	1,680	1,990	6,100	3,180	2,060	1,740	1,740	1,620
4	1,680	1,650	1,740	1,680	1,800	2,050	5,500	3,250	1,990	1,740	1,800	1,740
5	1,680	1,700	1,740	1,740	1,800	2,260	5,500	3,260	1,990	1,860	1,800	1,800
6	1,680	1,740	1,740	1,740	1,800	2,480	4,730	3,180	2,190	1,800	1,800	1,800
7	1,680	1,740	1,740	1,800	1,800	3,020	4,620	2,940	2,190	1,740	1,800	1,800
8	1,740	1,740	1,740	1,740	1,860	3,180	4,420	2,940	2,190	1,800	1,860	1,740
9	1,680	1,740	1,740	1,620	1,740	3,180	4,310	2,700	2,050	1,860	1,860	1,680
10	1,680	1,740	1,740	1,620	1,680	4,450	3,820	2,550	1,990	1,920	1,800	1,740
11	1,680	1,800	1,740	1,990	1,680	6,100	3,530	3,100	1,990	1,920	1,740	1,680
12	1,680	1,740	1,800	1,800	1,740	6,840	4,310	3,020	2,060	1,920	1,680	1,680
13	1,740	1,740	1,800	1,680	1,860	6,590	4,210	3,020	2,120	1,880	1,680	1,740
14	1,740	1,680	1,800	1,620	1,990	7,340	4,210	3,020	2,120	1,800	1,740	1,680
15	1,740	1,680	1,740	1,620	2,120	7,840	4,730	2,940	2,120	1,800	1,740	1,620
16	1,680	1,740	1,740	1,680	1,920	6,840	4,620	2,940	2,260	1,860	1,740	1,560
17	1,680	1,800	1,740	1,800	1,800	7,090	3,910	2,940	2,260	1,920	1,740	1,740
18	1,680	1,800	1,740	1,800	1,740	7,090	3,820	3,020	2,060	1,920	1,740	1,800
19	1,800	1,800	1,600	1,740	1,800	6,340	4,210	2,780	2,400	1,860	1,680	1,800
20	1,800	1,740	1,800	1,800	1,860	5,620	4,110	2,620	2,260	1,800	1,680	1,740
21	1,680	1,740	1,800	1,740	1,860	4,840	4,010	2,620	2,190	1,800	1,680	1,740
22	1,680	1,740	1,740	1,740	1,800	5,390	3,820	2,700	2,120	1,800	1,740	1,740
23	1,620	1,740	1,740	1,740	1,800	5,050	3,530	2,620	2,120	1,860	1,740	1,740
24	1,680	1,740	1,860	1,740	1,860	4,840	3,530	2,620	2,120	1,860	1,740	1,740
25	1,740	1,740	1,990	1,680	1,860	4,520	3,350	2,620	2,120	1,920	1,740	1,680
26	1,740	1,740	1,920	1,740	1,860	3,910	3,350	2,550	1,990	1,860	1,680	1,680
27	1,740	1,800	1,860	1,740	1,860	3,530	3,350	2,460	1,920	1,860	1,620	1,680
28	1,740	1,800	1,920	1,800	1,900	3,720	3,350	2,400	1,900	1,800	1,680	1,740
29	1,740	1,800	1,920	1,800	-	4,420	3,100	2,400	1,990	1,800	1,800	1,740
30	1,740	1,800	1,860	1,850	-	4,110	3,020	2,480	2,190	1,800	1,740	1,680
31	1,740	-	1,740	1,860	-	3,910	-	2,400	-	1,800	1,740	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						52,920	1,800	1,620	1,707	105,000		
November.....						52,330	1,800	1,650	1,744	103,800		
December.....						55,570	1,990	1,740	1,793	110,200		
Calendar year 1936.....						939,850	12,000	1,410	2,568	1,864,000		
January.....						54,250	1,990	1,620	1,750	107,600		
February.....						50,730	2,190	1,620	1,812	100,600		
March.....						142,270	7,840	1,800	4,589	232,200		
April.....						124,780	6,100	3,020	4,460	247,500		
May.....						86,860	3,260	2,400	2,902	172,300		
June.....						63,590	2,400	1,800	2,120	126,100		
July.....						57,200	2,060	1,740	1,845	113,500		
August.....						54,060	1,860	1,620	1,744	107,200		
September.....						51,360	1,800	1,560	1,712	101,900		
Water year 1936-37.....						845,930	7,840	1,560	2,318	1,678,000		

## Pit River near Ydalpom, Calif.

Location.— Water-stage recorder, lat. 40°46', long. 122°14', in NW¼ sec. 32, T. 34 N., R. 3 W., at Silverthorne Ferry, 1½ miles southwest of Ydalpom. Squaw Creek enters half a mile above and McCloud River 4 miles below station. Altitude, about 735 feet.

Drainage area.— 5,350 square miles (not including Goose Lake Basin).

Records available.— May 1924 to September 1937: November 1910 to May 1924 at staff-gage site 400 feet downstream.

Average discharge.— 26 years (1911-37), 3,801 second-feet.

Extremes.— Maximum discharge during year, 14,300 second-feet Apr. 13 (gage height, 11.08 feet); minimum, 1,840 second-feet Sept. 2.

1910-37: Maximum discharge, about 47,000 second-feet Dec. 31, 1913 (gage height, about 20.7 feet, present datum); minimum, 1,000 second-feet July 10, 1925, regulated.

Remarks.— Records excellent. Storage, power plants, and many diversions above station; daily fluctuations usually smoothed out by automatic regulator at Pit No. 4 Dam, above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

4.2	1,600	5.8	3,380	7.5	6,170	9.5	10,300
4.6	1,890	6.2	3,970	8.0	7,090	10.0	11,600
5.0	2,340	6.6	4,610	8.5	8,060	10.5	12,700
5.4	2,840	7.0	5,290	9.0	9,120	11.0	14,000

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,840	1,840	1,890	1,890	2,110	2,710	7,090	4,780	2,900	2,460	1,940	1,840
2	1,790	1,840	1,940	1,940	2,340	3,040	7,860	4,610	2,640	2,280	1,940	1,690
3	1,790	1,790	1,890	2,000	2,460	3,310	8,060	5,120	2,640	2,110	1,890	1,690
4	1,790	1,790	1,890	1,890	5,220	3,380	7,470	5,290	2,680	2,060	1,890	1,840
5	1,840	1,790	1,890	1,890	3,420	3,600	7,470	5,290	2,460	2,160	1,940	1,890
6	1,790	1,840	1,890	1,940	2,520	3,900	6,530	5,120	2,640	2,160	1,890	1,890
7	1,790	1,890	1,890	1,940	2,340	4,370	6,350	4,780	2,640	2,060	1,890	1,890
8	1,840	1,890	1,890	1,940	2,280	4,780	6,170	4,610	2,710	2,060	2,000	1,890
9	1,840	1,890	1,890	1,840	2,110	4,950	6,350	4,450	2,680	2,060	2,000	1,790
10	1,790	1,890	1,890	1,790	2,000	6,220	5,990	3,900	2,640	2,220	1,940	1,840
11	1,790	1,890	1,890	1,890	2,160	8,260	5,460	4,450	2,520	2,160	1,890	1,790
12	1,790	1,890	1,940	2,400	2,400	11,500	5,990	4,450	2,520	2,160	1,840	1,740
13	1,840	1,840	1,890	1,840	3,130	10,000	10,000	4,450	2,580	2,110	1,790	1,840
14	1,840	1,840	1,840	1,840	4,610	9,560	13,000	4,610	2,580	2,000	1,840	1,840
15	1,840	1,840	1,890	1,840	3,240	9,780	12,700	4,450	2,640	2,000	1,840	1,740
16	1,840	1,890	1,890	1,890	2,780	8,460	10,300	4,370	3,520	2,060	1,890	1,690
17	1,790	1,940	1,890	1,890	2,520	10,000	8,260	4,210	3,820	2,110	1,840	1,790
18	1,790	1,940	1,890	2,000	2,840	10,300	7,280	4,450	3,240	2,160	1,840	1,890
19	1,890	1,940	1,890	1,940	2,640	9,120	7,090	4,130	3,100	2,060	1,790	1,890
20	1,940	1,890	1,940	1,940	2,580	9,560	7,090	3,740	2,970	2,000	1,790	1,890
21	1,840	1,890	1,940	1,940	2,520	9,340	7,090	3,670	2,840	2,000	1,790	1,840
22	1,790	1,840	1,940	1,890	2,520	9,120	6,530	3,740	2,710	2,000	1,790	1,790
23	1,790	1,840	1,890	1,890	2,640	8,680	5,990	3,670	2,640	2,000	1,840	1,840
24	1,790	1,890	2,000	1,890	2,970	10,000	5,990	3,600	2,580	2,060	1,840	1,840
25	1,840	1,890	2,160	1,840	3,670	8,260	5,630	3,600	2,640	2,110	1,840	1,790
26	1,840	1,890	2,220	1,890	3,040	6,900	5,810	3,450	2,520	2,060	1,840	1,740
27	1,840	1,890	2,110	2,000	2,840	6,900	5,630	3,310	2,400	2,000	1,790	1,790
28	1,840	1,890	2,160	2,060	2,710	6,530	5,290	3,170	2,280	1,940	1,790	1,790
29	1,840	1,890	2,060	2,060	-	6,710	4,950	3,170	2,280	1,940	1,840	1,840
30	1,890	1,890	2,160	2,060	-	6,530	4,780	3,100	2,640	1,940	1,840	1,790
31	1,890	-	2,000	2,110	-	5,990	-	3,100	-	1,940	1,840	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	56,640	1,940	1,790	1,827	112,300
November.....	56,150	1,940	1,790	1,872	111,400
December.....	60,640	2,220	1,890	1,956	120,300
Calendar year 1936.....	1,348,220	30,500	1,590	3,684	2,674,000
January.....	60,160	2,400	1,790	1,941	119,300
February.....	78,510	5,220	2,000	2,904	158,700
March.....	221,750	11,500	2,640	7,154	439,900
April.....	214,200	13,000	4,780	7,140	424,900
May.....	128,840	5,290	3,100	4,155	255,600
June.....	81,590	3,820	2,280	2,720	161,800
July.....	64,440	2,460	1,940	2,079	127,800
August.....	57,710	2,000	1,790	1,862	114,500
September.....	54,400	1,890	1,690	1,813	107,900
Water year 1936-37.....	1,135,040	13,000	1,690	3,110	2,261,000

## South Fork of Pit River near Likely, Calif.

Location.- Water-stage recorder, lat. 41°14', long. 120°25', in NE¼ sec. 11 (revised), T. 39 N., R. 13 E., 0.4 mile below West Valley Creek and 4 miles east of Likely. Altitude, about 4,580 feet.

Drainage area.- 218 square miles.

Records available.- October 1928 to September 1937.

Extremes.- Maximum discharge during year, 253 second-feet Mar. 11 (gage height, 3.39 feet); minimum, 6.5 second-feet Dec. 23.  
1928-37: Maximum discharge, 1,060 second-feet Apr. 27, 1932 (gage height, 5.50 feet); minimum, 2.7 second-feet Aug. 4, 1931.

Remarks.- Records good except those for period of ice effect, Nov. 25 to Mar 2 and those for Sept. 28-30, which are fair. Storage and irrigation diversions above station; diversion through feed canal (capacity about 50 second-feet) to West Valley Creek reservoir began July 1, 1936.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.6	7.5	2.6	89
1.7	11.5	2.8	120
1.8	16	3.0	157
2.0	27	3.2	204
2.2	44	3.4	256
2.4	64		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	22	18	13	8	21	57	55	107	96	39	14
2	22	25	16	13	8	23	69	75	100	92	39	13
3	22	26	14	13	8	27	76	95	88	89	38	13
4	22	23	13	13	8	29	70	123	82	86	103	12
5	24	24	15	13	8	32	55	145	79	39	151	12
6	23	23	16	12	8	40	47	153	79	14	149	13
7	22	26	16	10	8	53	37	162	75	16	147	12
8	23	25	16	9	8	76	29	155	70	22	143	11
9	21	26	16	9	8	104	36	127	71	40	137	9.5
10	21	29	15	9	8	139	33	115	68	34	132	10
11	23	31	14	8	8	178	29	101	76	35	125	12
12	22	29	14	8	8	175	26	95	71	46	120	12
13	22	28	14	8	8	132	28	110	60	60	118	10
14	23	29	14	8	8	102	45	134	63	57	122	9.5
15	23	29	14	8	8	85	69	141	58	54	130	9
16	20	29	14	8	9	76	49	151	74	53	125	12
17	15	29	14	8	9	64	38	162	65	54	128	15
18	15	29	14	8	9	56	37	164	59	53	134	18
19	16	30	14	8	9	47	35	217	59	53	127	19
20	17	29	14	8	10	43	42	190	56	55	120	19
21	20	29	14	8	12	40	59	166	50	54	112	19
22	20	29	14	8	14	39	49	145	50	40	106	20
23	20	29	14	8	16	39	39	139	45	33	98	20
24	20	28	14	8	18	32	43	151	71	40	88	20
25	20	27	14	8	19	32	57	166	95	53	68	19
26	20	26	14	8	19	42	66	171	98	48	42	19
27	20	25	14	8	20	52	66	145	102	42	29	20
28	20	22	14	8	20	58	56	132	98	39	22	22
29	20	22	14	8	-	42	46	125	93	40	17	24
30	20	20	14	8	-	40	42	122	104	39	15	26
31	21	-	13	8	-	38	-	115	-	39	14	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						641	24	15	20.7	1,270		
November.....						796	31	20	26.5	1,580		
December.....						448	18	13	14.5	889		
Calendar year 1936.....						26,674	454	13	72.9	52,900		
January.....						282	13	8	9.10	559		
February.....						304	20	8	10.9	603		
March.....						1,956	178	21	63.1	3,880		
April.....						1,430	76	26	47.7	2,840		
May.....						4,227	217	55	136	8,380		
June.....						2,271	107	45	75.7	4,500		
July.....						1,515	96	14	48.9	3,000		
August.....						2,938	151	14	94.8	5,830		
September.....						464.0	26	9	15.5	920		
Water year 1936-37.....						17,272.0	217	8	47.3	34,250		

## Hat Creek near Hat Creek, Calif.

Location.- Water-stage recorder, lat.  $40^{\circ}41'$ , long.  $121^{\circ}25'$ , in SE $\frac{1}{4}$  sec. 28, T. 33 N., R. 5 E., 5 miles below Big Springs and 11 miles southeast of Hat Creek. Altitude, about 4,500 feet.

Records available.- April 1928 to September 1937; July 1926 to April 1928, at site half a mile upstream.

Average discharge.- 10 years (1926-29, 1930-37), 98.7 second-feet.

Extremes.- Maximum discharge during year, 450 second-feet June 16 (gage height, 4.12 feet), from rating curve extended above 200 second-feet; minimum, 74 second-feet Aug. 10.

1926-37: Maximum discharge, that of June 16, 1937; minimum, 67 second-feet Sept. 7, 1934.

Remarks.- Records good. Irrigation canals above station divert 2 to 30 second-feet.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Oct. 1-7, May 15 to June 16)

2.3	75	2.9	155
2.4	84	3.0	171
2.5	96	3.1	188
2.6	109	3.2	207
2.7	124	3.3	228
2.8	139	3.4	251

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	83	82	84	84	79	89	101	149	100	89	79
2	85	83	83	83	83	78	89	112	153	97	89	80
3	84	88	82	83	83	78	84	117	161	96	89	81
4	84	89	81	84	86	78	83	127	165	94	89	82
5	84	88	81	85	84	79	84	123	160	89	89	83
6	84	88	84	84	84	81	83	121	153	86	89	83
7	84	86	86	84	84	80	82	123	143	85	89	82
8	84	86	88	84	84	80	84	120	141	85	89	84
9	83	88	84	84	84	81	84	124	143	86	84	85
10	81	88	84	84	85	81	84	118	132	92	79	85
11	79	89	83	84	86	85	83	126	117	95	78	84
12	80	88	82	84	85	85	85	155	108	92	78	84
13	81	89	83	84	88	83	105	171	107	92	80	85
14	82	88	84	84	88	82	112	179	103	92	81	85
15	82	88	86	84	86	82	111	173	103	94	80	85
16	82	86	85	84	88	82	100	173	250	92	80	85
17	82	86	82	85	88	83	96	169	155	91	80	85
18	83	86	84	85	88	81	96	166	136	90	79	81
19	83	86	85	85	86	80	95	144	121	90	81	80
20	83	86	86	84	86	79	96	144	129	89	84	80
21	83	86	86	84	85	79	97	146	135	81	86	80
22	82	86	85	84	86	78	96	146	130	82	86	79
23	82	86	86	84	82	80	95	153	123	81	88	80
24	82	86	88	84	79	78	96	161	120	81	86	80
25	82	86	84	84	79	78	99	158	115	81	86	80
26	82	86	86	84	78	80	99	146	114	82	86	80
27	82	85	82	84	78	80	96	155	112	84	85	81
28	82	85	83	84	78	79	94	165	112	84	86	84
29	82	84	84	84	-	79	94	158	115	84	84	85
30	83	82	84	84	-	80	96	144	107	88	80	84
31	83	-	84	84	-	82	-	144	-	89	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	2,560	85	79	82.6	5,080
November.....	2,591	89	82	86.4	5,140
December.....	2,607	88	81	84.1	5,170
Calendar year 1936.....	34,530	196	76	94.3	68,500
January.....	2,606	85	83	84.1	5,170
February.....	2,355	88	78	84.1	4,670
March.....	2,490	85	78	80.3	4,940
April.....	2,787	112	82	82.9	5,550
May.....	4,462	179	101	144	8,850
June.....	4,012	250	107	134	7,960
July.....	2,744	100	81	88.5	5,440
August.....	2,608	89	78	84.1	5,170
September.....	2,471	85	79	82.4	4,900
Water year 1936-37.....	34,293	250	78	94.0	68,020

## McCloud River near McCloud, Calif.

Location.- Water-stage recorder, lat.  $41^{\circ}11'$ , long.  $122^{\circ}04'$ , in NE $\frac{1}{4}$  sec. 34, T. 39 N., R. 2 W., half a mile below Angel Creek and 6 miles southeast of McCloud. Altitude, about 2,750 feet.

Drainage area.- 388 square miles.

Records available.- April 1931 to September 1937.

Extremes.- Maximum discharge during year, 1,370 second-feet Apr. 15 (gage height, 2.05 feet); minimum, 539 second-feet Jan. 2 (gage height, 0.80 foot).  
1931-37: Maximum discharge, 2,570 second-feet Feb. 22, 1936 (gage height, 3.82 feet), from rating curve extended above 1,600 second-feet; minimum, 524 second-feet Nov. 23, 24, 1932.

Remarks.- Records good except those for Jan. 7 to Feb. 24 (computed on basis of records for station at Baird), which are fair. Two small diversions above station with a total capacity of about 10 second-feet.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.8	539	1.5	975
.9	595	1.6	1,045
1.0	651	1.7	1,115
1.1	712	1.8	1,185
1.2	775	1.9	1,260
1.3	840	2.0	1,335
1.4	907		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	593	576	570	549	550	560	587	940	900	700	633	610
2	587	570	570	544	550	560	593	1,010	893	694	627	616
3	587	570	570	544	555	560	598	1,080	893	698	627	616
4	587	570	570	544	570	560	604	1,120	880	682	627	616
5	587	570	570	549	560	560	610	1,120	860	676	627	616
6	587	570	565	549	555	560	610	1,080	840	669	627	616
7	587	570	565	549	550	560	616	1,040	827	669	622	610
8	587	570	565	545	550	565	627	1,010	808	657	610	610
9	581	570	560	545	550	576	633	1,010	815	663	610	610
10	581	570	560	545	550	581	639	1,010	821	663	610	610
11	576	570	560	545	550	604	645	975	802	663	610	610
12	570	570	560	545	555	633	651	1,010	782	657	610	604
13	570	570	560	545	560	622	763	1,080	757	657	610	604
14	570	570	560	545	570	604	1,010	1,120	758	657	610	604
15	570	576	560	545	560	593	1,300	1,120	744	651	610	604
16	576	576	560	545	560	587	1,180	1,120	947	651	610	604
17	576	576	554	545	555	593	1,010	1,120	1,080	651	610	598
18	576	576	554	545	560	593	927	1,120	940	651	610	598
19	576	576	554	545	560	593	907	1,080	867	646	604	598
20	576	576	560	545	555	581	914	1,010	834	639	604	598
21	576	576	560	545	555	581	954	1,010	815	633	604	598
22	576	576	554	545	555	570	940	1,010	808	639	604	598
23	576	576	560	545	560	576	907	1,010	763	627	604	598
24	576	576	560	545	565	576	914	1,010	757	639	604	598
25	576	576	560	545	560	565	961	1,040	750	627	610	598
26	570	576	560	550	560	560	1,010	1,010	744	633	610	598
27	570	576	560	550	560	560	975	1,010	731	645	610	598
28	570	576	554	550	560	565	934	975	725	639	610	598
29	576	576	554	550	-	565	907	975	725	639	610	598
30	576	570	560	550	-	570	907	947	718	639	610	598
31	576	-	549	550	-	576	-	914	-	639	610	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						17,918	593	570	578	35,540		
November.....						17,196	576	570	573	34,110		
December.....						17,378	570	549	561	34,470		
Calendar year 1936.....						247,538	2,330	549	676	491,000		
January.....						16,938	550	544	546	33,600		
February.....						15,600	570	550	557	30,940		
March.....						17,909	633	560	578	35,520		
April.....						24,833	1,300	597	828	49,260		
May.....						32,086	1,120	914	1,055	63,640		
June.....						24,564	1,080	718	819	48,720		
July.....						20,281	700	627	654	40,230		
August.....						18,994	633	604	613	37,670		
September.....						18,132	616	598	604	35,960		
Water year 1936-37.....						241,829	1,300	544	663	479,700		

## McCloud River at Baird, Calif.

Location.- Water-stage recorder, lat. 40°47', long. 122°16', in SE $\frac{1}{4}$  sec. 22, T. 34 N., R. 4 W., half a mile below Baird post office and  $\frac{1}{2}$  miles above junction with Pit River. Altitude, about 700 feet.

Drainage area.- 668 square miles.

Records available.- December 1930 to September 1937. December 1910 to December 1930 at staff-gage site 1 mile upstream.

Average discharge.- 26 years (1911-37), 1,625 second-feet.

Extremes.- Maximum discharge during year, 8,600 second-feet Apr. 15 (gage height, 9.46 feet); minimum, 675 second-feet Jan. 7, 1910-37: Maximum discharge, 27,600 second-feet Feb. 2, 1917 (gage height, 14.3 feet, former site and datum); minimum, 650 second-feet for several days during August to October 1931.

Remarks.- Records excellent. No large diversions.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.2	660	2.6	1,230	4.6	2,610	7.0	5,150
1.4	720	2.8	1,340	5.0	2,970	7.5	5,800
1.6	785	3.0	1,450	5.4	3,350	8.0	6,450
1.8	860	3.4	1,700	5.8	3,750	8.5	7,150
2.0	940	3.8	1,980	6.2	4,190	9.0	7,850
2.2	1,030	4.2	2,290	6.6	4,660	10.0	9,350
2.4	1,130						

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	720	720	705	720	785	1,160	2,700	2,370	1,610	1,130	840	768
2	720	720	705	705	840	1,280	2,880	2,450	1,480	1,100	840	768
3	720	720	705	705	900	1,400	2,610	2,610	1,480	1,080	840	768
4	720	720	705	705	1,600	1,450	2,370	2,790	1,450	1,080	840	768
5	720	720	705	735	1,160	1,460	2,210	2,700	1,420	1,060	840	768
6	720	720	705	705	920	1,570	2,290	2,530	1,370	1,050	820	768
7	720	720	705	675	840	1,700	2,210	2,450	1,340	1,010	820	760
8	720	720	705	690	802	1,740	2,210	2,290	1,340	1,010	802	750
9	720	720	705	690	785	2,210	2,450	2,290	1,400	985	802	750
10	705	720	705	735	785	2,530	2,450	2,210	1,610	985	802	760
11	705	720	705	720	860	2,530	2,460	2,050	1,400	985	802	760
12	705	720	705	705	920	4,300	2,370	2,130	1,340	962	802	760
13	705	720	705	720	1,100	4,420	4,300	2,210	1,280	962	785	750
14	705	705	705	735	1,490	3,350	7,850	2,370	1,230	940	785	760
15	705	720	705	720	1,130	2,790	8,000	2,290	1,260	940	785	735
16	705	705	705	720	1,010	2,370	6,060	2,290	2,130	940	785	735
17	705	705	705	720	985	2,450	4,640	2,210	2,290	920	785	735
18	720	705	705	720	1,080	2,530	3,860	2,210	1,910	920	785	735
19	720	705	705	705	1,030	2,610	3,550	2,050	1,660	900	785	760
20	720	705	705	690	982	2,970	3,350	1,980	1,540	900	768	750
21	720	705	705	690	962	3,250	3,450	1,910	1,450	880	768	750
22	720	705	705	705	985	2,970	3,250	1,910	1,420	880	768	735
23	720	705	720	705	1,080	2,970	2,970	1,910	1,340	860	768	735
24	720	705	768	705	1,260	5,280	2,790	1,910	1,280	880	768	735
25	705	705	720	705	1,670	3,560	2,790	1,910	1,260	880	768	735
26	705	705	802	735	1,310	2,700	2,880	1,840	1,230	860	768	735
27	705	705	768	768	1,180	2,530	2,790	1,770	1,200	860	768	735
28	705	705	735	760	1,130	2,460	2,530	1,740	1,180	860	768	735
29	720	705	720	735	-	2,370	2,370	1,660	1,160	840	768	735
30	720	705	768	720	-	2,290	2,290	1,600	1,180	840	768	735
31	720	-	720	735	-	2,370	-	1,540	-	840	768	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	22,140	720	705	714	43,910
November.....	21,360	720	705	712	42,370
December.....	22,246	802	705	718	44,120
Calendar year 1936.....	531,787	17,700	705	1,453	1,055,000
January.....	22,173	768	675	715	43,980
February.....	29,341	1,870	785	1,048	58,200
March.....	79,570	5,280	1,180	2,687	157,800
April.....	98,880	8,000	2,210	3,294	195,000
May.....	66,180	2,790	1,540	2,135	131,300
June.....	43,040	2,290	1,160	1,435	85,370
July.....	29,319	1,130	840	945	58,150
August.....	24,561	840	768	792	48,720
September.....	22,413	768	735	747	44,460
Water year 1936-37.....	481,163	8,000	675	1,318	954,400



## Mill Creek near Los Molinos, Calif.

Location.- Water-stage recorder, lat. 40°03'20", long. 122°01'15", in N½ sec. 6, T. 25 N., R. 1 W., 5 miles above mouth and 5 miles northeast of Los Molinos. Altitude. about 420 feet.

Drainage area.- 173 square miles.

Records available.- October 1928 to September 1937: September 1909 to September 1913 (fragmentary) at staff-gage site 0.3 mile downstream.

Extremes.- Maximum discharge during year, 3,310 second-feet Feb. 14 (gage height, 7.94 feet); minimum, 51 second-feet Jan. 8 (gage height, 0.76 foot).  
1928-37: Maximum discharge, 6,000 second-feet Dec. 15, 1929 (gage height, 10.05 feet); minimum, 49 second-feet Dec. 13, 1932.

Remarks.- Records good except those for May 7-24, which were computed on basis of records for Deer Creek near Vina and are fair. No large diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	92	83	92	129	159	400	374	374	183	92	81
2	97	87	85	91	258	168	545	470	374	172	92	82
3	97	86	85	90	193	177	428	545	400	169	92	82
4	87	86	85	90	1,540	181	347	610	428	166	92	80
5	86	86	85	95	723	183	302	610	400	153	90	81
6	85	86	86	92	442	193	400	575	362	147	88	81
7	82	85	86	76	262	209	314	560	318	139	85	82
8	82	83	90	62	176	211	295	550	304	139	86	83
9	82	83	87	79	140	254	470	540	302	140	86	83
10	82	86	86	96	131	256	362	510	273	131	85	83
11	82	85	85	107	192	442	339	500	254	136	85	82
12	82	85	85	104	276	1,280	307	550	237	128	83	81
13	82	83	85	103	959	650	442	600	229	120	83	80
14	82	83	85	140	1,360	485	732	600	223	118	83	78
15	82	85	85	150	349	562	770	580	233	116	82	78
16	81	86	90	159	237	302	645	560	567	113	83	78
17	82	85	88	111	197	311	485	530	362	108	82	77
18	83	83	86	107	211	387	428	520	291	108	81	77
19	83	83	86	103	175	332	414	510	280	107	81	78
20	86	83	86	85	151	337	428	500	250	104	80	78
21	85	83	86	72	145	1,210	530	510	271	101	80	78
22	83	83	86	90	151	830	500	515	262	99	80	78
23	82	82	86	97	156	560	428	520	231	97	80	77
24	82	82	110	99	229	750	414	525	219	96	78	77
25	82	82	96	95	271	456	456	500	209	96	77	76
26	82	82	106	97	231	362	470	400	205	95	77	76
27	82	82	103	104	190	500	414	442	199	92	77	77
28	82	83	103	131	168	387	362	485	197	91	78	78
29	82	85	94	131	-	335	327	470	199	92	77	78
30	85	85	99	124	-	302	330	414	193	91	76	78
31	88	-	97	113	-	300	-	374	-	91	78	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					2,586	88	81	83.4	5,130			
November.....					2,529	92	82	84.3	5,020			
December.....					2,787	110	83	89.9	5,530			
Calendar year 1936.....					97,827	2,660	81	267	194,000			
January.....					3,185	159	62	103	6,320			
February.....					9,641	1,540	129	344	19,120			
March.....					13,051	1,260	159	421	25,890			
April.....					13,084	770	295	436	25,950			
May.....					15,949	610	374	514	31,630			
June.....					8,626	567	193	288	17,110			
July.....					3,717	183	91	120	7,370			
August.....					2,569	92	76	82.9	5,100			
September.....					2,378	83	76	79.3	4,720			
Water year 1936-37.....					80,102	1,540	62	219	158,900			

## Elder Creek near Henleyville, Calif.

Location.- Water-stage recorder, lat. 40°02', long. 122°15', in SE $\frac{1}{4}$  sec. 10, T. 25 N., R. 4 W., at bridge on Paskenta-Red Bluff road, 1.2 miles above Spring Branch and 6 miles northeast of Henleyville. Altitude, about 310 feet.

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge during year, 6,210 second-feet Mar. 12 (gage height, 6.44 feet); no flow for several months.

1930-37: Maximum discharges, about 6,300 second-feet Jan. 1, 1934 (gage height, 7.26 feet); no flow for several months each year.

Remarks.- Records good except those for high water, which are fair. No large diversions.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	19	11	71	132	71	13	3.7		
2			0	10	128	98	156	79	10	3.4		
3			0	7.5	74	85	114	95	10	3.4		
4			0	6	1,770	77	101	107	9	3.2		
5			0	5.5	355	85	98	98	8.5	1.9		
6			0	5	117	98	98	91	8.5	.6		
7			0	4.2	65	95	88	88	8.5	0		
8			0	2.7	42	98	85	82	8	0		
9			0	4.0	29	154	88	77	10	0		
10			0	4.7	24	158	79	77	12	0		
11			0	10	63	272	77	71	10	0		
12			0	16	65	3,740	74	71	9	0		
13			0	13	722	1,200	107	79	8	0		
14			0	16	456	1,450	172	82	7.5	0		
15			0	25	117	284	189	74	9	0		
16			0	32	85	204	139	68	31	0		
17			0	20	53	172	107	63	21	0		
18			0	12	46	139	95	55	14	0		
19			0	8	35	158	91	50	12	0		
20			0	6	31	214	91	39	10	0		
21			0	6	28	163	117	35	8.5	0		
22			0	8	29	185	107	34	7.5	0		
23			0	8	32	143	91	32	7.5	0		
24			0	8.5	228	736	85	32	7	0		
25			0	4.7	284	345	91	31	5	0		
26			29	7.5	121	209	95	28	4.7	0		
27			30	9	85	189	98	24	4.5	0		
28			8.5	10	71	143	82	21	3.7	0		
29			5	11	-	126	77	19	3.7	0		
30			14	12	-	121	71	17	3.7	0		
31			44	10	-	121	-	15	-	0		
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						130.5	44	0	4.21	259		
Calendar year 1936.....						24,000.7	2,540	0	65.6	47,600		
January.....						320.3	32	2.7	10.3	635		
February.....						5,166	1,770	11	184	10,260		
March.....						10,355	3,740	71	333	20,500		
April.....						3,065	189	71	102	6,080		
May.....						1,805	107	15	58.2	3,580		
June.....						284.8	31	3.7	9.49	565		
July.....						16.2	3.7	0	.52	32		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						21,122.8	3,740	0	57.9	41,900		

## Thomas Creek at Paskenta, Calif.

Location.- Water-stage recorder, lat. 39°52', long. 122°33', in SE $\frac{1}{4}$  sec. 5, T. 23 N., R. 6 W., half a mile upstream from Paskenta and  $\frac{1}{4}$  miles below Mill Creek.

Drainage area.- 188 square miles.

Records available.- August 1930 to September 1937; October 1920 to August 1930, at site half a mile downstream (gage heights only, prior to January 1921).

Average discharge.- 16 years (1921-37), 205 second-feet.

Extremes.- Maximum discharge during year, 2,180 second-feet Mar. 12 (gage height, 6.13 feet); minimum, 0.1 second-foot Sept. 21-30.  
1921-37: Maximum discharge, about 16,600 second-feet Mar. 26, 1928 (gage height, 10.5 feet, former site and datum), from curve extended above 9,000 second-feet; no flow for short periods in 1921, 1922, 1924, 1928, 1929-34.

Remarks.- Records good except those for periods of ice effect, Jan. 7-12, 19-23, (computed on basis of weather records and records for nearby stations), those for Dec. 23-25, and those under 5 second-feet, all of which are fair. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	2.0	3.9	11	26	105	578	543	186	48	4.8	0.2
2	.4	2.2	4.2	10	37	322	674	674	182	44	4.6	.2
3	.5	1.9	4.2	10	25	276	526	783	192	40	4.4	.2
4	.7	2.0	4.2	9.5	283	268	444	783	200	38	4.2	.2
5	.9	2.5	4.2	9.5	115	310	428	716	166	34	4.0	.3
6	.9	2.7	4.2	12	72	330	444	674	165	32	3.8	.6
7	.8	3.0	4.4	10	60	460	374	654	141	30	3.5	.6
8	.7	3.0	4.4	9	43	526	413	526	132	27	3.3	.6
9	.6	3.0	4.4	10	36	760	428	509	134	26	3.1	.6
10	.5	3.0	4.8	12	32	674	413	428	126	24	2.9	.6
11	.4	3.0	4.8	13	44	645	377	428	114	24	2.7	.6
12	.5	3.0	4.8	14	40	1,700	368	560	99	23	2.6	.6
13	.6	3.0	4.8	17	285	940	1,550	634	92	22	2.3	.6
14	.7	3.0	5	15	204	560	1,940	634	88	20	2.2	.5
15	.7	3.2	5	15	108	444	1,780	596	95	18	2.1	.4
16	.6	3.2	5.5	16	73	395	1,030	560	320	17	2.0	.4
17	.4	3.2	5.5	14	64	428	738	492	202	15	1.9	.2
18	.4	3.2	6	13	70	341	716	428	144	14	1.7	.2
19	.7	3.2	6	13	67	292	695	359	124	13	1.5	.2
20	1.0	3.4	6	12	56	266	631	344	116	12	1.3	.2
21	1.2	3.7	6	12	55	248	1,090	347	110	11	1.2	.1
22	1.2	3.9	6.5	11	78	212	783	362	97	9.5	1.0	.1
23	1.0	3.9	6.5	10	91	194	634	398	86	8.5	.9	.1
24	.9	3.9	7	12	148	284	674	413	77	8	.8	.1
25	.9	3.9	8.5	12	144	230	783	365	70	7.5	.7	.1
26	1.0	3.9	22	13	97	208	738	292	64	8.5	.7	.1
27	1.0	3.9	14	13	78	204	578	284	60	7.5	.6	.1
28	1.0	3.9	11	14	78	200	476	305	56	6.5	.5	.1
29	1.0	4.2	10	14	-	234	398	271	54	5.5	.4	.1
30	1.3	4.4	13	14	-	271	428	230	53	5	.3	.1
31	1.5	-	14	14	-	338	-	198	-	5	.2	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					24.3	1.5	0.3	0.78	48			
November.....					96.3	4.4	1.9	3.21	191			
December.....					214.8	22	3.9	6.93	426			
Calendar year 1936.....					94,687.2	6,220	.2	259	187,800			
January.....					384.0	17	9	12.4	762			
February.....					2,489	285	25	38.9	4,940			
March.....					12,715	1,700	105	410	25,220			
April.....					21,429	1,940	368	714	42,500			
May.....					14,790	783	198	477	29,340			
June.....					3,765	320	53	126	7,470			
July.....					603.5	48	5	19.5	1,200			
August.....					66.2	4.8	0.2	2.14	131			
September.....					9.0	.6	.1	.30	18			
Water year 1936-37.....					56,586.1	1,940	.1	155	112,200			

## Deer Creek near Vina, Calif.

Location.— Water-stage recorder, lat. 40°01', long. 121°56', in NE¼ sec. 23, T. 25 N., R. 1 W., 0.8 mile above concrete diversion dam and 9 miles northeast of Vina. Altitude, about 480 feet

Drainage area.— 200 square miles.

Records available.— October 1911 to December 1915, March 1920 to September 1937.

Average discharge.— 20 years (1912-15, 1920-37), 263 second-feet.

Extremes.— Maximum discharge during year, 3,610 second-feet Feb. 14 (gage height, 6.58 feet); minimum, 46 second-feet Jan. 9, 1911-15; 1920-37: Maximum discharge, 12,200 second-feet Mar. 28, 1928 (gage height, 15.0 feet, former site and datum), from rating curve extended above 5,000 second-feet; minimum, 43 second-feet Dec. 13, 1932.

Remarks.— Records good. No diversions.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.3	46	2.0	480
.4	57	2.4	660
.5	69	2.8	870
.6	85	3.2	1,090
.8	115	3.6	1,350
1.0	155	4.0	1,670
1.3	225	4.5	1,900
1.6	318		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	83	76	90	112	202	637	412	191	96	76	69
2	77	80	77	88	210	215	842	476	179	95	76	70
3	79	76	79	86	170	247	642	524	173	94	75	70
4	80	76	79	86	1,620	260	520	573	166	92	73	70
5	79	76	79	90	682	253	446	569	162	90	73	69
6	77	76	80	89	416	265	520	537	155	89	73	69
7	76	76	80	68	260	284	433	511	151	90	73	69
8	76	75	83	55	173	281	437	463	144	90	72	69
9	75	75	82	68	140	315	564	441	147	92	70	69
10	75	75	80	105	132	340	502	408	147	92	70	69
11	76	75	80	117	173	564	467	371	151	90	70	69
12	76	76	79	112	245	1,720	429	399	140	90	70	68
13	76	76	90	108	1,080	1,210	605	454	132	89	69	68
14	76	77	80	136	1,630	695	952	489	126	88	69	68
15	75	79	82	138	429	515	1,090	476	128	84	69	68
16	75	80	84	142	278	420	925	454	271	84	69	67
17	75	79	86	103	233	437	690	429	205	84	68	67
18	76	79	83	98	265	467	600	429	157	83	68	67
19	76	77	83	95	231	429	564	416	142	83	68	68
20	77	77	83	72	195	420	573	355	134	82	68	69
21	76	77	83	69	186	1,340	665	329	126	80	67	69
22	76	77	84	95	195	898	628	315	121	80	68	69
23	75	77	83	103	210	710	542	304	117	80	68	68
24	75	77	95	100	325	1,090	511	298	113	79	68	68
25	76	77	95	92	412	695	537	287	110	79	68	67
26	75	77	108	95	287	564	555	281	108	79	68	67
27	75	77	105	105	231	705	493	233	105	77	69	67
28	73	77	96	147	205	605	424	239	103	76	68	68
29	73	77	90	119	-	537	383	231	101	76	68	69
30	77	77	98	110	-	464	375	215	100	76	68	69
31	80	-	95	103	-	476	-	202	-	76	69	-

Month	Second-foot-day	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	2,357	80	73	76.0	4,680
November.....	2,313	83	75	77.1	4,590
December.....	2,647	108	76	85.4	5,250
Calendar year 1936.....	97,499	3,400	70	266	193,400
January.....	3,074	147	55	99.2	6,100
February.....	10,665	1,630	112	381	21,150
March.....	17,633	1,720	202	569	34,970
April.....	17,566	1,090	375	585	34,320
May.....	12,130	573	202	391	24,050
June.....	4,303	271	100	143	8,630
July.....	2,635	96	76	85.0	5,230
August.....	2,167	76	67	69.9	4,300
September.....	2,053	70	67	68.4	4,070
Water year 1936-37.....	79,553	1,720	55	218	157,800

## CHICO CREEK BASIN

Chico Creek near Chico, Calif.

Location.- Water-stage recorder, lat. 39°46', long. 121°46', in Arroyo Chico grant, 1 mile above golf clubhouse in Municipal Park and 6 miles northeast of Chico, Butte County. Altitude, about 400 feet.

Drainage area.- 68.3 square miles.

Records available.- May 1930 to September 1937.

Extremes.- Maximum discharge during year, 1,960 second-feet Feb. 14 (gage height, 7.94 feet); minimum, 11 second-feet Jan. 8.

1930-37: Maximum discharge, 4,940 second-feet Feb. 21, 1936 (gage height, 12.70 feet); minimum, 10 second-feet Dec. 11, 1932.

Remarks.- Records excellent except those for Mar. 26 to Apr. 5, which were computed on basis of weather records and records for nearby stations and are fair. No large diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	25	23	32	37	136	460	125	46	29	22	21
2	21	26	23	30	62	143	410	127	44	28	22	21
3	21	24	23	29	70	204	350	130	43	28	22	22
4	21	24	23	28	623	220	330	133	42	27	22	21
5	21	24	23	32	461	237	350	132	41	27	21	21
6	21	24	24	31	239	243	392	128	40	27	21	20
7	21	23	24	24	153	262	352	125	40	27	21	20
8	20	23	24	21	99	252	326	116	39	27	21	20
9	20	23	24	27	75	290	406	108	41	26	21	20
10	20	23	24	34	64	326	365	104	41	26	21	20
11	20	23	24	52	79	434	321	97	41	26	21	20
12	20	23	24	41	124	1,310	281	93	39	25	21	20
13	20	23	24	38	379	1,150	378	92	37	25	21	20
14	20	23	24	64	1,110	610	520	89	36	25	21	20
15	20	23	24	47	321	406	520	86	37	25	21	20
16	20	23	25	58	196	316	448	83	113	24	21	20
17	20	23	25	39	157	290	365	80	66	24	20	20
18	21	23	24	36	165	321	303	81	49	24	20	20
19	21	23	24	33	170	298	264	80	44	24	20	20
20	22	23	25	26	158	300	245	73	42	24	24	20
21	22	23	25	26	124	822	248	68	39	24	21	20
22	21	23	25	32	135	610	234	65	37	24	21	20
23	21	23	25	30	160	462	206	61	35	24	21	20
24	21	23	32	28	230	750	186	60	34	24	21	20
25	21	23	32	28	352	490	177	58	33	24	21	20
26	21	22	36	30	228	390	176	59	31	24	20	20
27	21	22	42	33	169	460	169	56	29	23	20	20
28	21	22	36	51	141	410	157	54	31	22	20	20
29	21	23	31	43	-	380	141	52	31	22	20	20
30	23	23	43	42	-	350	130	50	30	23	20	20
31	26	-	34	39	-	350	-	48	-	22	20	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					649	26	20	20.9	1,290			
November.....					695	26	22	23.2	1,380			
December.....					839	43	23	27.1	1,660			
Calendar year 1936.....					50,009	3,088	20	137	99,190			
January.....					1,104	64	21	35.6	2,190			
February.....					6,261	1,110	37	224	12,420			
March.....					13,212	1,310	136	426	26,210			
April.....					9,190	520	130	306	18,230			
May.....					2,713	133	48	87.5	5,380			
June.....					1,251	113	29	41.7	2,480			
July.....					775	29	22	25.0	1,540			
August.....					649	24	20	20.9	1,290			
September.....					606	22	20	20.2	1,200			
Water year 1936-37.....					37,945	1,310	20	104	75,270			

## Stony Creek above Stony Gorge Reservoir, Calif.

Location.- Water-stage recorder, lat. 39°30'05", long. 122°31'00", in sec. 15, T. 19 N., R. 6 W., 700 feet downstream from road bridge and 6 miles south of Stony Gorge Dam.

Records available.- October 1933 to September 1937.

Extremes.- Maximum discharge during year, 5,400 second-feet Feb. 4 (gage height, 7.5 feet), from rating curve extended above 3,000 second-feet; minimum, 5.5 second-feet Aug. 21.

1933-37: Maximum discharge, 7,160 second-feet Feb. 21, 1936 (gage height, 8.60 feet), from rating curve extended above 3,000 second-feet; minimum, 2.4 second-feet Aug. 22, Sept. 8, 1934.

Remarks.- Records good except those for period of ice effect, Jan. 20-22 (interpolated) and those for Feb. 16-21 (computed on basis of records for Grindstone Creek near Elk Creek), which are fair. Gage-height record furnished by E. A. Garland, watermaster for Stony Creek and tributaries.

Discharges, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	322	26	21	29	48	177	468	228	105	47	16	347
2	326	25	22	29	130	218	483	253	103	44	18	342
3	330	25	22	28	79	264	423	264	101	42	17	338
4	334	25	23	28	2,680	264	382	275	96	40	17	338
5	338	25	23	28	816	271	382	264	94	40	14	334
6	284	25	23	28	318	306	463	279	94	39	13	314
7	27	24	23	27	174	330	397	271	89	35	12	306
8	21	24	23	27	122	330	382	249	87	32	12	302
9	21	24	24	27	96	428	338	238	92	29	13	302
10	21	24	24	29	85	419	268	214	96	29	11	302
11	17	23	24	32	186	500	260	198	94	27	10	314
12	17	23	25	28	192	2,470	249	218	92	23	9.5	330
13	15	23	25	28	2,170	1,270	433	224	89	20	8	330
14	14	22	25	28	1,500	696	708	224	89	20	7	342
15	14	23	25	29	453	516	702	218	92	26	7	338
16	16	24	25	31	300	419	527	218	183	25	8	322
17	17	24	25	29	280	382	419	211	143	24	7	330
18	20	23	25	29	280	318	356	189	122	29	6.5	297
19	21	23	25	28	260	279	338	166	110	29	6	25
20	21	23	25	28	190	271	338	166	103	26	6	16
21	22	23	25	28	160	302	378	162	92	23	6	14
22	41	22	25	27	177	279	347	159	85	22	10	14
23	271	22	25	27	177	268	310	162	83	20	13	10
24	275	22	25	27	235	780	294	171	74	21	10	9
25	275	22	25	26	453	702	302	159	70	21	10	9.5
26	248	22	37	27	271	573	298	140	63	20	10	9.5
27	27	21	42	30	202	505	279	135	57	18	11	9.5
28	22	21	37	39	171	419	256	135	55	18	10	9.5
29	23	21	31	38	-	396	231	135	51	16	14	10
30	25	21	31	36	-	387	221	130	46	15	28	11
31	27	-	31	31	-	405	-	118	-	16	302	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					3,452	338	14	111	6,850			
November.....					695	26	21	23.2	1,380			
December.....					811	42	21	26.2	1,610			
Calendar year 1936.....					91,023.5	4,460	6	249	180,600			
January.....					906	39	26	29.2	1,800			
February.....					12,205	2,680	48	436	24,210			
March.....					15,144	2,470	499	489	30,040			
April.....					11,222	708	221	374	22,260			
May.....					6,171	279	118	199	12,240			
June.....					2,760	183	46	91.7	5,450			
July.....					835	47	15	26.9	1,660			
August.....					642.0	302	6	20.7	1,270			
September.....					5,963.0	347	9	199	11,830			
Water year 1936-37.....					60,796.0	2,680	6	167	120,600			

## Grindstone Creek near Elk Creek, Calif.

Location.— Water-stage recorder, lat.  $39^{\circ}41'$ , long.  $122^{\circ}32'$ , in sec. 15, T. 21 N., R. 6 W., 0.2 mile downstream from county-road bridge, 0.4 mile above mouth, and 5 miles north of town of Elk Creek.

Drainage area.— 166 square miles.

Records available.— November 1935 to September 1937.

Extremes.— Maximum discharge recorded during year, 1,600 second-feet Mar. 12 (gage height, 6.06 feet); no flow Oct. 24 to Dec. 23.

1935-37: Maximum discharge, 2,700 second-feet Jan. 15, 1936 (gage height, 7.58 feet); no flow Oct. 24 to Dec. 23, 1936.

Remarks.— Records good except those for Jan. 8, Feb. 5-8, Apr. 13-25, which were computed on basis of records for Thomas Creek at Paskenta and are fair. Gage-height record furnished by E. A. Garland, watermaster for Stony Creek and tributaries.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.1	0.0	2.3	250
.3	.8	2.6	318
.5	3.4	2.9	390
.7	8.5	3.2	465
.9	19	3.6	565
1.1	38	4.0	680
1.3	62	4.5	840
1.5	94	5.0	1,040
1.7	131	5.5	1,270
2.0	188	6.0	1,540

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1		0	4.2	6.5	89	365	156	92	16	0.6	0.2
2	.1		0	3.2	13	176	478	184	79	13	.6	.2
3	.1		0	3.2	11	171	290	218	79	11	.6	.2
4	.1		0	3.2	400	163	214	233	76	11	.6	.2
5	.1		0	3.2	170	182	214	210	70	10	.6	.2
6	.1		0	3.4	55	210	264	198	65	9.5	.5	.2
7	.1		0	3.1	35	246	208	196	59	9	.5	.2
8	.1		0	2.9	30	263	202	169	56	8	.5	.2
9	.1		0	2.9	22	428	208	168	56	8	.5	.1
10	.1		0	3.8	17	378	192	140	58	6.5	.6	.1
11	.1		0	4.4	31	382	182	135	53	6	.4	.1
12	.1		0	6	27	1,340	169	160	48	5.5	.4	.1
13	.1		0	6.5	438	818	1,150	178	44	4.2	.4	.1
14	.1		0	5.5	349	428	1,400	182	41	3.1	.4	.1
15	.1		0	5.5	99	290	1,250	175	44	3.4	.4	.1
16	.1		0	6	66	248	700	169	99	2.6	.4	.1
17	.1		0	5.5	62	244	500	164	71	2.9	.4	.1
18	.1		0	5.5	68	184	450	144	53	3.4	.4	.1
19	.1		0	4.9	64	156	400	131	48	3.1	.3	.1
20	.1		0	4.0	49	146	500	127	45	2.0	.3	.1
21	.1		0	3.6	44	152	650	123	40	1.7	.3	.1
22	.1		0	4.0	61	137	450	127	37	2.0	.3	.1
23	.1		0	4.2	71	162	350	131	36	1.6	.3	.1
24	0		.1	4.4	156	446	350	137	33	.8	.3	.1
25	0		.8	4.0	164	252	350	131	29	.7	.2	.1
26	0		6	4.7	87	195	284	116	24	.7	.2	.1
27	0		6	4.7	62	171	233	110	20	.7	.2	.1
28	0		5	6	59	158	188	114	20	.6	.2	.1
29	0		4.2	5.5	-	165	160	107	20	.6	.2	.1
30	0		4.4	6	-	171	140	96	18	.6	.2	.1
31	0		5	5.5	-	190	-	87	-	.6	.2	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				2.3		0.1	0	0.07	4.6			
November.....				0		0	0	0	0			
December.....				31.5		6	0	1.02	62			
Calendar year 1936.....				41,803.4		2,210	0	114	82,920			
January.....				139.5		6.5	2.9	4.50	277			
February.....				2,695.5		438	6.5	96.3	5,350			
March.....				8,734		1,340	89	282	17,320			
April.....				12,501		1,400	140	417	24,800			
May.....				4,696		233	97	162	9,310			
June.....				1,503		99	18	50.1	2,980			
July.....				148.8		16	.6	4.80	295			
August.....				11.9		.6	.2	.38	24			
September.....				3.8		.2	.1	.13	7.5			
Water year 1936-37.....				30,467.3		1,400	0	83.5	60,430			

## Butte Creek near Chico, Calif.

Location.— Water-stage recorder, lat. 39°44', long. 121°42', in sec. 25, T. 22 N., R. 2 E., half a mile below junction with Little Butte Creek and 7½ miles east of Chico. Altitude, about 350 feet.

Drainage area.— 148 square miles.

Records available.— November 1930 to September 1937.

Extremes.— Maximum discharge during year, 2,640 second-feet Feb. 4 (gage height, 6.90 feet); minimum, 56 second-feet Aug. 8 and Sept. 24.

1930-37: Maximum discharge, 8,660 second-feet Feb. 21, 1936 (gage height, 13.13 feet); minimum discharge recorded, 36 second-feet sometime in September 1931.

Remarks.— Records good. Butte Creek above this station receives considerable water from West Branch of Feather River by way of De Sabla and Centerville power plants. Pacific Gas & Electric Co. has furnished the following record of this flow for 1936-37:

Month	Mean discharge in second-feet	Run-off in acre-feet
October	29.9	1,840
November	23.4	1,590
December	24.4	1,500
January	7.2	440
February	0.0	0
March	24.9	1,530
April	71.0	4,220
May	84.3	5,180
June	83.0	4,940
July	64.5	3,970
August	48.9	3,010
September	36.4	2,170
The year	41.5	30,190

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	97	96	138	118	216	834	606	453	195	138	96
2	100	97	96	124	172	221	1,090	690	485	190	136	101
3	99	99	97	114	182	274	900	695	449	205	133	99
4	102	97	99	114	1,090	287	744	786	461	170	127	104
5	113	97	99	128	766	307	700	762	457	164	127	99
6	116	102	97	122	457	321	840	762	445	168	127	103
7	104	97	99	96	314	352	744	738	388	161	125	110
8	109	96	97	80	218	352	744	665	433	161	127	112
9	111	102	100	105	177	445	960	670	441	164	123	98
10	102	96	99	114	158	485	816	620	417	168	133	101
11	86	96	97	162	179	750	710	606	402	166	119	104
12	94	100	97	136	247	1,920	700	650	398	166	129	99
13	107	100	97	124	540	1,640	1,280	710	398	161	114	91
14	97	96	97	162	1,560	930	1,440	762	356	157	125	110
15	100	99	105	145	503	705	1,520	720	363	155	114	103
16	92	96	114	160	328	616	1,260	690	558	153	116	96
17	99	97	99	120	274	660	990	645	381	148	108	94
18	90	97	97	109	271	655	870	660	284	142	106	91
19	85	94	93	102	262	602	828	566	287	153	104	89
20	87	97	94	84	224	598	834	552	244	153	110	103
21	100	97	104	87	213	1,440	900	552	231	146	103	92
22	97	96	99	93	221	1,120	870	552	244	140	103	92
23	85	97	96	102	238	840	786	521	226	140	108	96
24	80	100	136	100	307	1,600	792	498	226	138	108	99
25	84	97	130	96	363	930	774	490	221	140	103	103
26	85	97	149	100	281	695	786	473	218	138	94	101
27	86	97	158	107	238	828	715	516	228	138	101	99
28	86	96	136	147	216	732	650	521	202	156	103	106
29	82	93	124	130	-	665	530	503	154	115	94	84
30	96	93	153	128	-	655	593	552	205	127	106	91
31	96	-	132	124	-	675	-	485	-	138	101	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						2,974	116	80	95.9	5,900		
November.....						2,915	102	93	97.2	5,780		
December.....						3,586	158	93	109	6,720		
Calendar year 1936.....						141,283	5,580	80	386	280,200		
January.....						3,653	162	80	118	7,250		
February.....						10,119	1,560	118	361	20,070		
March.....						22,506	1,920	216	726	44,640		
April.....						26,263	1,520	593	875	52,090		
May.....						19,235	786	473	620	38,150		
June.....						10,309	558	202	344	20,450		
July.....						4,817	205	127	155	9,550		
August.....						3,665	158	94	115	7,070		
September.....						2,966	112	84	98.9	5,890		
Water year 1936-37.....						112,708	1,920	80	309	223,600		



Lake Almanor near Prattville, Calif.  
(Formerly published as Lake Almanor at Prattville, Calif.)

Location.— Staff gage, lat. 40°10'30", long. 121°05'25", in NW¼ sec. 28, T. 27 N., R. 8 E., at outlet tower at dam on North Fork of Feather River, 5 miles southeast of Prattville. (Location as published in previous water-supply papers is in error.)

Records available.— October 1930 to September 1937.

Remarks.— Lake Almanor on North Fork of Feather River is main storage unit of Feather River system of Pacific Gas & Electric Co. Elevation of crest of dam is 4,515 feet above mean sea level. Water is diverted by tunnel to Butt Valley Reservoir, and a small amount is released at Almanor Dam down natural channel of North Fork of Feather River. (See North Fork of Feather River near Prattville.) On Sept. 30, 1936, storage in Butt Valley Reservoir was 22,075 acre-feet; on Sept. 30, 1937, it was 14,569 acre-feet. Table of daily contents, furnished by Pacific Gas & Electric Co., shows amount available for release at dam; storage above 15,660 acre-feet may be diverted through tunnel to Butt Valley Reservoir.

Contents, in acre-feet, water year, October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	346,930	319,216	301,509	295,693	291,321	332,216	379,607	434,189	503,068	514,050	473,265	452,083
2	345,096	318,670	302,456	296,633	293,058	333,527	380,822	436,385	501,896	513,065	473,644	450,578
3	343,600	316,900	303,246	297,260	295,390	334,677	382,214	439,320	500,727	512,081	474,213	449,095
4	341,940	315,675	303,562	297,889	297,417	335,828	383,782	441,710	499,754	511,097	474,763	447,614
5	339,797	314,673	302,930	297,888	299,460	336,486	384,829	443,183	498,782	509,919	475,352	446,135
6	338,135	313,911	301,992	297,104	301,509	337,310	385,702	444,843	497,811	508,937	476,112	444,843
7	336,651	312,790	301,193	296,476	303,404	338,300	386,527	446,320	497,811	507,956	476,682	443,920
8	335,499	311,831	300,405	295,850	305,463	339,291	385,178	447,614	498,782	506,977	477,063	442,815
9	334,841	310,872	299,775	294,754	307,527	341,111	385,353	448,725	499,754	506,802	476,492	441,710
10	335,499	309,756	298,988	293,972	308,800	343,101	385,178	449,836	500,922	504,238	474,972	440,422
11	336,322	308,800	298,045	293,035	309,915	345,596	385,003	451,134	502,676	502,971	473,834	439,136
12	337,145	307,686	296,947	292,100	311,831	347,597	385,353	452,620	504,433	502,296	472,507	438,035
13	337,905	306,732	296,163	291,321	314,552	349,102	385,877	454,108	505,802	500,533	470,993	436,935
14	338,630	306,621	295,390	290,387	316,157	350,609	387,276	455,784	506,585	498,588	469,670	435,835
15	339,125	304,670	294,441	289,765	316,639	352,118	389,379	459,331	508,741	496,647	468,160	434,554
16	337,640	305,721	293,504	289,144	317,443	353,463	391,838	463,079	512,081	494,517	466,940	433,275
17	335,992	302,614	292,567	288,678	318,731	355,515	394,304	467,029	513,065	492,391	466,276	431,996
18	335,005	301,982	291,944	287,905	320,022	357,171	399,723	470,615	514,050	490,463	466,940	430,902
19	333,856	301,193	291,165	287,438	321,314	358,862	404,229	473,834	515,036	497,961	467,763	429,626
20	332,707	300,405	290,542	286,819	322,446	360,556	408,869	476,682	516,220	485,456	468,160	428,352
21	331,397	299,460	289,920	286,045	323,418	362,424	412,990	479,348	517,405	483,550	467,406	426,897
22	330,253	298,674	288,989	285,272	324,391	364,297	414,607	482,211	518,592	482,020	465,710	425,626
23	329,273	297,889	287,903	284,501	324,365	366,344	416,585	485,274	519,977	480,683	464,394	424,537
24	328,131	296,790	287,438	283,267	326,340	368,568	418,569	489,115	520,872	479,348	463,287	423,450
25	327,317	296,163	287,128	282,652	327,805	370,455	420,735	492,198	519,779	477,824	462,328	422,001
26	325,853	296,633	288,058	282,036	329,110	372,002	422,725	495,099	518,987	476,112	461,204	420,555
27	324,716	297,104	289,299	282,805	330,089	373,380	424,719	497,617	517,998	474,403	459,518	419,471
28	323,580	298,360	290,399	285,118	331,234	374,760	427,261	499,949	517,010	472,886	458,023	418,209
29	322,446	299,618	291,476	286,819	-	375,969	429,626	501,117	516,022	471,839	456,343	416,946
30	321,314	301,035	292,723	288,678	-	377,180	431,996	501,896	515,233	472,507	454,852	415,686
31	320,183	-	294,441	289,920	-	378,393	-	502,481	-	472,697	453,550	-

## North Fork of Feather River near Prattville, Calif.

**Location.**—Water-stage recorder, lat.  $40^{\circ}10'$ , long.  $121^{\circ}06'$ , in SW $\frac{1}{4}$  sec. 28, T. 27 N., R. 8 E., half a mile below Almanor Dam, 5 miles southeast of Prattville, and about 9 miles upstream from mouth of Butt Creek. Altitude, about 4,380 feet.

**Drainage area.**—507 square miles.

**Records available.**—March 1914 to September 1937 (tables of daily discharge include diversions through Butt Creek Tunnel No. 1 May 1921 to September 1936); June 1905 to March 1914, staff near site of Almanor Dam.

**Average discharge.**—31 years (1905-10, 1911-37), 856 second-feet, including diversion.

**Extremes.**—Maximum discharge during year, 795 second-feet parts of Jan. 11 and 12 (gage height, 4.36 feet); minimum, 1.3 second-feet Nov. 21. Extremes do not include diversions through Butt Creek Tunnel No. 1.

1905-37: Maximum discharge, 10,000 second-feet Mar. 19, 1907, before construction of dam (gage height, 16.2 feet, at former site); no flow (regulated) Apr. 15, 16, 1914, at times during January to April 1919, Apr. 21, 1923.

**Remarks.**—Gage-height record and rating table furnished by Pacific Gas & Electric Co. Discharge interpolated for periods of missing gage heights, Feb. 5, 6, 15-21, 24-28, Mar. 23-27, and for period of backwater due to moss, May 15 to June 21. (See Lake Almanor at Prattville, Calif., for storage record.) Tables of daily discharge show release from Lake Almanor down North Fork of Feather River. Diversions from Lake Almanor through Butt Creek Tunnel No. 1 to Butt Creek for power development.

Rating table, water year 1936-37 except period of backwater (gage height, in feet, and discharge, in second-feet)

1.3	1.5	2.0	52	2.8	196	3.6	444
1.4	5	2.2	80	3.0	246	3.8	528
1.6	16	2.4	112	3.2	304	4.0	622
1.8	31	2.6	150	3.4	370	4.1	670

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	670	23	4.0	3.2	4.0	3.6	4.0	4.0	3.8	3.6	4.0	3.6
2	473	23	4.0	3.2	4.0	3.6	4.3	4.0	3.8	3.6	4.0	3.6
3	133	23	4.0	3.2	4.0	3.6	4.0	4.0	3.8	3.6	4.0	3.6
4	176	23	4.0	3.2	4.0	3.6	4.0	4.0	3.8	3.6	4.0	3.6
5	402	23	3.6	3.2	4	3.6	4.3	4.0	3.8	3.6	4.0	3.2
6	239	23	3.6	3.2	4	3.6	4.3	4.0	3.8	3.6	4.0	3.2
7	123	23	3.6	3.2	4	3.6	4.3	4.0	3.7	3.6	4.0	3.2
8	56	23	3.6	3.2	4.0	3.6	4.3	4.0	3.7	3.6	4.0	3.2
9	22	23	3.6	3.2	4.0	3.6	4.3	4.0	3.7	3.6	4.0	3.2
10	23	23	3.6	3.2	4.3	3.6	4.3	4.0	3.7	4.0	3.6	3.2
11	23	22	3.6	402	4.3	3.6	4.3	4.0	3.7	4.0	3.6	3.2
12	23	22	3.6	318	4.3	3.6	4.6	4.0	3.7	4.0	3.6	3.2
13	23	14	3.2	25	4.0	4.0	6	4.0	3.7	53	3.6	3.2
14	23	4.6	3.2	25	4.0	3.6	6.5	4.0	3.6	260	3.6	3.2
15	24	4.6	3.2	24	4	3.6	7	4.0	3.6	497	3.6	3.2
16	24	4.6	3.2	25	4	3.6	6.5	4.0	3.6	510	3.6	3.2
17	24	4.6	3.2	25	4	3.6	5.5	4.0	3.6	335	3.6	3.2
18	24	4.3	3.2	25	4	3.6	5	4.0	3.6	267	3.6	3.2
19	23	4.3	3.2	25	4	3.6	4.6	4.0	3.6	497	3.6	3.2
20	23	4.3	3.2	19	4	3.6	4.3	4.0	3.6	493	3.6	3.2
21	23	3.6	3.2	4.3	4	3.6	4.3	4.0	3.6	439	3.6	3.2
22	23	4.0	3.2	4.3	4.0	3.6	4.0	4.0	3.6	230	3.6	2.9
23	23	4.0	3.2	4.3	4.6	3.6	3.6	3.9	3.6	103	3.6	2.9
24	23	4.0	3.2	4.3	5.5	3.6	3.6	3.9	3.6	26	3.6	2.9
25	23	4.0	3.2	4.3	5.5	3.6	3.6	3.9	3.6	57	3.6	2.9
26	23	4.0	3.2	4.0	5	3.6	4.0	3.9	3.6	220	3.6	2.9
27	23	4.0	3.2	4.0	4.5	3.6	4.0	3.9	3.6	220	3.6	2.9
28	23	4.0	3.2	4.0	4	3.6	4.0	3.9	3.6	220	3.6	2.9
29	23	4.0	3.2	4.0	-	3.6	4.0	3.9	3.6	220	3.6	2.9
30	23	4.0	3.2	4.0	-	3.6	4.0	3.8	3.6	112	3.6	2.9
31	23	-	3.2	4.0	-	3.6	-	3.8	-	4.0	3.6	-

Month	Observed					Diversions* (acre-feet)	Adjusted for diversion	
	Sec.-foot days	Maximum	Minimum	Mean	Run-off in acre-feet		Mean	Run-off in acre-feet
October.....	2,804	670	22	90.5	5,560	49,220	601	54,780
November.....	558.9	23	3.6	12.0	712	45,390	913	49,100
December.....	105.6	4.0	3.2	3.41	209	41,740	678	41,950
Calendar year								
January.....	990.5	402	3.2	32.0	1,960	41,360	672	43,320
February.....	118.0	5.5	4.0	4.21	234	1,330	23.9	1,560
March.....	112.0	4.0	3.6	3.61	222	1,630	266	1,850
April.....	135.6	7	3.6	4.52	269	21,860	367	22,130
May.....	122.9	4.0	3.8	3.96	844	29,130	474	29,370
June.....	109.9	3.8	3.6	3.66	218	25,370	426	25,590
July.....	4,807.4	510	3.6	155	9,540	54,500	888	64,140
August.....	115.2	4.0	3.6	3.72	228	36,500	590	36,530
September.....	94.9	3.6	2.9	3.16	188	57,540	964	57,530
Water year 1936-37	9,574.8	670	2.9	27.1	19,580	408,500	564	427,800

\*Diversions through Butt Creek Tunnel No. 1, which was computed as the difference in flow between Butt Creek below Tunnel No. 1 (unpublished records) and Butt Creek above Tunnel No. 1 (published records). There is some unmeasured inflow between the two stations.

## North Fork of Feather River at Big Bar, Calif.

Location.— Water-stage recorder, lat. 39°48', long. 121°27', in SW¼ sec. 32, T. 23 N., R. 5 E., a quarter of a mile above Big Bar and 7 miles above intake of power plant at Big Bend. Zero of gage is 1,348.96 feet above mean sea level.

Drainage area.— 1,934 square miles.

Records available.— February 1911 to August 1930, October 1931 to September 1937.

Average discharge.— 23 years (1911-12, 1913-20, 1921-30, 1931-37), 2,479 second-feet. Figure published in Water-Supply paper 811 is in error.

Extremes.— Maximum discharge during year, 9,220 second-feet Apr. 15 (gage height, 10.93 feet); minimum, 274 second-feet Dec. 13.

1911-30, 1931-37: Maximum daily discharge, 35,000 second-feet Jan. 1, 1914; minimum daily discharge, 235 second-feet Oct. 31, 1932. Instantaneous extremes not known.

Remarks.— Storage and diversions above station. See records for Lake Almanor and Bucks Creek storage reservoir. Record of daily discharge furnished by Pacific Gas & Electric Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,110	1,300	950	1,140	445	1,080	3,380	4,330	3,210	1,810	1,250	1,340
2	2,050	1,450	1,140	596	678	1,270	4,840	4,750	2,990	1,840	1,250	1,500
3	1,550	1,470	1,320	898	455	1,580	4,730	5,030	3,000	1,680	1,260	1,460
4	1,410	1,490	1,320	1,190	894	1,700	4,060	5,620	3,080	1,450	1,250	1,270
5	1,580	1,450	1,540	1,340	1,300	1,740	3,800	5,570	2,490	1,350	1,300	1,270
6	1,850	1,470	641	1,360	1,200	1,850	4,040	5,580	2,050	1,650	1,290	1,260
7	1,680	1,390	882	1,380	982	2,080	3,720	5,320	2,150	1,610	1,280	1,260
8	1,540	1,290	1,220	1,180	770	2,160	3,570	4,380	2,170	1,660	1,280	1,340
9	1,500	1,390	1,220	1,260	629	2,450	3,930	4,080	2,120	1,700	1,280	1,250
10	1,500	1,520	1,030	970	1,240	2,800	3,820	4,020	1,940	1,600	1,280	1,250
11	1,400	1,440	1,060	1,420	1,330	4,020	3,630	4,010	1,850	1,340	1,260	1,250
12	1,450	1,500	902	2,030	1,410	5,530	3,810	4,800	1,420	1,550	1,360	1,210
13	1,610	1,520	355	1,160	1,380	5,240	5,270	5,470	1,360	1,680	1,380	1,280
14	1,610	1,500	850	1,310	2,790	4,280	7,060	5,800	1,720	1,710	1,270	1,250
15	1,610	1,330	1,260	1,140	2,140	3,680	8,630	5,530	1,860	2,090	1,240	1,370
16	1,620	1,410	1,320	770	1,620	3,320	2,400	5,180	3,850	2,050	1,290	1,390
17	1,610	1,500	1,330	674	1,410	3,320	6,610	4,930	2,480	1,880	1,490	1,390
18	1,390	1,580	1,320	1,230	1,160	3,130	5,450	4,910	1,890	1,610	1,460	1,390
19	1,430	798	1,510	970	1,180	2,890	5,560	4,230	1,540	1,960	1,430	1,400
20	1,500	506	790	686	1,220	2,680	5,780	3,940	1,480	2,040	1,400	1,400
21	1,600	407	866	1,210	978	2,260	6,220	3,950	1,760	1,990	1,230	1,400
22	1,500	485	1,290	954	982	2,740	6,310	3,930	1,680	1,830	1,230	1,400
23	1,510	830	1,170	790	1,230	2,670	5,760	3,920	1,580	1,820	1,230	1,410
24	1,480	1,010	966	492	1,240	2,700	5,560	4,070	1,620	1,420	1,330	1,420
25	1,320	1,440	400	814	1,450	2,800	5,410	3,970	3,510	1,510	1,520	1,400
26	1,490	524	407	1,070	1,340	2,320	5,680	3,450	1,450	1,340	1,360	1,410
27	1,630	407	629	682	1,110	2,160	5,470	3,680	1,320	1,540	1,260	1,570
28	1,640	798	1,140	500	1,040	2,120	4,810	3,970	1,600	1,490	1,250	1,590
29	1,640	530	1,510	467	-	2,350	4,150	3,820	1,820	1,470	1,250	1,600
30	1,620	902	1,560	611	-	2,450	4,040	3,450	1,910	1,390	1,280	1,600
31	1,290	-	1,350	445	-	2,530	-	3,230	-	1,510	1,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	48,730	2,110	1,290	1,572	96,653
November.....	34,637	1,580	407	1,155	68,700
December.....	32,448	1,360	355	1,047	64,360
Calendar year 1936.....	1,067,665	25,000	355	2,917	2,118,000
January.....	30,739	2,030	445	992	60,970
February.....	33,603	2,790	445	1,200	66,650
March.....	83,900	5,530	1,080	2,706	166,400
April.....	153,700	8,830	3,380	5,123	304,900
May.....	138,820	5,800	3,230	4,478	275,300
June.....	60,900	3,850	1,320	2,030	120,800
July.....	51,110	2,090	1,310	1,649	101,400
August.....	40,740	1,520	1,230	1,314	80,810
September.....	41,530	1,600	1,210	1,378	81,980
Water year 1936-37.....	750,657	8,830	355	2,057	1,489,000

## Feather River near Oroville, Calif.

Location.- Water-stage recorder, lat.  $39^{\circ}32'$ , long.  $121^{\circ}29'$ , in NE $\frac{1}{4}$  sec. 2, T. 19 N., R. 4 E., 2 miles below junction of North and Middle Forks and 3 miles northeast of Oroville. Zero of gage is 162.02 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,611 square miles.

Records available.- October 1934 to September 1937; January 1902 to September 1934 at site at Oroville, 3 miles downstream.

Average discharge.- 35 years, 5,858 second-feet.

Extremes.- Maximum discharge during year, 19,200 second-feet Apr. 15 (gage height, 27.90 feet); minimum, 502 second-feet Dec. 20 (gage height, 3.75 feet).  
1902-37: Maximum discharge, 211,000 second-feet Mar. 26, 1928 (gage height, 26.08 feet, former site and datum); minimum (estimated), 300 second-feet, regulated, Nov. 9, 1931 (gage height, -1.7 feet, former site and datum).

Remarks.- Records excellent. Lake Almanor and Bucks Creek, Butt Valley, and other storage reservoirs, and three large power plants above station; also small diversions.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

4.5	705	9.0	2,640	14.0	5,700	20.0	10,600
5.0	860	10.0	3,200	15.0	6,400	22.0	12,500
6.0	1,220	11.0	3,800	16.0	7,200	24.0	14,500
7.0	1,640	12.0	4,400	17.0	8,000	26.0	16,800
8.0	2,140	13.0	5,050	18.0	8,900	28.0	19,500

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,540	1,510	1,220	1,510	1,000	2,860	6,800	8,800	6,400	2,590	1,640	1,560
2	2,290	1,600	1,220	955	1,890	3,030	10,200	9,970	6,260	2,540	1,640	1,840
3	1,790	1,640	1,380	1,300	1,690	3,620	9,430	11,000	6,400	2,240	1,640	1,640
4	1,560	1,640	1,420	1,300	6,160	4,100	8,240	12,400	6,400	2,090	1,600	1,420
5	1,740	1,640	1,420	1,560	7,220	4,220	7,440	12,300	5,980	1,990	1,560	1,420
6	1,990	1,640	1,000	1,690	5,640	4,340	8,720	12,400	4,920	2,290	1,560	1,420
7	1,840	1,600	1,070	1,510	3,860	4,720	7,840	12,100	4,460	2,240	1,560	1,420
8	1,790	1,380	1,380	1,340	2,590	5,050	7,520	10,300	4,530	2,190	1,560	1,560
9	1,640	1,460	1,340	1,220	2,040	5,700	8,320	9,790	4,460	2,240	1,560	1,460
10	1,640	1,740	1,140	1,460	2,090	6,800	8,090	9,160	4,220	1,990	1,560	1,420
11	1,510	1,600	1,260	1,740	2,340	8,080	7,600	8,980	3,980	1,940	1,510	1,420
12	1,560	1,690	1,000	2,290	3,200	14,400	10,600	13,320	3,220	2,140	1,560	1,420
13	1,790	1,690	705	1,690	5,110	14,400	10,300	12,500	3,030	2,190	1,640	1,420
14	1,740	1,690	948	1,840	13,100	10,900	14,700	13,600	3,320	2,140	1,560	1,420
15	1,790	1,510	1,380	1,600	6,640	8,980	18,400	13,500	3,440	2,490	1,510	1,560
16	1,790	1,510	1,600	1,560	4,600	7,920	17,000	12,600	7,470	2,540	1,460	1,600
17	1,690	1,640	1,600	1,220	3,560	8,000	13,400	11,700	5,570	2,440	1,890	1,600
18	1,460	1,640	1,510	1,340	3,320	8,180	11,500	11,500	4,280	2,040	1,640	1,560
19	1,500	1,070	1,510	1,340	3,080	7,280	11,200	9,700	3,980	2,340	1,790	1,560
20	1,690	810	1,020	1,070	2,920	6,960	11,600	9,160	3,140	2,440	1,560	1,560
21	1,640	735	1,140	1,260	2,860	10,600	12,900	9,250	3,200	2,390	1,460	1,600
22	1,640	765	1,460	1,260	3,080	9,430	13,100	9,340	3,080	2,240	1,460	1,600
23	1,640	842	1,340	1,300	3,260	7,920	11,400	9,430	2,980	2,040	1,460	1,600
24	1,690	1,220	1,380	895	3,560	10,700	11,000	9,880	2,920	1,890	1,560	1,600
25	1,510	1,690	780	1,100	4,160	7,680	11,100	9,520	2,540	1,790	1,940	1,600
26	1,560	1,100	948	1,340	3,560	6,190	11,600	8,240	2,490	1,790	1,460	1,560
27	1,790	720	1,180	1,070	3,080	6,190	11,000	8,480	2,240	1,840	1,460	1,790
28	1,640	1,140	1,380	1,510	2,860	5,570	9,610	8,890	2,590	1,840	1,420	1,740
29	1,790	765	1,640	1,100	-	5,310	8,400	8,640	2,760	1,840	1,420	1,740
30	1,790	916	1,740	1,220	-	5,380	8,160	7,520	2,700	1,790	1,450	1,690
31	1,510	-	1,740	1,070	-	5,570	-	7,040	-	1,740	1,740	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	53,840	2,540	1,460	1,737	106,800
November.....	40,593	1,740	720	1,353	80,520
December.....	39,851	1,740	705	1,286	79,040
Calendar year 1936.....	2,022,064	54,200	705	5,525	4,011,000
January.....	42,670	2,290	895	1,376	84,630
February.....	108,470	13,100	1,000	3,874	215,100
March.....	220,060	14,400	2,860	7,099	436,500
April.....	314,080	18,400	6,800	10,470	623,000
May.....	319,290	13,500	7,040	10,270	651,300
June.....	128,460	7,470	2,240	4,032	242,900
July.....	66,290	2,590	1,740	2,139	131,500
August.....	48,840	1,940	1,420	1,575	96,870
September.....	46,800	1,840	1,420	1,560	92,830
Water year 1936-37.....	1,422,244	18,400	705	3,897	2,821,000

## FEATHER RIVER BASIN

Feather River at Nicolaus, Calif.

Location.— Water-stage recorder, lat. 38°54'00", long. 121°35'05", 0.4 mile downstream from Highway bridge at Nicolaus, Sutter County. Gage set to datum of Corps of Engineers, U. S. Army.

Records available.— June 1921 to October 1937 (low-water periods only). Gage-height records for high-water periods in years 1920-21, 1926-37 published by Division of Water Resources, Department of Public Works, State of California.

Extremes.— Minimum discharge June-October 1937, 216 second-feet Sept. 1 (gage height, 20.89 feet).  
1921-37: No flow Aug. 2-18, 1924, July 11-22, 24, 26, Aug. 1, 1931.

Remarks.— Records good. Many storage reservoirs and power plants and large diversions by Western, Sutter Butte, and other canals above station.

Discharge, in second-feet, 1936-37

Day	Oct.						June	July	Aug.	Sept.	Oct.
1	2,300						-	2,020	446	230	1,440
2	2,300						-	1,890	412	254	1,480
3	2,250						-	1,850	371	352	1,620
4	2,050						-	1,690	337	369	1,980
5	1,780						-	1,450	304	426	1,800
6	1,730						-	1,250	283	409	1,840
7	2,000						-	1,190	269	363	1,890
8	1,960						-	1,250	254	315	1,890
9	1,820						-	1,190	254	289	1,890
10	1,680						-	1,160	269	289	1,760
11	1,640						-	1,130	283	304	1,710
12	1,600						-	1,010	278	342	1,890
13	1,500						-	850	274	330	1,940
14	1,680						-	1,030	259	405	2,070
15	1,730						-	1,030	250	397	2,450
16	1,680						-	1,010	264	366	2,750
17	1,780						-	1,190	274	488	2,450
18	1,780						-	1,390	264	633	2,200
19	1,730						-	1,190	264	828	2,070
20	1,640						-	1,020	342	812	2,250
21	1,680						-	1,080	371	850	2,400
22	1,780						-	1,150	400	914	2,450
23	1,780						-	1,070	310	954	2,450
24	1,780						-	905	259	994	2,650
25	1,730						-	769	245	1,050	2,160
26	1,730						2,420	657	239	1,170	2,200
27	1,500						2,200	566	278	1,220	2,350
28	1,640						1,970	472	363	1,280	2,300
29	1,680						1,930	436	254	1,350	2,350
30	1,730						2,060	430	230	1,440	2,350
31	1,780						-	430	239	-	2,300
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
1936							55,440	2,300	1,500	1,788	110,000
1937											
June 26-30.....							10,580	2,420	1,930	2,116	20,990
July.....							33,755	2,020	430	1,089	66,950
August.....							9,141	448	230	295	18,130
September.....							19,551	1,440	230	652	38,780
October.....							65,030	2,750	1,440	2,098	129,000
The period.....											273,800

Butt Creek above Tunnel No. 1, near Prattville, Calif.

Location.- Water-stage recorder, lat.  $40^{\circ}12'$ , long.  $121^{\circ}12'$ , in NW $\frac{1}{4}$  sec. 18, T. 27 N., R. 7 E., about  $1\frac{1}{2}$  miles upstream from outlet of Tunnel No. 1 from Lake Almanor to Butt Creek and  $2\frac{1}{2}$  miles southwest of Prattville. Altitude, about 4,300 feet.

Records available.- October 1936 to September 1937.

Extremes.- Maximum discharge during year, 216 second-feet May 4 (gage height, 4.40 feet); minimum, 3.2 second-feet Dec. 11.

Remarks.- Records fair. Discharge for period of ice effect, Jan. 9-27, and for Dec. 27 to Jan. 5, Jan. 31 to Feb. 18, Apr. 3-8, 24-26, May 5-7, June 18, computed by comparison with unpublished record of Pacific Gas & Electric Co. at station below tunnel outlet. Wallack Ditch at times diverts as much as  $7\frac{1}{2}$  second-feet above station and conveys it into Yellow Creek Basin. Gage-height record and results of discharge measurements furnished by Pacific Gas & Electric Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	14	8	10	12	14	45	170	84	29	24	16
2	15	12	8	10	12	14	60	190	79	28	24	16
3	15	11	9	10	12	16	55	203	76	28	24	16
4	15	12	6.5	10	12	17	50	210	72	28	22	15
5	14	13	8.5	10	11	19	55	200	69	28	22	15
6	14	13	8.5	10	11	21	60	200	65	27	22	15
7	14	12	9	9.5	15	23	65	190	62	26	22	15
8	14	11	9	10	16	24	65	190	57	26	22	15
9	14	11	9	11	15	29	68	190	55	27	22	15
10	14	11	8.5	11	15	32	69	184	52	26	23	16
11	14	12	6	11	15	64	70	170	49	26	23	15
12	14	11	8	11	15	72	74	177	45	28	22	15
13	13	11	9	11	15	62	116	190	44	26	21	15
14	13	11	9.5	11	15	51	159	196	43	26	20	14
15	14	11	10	11	15	46	164	196	41	26	20	14
16	14	11	11	11	16	45	141	190	52	25	20	14
17	14	11	9	11	16	45	118	170	46	24	20	14
18	14	10	9	11	15	40	116	159	43	24	19	13
19	14	10	11	11	15	35	122	144	40	24	18	13
20	14	10	10	11	14	30	135	134	38	25	18	13
21	14	10	11	11	14	19	152	130	36	26	18	13
22	14	10	11	11	14	25	143	128	34	25	17	13
23	14	10	11	11	14	28	132	126	34	25	17	13
24	14	9.5	14	11	15	22	140	125	32	25	17	13
25	14	9.5	12	11	14	21	155	121	30	25	17	13
26	13	9.5	10	11	14	23	155	116	30	25	17	12
27	13	9.5	10	11	14	23	159	113	30	24	17	12
28	13	9	10	11	14	23	146	108	30	24	16	13
29	14	9	10	12	-	24	146	103	30	24	16	13
30	14	8.5	10	12	-	25	155	95	30	24	16	13
31	14	-	10	12	-	29	-	90	-	24	16	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						432	15	13	13.9	857		
November.....						322.5	14	8.5	10.8	640		
December.....						295.5	14	6	9.53	586		
Calendar year .....												
January.....						335.5	12	9.5	10.8	665		
February.....						395	16	11	14.1	783		
March.....						961	72	14	31.0	1,910		
April.....						3,290	164	45	11.0	6,530		
May.....						4,908	210	90	158	9,730		
June.....						1,428	84	30	47.6	2,830		
July.....						798	29	24	25.7	1,580		
August.....						612	24	16	19.7	1,210		
September.....						421	16	12	14.0	835		
Water year 1936-37.....						14,198.5	210	6	38.9	28,160		

## FEATHER RIVER BASIN

Indian Creek near Crescent Mills, Calif.

Location.- Water-stage recorder, lat. 40°05', long. 120°56', in SW¼ sec. 25, T. 26 N., R. 9 E., 0.8 mile above mouth of Dixie Creek and about 1½ miles below Crescent Mills. Altitude, about 3,500 feet.

Drainage area.- 746 square miles.

Records available.- October 1930 to September 1937. January 1906 to December 1909 and September 1911 to March 1918 at staff-gage site 500 feet upstream.

Average discharge.- 16 years (1906-9, 1911-17, 1930-37), 491 second-feet.

Extremes.- Maximum discharge during year, 3,220 second-feet Apr. 15 (gage height, 8.55 feet); minimum, 3.3 second-feet Sept. 10.  
1906-9; 1911-18; 1930-37: Maximum discharge, about 11,700 second-feet Mar. 19, 1907 (gage height, 20.2 feet, former site and datum); minimum, 1.7 second-feet Aug. 25, 1931.

Remarks.- Records good except those for periods of ice effect, Jan. 5-8, 11-19, 21-31, which were computed on basis of gage heights, weather records, and flow of nearby streams and are fair. Diversions for irrigation in Indian and Genesee Valleys.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.2	3.0	3.0	162	6.0	1,430
1.4	7	3.4	239	6.5	1,750
1.6	14	3.8	328	7.0	2,050
1.8	24	4.2	446	7.5	2,380
2.0	37	4.6	616	8.0	2,740
2.3	64	5.0	830	9.0	3,580
2.6	100	5.5	1,130		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	28	36	54	51	341	920	920	289	35	8.5	4.1
2	10	33	37	52	55	429	1,490	980	34	9.5	4.0	
3	10	29	47	49	60	526	1,790	1,130	247	31	7.5	4.0
4	10	34	49	43	72	551	1,580	1,280	239	19	6	4.0
5	11	38	36	44	120	570	1,400	1,340	225	24	5	3.8
6	11	39	34	44	155	611	1,400	1,340	203	28	6	3.8
7	12	36	38	44	150	676	1,310	1,260	182	32	6.5	4.1
8	12	35	42	44	139	708	1,190	1,220	166	31	5	4.0
9	18	36	41	40	135	785	1,250	1,070	157	29	4.8	3.8
10	13	36	48	42	154	890	1,340	980	145	25	6	3.5
11	12	36	47	44	137	1,040	1,430	920	129	20	7	4.3
12	12	37	38	44	142	1,340	1,430	890	108	16	6.5	4.0
13	12	39	36	44	157	1,640	1,520	920	101	22	6	4.3
14	13	40	40	44	254	1,610	2,050	980	97	20	7	6.5
15	14	39	45	44	300	1,430	2,900	1,010	91	22	7	6.0
16	14	41	50	44	291	1,340	3,060	980	157	22	4.6	6.0
17	14	40	50	44	284	1,310	2,380	920	229	20	4.1	6.5
18	14	40	48	44	295	1,280	1,860	830	180	17	4.1	6.5
19	16	41	47	44	300	1,190	1,670	763	154	14	4.1	7.0
20	22	42	47	39	300	1,010	1,580	682	143	13	4.3	7.0
21	18	40	49	42	291	890	1,640	607	132	12	4.1	6.5
22	20	40	49	44	297	890	1,790	552	118	12	4.6	7.0
23	24	45	49	44	316	785	1,670	526	113	12	4.6	7.5
24	25	45	54	44	328	692	1,490	518	101	12	4.8	7.5
25	26	39	54	44	341	616	1,430	505	63	12	5	8.0
26	25	39	56	46	309	513	1,460	476	67	11	4.4	8.0
27	26	40	64	47	291	513	1,430	439	50	10	4.0	7.5
28	26	38	62	46	306	526	1,310	415	41	10	3.8	8.5
29	25	38	69	49	-	518	1,130	391	37	10	3.5	8.0
30	22	38	56	50	-	570	960	360	36	9.5	3.8	7.5
31	23	-	55	50	-	687	-	318	-	9	4.4	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					520	26	10	16.8	1,050			
November.....					1,141	45	28	38.0	2,260			
December.....					1,463	64	34	47.2	2,900			
Calendar year 1936.....					149,030.5	4,550	6.5	407	295,600			
January.....					1,399	54	39	45.1	2,770			
February.....					6,010	341	51	215	11,920			
March.....					26,457	1,640	341	853	52,480			
April.....					47,880	3,060	920	1,596	94,970			
May.....					25,542	1,340	318	824	50,650			
June.....					4,260	289	36	142	8,450			
July.....					593.5	35	9	19.1	1,180			
August.....					166.5	9.5	3.5	5.37	330			
September.....					173.2	8.5	3.5	5.77	344			
Water year 1936-37.....					115,605.2	3,060	3.5	317	229,300			

## Spanish Creek at Keddle, Calif.

Location.- Water-stage recorder, lat. 40°00'05", long. 120°57'20", in NE¼ sec. 27, T. 25 N., R. 9 E., 200 feet above Blackhawk Creek and 0.9 mile southeast of Keddle. Altitude, about 3,250 feet.

Drainage area.- 184 square miles.

Records available.- October 1933 to September 1937; October 1911 to September 1933 at site 1.2 miles downstream.

Average discharge.- 20 years (1911-19, 1921-33) at former site, 230 second-feet.

Extremes.- Maximum discharge during year, 1,360 second-feet Apr. 15 (gage height, 4.66 feet); minimum, 11 second-feet Aug. 24, 1911-37. Maximum discharge, about 11,000 second-feet Mar. 26, 1928 (gage height, 15.5 feet, former site and datum), from rating curve extended above 2,000 second-feet; minimum, 3.8 second-feet Aug. 12, 1934.

Remarks.- Records good except those for periods of ice effect, Jan. 5, 6, Jan. 9 to Feb. 4, which were computed on basis of weather records and records for nearby streams and are fair. Water diverted above station for irrigation in American Valley.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.0	11	2.0	70	3.0	314
1.2	18	2.2	94	3.4	490
1.4	27	2.4	131	3.8	730
1.6	39	2.6	178	4.2	1,000
1.8	53	2.8	240	4.6	1,320

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	37	36	50	42	202	575	506	196	52	18	12
2	22	36	35	49	46	258	840	647	187	45	17	13
3	24	35	37	42	50	330	623	710	184	41	20	13
4	25	35	34	39	81	554	490	750	176	35	20	14
5	24	37	36	38	450	342	445	717	166	33	19	14
6	24	37	37	36	455	405	563	678	153	31	18	15
7	24	37	38	34	314	436	455	647	140	32	17	15
8	24	36	42	33	163	427	445	512	131	31	16	15
9	24	36	40	34	121	518	593	496	125	30	14	15
10	22	37	40	36	104	534	540	450	121	31	14	15
11	22	37	35	36	104	730	496	440	117	32	13	15
12	23	37	34	36	111	1,020	506	534	108	42	14	15
13	24	36	37	36	131	854	730	629	102	36	14	13
14	24	38	38	36	490	611	1,070	659	99	34	14	13
15	24	39	44	36	350	506	1,230	635	91	34	13	13
16	25	39	51	36	230	475	923	593	241	34	13	14
17	25	39	46	36	196	470	678	534	170	33	12	14
18	25	39	44	36	196	427	605	501	135	32	12	14
19	27	39	43	34	196	350	599	418	121	32	12	14
20	29	39	43	33	178	326	659	383	104	30	13	14
21	29	38	45	34	168	338	802	379	96	27	13	15
22	29	38	44	36	176	354	762	367	88	28	12	15
23	33	38	44	36	193	306	605	362	82	26	12	15
24	32	38	50	36	218	306	581	367	77	26	11	14
25	31	37	52	36	244	269	653	358	71	26	12	16
26	30	37	55	38	196	254	672	314	68	24	12	16
27	31	37	62	38	170	284	575	295	65	22	12	15
28	31	37	59	38	181	284	455	287	61	22	12	17
29	31	37	55	40	-	303	400	269	62	19	12	17
30	32	36	53	42	-	326	409	240	55	20	12	18
31	36	-	51	42	-	379	-	214	-	21	12	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						827	36	21	26.7	1,640		
November.....						1,120	39	35	37.3	2,220		
December.....						1,360	62	34	43.9	2,700		
Calendar year 1936.....						73,757	3,090	11	202	146,300		
January.....						1,162	50	33	37.5	2,300		
February.....						5,554	490	42	198	11,020		
March.....						12,958	1,020	202	418	25,700		
April.....						18,979	1,230	400	633	37,640		
May.....						14,891	750	214	480	29,540		
June.....						3,592	241	55	120	7,120		
July.....						961	52	19	31.0	1,910		
August.....						435	20	11	14.0	863		
September.....						438	18	12	14.6	869		
Water year 1936-37.....						62,277	1,230	11	171	123,500		



Bucks Creek storage reservoir near Bucks ranch, Calif.

Location.— Water-stage recorder, lat. 39°54', long. 121°12', in NW¼ sec. 33, T. 24 N., R. 7 E., at dam on Bucks Creek 2 miles northwest of former Bucks ranch and 15 miles west of Quincy.

Drainage area.— 28-square miles.

Records available.— October 1928 to September 1937.

Remarks.— This reservoir is main storage unit of Grizzly Creek project of Pacific Gas & Electric Co. Elevation of crest of dam is 5,168 feet above mean sea level. Released water flows down Bucks Creek to diversion dam, where it enters tunnel that discharges into Grizzly Creek. Record furnished by Pacific Gas & Electric Co. shows total contents, of which 274 acre-feet is not available for release.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78,547	65,187	60,227	61,762	64,325	67,907	72,849	75,319	98,088	102,293	98,118	94,543
2	78,214	64,794	60,227	61,762	64,512	68,035	72,980	75,648	98,839	102,293	98,118	94,189
3	78,151	64,403	60,304	61,762	64,715	68,162	73,110	76,059	99,020	102,293	98,118	93,658
4	77,964	64,013	60,304	61,839	64,999	68,226	73,192	76,556	99,743	102,293	98,118	93,304
5	77,715	63,545	60,304	61,963	65,187	68,306	73,224	77,134	100,469	102,293	98,154	93,304
6	77,300	63,233	60,304	62,040	65,424	68,386	73,273	77,798	101,089	102,293	98,190	93,304
7	76,886	63,155	60,304	62,061	65,628	68,466	73,289	78,381	101,598	102,109	98,208	93,304
8	76,639	63,155	60,304	62,118	65,707	68,594	73,388	78,880	101,926	101,926	98,208	93,304
9	76,473	63,155	60,304	62,225	65,785	68,721	73,518	79,381	102,293	101,744	98,208	92,950
10	76,307	63,155	60,304	62,427	65,864	68,833	73,633	79,883	102,568	101,562	98,208	92,950
11	75,730	63,233	60,304	62,535	65,942	68,993	73,714	80,386	102,843	101,471	98,208	92,950
12	75,237	62,922	60,304	62,535	66,053	69,200	73,910	81,227	103,118	101,380	98,208	92,950
13	74,745	62,535	60,304	62,613	66,290	69,312	74,170	81,986	103,392	101,107	98,208	92,950
14	74,252	62,149	60,380	62,737	66,496	69,472	74,334	82,832	103,759	100,833	98,208	92,950
15	73,763	61,839	60,457	62,922	66,575	69,585	74,498	83,767	104,036	100,651	98,208	92,510
16	73,273	61,453	60,534	63,046	66,686	69,714	74,712	84,619	103,944	100,469	98,208	92,071
17	72,702	61,146	60,534	63,155	66,844	69,923	75,057	85,475	103,759	100,378	98,208	91,719
18	72,135	60,637	60,534	63,290	66,971	70,116	75,319	86,420	103,392	100,287	97,938	91,368
19	71,811	60,227	60,534	63,311	67,050	70,277	75,482	87,023	103,209	99,624	97,490	91,104
20	71,244	60,227	60,610	63,311	67,129	70,550	75,566	87,798	103,118	99,653	96,951	90,843
21	70,920	60,227	60,610	63,311	67,209	70,888	75,493	88,579	102,751	99,382	96,413	90,581
22	70,437	60,227	60,610	63,311	67,288	71,163	75,253	89,446	102,843	99,201	96,146	90,319
23	69,956	60,227	60,687	63,311	67,367	71,568	75,040	90,494	102,659	99,020	96,146	90,057
24	69,472	60,227	60,840	63,311	67,478	71,811	74,909	91,368	102,568	98,749	96,056	89,795
25	68,993	60,227	60,840	63,389	67,605	71,843	74,794	92,159	102,588	98,478	95,522	89,533
26	68,434	60,227	60,840	63,545	67,684	71,924	74,629	93,036	102,568	98,208	94,997	89,273
27	67,795	60,227	60,993	63,701	67,763	72,054	74,416	94,100	102,588	98,208	94,543	88,839
28	67,161	60,227	61,070	63,888	67,843	72,216	74,449	94,986	102,476	98,208	94,543	88,319
29	66,607	60,227	61,223	64,091	-	72,378	74,695	95,878	102,476	98,118	94,543	87,798
30	65,974	60,227	61,453	64,169	-	72,491	74,942	96,592	102,384	98,118	94,543	87,281
31	65,581	-	61,530	64,169	-	72,654	-	97,310	-	98,118	94,630	-

## Grizzly Creek near Storrie, Calif.

Location.- Water-stage recorder, lat. 39°52', long. 121°14', in SW $\frac{1}{4}$  sec. 5, T. 23 N., R. 7 E., about 2,000 feet above outlet of tunnel from Bucks Creek and 6 miles south-east of Storrie. Altitude, about 4,900 feet.

Records available.- December 1929 to September 1932, October 1933 to September 1937.

Extremes.- Maximum discharge during year, 481 second-feet June 16 (gage height, 3.88 feet), from rating curve extended above 150 second-feet; minimum, 0.3 second-foot Dec. 4, 13-14, 19, 20; minimum stage, 0.97 foot Dec. 4.  
1929-32; 1933-37: Maximum discharge, about 1,000 second-feet Dec. 12, 1929, Feb. 21, 1936; minimum, 0.1 second-foot Sept. 7-14, 1932.

Remarks.- Records good except those for Oct. 1-4, (interpolated) and those for January to April (estimated), which are fair. No diversions or regulation above station. Gage-height record furnished by Pacific Gas & Electric Co.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.6	0.4					60	110	10	2.3	1.6
2	.6	.5						76	118	10	2.3	1.7
3	.6	.6	.4					87	121	9.5	2.2	1.7
4	.6	.6	.4					94	111	8.5	2.0	1.6
5		.6	.4					92	93	8	1.9	1.7
6	.6	.6	.4					92	73	8	1.8	1.7
7	.6	.6	.4					79	66	7.5	1.8	1.9
8	.6	.6	.4					68	59	8	1.7	2.0
9	.6	.6	.4					69	54	8.5	1.5	2.2
10	.6	.6	.4					64	56	9	1.4	2.2
11	.6	.5	.5					92	46	8	1.3	2.3
12	.6	.5	.4					129	42	7	1.1	2.3
13	.6	.5	.3					156	39	6.5	1.0	2.4
14	.5	.5	.3					162	37	5.5	.9	2.4
15	.5	.5	.4					150	38	5.5	.8	2.4
16	.5	.5	.4					146	194	5	.8	2.4
17	.5	.5	.4					132	59	4.8	.8	2.4
18	.5	.5	.4					139	44	4.4	.9	2.2
19	.5	.5	.3					111	38	4.2	.9	2.1
20	.5	.5	.3					126	32	3.8	.9	2.1
21	.5	.5	.4					137	28	3.4	.9	1.8
22	.5	.5	.4					146	25	3.0	1.0	1.7
23	.5	.5	.4					162	22	2.8	1.0	1.6
24	.6	.5	.5					160	20	2.9	1.0	1.4
25	.5	.5	.4					136	18	2.8	1.1	1.1
26	.5	.4	.5					139	16	2.8	1.2	.9
27	.5	.4	9					160	14	2.8	1.3	.8
28	.5	.4	.7					162	13	2.6	1.3	.7
29	.5	.4	.4					136	12	2.5	1.4	.7
30	.5	.4	.4					111	11	2.5	1.4	.7
31	.6	-	.4					103	-	2.4	1.5	-
Month	Second-foot-days					Maximum	Minimum	Mean	Run-off in acre-feet			
October.....	16.9					0.6	0.5	0.55	34			
November.....	15.4					.6	.4	.51	31			
December.....	21.2					9	.3	.68	42			
Calendar year 1936.....	12,242.5					522	.3	33.5	24,280			
January.....	12.4					-	-	*.4	25			
February.....	28					-	-	*1.0	56			
March.....	62					-	-	*2.0	123			
April.....	1,050					-	-	*35.0	2,080			
May.....	3,666					162	60	118	7,270			
June.....	1,609					194	11	53.6	3,190			
July.....	172.2					10	2.4	5.55	342			
August.....	41.4					2.3	.8	1.34	82			
September.....	52.9					2.4	.7	1.76	105			
Water year 1936-37 .....	6,747.4					-	-	18.5	13,380			

\*Estimated.

## West Branch of Feather River near Yankee Hill, Calif.

Location.— Water-stage recorder, lat. 39°42', long. 121°34', in SW $\frac{1}{4}$  sec. 5, T. 21 N., R. 4 E., at highway bridge, 1.4 miles below Concow Creek and 2 miles west of Yankee Hill. Altitude, about 1,100 feet.

Drainage area.— 145 square miles.

Records available.— September 1930 to September 1937.

Extremes.— Maximum discharge during year, 2,960 second-feet Feb. 4 or 14 (gage height, 10.8 feet, from high-water mark in well); minimum, 0.3 second-foot Jan. 8 (gage height, 1.69 feet).

1930-37: Maximum discharge, 14,400 second-feet Feb. 21, 1936 (gage height, 23.60 feet); minimum, that of Jan. 8, 1937.

Remarks.— Records excellent except those for Feb. 5-20, which were computed on basis of records for nearby streams and are fair. Three canals divert water above station for power and irrigation. Lake Willenor on Concow Creek has storage capacity of about 8,000 acre-feet. See records for Spring Valley Ditch and Butte Creek.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	9	5	18	112	246	606	665	650	62	8.5	8
2	6.5	8	5	15	211	238	873	810	620	55	8.5	7.5
3	6.5	7.5	5	12	191	279	665	912	620	48	8.5	7.5
4	6.5	7	5	10	1,420	297	556	1,020	556	42	8.5	7.5
5	6.5	7	5	20	700	316	472	1,000	550	37	8	7
6	6.5	6.5	5	39	440	316	635	1,060	484	35	8	6.5
7	6	6.5	5	17	290	336	510	1,000	401	36	8	6.5
8	6	6.5	5.5	7	200	346	497	844	379	33	8	7
9	6	6	6	8.5	170	424	665	878	412	34	8.5	8
10	6	6	6	17	150	460	578	776	346	31	8.5	8
11	6.5	6	6	37	170	756	510	760	326	27	8.5	8
12	6.5	6	5.5	37	230	1,870	472	1,000	279	26	8.5	8
13	6.5	6	5.5	31	550	1,450	1,240	1,180	262	24	8.5	8
14	7	6	5.5	74	1,800	793	1,520	1,220	254	18	9	7.5
15	7	6.5	6	76	500	592	1,620	1,140	217	16	9	7
16	7	6.5	6.5	102	300	497	1,340	1,100	1,200	14	8.5	7
17	6.5	6.5	6.5	53	270	523	984	1,020	536	14	8	7
18	6.5	6.5	6.5	48	260	564	861	1,060	288	13	8	7
19	7	6.5	6.5	38	240	510	810	793	254	12	8	7.5
20	7.5	6	6.5	17	200	497	861	827	262	11	8	7.5
21	8	6	6.5	26	193	1,230	1,000	861	230	10	7.5	7.5
22	8	6	6.5	53	199	912	912	861	199	9.5	7	7.5
23	7.5	6	6.5	45	211	744	776	878	178	9.5	7.5	7.5
24	7	6	20	43	270	1,260	760	984	156	9.5	7.5	7.5
25	7.5	6	24	38	306	793	844	966	126	9.5	7.5	7.5
26	7.5	6	23	45	270	564	844	844	98	9.5	7	7
27	7.5	6	45	60	262	635	728	930	86	9	7	7
28	7.5	5.5	23	149	246	564	606	948	74	8.5	7	7.5
29	7	5.5	12	112	-	497	523	861	81	8	7.5	8
30	8	5	21	107	-	460	550	712	74	8	7.5	8
31	9	-	36	100	-	448	-	665	-	8.5	8	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						216.0	9	6	6.97	428		
November.....						190.5	9	5	6.35	378		
December.....						337.0	45	5	10.9	668		
Calendar year 1936.....						144,328.0	8,120	5	394	286,500		
January.....						1,454.5	149	7	46.9	2,880		
February.....						10,361	1,800	112	370	20,550		
March.....						19,417	1,870	238	626	38,510		
April.....						23,805	1,620	472	793	47,210		
May.....						28,575	1,220	665	922	56,680		
June.....						10,178	1,200	74	339	20,190		
July.....						687.5	62	8	22.2	1,560		
August.....						246.0	9	7	8.00	492		
September.....						223.0	8	6.5	7.43	442		
Water year 1936-37.....						95,690.5	1,870	5	262	189,800		

## Concow Creek near Yankee Hill Calif.

Location.— Water-stage recorder, lat.  $39^{\circ}46'$ , long.  $121^{\circ}32'$ , in NE $\frac{1}{4}$  sec. 16, T. 22 N., R. 4 E., at diversion dam for Spring Valley Ditch, 300 feet below Lake Wilanor Dam and 4 miles north of Yankee Hill post office. Altitude, about 1,850 feet.

Drainage area.— 14.7 square miles.

Records available.— October 1927 to September 1937.

Average discharge.— 10 years, 9.5 second-feet.

Extremes.— Maximum discharge during year, 362 second-feet Mar. 12 (gage height, 1.53 feet); no flow during most of year.

1927-37: Maximum discharge, 1,840 second-feet Mar. 26, 1928 (gage height, 5.9 feet); no flow for many months each year.

Remarks.— Records good for low stages and fair for high stages. On Sept. 30, 1936, storage in Lake Wilanor above station was 2,780 acre-feet, and on Sept. 30, 1937, it was 3,420 acre-feet. For total flow, add that of Spring Valley Ditch, which diverts water around station (see next page). Gage-height record furnished by Table Mountain and Thermalito Irrigation Districts.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.1	0	0.8	102
.2	2.0	.9	130
.3	8	1.0	160
.4	19	1.1	195
.5	35	1.2	230
.6	55	1.3	270
.7	77	1.4	310

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	55	122	0				
2					0	53	139	0				
3					0	64	105	0				
4					0	62	80	0				
5					0	59	73	0				
6					0	53	110	0				
7					0	51	82	0				
8					0	45	73	0				
9					0	53	84	0				
10					0	55	68	0				
11					0	94	62	0				
12					0	310	53	0				
13					0	234	97	0				
14					0	116	102	0				
15					0	77	82	0				
16					0	57	62	0				
17					0	64	47	0				
18					0	84	39	0				
19					0	82	13	1.1				
20					0	90	0	0				
21					0	238	0	0				
22					0	181	0	0				
23					0	160	0	0				
24					0	223	0	0				
25					33	142	0	0				
26					33	113	1.6	0				
27					57	151	9	0				
28					53	145	15	0				
29					-	122	16	0				
30					-	105	5	0				
31					-	100	-	0				
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						0	0	0	0	0		
Calendar year 1936.....						9,730.1	809	0	26.6	19,310		
January.....						0	0	0	0	0		
February.....						176	57	0	6.29	349		
March.....						3,441	310	45	111	6,830		
April.....						1,539.6	139	0	51.3	3,050		
May.....						1.1	1.1	0	.04	2.2		
June.....						0	0	0	0	0		
July.....						0	0	0	0	0		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						5,157.7	310	0	14.1	10,230		

## Spring Valley Ditch near Yankee Hill, Calif.

Location.- Water-stage recorder, lat.  $39^{\circ}46'$ , long.  $121^{\circ}32'$ , in NE $\frac{1}{4}$  sec. 16, T. 22 N., R. 4 E., just below diversion dam and 4 miles north of Yankee Hill post office. Altitude, about 1,970 feet.

Records available.- October 1927 to September 1937.

Average discharge.- 10 years, 10.3 second-feet.

Extremes.- Maximum daily discharge during year, 36 second-feet Sept. 9; no flow Jan. 1 to Apr. 14.  
1927-37: Maximum daily discharge, 49 second-feet Oct. 25-27, 1928; no flow for several months each year except 1936.

Remarks.- Records good. Canal diverts from left bank of Concow Creek 300 feet below Lake Wilenor Reservoir; water used for power and irrigation. Gage-height record and results of several discharge measurements furnished by Table Mountain and Thermalito Irrigation Districts.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	30	5				0	3.7	1.4	15	25	22
2	26	30	5				0	5	2.1	15	24	21
3	26	23	5				0	8	6.5	14	23	21
4	26	15	5				0	7.5	8	14	23	21
5	28	14	5				0	4.9	7	14	25	23
6	29	14	5				0	4.4	7	14	29	27
7	29	15	6.5				0	14	7	15	30	30
8	31	15	8.5				0	11	6.5	15	33	34
9	29	15	8				0	2.2	6.5	15	35	36
10	26	15	8				0	20	6.5	14	34	35
11	28	15	8				0	13	6.5	14	33	32
12	28	15	7.5				0	1.5	7	14	33	30
13	28	15	7.5				0	13	7	14	33	30
14	28	15	7.5				0	1.3	8	14	33	30
15	28	14	8				3.5	1.8	9	14	29	29
16	27	14	8				9	3.0	14	14	28	28
17	28	14	8				9	2.9	12	14	30	28
18	28	14	8				8.5	3.7	10	14	28	29
19	28	14	8				4.9	7	10	14	27	29
20	27	14	8				2.8	4.3	9.5	14	26	29
21	30	14	7				3.1	4.2	9.5	14	27	29
22	32	14	5				2.1	2.7	10	14	27	31
23	34	14	3.6				1.6	2.2	10	14	27	32
24	35	14	2.8				1.9	2.7	10	16	26	31
25	35	14	.1				2.4	7.5	12	17	23	31
26	34	15	.1				4.6	9	12	18	21	31
27	34	8.5	.1				6	7.5	12	19	24	30
28	34	4.9	.1				6	8	14	21	26	30
29	34	5.5	.1				6	8	15	22	25	30
30	34	5	.1				4.5	6.5	15	24	24	30
31	32	-	.1				-	2.8	-	25	24	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				923		35	26	29.8	1,830			
November.....				458.9		30	4.9	14.6	871			
December.....				188.6		8	.1	5.12	315			
Calendar year 1936.....				5,012.2		36	.1	13.7	9,940			
January.....				0		0	0	0	0			
February.....				0		0	0	0	0			
March.....				0		0	0	0	0			
April.....				75.9		9	0	2.53	151			
May.....				193.3		20	1.3	6.24	383			
June.....				271.0		15	1.4	9.03	538			
July.....				489		25	14	15.8	970			
August.....				855		36	21	27.6	1,700			
September.....				870		36	21	29.0	1,750			
Water year 1936-37.....				4,274.7		36	0	11.7	8,490			

## Middle Fork of Feather River near Clío, Calif.

Location.- Water-stage recorder, lat. 39°45', long. 120°36', in E½ sec. 23, T. 22 N., R. 12 E., 0.3 mile above Frazier Creek and 1.5 miles northwest of Clío. Altitude, about 4,350 feet.

Drainage area.- 699 square miles.

Records available.- October 1925 to September 1937.

Average discharge.- 12 years, 189 second-feet.

Extremes.- Maximum discharge during year, 2,110 second-feet Mar. 13 (gage height, 7.0 feet); minimum, 12 second-feet Aug. 19-22, 25, 27, 28.

1925-37: Maximum discharge, 11,000 second-feet Mar. 26, 1928 (gage height, 12.0 feet), from rating curve extended above 7,000 second-feet; minimum, 4.3 second-feet Sept. 5, 1934.

Remarks.- Records good except those for period of ice effect Jan. 4 to Feb. 3, and those for Oct. 1-18, which were computed on basis of weather records and flow of nearby streams and are fair. Numerous small irrigation diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	21	20	31	25	504	504	425	90	31	20	14
2	20	21	20	30	25	553	692	410	82	35	20	14
3	21	21	20	27	26	640	710	410	76	31	20	14
4	22	21	19	24	26	692	728	382	77	28	20	14
5	21	21	20	24	174	800	710	356	80	27	20	14
6	21	21	23	24	243	940	745	292	71	24	20	14
7	21	21	24	25	199	860	728	314	64	23	20	14
8	21	21	26	26	129	922	692	304	59	24	20	14
9	21	21	25	26	98	1,180	710	278	59	31	19	14
10	20	21	25	26	77	1,340	658	267	56	27	18	15
11	20	22	24	26	61	1,490	640	228	54	29	19	15
12	20	21	25	26	68	1,870	640	256	52	29	18	15
13	21	21	27	26	93	2,070	780	285	49	25	17	15
14	21	21	27	26	382	1,830	1,230	330	48	23	14	15
15	21	21	31	25	258	1,370	1,260	322	48	23	14	14
16	22	21	45	24	162	1,200	1,200	282	127	24	14	14
17	22	21	38	24	126	1,180	922	243	71	24	14	14
18	22	21	30	24	116	1,130	922	223	58	21	13	13
19	23	21	30	24	133	945	900	199	52	22	12	14
20	22	21	30	24	588	762	900	180	50	21	12	14
21	22	21	33	24	692	692	922	186	48	21	12	15
22	22	21	34	24	745	658	820	172	44	22	12	15
23	21	21	32	24	762	570	875	172	41	23	13	16
24	21	21	39	24	728	520	875	176	36	23	13	18
25	21	21	43	24	675	440	675	166	36	23	12	18
26	21	20	40	24	570	396	658	176	35	23	13	17
27	21	20	47	24	536	382	570	165	33	22	12	17
28	21	20	40	24	504	343	504	155	33	22	12	17
29	21	20	35	24	-	340	425	160	34	21	13	17
30	21	20	34	24	-	348	410	134	31	21	14	17
31	21	-	33	25	-	377	-	113	-	20	13	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						655	23	20	21.1	1,300		
November.....						626	22	20	20.9	1,240		
December.....						939	47	19	30.3	1,860		
Calendar year 1936.....						92,083	4,620	15	252	182,700		
January.....						777	31	24	25.1	1,540		
February.....						8,221	762	25	294	16,310		
March.....						27,264	2,070	340	879	54,080		
April.....						22,605	1,260	410	754	44,840		
May.....						7,771	425	113	251	15,410		
June.....						1,696	127	31	56.5	3,360		
July.....						763	35	20	24.6	1,510		
August.....						483	20	12	15.6	958		
September.....						451	18	13	15.0	895		
Water year 1936-37.....						72,251	2,070	12	198	143,300		

## Middle Fork of Feather River at Bidwell Bar, Calif.

Location.- Water-stage recorder, lat. 39°33', long. 121°26', in NW¼ sec. 32, T. 20 N., R. 5 E., at highway bridge at Bidwell Bar, 2 miles above junction with North Fork and 7 miles northeast of Oroville. Altitude, about 290 feet.

Drainage area.- 1,353 square miles.

Records available.- October 1911 to September 1937.

Average discharge.- 26 years, 1,645 second-feet.

Extremes.- Maximum discharge during year, 7,920 second-feet Apr. 15 (gage height, 9.45 feet); minimum, 88 second-feet Jan. 8, 1911-37: Maximum discharge, about 100,000 second-feet Mar. 26, 1928 (gage height, 22.8 feet), by slope-area method; minimum, that of Jan. 8, 1937.

Remarks.- Records excellent. Reservoirs and diversions above station are comparatively small.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.7	117	5.2	1,810
2.0	177	5.6	2,190
2.4	282	6.0	2,620
2.8	422	6.5	3,220
3.2	590	7.0	3,880
3.6	774	7.5	4,590
4.0	975	8.0	5,360
4.4	1,210	9.0	7,120
4.8	1,480	10.0	9,180

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	179	220	184	314	321	1,180	2,510	3,610	2,740	708	288	191
2	195	220	179	288	599	1,210	3,880	4,300	2,680	671	282	193
3	188	212	186	261	546	1,480	3,420	4,890	2,740	652	279	193
4	195	205	191	218	1,860	1,680	3,100	5,520	2,620	616	275	193
5	193	202	173	285	2,540	1,860	2,920	5,520	2,510	590	267	193
6	191	202	188	292	2,340	1,990	3,420	5,360	2,240	564	258	193
7	184	200	195	188	1,520	2,190	2,980	5,360	1,990	538	252	191
8	182	198	205	117	1,090	2,290	2,920	4,590	1,810	517	247	186
9	179	198	215	162	822	2,680	3,220	4,440	1,680	533	244	184
10	179	198	218	334	689	3,220	3,160	4,160	1,600	517	238	184
11	179	198	210	362	671	3,610	2,920	4,020	1,520	512	236	182
12	179	195	198	317	975	5,680	2,920	4,740	1,580	500	230	179
13	179	195	191	285	1,750	6,020	3,610	5,680	1,500	483	228	177
14	182	193	212	362	5,220	4,740	6,020	6,380	1,270	450	222	175
15	186	193	241	384	2,680	3,880	7,720	6,380	1,210	430	218	173
16	184	195	273	454	1,680	3,420	6,740	6,020	2,820	414	212	173
17	184	200	270	311	1,340	3,420	5,200	5,520	2,190	403	212	170
18	186	191	255	288	1,300	3,420	4,590	5,360	1,600	395	210	168
19	188	188	238	279	1,210	3,040	4,440	4,590	1,410	388	205	168
20	202	184	230	208	1,060	2,800	4,590	4,300	1,270	377	202	170
21	202	186	233	170	1,340	4,130	4,590	4,300	1,210	362	200	170
22	198	184	238	247	1,410	3,610	5,520	4,440	1,120	352	195	170
23	193	184	238	295	1,440	2,920	4,590	4,590	1,060	345	195	173
24	191	186	308	298	1,600	3,480	4,440	4,740	1,000	338	195	173
25	191	186	314	264	1,680	2,680	4,590	4,590	948	331	195	170
26	191	184	377	273	1,440	2,240	4,890	4,020	870	324	195	170
27	191	184	360	298	1,270	2,140	4,440	3,880	846	314	193	170
28	191	184	311	454	1,180	1,990	3,880	4,020	798	301	191	170
29	188	184	288	356	-	1,940	3,420	3,880	774	298	188	170
30	195	186	328	362	-	1,940	3,280	3,420	750	292	188	173
31	208	-	314	328	-	2,040	-	2,980	-	288	188	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						5,849	208	179	189	11,600		
November.....						6,836	220	184	194	11,570		
December.....						7,681	380	173	245	15,040		
Calendar year 1936.....						725,152	21,600	170	1,981	1,438,900		
January.....						9,043	454	117	292	17,940		
February.....						41,553	5,220	321	1,484	82,420		
March.....						88,920	6,020	1,180	2,868	176,400		
April.....						124,890	7,720	2,510	4,163	247,700		
May.....						145,600	6,380	2,980	4,697	288,800		
June.....						47,956	2,820	750	1,599	95,120		
July.....						13,803	708	288	445	27,380		
August.....						6,926	288	198	223	13,740		
September.....						5,345	193	168	178	10,500		
Water year 1936-37.....						603,301	7,720	117	1,379	998,300		

## South Fork of Feather River at Enterprise, Calif.

Location.- Water-stage recorder, lat. 39°32', long. 121°21', in SW<sup>1</sup> sec. 6, T. 19 N., R. 8 E., 0.8 mile above McCabe Creek and 1 mile above highway bridge at Enterprise. Altitude, about 550 feet.

Drainage area.- 134 square miles.

Records available.- September 1930 to September 1937. October 1911 to September 1930, at site half a mile downstream.

Average discharge.- 26 years, 277 second-feet.

Extremes.- Maximum discharge during year, 1,830 second-feet Feb. 14 (gage height, 8.30 feet); minimum, 0.9 second-foot Nov. 13-16.  
1911-37: Maximum discharge, about 15,200 second-feet Mar. 26, 1928 (gage height, 16.0 feet, former site and datum); minimum, 0.2 second-foot Aug. 11, 1917.

Remarks.- Records good except those for July 29 to Sept. 30, which were computed on basis of range of stage as indicated by recorder graph, knowledge of leakage past diversion dam just above gage, and records for Middle Fork of Feather River at Bidwell Bar and Palermo Canal at Enterprise and are fair.

Storage and irrigation diversions above station. See record for Palermo Canal.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	8.5	1.4	27	46	139	496	760	542	66	5.5	2.5
2	16	8	1.4	25	75	144	708	910	526	60	5	2.5
3	2.4	7	1.4	18	74	166	622	1,060	526	57	5	2.5
4	2.4	4.6	1.4	13	392	177	526	1,200	511	53	4.5	2.5
5	2.4	4.2	1.4	19	493	189	496	1,260	481	49	4.5	2.5
6	2.2	2.1	1.4	16	410	194	656	1,260	410	45	4.0	2.5
7	2.1	1.4	2.2	5	234	210	542	1,200	336	42	4.0	2.5
8	2.1	1.2	2.7	12	143	244	526	1,040	274	39	3.0	2.0
9	1.9	1.2	2.6	36	101	348	590	995	250	37	3.0	2.0
10	2.1	1.1	2.2	40	87	372	574	910	232	36	3.0	2.0
11	1.9	1.1	2.2	42	84	466	526	910	214	35	3.0	2.0
12	1.9	1.1	2.1	41	150	1,130	526	1,080	191	35	3.0	2.0
13	1.9	.9	2.1	36	356	1,020	708	1,330	175	32	3.0	2.0
14	1.9	.9	2.1	43	1,060	673	1,080	1,430	164	29	3.0	2.0
15	4.2	.9	2.7	48	438	542	1,360	1,430	155	26	3.0	2.0
16	5	.9	5	43	256	481	1,180	1,360	430	24	3.0	2.0
17	5	1.1	4.8	22	205	511	930	1,260	314	24	3.0	2.0
18	5	1.5	3.5	20	225	496	830	1,200	238	22	3.0	2.0
19	5.5	1.4	2.9	16	208	452	812	1,020	199	22	3.0	2.0
20	6	1.4	3.1	14	164	452	850	930	177	18	3.0	2.0
21	6	1.4	3.6	15	150	856	995	930	157	16	3.0	2.0
22	6	1.4	4.0	20	148	778	995	950	144	15	3.0	2.0
23	6	1.4	4.4	33	153	606	870	995	133	14	3.0	2.0
24	5.5	1.4	10	31	201	725	850	995	120	14	3.0	2.0
25	5.5	1.4	16	31	236	574	890	910	109	12	3.0	2.0
26	5.5	1.2	31	38	175	466	950	812	97	12	2.5	2.0
27	5.5	1.2	37	42	150	438	890	795	89	11	2.5	2.0
28	5.5	1.2	20	55	140	397	760	795	85	9	2.5	2.0
29	5.5	1.2	12	47	-	372	673	760	81	8	2.5	2.0
30	6	1.2	30	47	-	372	673	656	73	7	2.5	2.0
31	8	-	34	42	-	384	-	590	-	6.5	2.5	-
Month						Second-foot-days	Maximum	Minimum	Near	Run-off in acre-feet		
October.....						139.0	16	1.9	4.48	276		
November.....						63.5	8.5	.9	2.12	126		
December.....						250.6	37	1.4	8.08	497		
Calendar year 1936 .....						128,627.5	4,920	0.9	352	255,200		
January.....						937	55	5	30.2	1,860		
February.....						6,574	1,080	46	235	13,040		
March.....						14,374	1,130	139	464	28,510		
April.....						23,084	1,360	496	769	45,790		
May.....						31,733	1,430	590	1,024	62,940		
June.....						7,433	542	73	248	14,740		
July.....						875.5	66	6.5	28.2	1,740		
August.....						101.5	5.5	2.5	3.27	201		
September.....						63.5	2.5	2.0	2.12	126		
Water year 1936-37.....						85,628.6	1,430	.9	235	169,800		



## Lost Creek near Clipper Mills, Calif.

Location.- Water-stage recorder, lat. 39°34', long. 121°09', in sec. 24, T. 20 N., R. 7 E., 1,000 feet below Lost Creek Dam and 2 miles north of Clipper Mills. Altitude, about 3,050 feet.

Drainage area.- 30.1 square miles.

Records available.- October 1927 to September 1937.

Average discharge.- 10 years, 45.9 second-feet.

Extremes.- Maximum discharge during year, 434 second-feet Apr. 15 (gage height, 3.30 feet), computed from peak flow over Lost Creek Dam; minimum, 0.1 second-foot Aug. 5, 6, Sept. 7-30 (leakage when there is no release).  
1927-37: Maximum discharge, 2,900 second-feet Mar. 26, 1928 (gage height, 6.10 feet), computed from peak flow over Lost Creek Dam; minimum (regulated), 0.1 second-foot at times 1931-34 and 1937.

Remarks.- Records good except those for Dec. 1 to Mar. 6, Mar. 9-13, 15-27, which were computed on basis of records of leakage and spill at Lost Creek Dam and are fair. Storage in Lost Creek Reservoir above station was 2,630 acre-feet on Sept. 30, 1936, and 2,470 acre-feet on Sept. 30, 1937. See record for Forbestown Ditch, which diverts a quarter of a mile above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	9				1.5	110	231	82	5.5	1.0	0.2
2	9	6				1.5	183	279	77	4.9	.7	.2
3	9	4				1.5	155	313	68	4.9	.4	.2
4	9	4				1.5	135	349	62	4.9	.2	.2
5	9	4				1.5	129	356	59	4.5	.1	.2
6	9	4				1.5	161	352	53	4.5	.8	.2
7	9	4				1.6	143	338	20	4.2	2.5	.1
8	9	4				86	143	296	8	4.2	2.1	.1
9	9	4				80	174	283	11	4.2	.2	.1
10	9	4				100	168	255	12	4.0	.2	.1
11	9	1.5				100	159	259	12	3.9	.2	.1
12	9	.5				200	159	310	11	3.7	.2	.1
13	9	.5				215	228	356	12	3.5	.2	.1
14	9	.5				164	356	367	12	3.4	.2	.1
15	9	.5				155	414	360	11	3.2	.2	.1
16	9	.5				115	352	334	15	2.8	.2	.1
17	9	.4				105	286	310	38	2.5	.2	.1
18	9	.4				110	259	303	31	2.4	.2	.1
19	9	.4				105	262	255	27	2.2	.2	.1
20	9	.4				85	286	231	24	2.1	.2	.1
21	9	.4				100	334	228	21	2.0	.2	.1
22	9	.3				85	324	222	19	1.8	.2	.1
23	9	.3				80	279	219	16	1.9	.2	.1
24	9	.3				75	255	204	14	2.2	.2	.1
25	9	.3				70	269	187	13	2.2	.2	.1
26	9	.3				70	279	166	10	2.0	.2	.1
27	9	.3				65	255	157	7.5	1.9	.2	.1
28	9	.3				60	219	153	7	1.7	.2	.1
29	9	.3				62	194	135	6.5	1.6	.2	.1
30	9	.3				67	194	114	6	1.4	.2	.1
31	9	-				72	-	95	-	1.3	.2	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						279	9	9	9	553		
November.....						55.7	9	.3	1.86	110		
December.....						9.3	-	-	.3	18		
Calendar year 1936.....						29,564.1	1,110	.3	80.8	58,640		
January.....						9.3	-	-	.3	18		
February.....						14.0	-	-	.5	28		
March.....						2,436.6	215	1.5	78.6	4,830		
April.....						6,864	414	110	229	13,610		
May.....						8,017	367	95	259	15,900		
June.....						765.0	92	6	25.5	1,520		
July.....						95.5	5.5	1.3	3.08	189		
August.....						12.4	2.5	.1	.40	25		
September.....						3.6	.2	.1	.12	7.1		
Water year 1936-37.....						18,561.4	414	.1	50.9	36,810		

## Forbestown Ditch near Clipper Mills, Calif.

Location.- Staff gage and Parshall flume, lat. 39°34', long. 121°09', in SW $\frac{1}{4}$  sec. 24, T. 20 N., R. 7 E., at diversion-tunnel outlet 1,100 feet below Lost Creek Dam and 2 miles north of Clipper Mills.

Records available.- October 1927 to September 1937.

Extremes.- Maximum daily discharge during year, 43 second-feet Aug. 9 to Sept. 9; minimum, 1.0 second-foot Mar. 7 to Apr. 24.

1927-37: Maximum daily discharge, that of August and September 1937; no flow at times.

Remarks.- Records good. Staff gage read to hundredths once daily. Ditch diverts from left bank of Lost Creek Reservoir. Water is used for irrigation in Oroville, Wyandotte irrigation district in Butte County.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	32	19	4.8	3.4	2.4	1.0	16	32	38	42	43
2	38	31	19	4.9	3.4	2.4	1.0	16	32	38	42	43
3	38	30	19	4.9	3.5	2.4	1.0	16	32	37	42	43
4	37	34	19	5	3.5	2.4	1.0	16	32	37	42	43
5	37	33	18	5	3.5	2.4	1.0	16	32	38	42	43
6	37	36	18	5.5	3.7	2.4	1.0	16	32	38	42	43
7	36	36	18	5.5	3.7	1.0	1.0	16	32	38	42	43
8	36	35	18	5.5	3.7	1.0	1.0	16	32	38	42	43
9	40	34	18	6	2.4	1.0	1.0	16	33	38	43	43
10	40	33	18	6	2.4	1.0	1.0	16	33	38	43	42
11	40	32	18	6	2.4	1.0	1.0	16	33	38	43	42
12	40	32	18	6	2.4	1.0	1.0	16	33	38	43	42
13	40	32	18	6	2.4	1.0	1.0	16	33	38	43	42
14	39	31	18	6	2.4	1.0	1.0	24	34	38	43	42
15	40	36	18	6.5	2.4	1.0	1.0	24	34	38	43	42
16	40	33	18	6.5	2.4	1.0	1.0	24	34	39	43	42
17	40	32	18	6.5	2.4	1.0	1.0	24	34	39	43	42
18	39	32	18	6.5	2.4	1.0	1.0	24	34	39	43	42
19	38	31	18	6.5	2.4	1.0	1.0	24	34	39	43	42
20	37	30	18	2.7	2.4	1.0	1.0	24	35	39	43	42
21	36	28	18	2.7	2.4	1.0	1.0	24	35	39	43	42
22	36	27	18	3.0	2.4	1.0	1.0	24	35	39	43	42
23	39	27	18	3.0	2.4	1.0	1.0	26	35	40	43	42
24	38	25	18	3.0	2.4	1.0	1.0	26	35	40	43	42
25	37	24	18	3.1	2.4	1.0	16	29	38	41	43	42
26	35	23	18	3.1	2.4	1.0	16	29	38	41	43	42
27	38	22	6.5	3.1	2.4	1.0	16	29	38	41	43	42
28	35	22	6.5	3.2	2.4	1.0	16	29	38	41	43	42
29	34	21	6.5	3.2	-	1.0	16	29	38	41	43	42
30	33	20	7	3.2	-	1.0	16	29	38	41	43	42
31	32	-	4.8	3.4	-	1.0	-	32	-	40	43	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						1,163	40	32	37.5	2,310		
November.....						894	36	20	29.8	1,770		
December.....						503.3	19	4.8	16.2	998		
Calendar year 1936.....						8,637.5	42	1.2	23.6	17,120		
January.....						146.3	6.5	2.7	4.72	290		
February.....						76.4	3.7	2.4	2.73	152		
March.....						39.4	2.4	1.0	1.27	78		
April.....						120.0	16	1.0	4.00	238		
May.....						682	32	16	22.0	1,350		
June.....						1,028	38	32	34.3	2,040		
July.....						1,207	41	37	38.9	2,390		
August.....						1,325	43	42	42.7	2,630		
September.....						1,269	43	42	42.3	2,520		
Water year 1936-37.....						8,453.4	43	1.0	23.2	16,770		

## Palermo Canal at Enterprise, Calif.

Location.- Water-stage recorder and Parshall flume, lat. 39°32', long. 121°21', in SW $\frac{1}{4}$  sec. 6, T. 19 N., R. 6 E., 400 feet below intake at diversion dam on South Fork of Feather River, 1 mile above McCabe Creek, and 1 mile southeast of Enterprise.

Records available.- October 1911 to September 1937.

Average discharge.- 26 years, 19.1 second-feet.

Extremes.- Maximum daily discharge during year, 34 second-feet Oct. 4, 10; no flow

Jan. 9-15, Jan. 23 to Mar. 27.

1911-37: Maximum discharge recorded, 43 second-feet July 25, 1927; no flow for periods each year.

Remarks.- Records excellent except those for June 21 to June 27 and Sept. 11-30 which were based on daily staff-gage readings and are good. Canal diverts from left bank of South Fork of Feather River 1 mile above Enterprise. Water is used for irrigation below Oroville.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	29	21	14		0	22	19	14	30	32	27
2	20	29	21	14		0	23	19	11	30	32	28
3	35	28	21	18		0	23	20	9.5	30	32	28
4	34	26	21	20		0	23	20	7	30	31	28
5	33	24	21	21		0	22	20	.8	31	31	28
6	33	26	21	21		0	22	20	16	31	31	28
7	33	27	20	19		0	22	20	26	31	31	27
8	32	26	21	14		0	22	20	27	31	32	27
9	30	26	21	0		0	23	20	31	32	32	27
10	34	26	21	0		0	23	20	30	31	32	27
11	33	26	20	0		0	22	20	30	31	31	27
12	32	26	20	0		0	22	20	29	31	31	26
13	32	25	20	0		0	23	21	29	30	30	26
14	32	23	20	0		0	24	21	29	31	30	26
15	29	23	21	0		0	25	21	30	31	29	26
16	26	23	23	13		0	25	20	33	31	29	26
17	26	23	23	19		0	24	18	28	31	29	26
18	26	23	22	19		0	24	18	30	31	28	26
19	26	22	21	19		0	26	17	35	31	28	33
20	27	22	20	17		0	28	17	33	30	28	26
21	27	23	20	15		0	29	17	32	31	28	26
22	27	23	20	11		0	29	17	29	31	28	26
23	27	23	20	0		0	29	17	29	31	27	26
24	26	22	22	0		0	29	17	30	31	28	26
25	26	22	23	0		0	29	17	30	31	27	26
26	26	22	21	0		0	29	16	30	31	27	26
27	27	22	18	0		0	29	16	30	31	27	25
28	27	21	18	0		15	28	16	30	31	26	25
29	26	21	19	0		22	24	16	30	30	26	25
30	27	21	13	0		22	19	16	30	31	27	25
31	29	-	11	0		22	-	15	-	31	27	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						898	34	20	29.0	1,780		
November.....						723	29	21	24.1	1,430		
December.....						624	23	11	20.1	1,240		
Calendar year 1936.....						6,351.4	35	0	17.4	12,590		
January.....						254	21	0	8.19	504		
February.....						0	0	0	0	0		
March.....						81	22	0	2.61	161		
April.....						742	29	19	24.7	1,470		
May.....						671	21	15	18.4	1,130		
June.....						776.3	33	.8	25.9	1,540		
July.....						955	32	30	30.3	1,890		
August.....						907	32	26	29.3	1,800		
September.....						799	33	25	26.6	1,580		
Water year 1936-37.....						7,330.3	34	0	20.1	14,520		

## Middle Fork of Yuba River at Milton, Calif.

Location.— Water-stage recorder, lat.  $39^{\circ}31'22''$ , long.  $120^{\circ}35'01''$ , in SW $\frac{1}{4}$  sec. 12, T. 19 N., R. 12 E., at diversion dam of Nevada Irrigation District at old town site of Milton, 8 miles above South Fork of Middle Fork of Yuba River. Altitude, about 5,700 feet.

Drainage area.— 41 square miles.

Records available.— October 1928 to September 1934 and October 1935 to September 1937. December 1925 to September 1928 at site 0.2 mile below diversion dam.

Extremes.— Maximum discharge during year, 735 second-feet May 13 (gage height, 1.10 feet); no flow over dam for long periods.

1925-37: Maximum discharge, 4,070 second-feet Mar. 25, 1928 (gage height, 9.45 feet, former site and datum); maximum for 1935 not known; practically all low-water flow diverted after May 23, 1928.

Remarks.— Records good. See record for Milton-Bowman Tunnel at outlet, which diverts water above station to Bowman Lake. Gage-height record and results of two discharge measurements furnished by Nevada Irrigation District.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0	0
.2	42
.4	143
.6	277
.8	435
1.0	625

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	27			
2								16	58			
3								98	152			
4								160	154			
5								167	14			
6								190	.6			
7								122	0			
8								47	0			
9								75	0			
10								33	0			
11								101	0			
12								276	0			
13								428	0			
14								448	0			
15								408	0			
16									80			
17								282	.7			
18								168	0			
19								63	0			
20								119	0			
21								183	0			
22								241	0			
23								310	0			
24								287	0			
25								228	0			
26								137	0			
27								184	0			
28								252	0			
29								216	0			
30								99	0			
31								25	-			
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
October.....							0	0	0	0	0	
November.....							0	0	0	0	0	
December.....							0	0	0	0	0	
Calendar year 1936.....							28,028.5	958	0	76.6	55,590	
January.....							0	0	0	0	0	
February.....							0	0	0	0	0	
March.....							0	0	0	0	0	
April.....							0	0	0	0	0	
May.....							5,723	448	0	185	11,350	
June.....							466.6	152	0	15.6	925	
July.....							0	0	0	0	0	
August.....							0	0	0	0	0	
September.....							0	0	0	0	0	
Water year 1936-37.....							6,189.6	448	0	17.0	12,280	

## Middle Fork of Yuba River near North San Juan, Calif.

Location.- Water-stage recorder, lat.  $39^{\circ}23'$ , long.  $121^{\circ}06'$ , in NE $\frac{1}{4}$  sec. 32, T. 18 N., R. 8 E., 1 mile below Oregon Creek and 1 mile north of North San Juan. Zero of gage is 1,400.62 feet above mean sea level (general adjustment of 1929).

Drainage area.- 207 square miles.

Records available.- October 1930 to September 1937. July to October 1900 and October 1910 to October 1930, at site 0.4 mile upstream.

Average discharge.- 25 years (1911-30, 1931-37) 448 second-feet, including flow in Milton-Bowman Tunnel.

Extremes.- Maximum discharge during year, 4,730 second-feet Feb. 14 (gage height, 7.56 feet); minimum, 24 second-feet Jan. 21.

1910-37: Maximum discharge, 26,000 second-feet Mar. 25, 1928 (gage height, 15.3 feet, former site and datum); minimum, 14 second-feet Aug. 24-28, 1931.

Remarks.- Records good except those for periods of ice effect Dec. 31, Jan. 1, 8-11, 22-24, which were computed on basis of weather records and records for nearby streams) and are fair. Diversion above station through Milton-Bowman Tunnel to Bowman Lake since 1928; several small diversions.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.3	23	3.9	350	5.7	1,640
2.5	38	4.2	488	6.0	2,000
2.7	61	4.5	655	6.5	2,700
3.0	106	4.8	855	7.0	3,580
3.3	166	5.1	1,070		
3.6	246	5.4	1,320		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	44	34	65	87	275	947	792	443	103	46	34
2	34	42	34	59	82	298	1,370	960	429	100	46	35
3	34	39	35	57	84	388	1,070	1,150	468	95	46	35
4	34	38	35	55	456	438	869	1,420	619	92	46	35
5	34	38	35	71	1,190	488	785	1,420	424	88	44	35
6	34	38	36	61	1,190	509	1,070	1,420	350	86	42	34
7	34	38	36	38	568	551	869	1,370	305	82	41	34
8	34	37	38	38	285	554	827	1,070	285	81	41	34
9	33	37	38	40	198	645	946	1,030	262	86	40	34
10	33	37	37	45	164	649	876	960	246	84	40	33
11	33	36	36	52	185	681	785	876	228	80	39	32
12	34	36	36	56	401	1,190	772	1,190	211	78	38	32
13	34	36	36	51	750	1,230	995	1,520	195	75	38	32
14	34	36	36	59	2,950	869	1,470	1,700	185	69	37	31
15	33	37	47	71	924	720	1,880	1,640	178	68	36	30
16	32	37	71	98	540	688	1,520	1,470	450	67	36	30
17	32	37	56	64	420	707	1,150	1,280	358	65	36	29
18	34	36	45	64	448	681	1,070	1,150	243	64	36	29
19	37	35	40	53	420	607	1,070	792	213	61	36	29
20	38	35	39	40	335	655	1,110		198	60	35	30
21	37	35	41	42	320	799	1,320	862	180	59	34	31
22	36	35	40	42	350	733	1,280	925	168	57	34	31
23	35	35	39	42	384	662	1,070	1,070	157	56	34	31
24	34	34	60	45	433	694	1,030	1,030	148	55	34	31
25	34	34	69	53	443	584	1,110	1,030	138	54	34	30
26	34	34	71	56	358	514	1,150	766	128	51	34	30
27	34	34	100	59	295	530	1,030	772	122	50	34	30
28	34	34	75	71	272	509	862	848	117	49	34	29
29	34	34	59	69	-	524	740	855	115	48	34	30
30	34	34	61	71	-	551	700	700	110	46	34	31
31	39	-	65	67	-	619	-	498	-	45	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,063	39	32	34.3	2,110
November.....	1,092	44	34	36.4	2,170
December.....	1,480	100	34	47.7	2,940
Calendar year 1936.....	189,309	5,440	30	51.7	375,500
January.....	1,744	88	38	56.3	3,460
February.....	14,517	2,950	67	518	28,790
March.....	19,570	1,230	275	631	35,920
April.....	31,783	1,280	700	1,059	63,040
May.....	33,338	1,700	498	1,075	66,120
June.....	7,673	619	110	256	15,220
July.....	2,154	103	46	69.5	4,270
August.....	1,172	46	34	37.8	2,320
September.....	951	35	29	31.7	1,890
Water year 1936-37.....	116,537	2,950	29	31.9	231,200

## Yuba River at Smartville, Calif.

Location.- Water-stage recorder, lat.  $39^{\circ}13'$ , long.  $121^{\circ}18'$ , in SW $\frac{1}{4}$  sec. 22, T. 16 N., R. 6 E., at Narrows, 1 mile below Deer Creek and 1 mile north of Smartville. Zero of gage is 264.17 feet above mean sea level.

Drainage area.- 1,201 square miles.

Records available.- June 1903 to September 1937.

Average discharge.- 34 years, 2,903 second-feet.

Extremes.- Maximum discharge during year, 18,800 second-feet Feb. 14 (gage height, 13.87 feet); minimum, 97 second-feet Dec. 7.  
1903-37: Maximum discharge, 120,000 second-feet Mar. 26, 1928 (gage height, 28.0 feet); minimum, 71 second-feet (regulated) July 30, 1924.

Remarks.- Records excellent except those for Apr. 3-8 and May 28 to June 5, which were computed on basis of records for North and Middle Forks of Yuba River and are fair. Storage and diversions for power and irrigation above station. Lake Spaulding (capacity, 70,500 acre-feet), Bowman Lake (capacity, 87,400 acre-feet), Fordyce Lake (capacity, 42,000 acre-feet), and many smaller reservoirs.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	295	315	235	475	640	2,050	3,940	4,360	5,000	892	332	265
2	295	310	231	445	1,490	2,050	5,580	5,300	5,000	855	359	290
3	300	285	231	421	1,130	2,300	6,000	6,260	5,000	792	332	290
4	305	271	235	397	6,150	2,600	5,300	7,220	5,000	742	325	290
5	305	266	188	475	9,410	2,650	4,800	7,540	4,680	742	332	290
6	305	262	110	457	7,860	2,750	5,400	7,540	4,420	705	318	290
7	305	253	127	368	3,940	2,850	5,000	7,380	3,640	655	311	285
8	300	235	124	305	2,550	2,970	4,700	6,900	3,510	642	304	280
9	295	227	157	325	1,850	3,100	4,660	7,060	2,860	618	297	270
10	295	235	160	409	1,620	3,380	4,500	6,580	2,800	642	304	265
11	295	244	188	463	1,800	3,520	4,220	5,940	2,670	642	304	245
12	295	248	258	499	3,240	6,900	3,940	7,540	2,170	642	297	255
13	290	253	258	469	5,580	8,180	4,080	9,220	1,860	630	285	255
14	285	253	262	612	14,400	5,300	6,580	10,300	1,980	605	275	255
15	285	265	285	710	7,060	4,220	8,680	10,100	2,230	642	270	255
16	280	266	363	862	3,940	3,800	8,680	9,580	4,720	505	255	245
17	276	266	341	564	2,970	3,940	6,740	8,860	5,240	468	245	245
18	253	266	305	524	2,850	4,360	5,780	8,020	2,920	444	240	240
19	285	266	290	493	2,750	3,940	5,460	6,360	2,290	432	240	240
20	315	258	285	403	2,400	4,220	5,780	5,520	1,980	432	236	240
21	310	248	295	352	2,250	8,050	6,580	6,800	1,960	432	219	255
22	295	248	285	397	2,250	6,580	7,060	6,500	1,790	420	212	260
23	295	244	280	433	2,300	4,980	6,100	6,920	1,600	420	216	255
24	295	244	295	439	2,500	6,420	5,460	7,060	1,460	408	219	255
25	290	244	363	421	2,850	4,360	5,780	7,220	1,290	384	219	250
26	285	248	380	433	2,550	3,520	6,260	6,080	1,180	384	280	250
27	280	248	619	481	2,250	3,650	5,780	6,080	1,080	360	280	245
28	280	248	518	1,040	2,100	3,240	4,980	6,200	1,030	339	270	245
29	280	253	445	878	-	3,240	4,220	6,200	1,020	339	265	240
30	295	244	487	846	-	3,100	3,940	5,900	968	332	265	250
31	315	-	512	689	-	3,240	-	5,400	-	332	265	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	9,079	315	253	293	18,010
November.....	7,714	315	227	257	15,306
December.....	9,112	619	110	294	18,070
Calendar year 1936.....	1,094,410	29,500	110	2,990	2,171,000
January.....	16,085	1,040	305	519	31,900
February.....	102,680	14,400	640	3,667	203,700
March.....	125,370	8,180	2,050	4,044	248,700
April.....	166,980	8,680	3,940	5,566	331,200
May.....	216,940	10,300	4,360	6,998	450,300
June.....	83,368	5,240	968	2,779	165,400
July.....	16,777	892	332	541	33,280
August.....	8,551	339	212	276	16,960
September.....	7,795	290	240	260	15,460
Water year 1936-37.....	770,451	14,400	110	2,111	1,528,000

## Milton-Bowman Tunnel at outlet, Calif.

Location.— Water-stage recorder, lat. 39°28', long. 120°37', in sec. 3, T. 18 N., R. 12 E., near upper end of Bowman Lake. Altitude, about 5,600 feet.

Records available.— May 1928 to September 1930, October 1931 to September 1937.

Extremes.— Maximum daily discharge during year, 453 second-feet May 13; minimum, 1.3 second-feet Sept. 28, 29, 1928-37: Maximum daily discharge, that of May 13, 1937; minimum, that of Sept. 28, 29, 1937.

Remarks.— Records good except those for Oct. 27-29, Nov. 28, 29, Dec. 23 to Jan. 2, July 20-28, which were interpolated or estimated and are fair. Water is diverted by this tunnel from Middle Fork of Yuba River at Milton, in sec. 12, T. 19 N., R. 12 E., and discharged into Bowman Lake storage reservoir, from which it is conveyed to Lake Spaulding. During low and medium stages practically entire flow of Middle Fork of Yuba River is diverted. Gage-height record and results of discharge measurements furnished by Nevada Irrigation District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	3.5	2.7	3.0	3.1	15	45	281	335	58	6	1.5
2	3.5	3.5	2.7	3.0	3.1	15	60	402	338	54	6	1.5
3	3.5	3.5	2.7	3.1	3.8	16	58	426	253	48	5.5	1.5
4	3.5	3.5	2.6	3.1	5	17	53	435	266	43	5.5	1.5
5	3.5	3.5	2.6	3.1	7.5	20	49	435	360	41	5.5	1.5
6	3.5	3.5	2.6	3.3	9	22	48	438	335	36	5.5	1.5
7	3.5	3.5	2.6	3.3	13	26	45	438	292	34	5	1.5
8	3.5	3.5	2.6	3.3	17	28	49	438	258	32	4.7	1.5
9	3.5	3.5	2.6	3.3	18	33	53	438	229	37	4.7	1.6
10	3.5	3.5	2.6	3.3	18	41	56	432	200	35	4.7	1.6
11	3.5	3.3	2.6	3.3	18	45	56	435	179	30	4.4	1.8
12	3.5	3.3	2.6	3.3	18	58	57	447	160	27	4.4	1.8
13	3.5	3.3	2.6	3.3	49	65	80	453	158	24	4.4	1.6
14	3.3	3.1	2.6	3.3	59	60	155	450	153	21	3.5	1.6
15	3.3	3.1	2.6	3.3	46	108	236	450	151	19	2.0	1.6
16	3.3	3.1	2.6	3.1	24	82	232	447	255	17	2.0	1.6
17	3.3	3.1	2.6	3.1	22	58	196	435	271	15	2.0	1.6
18	3.3	3.1	2.6	3.3	22	54	180	429	200	14	2.0	1.5
19	3.1	3.1	2.7	3.3	22	48	186	414	162	13	1.8	1.5
20	3.1	3.1	2.7	3.3	22	42	222	417	151	12	1.6	1.5
21	3.1	3.1	2.7	3.3	21	41	294	414	115	11	1.6	1.5
22	49	2.9	2.7	3.1	19	36	307	414	98	10	1.6	1.5
23	41	2.9	2.7	3.1	19	34	253	411	102	10	1.6	1.5
24	10	2.7	2.7	3.1	19	34	261	408	96	9.5	1.6	1.5
25	6.5	2.7	2.7	3.1	18	32	318	402	91	9	1.8	1.4
26	5	2.7	2.7	3.1	16	30	378	387	89	8.5	2.0	1.4
27	4.5	2.7	2.7	3.1	15	29	276	390	82	8	2.2	1.4
28	4.2	2.7	2.8	3.1	15	28	211	390	76	7.5	2.2	1.3
29	4.0	2.7	2.8	3.3	-	29	176	381	70	7	2.2	1.3
30	3.8	2.7	3.0	3.3	-	31	194	355	64	6.5	2.2	1.4
31	3.5	-	3.0	3.3	-	34	-	335	-	6	1.5	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						202.8	49	3.1	6.54	402		
November.....						94.4	3.5	2.7	3.15	187		
December.....						83.0	3.0	2.6	2.68	165		
Calendar year 1936.....						19,448.9	441	2.6	53.1	38,580		
January.....						99.3	3.3	3.0	3.20	197		
February.....						540.5	59	3.1	19.3	1,070		
March.....						1,213	108	15	39.1	2,410		
April.....						4,783	378	45	159	9,490		
May.....						12,827	453	281	414	25,440		
June.....						5,587	360	64	186	11,080		
July.....						703.0	58	6	22.7	1,390		
August.....						101.7	6	1.5	3.28	202		
September.....						45.6	1.8	1.3	1.52	90		
Water year 1936-37.....						26,280.2	453	1.3	72.0	52,120		

## Oregon Creek near North San Juan, Calif.

Location.- Water-stage recorder, lat. 39°24', long. 121°05', in SW $\frac{1}{4}$  sec. 22, T. 18 N., R. 5 E., 1 mile above mouth and 3 miles northeast of North San Juan. Altitude, about 1,500 feet.

Drainage area.- 35.1 square miles.

Records available.- October 1933 to September 1937. October 1910 to September 1933 at staff-gage site 0.7 mile downstream.

Average discharge.- 26 years (1911-37), 70.2 second-feet.

Extremes.- Maximum discharge during year, 1,300 second-feet Feb. 14 (gage height, 7.13 feet); minimum, 1.9 second-feet Oct. 15 (gage height, 1.53 feet). 1910-37: Maximum discharge, about 5,200 second-feet Mar. 25, 1928 (gage height, 9.5 feet, former site and datum); minimum, 0.7 second-foot several days in July and August 1931 and September 1934.

Remarks.- Records excellent except those for periods of ice effect, Jan. 8-10 and 19-21, which were computed on basis of gage heights and weather records and are fair. Small diversions for irrigation and mining about station.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.4	0.5	2.8	53	4.2	204
1.6	3.1	3.0	66	4.4	238
1.8	8.5	3.2	83	4.6	278
2.0	15.5	3.4	102	4.8	322
2.2	23.5	3.6	124	5.0	370
2.4	32.5	3.8	148	5.5	522
2.6	42.0	4.0	175	6.0	725

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	4.5	3.6	8	9.5	62	226	181	35	11	3.8	2.8
2	2.4	5	3.6	9	14	69	346	206	32	11	4.1	2.8
3	2.6	4.8	3.6	9	14	96	268	231	31	11	3.8	2.9
4	2.8	4.5	3.6	9	120	109	218	250	30	11	3.6	2.9
5	2.9	4.8	3.8	11	271	123	198	250	28	10	3.6	2.8
6	2.8	4.5	3.6	8.5	278	129	300	244	27	9	3.3	2.8
7	2.6	4.1	3.8	6	129	137	238	233	26	9	3.6	2.6
8	2.6	3.8	4.3	6	59	147	218	204	24	8	3.6	2.6
9	2.4	3.6	4.3	8	40	162	258	188	24	7.5	3.3	2.6
10	2.4	3.6	3.8	8	34	164	233	172	24	8	3.3	2.6
11	2.4	3.6	3.8	7.5	43	178	204	164	22	7.5	2.9	2.4
12	2.4	3.6	3.1	7	101	334	198	172	20	8	2.9	2.4
13	2.4	3.3	3.6	6.5	201	346	278	183	19	7.5	2.8	2.4
14	2.4	3.3	3.8	9	634	231	383	181	19	7.5	2.6	2.4
15	2.4	3.6	5.5	13	188	192	470	167	19	7	2.6	2.4
16	2.2	3.6	9	14	115	183	396	149	45	6.5	2.6	2.4
17	2.2	3.6	6	10	90	183	311	135	28	6.5	2.8	2.4
18	2.4	3.6	4.3	9	114	172	273	126	22	6.5	2.8	2.2
19	2.6	3.3	3.8	6	108	156	268	106	20	6	2.8	2.2
20	2.9	3.3	3.8	4.5	81	172	289	94	19	6	2.6	2.4
21	2.8	3.3	4.5	7.5	74	202	322	88	18	5.5	2.6	2.4
22	2.6	3.3	4.5	9	78	178	311	81	17	5.5	2.6	2.6
23	2.9	3.3	4.1	8.5	88	157	268	75	16	5.5	2.6	2.6
24	2.9	3.3	10	7.5	99	167	248	69	16	5.5	2.6	2.6
25	2.9	3.3	11	7	99	138	258	66	15	5	2.8	2.6
26	2.9	3.3	11	7	78	123	258	59	13	4.8	2.8	2.4
27	3.1	3.3	13	8	65	124	244	54	13	4.3	2.8	2.6
28	3.1	3.6	10	10	61	116	206	49	13	3.8	2.8	2.6
29	3.1	3.6	8	9.5	-	121	161	45	13	4.1	2.6	2.6
30	3.1	3.6	9	9	-	128	171	42	12	3.8	2.6	2.6
31	4.3	-	9	10	-	144	-	38	-	3.6	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	84.1	4.3	2.2	2.71	167
November.....	111.9	5	3.3	3.73	222
December.....	178.3	13	3.1	5.75	354
Calendar year 1936.....	33,921.9	1,420	1.9	92.7	67,270
January.....	262.0	14	4.5	8.45	520
February.....	3,283.6	634	9.5	117	6,510
March.....	4,943	346	62	159	9,300
April.....	8,045	470	171	268	15,960
May.....	4,302	250	38	139	8,530
June.....	660	45	12	22.0	1,510
July.....	215.9	11	3.6	6.96	428
August.....	92.8	4.1	2.6	2.99	184
September.....	76.6	2.9	2.2	2.55	152
Water year 1936-37.....	22,255.1	634	2.2	61.0	44,140



## North Fork of Yuba River near Sierra City, Calif.

Location.- Water-stage recorder, lat.  $39^{\circ}34'$ , long.  $120^{\circ}40'$ , in NW $\frac{1}{4}$  sec. 32, T. 20 N., R. 12 E.,  $\frac{1}{4}$  miles west of Sierra City and  $2\frac{1}{4}$  miles below South Fork of North Fork of Yuba River. Altitude, about 4,100 feet.

Drainage area.- 91.3 square miles.

Records available.- 1911-13 (fragmentary), December 1923 to September 1937.

Average discharge.- 13 years (1924-37), 199 second-feet.

Extremes.- Maximum discharge during year, 1,750 second-feet May 13 (gauge height, 4.76 feet); minimum, 35 second-feet Sept. 26.

1923-37: Maximum discharge, about 5,920 second-feet Mar. 25, 1928 (gauge height, 8.50 feet); minimum, 26 second-feet Oct. 15, 1931, Aug. 22, 23, 1934.

Remarks.- Records good except those for periods of ice effect, Jan. 9-11, 21-23, 26-31, Feb. 2, 5, which were computed on basis of gauge heights and weather records and are fair. Small diversions for mining above station.

Rating table, water year 1936-37 except periods of ice effect (gauge height, in feet, and discharge, in second-feet)

1.4	32	2.2	117	3.0	316
1.5	40	2.3	131	3.2	400
1.6	48	2.4	146	3.4	505
1.7	56	2.5	164	3.6	625
1.8	68	2.6	186	3.8	760
1.9	80	2.7	212	4.0	930
2.0	92	2.8	244	4.4	1,330
2.1	104	2.9	278	4.8	1,800

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	53	43	51	50	80	166	559	711	168	63	44
2	47	49	45	50	51	85	238	718	739	159	65	44
3	48	50	46	49	51	93	218	867	784	148	65	44
4	46	52	43	49	76	100	191	957	784	140	60	45
5	47	52	46	51	124	108	182	966	746	132	58	43
6	46	50	46	49	128	116	177	984	651	128	58	44
7	46	49	47	45	104	125	164	921	607	124	57	44
8	46	47	49	43	82	136	171	800	553	124	53	43
9	45	49	46	48	73	155	189	816	505	120	54	43
10	45	49	45	48	68	173	189	768	466	114	53	42
11	44	51	43	49	65	182	184	832	415	110	53	42
12	45	48	44	48	64	254	195	1,050	387	108	52	39
13	45	50	46	48	73	238	301	1,500	365	102	51	41
14	45	50	46	49	194	191	553	1,380	352	98	50	40
15	45	50	63	50	166	179	677	1,320	348	93	48	39
16	45	51	62	50	131	179	553	1,240	774	91	49	38
17	44	51	51	50	109	186	445	1,130	494	88	50	38
18	43	52	50	51	99	177	420	957	415	85	49	38
19	50	51	49	50	92	160	430	800	382	82	47	38
20	49	50	49	43	87	150	505	840	360	80	46	40
21	46	50	52	45	85	142	632	912	340	78	47	40
22	46	48	50	46	87	134	607	993	320	78	43	40
23	46	48	48	48	91	127	511	1,050	293	75	44	39
24	46	46	52	49	93	123	523	1,070	268	69	45	38
25	46	46	49	48	90	116	632	1,000	244	70	45	38
26	46	46	49	48	86	112	632	921	228	69	44	37
27	46	46	49	48	81	109	494	957	212	67	44	38
28	46	46	52	48	80	105	400	1,040	207	66	43	38
29	47	46	49	49	-	108	378	1,030	202	63	42	38
30	49	45	52	49	-	112	420	849	182	63	43	40
31	52	-	51	49	-	121	-	732	-	63	44	-
Month	Second-foot-days				Maximum	Minimum	Mean	Run-off in acre-feet				
October.....	1,433				52	43	46.2	2,640				
November.....	1,471				55	45	49.0	2,920				
December.....	1,512				63	43	48.8	3,000				
Calendar year 1936.....	100,153				1,460	42	274	198,600				
January.....	1,497				51	43	48.3	2,970				
February.....	2,580				194	50	92.1	5,120				
March.....	4,376				254	80	141	8,680				
April.....	11,378				677	164	379	22,570				
May.....	29,759				1,380	559	960	59,030				
June.....	13,354				784	182	444	26,450				
July.....	3,065				188	65	98.5	6,060				
August.....	1,563				65	42	50.4	3,100				
September.....	1,215				45	37	40.5	2,410				
Water year 1936-37.....	73,173				1,380	37	200	145,200				

North Fork of Yuba River below Goodyears Bar, Calif.

Location.- Water-stage recorder, lat.  $39^{\circ}32'$ , long.  $120^{\circ}56'$ , in  $SW\frac{1}{4}$  sec. 11, T. 19 N., R. 9 E.,  $\frac{3}{4}$  miles below Goodyears Creek and about 4 miles southwest of Goodyears Bar. Altitude, about 2,450 feet.

Drainage area.- 244 square miles.

Records available.- December 1930 to September 1937.

Extremes.- Maximum discharge during year, 4,480 second-feet May 13 (gauge height, 8.89 feet); minimum, 114 second-feet Jan. 20.

1930-37: Maximum discharge, 9,080 second-feet Feb. 21, 1936 (gauge height, 12.2 feet); minimum, 69 second-feet Aug. 26, 1931.

Remarks.- Records excellent except those for periods of ice effect, Jan. 8-11, 16, 21-31, which were computed on basis of gauge heights and weather records and are fair. Several small irrigation and mining diversions above station.

Rating table, water year 1936-37 except periods of ice effect (gauge height, in feet, and discharge, in second-feet)

1.5	109	3.0	304	5.8	1,450
1.7	128	3.4	390	6.2	1,730
2.0	162	3.8	504	6.6	2,060
2.2	186	4.2	640	7.0	2,410
2.4	212	4.6	800	7.5	2,900
2.6	240	5.0	980	8.0	3,440
2.8	270	5.4	1,200	8.5	4,080

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	155	126	157	144	353	990	1,520	1,620	444	198	143
2	139	144	127	155	158	390	1,350	1,970	1,700	416	198	143
3	140	141	129	146	157	469	1,110	2,320	1,730	390	192	144
4	139	144	127	146	472	536	935	2,600	1,750	378	192	144
5	137	144	127	158	958	588	890	2,600	1,620	366	186	143
6	136	142	130	143	845	622	980	2,700	1,450	342	186	141
7	132	140	130	140	520	680	890	2,500	1,320	332	180	139
8	132	138	137	140	322	720	868	2,050	1,250	322	180	138
9	131	138	132	140	262	800	980	2,100	1,140	332	174	137
10	131	138	129	140	240	845	935	1,970	1,060	322	174	136
11	130	139	126	145	233	912	890	2,140	980	313	168	134
12	130	138	127	151	278	1,320	890	2,800	912	313	168	131
13	131	138	127	147	597	1,200	1,260	3,440	868	295	162	130
14	131	138	129	150	2,010	858	2,100	3,660	945	286	162	129
15	129	140	168	151	845	868	2,600	3,440	845	278	160	128
16	129	140	186	150	588	845	2,050	3,220	1,710	270	160	126
17	131	140	146	143	489	890	1,590	2,900	1,110	262	160	126
18	132	138	140	146	474	822	1,480	2,600	935	254	158	124
19	141	138	137	141	459	740	1,480	2,010	868	247	156	125
20	146	137	135	137	390	720	1,700	2,050	822	247	154	129
21	139	136	142	140	378	740	2,100	2,230	900	240	152	128
22	135	135	141	140	416	680	1,970	2,410	760	233	150	127
23	134	134	136	140	444	640	1,620	2,700	700	233	148	126
24	135	132	174	140	474	622	1,620	2,700	640	226	149	125
25	134	132	149	140	474	570	1,850	2,600	605	226	148	124
26	134	131	186	140	416	553	1,890	2,140	570	219	147	121
27	135	130	174	140	366	570	1,560	2,230	536	219	146	121
28	134	129	162	142	353	553	1,320	2,410	520	212	143	123
29	132	127	151	142	-	588	1,170	2,320	504	205	141	124
30	137	128	156	144	-	622	1,230	1,970	474	198	140	126
31	146	-	158	144	-	580	-	1,700	-	198	142	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	4,178	146	129	135	8,290
November.....	4,126	155	128	138	8,180
December.....	4,444	186	126	143	8,810
Calendar year 1936.....	303,980	5,210	126	831	602,900
January.....	4,478	158	137	144	8,880
February.....	13,752	2,010	144	491	27,280
March.....	22,116	1,320	353	713	43,870
April.....	42,298	2,600	868	1,410	83,900
May.....	76,000	3,660	1,520	2,452	150,700
June.....	30,604	1,750	474	1,020	60,700
July.....	8,818	444	198	284	17,490
August.....	5,074	198	140	164	10,060
September.....	3,935	144	121	131	7,800
Water year 1936-37.....	219,823	3,660	121	602	436,000

## Bowman Lake near Graniteville, Calif.

Location.- Staff gage, lat. 39°27', long. 120°39', in SW¼ sec. 5, T. 18 N., R. 12 E., at Bowman Dam on Canyon Creek, 4 miles east of Graniteville.

Records available.- December 1926, when storage began, to September 1937.

Remarks.- Bowman Lake provides storage for Nevada Irrigation District. Part of its supply is diverted from Middle Fork of Yuba River through Milton-Bowman Tunnel (see record for Milton-Bowman Tunnel at outlet) and is released through Bowman-Spaulding Canal (see record for Bowman-Spaulding Canal at intake). Two dams confine Bowman Lake. Elevation of crest of concrete arch dam is 5,563 feet above mean sea level, of top of flashboards, 5,564.5 feet, of crest of rockfill dam, 5,567 feet. No records for Feb. 1-10, 15, 16; contents, Mar. 6 to Apr. 2, less than 1,000 acre-feet and therefore doubtful. Table shows total content, all of which is available for release. Record of daily gage heights furnished by Nevada Irrigation District.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35,400	21,800	9,840	3,900	-	2,220	-	19,650	66,200	69,720	63,560	55,800
2	35,100	21,350	9,560	7,050	-	1,950	-	21,150	66,200	69,480	63,560	55,320
3	34,800	20,900	9,280	7,110	-	1,550	1,100	22,750	66,200	69,240	63,560	54,840
4	34,440	20,450	8,970	7,140	-	1,370	1,400	24,780	66,600	69,000	63,560	54,440
5	34,080	20,050	8,760	7,170	-	1,150	1,580	27,000	68,520	68,760	63,480	53,880
6	33,720	19,650	8,520	7,200	-	-	1,860	29,100	68,200	68,440	63,480	53,480
7	33,360	19,250	8,340	7,200	-	-	2,070	30,900	68,560	68,120	63,400	53,000
8	32,940	18,850	8,130	6,870	-	-	2,400	32,400	68,520	67,800	63,320	52,600
9	32,520	18,400	7,920	6,810	-	-	2,680	33,960	68,920	67,400	63,160	52,120
10	32,100	17,850	7,710	6,750	-	-	2,920	35,340	69,240	67,080	63,000	51,640
11	31,680	17,400	7,500	6,750	6,420	-	3,240	36,600	69,480	66,760	62,920	51,160
12	31,200	16,950	7,260	6,750	6,390	-	3,540	38,460	69,800	66,360	62,840	50,680
13	30,780	16,400	7,110	6,750	6,480	-	3,780	40,700	69,960	66,120	62,680	50,200
14	30,420	15,900	6,930	6,750	6,570	-	4,020	42,800	70,120	65,800	62,520	49,680
15	29,940	15,400	6,870	6,720	-	-	5,220	44,950	70,200	65,320	62,120	49,310
16	29,400	15,040	6,660	6,690	-	-	6,210	46,650	70,520	65,080	62,040	48,890
17	28,860	14,640	6,510	6,590	6,120	-	6,930	47,980	70,520	64,840	61,800	48,400
18	28,380	14,240	6,300	6,560	5,850	-	7,560	49,880	70,560	64,520	61,560	47,980
19	27,900	13,800	6,270	6,530	5,580	-	8,160	51,400	70,560	64,440	61,240	47,560
20	27,420	13,400	6,240	6,210	5,310	-	8,790	52,200	70,280	64,440	61,000	47,140
21	26,880	13,040	6,330	6,090	5,000	-	9,600	54,280	70,120	64,360	60,680	46,720
22	26,520	12,680	6,420	6,060	4,780	-	10,800	55,720	70,120	64,360	60,260	46,300
23	26,100	12,400	6,510	6,000	4,450	-	12,000	57,800	70,040	64,360	59,800	45,810
24	25,500	12,080	6,600	5,940	3,980	-	12,880	59,400	70,040	64,200	59,320	45,390
25	25,020	11,800	6,720	5,880	3,580	-	14,000	61,000	69,960	64,200	59,000	44,900
26	24,540	11,520	6,780	5,760	3,260	-	15,200	62,600	69,880	64,120	58,440	44,480
27	24,060	11,120	6,840	5,640	2,920	-	16,500	64,120	70,040	64,040	58,040	44,060
28	23,580	10,800	6,900	5,520	2,500	-	18,000	65,240	70,040	63,960	57,560	43,570
29	23,050	10,480	6,900	5,400	-	-	18,500	66,440	70,040	63,880	57,180	43,150
30	22,600	10,160	6,900	5,280	-	-	19,000	67,160	69,960	63,800	56,680	42,660
31	22,200	-	6,900	5,160	-	-	-	67,160	-	63,640	56,280	-

## Canyon Creek below Bowman Lake, Calif.

Location.- Water-stage recorder, lat. 39°26', long. 120°40', in SE¼ sec. 7, T. 18 N., R. 12 E., 1 mile below Bowman Lake and 3 miles above Texas Creek. Altitude, about 5,100 feet.

Records available.- January 1927 to September 1937.

Average discharge.- 10 years, 18.7 second-feet.

Extremes.- Maximum discharge during year, 870 second-feet May 31 (gage height, 4.23 feet); minimum, 0.2 second-foot at various times.

1927-37: Maximum discharge, 1,460 second-feet June 6, 1936 (gage height, 5.98 feet); practically no flow at times when there is little or no leakage from dams above.

Remarks.- Records good except those for low flow, which are fair. Daily discharge estimated Feb. 1-11; mean monthly discharge October to January and July to September computed on basis of partial gage-height record, several field estimates of flow, and precipitation records. Flow regulated by storage in Bowman Lake and diversion into Bowman-Spaulding Canal. See records for those stations. Gage-height record and results of several discharge measurements furnished by Nevada Irrigation District.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.9	0.7	2.2	88
1.0	1.5	2.4	120
1.2	4.5	2.6	162
1.4	12.5	2.8	216
1.6	27	3.0	278
1.8	44	3.5	475
2.0	64	4.0	730

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-			0.2	1.5	7.5	7	360	1.4		
2		-			.2	1.7	4.8	10	181	-		
3		-			.2	2.3	3.2	12	121	-		
4		-			1.0	2.6	2.6	10	304	-		
5		-			5	2.7	2.6	10	511	-		
6		-			4	3.1	2.5	10	470	-		
7		-			3	3.4	2.6	7	412	-		
8		-			3	3.6	3.2	7	150	-		
9		-			3.5	4.8	4.0	6.5	42	-		
10		-			4	4.1	3.4	6.5	43	-		
11		-			3	5.5	3.2	7	27	-		
12		-			1.5	7.5	3.8	8	9.5	-		
13		-			9	4.3	10	8.5	6.5	*1.2		
14		-			32	3.4	11	9	42	-		
15		-			3.4	3.2	10	9	120	-		
16		-			2.5	3.8	5.5	9.5	574	-		
17		-	*0.2		2.1	3.8	4.5	8.5	439	-		
18		-			2.0	2.9	4.8	9.5	210	-		
19		-			1.9	2.5	5.5	6.5	138	-		
20		*0.2			1.7	2.1	7	12	67	-		
21		-			1.9	2.0	7.5	10	46	-		*0.2
22		-			2.1	1.7	5.5	4.5	29	-		
23		-			2.1	1.6	4.8	9.5	21	-		
24		-			2.1	1.5	7.5	7.5	12	-		
25		-			1.9	2.2	9.5	8	26	-		
26		*.3			1.5	1.7	7	8	4.0	-		
27		-			1.5	1.5	5.5	7	1.3	-		
28		-			1.5	1.5	4.5	5.5	1.9	-		
29		-			-	2.0	9.5	165	1.7	-		
30		-			-	2.5	8.5	320	2.2	-		
31		-			-	3.1	-	605	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	6.2	-	-	0.2	12
November.....	6.0	-	-	.2	12
December.....	6.2	-	-	.2	12
Calendar year 1936 .....	11,177.2	1,000	-	30.5	22,170
January.....	6.2	-	-	.2	12
February.....	97.8	32	0.2	3.49	194
March.....	90.1	7.5	1.5	2.91	179
April.....	171.5	11	2.5	5.72	340
May.....	1,345.5	605	4.5	43.4	2,670
June.....	4,372.1	574	1.3	146	8,670
July.....	37.2	1.4	-	1.2	74
August.....	21.7	-	-	.7	43
September.....	6.0	-	-	.2	12
Water year 1936-37.....	6,166.5	605	-	16.9	12,230

\*Field estimate.

## Bowman-Spaulling Canal at intake, Calif.

Location.- Water-stage recorder, lat. 39°27', long. 120°39', in sec. 8, T. 18 N., R. 12 E., 150 feet below intake and a quarter of a mile below Bowman Dam. Altitude, about 5,400 feet.

Records available.- October 1927 to September 1937.

Average discharge.- 10 years, 133 second-feet.

Extremes.- Maximum daily discharge during year, 247 second-feet Sept. 29; no flow during parts of February, April, and May.  
1927-37: Maximum daily discharge, 262 second-feet Aug. 2-9, 29, Sept. 10-13, 1928; no flow at times each year.

Remarks.- Records excellent. Canal diverts from left bank of Canyon Creek below Bowman Lake. Water is delivered to Fuller Lake, then to Lake Spaulding, and after passing through several power houses is used for irrigation in Nevada irrigation district. Gage-height record and results of discharge measurements furnished by Nevada Irrigation District.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	239	241	236	55	66	210	55	0	100	234	231	242
2	236	241	236	65	46	209	24	.1	106	232	231	241
3	238	241	236	54	5.5	206	.1	0	56	235	234	240
4	238	242	237	59	6.5	202	.4	.2	117	234	235	240
5	238	240	236	54	8	195	12	.3	128	235	236	240
6	238	242	236	74	7	164	15	0	93	234	239	240
7	236	243	237	74	1.9	186	1.9	0	90	235	239	240
8	238	241	237	80	0	179	2.1	0	100	236	238	240
9	239	240	236	68	0	133	1.9	.6	166	236	235	240
10	240	242	235	55	2.3	143	1.9	.3	169	236	237	240
11	240	242	234	67	24	157	1.7	.2	126	235	236	240
12	241	243	226	50	55	172	22	.1	90	234	235	240
13	241	244	209	62	87	179	105	.1	97	233	235	240
14	240	243	207	80	151	181	108	0	118	232	240	241
15	240	240	204	78	223	180	79	0	111	232	241	240
16	240	239	196	78	229	186	18	.2	151	234	240	240
17	240	237	196	59	227	188	2.0	.7	137	234	240	240
18	239	236	196	74	227	185	10	.6	157	235	240	239
19	236	236	154	70	224	179	9	0	167	232	239	238
20	240	236	52	66	224	170	1.5	0	169	232	238	240
21	244	236	52	69	227	157	1.7	0	171	232	238	239
22	243	237	52	62	224	138	19	0	178	231	235	239
23	243	237	53	60	225	120	11	0	179	232	237	240
24	241	236	54	57	226	105	.3	0	179	232	237	240
25	240	236	54	56	224	96	.1	0	176	233	201	239
26	240	236	76	74	219	85	.1	0	132	234	233	239
27	241	237	86	90	215	77	.1	21	113	235	240	238
28	243	236	66	94	210	73	.1	42	100	232	240	238
29	243	237	53	54	-	75	.1	48	126	229	240	247
30	243	237	93	54	-	80	0	52	143	230	242	244
31	242	-	86	66	-	90	-	57	-	231	243	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						7,446	244	238	240	14,770		
November.....						7,176	244	236	239	14,230		
December.....						4,967	237	52	160	9,850		
Calendar year 1936.....						58,879.4	244	0	161	116,800		
January.....						2,228	94	54	71.9	4,420		
February.....						3,584.2	229	0	128	7,110		
March.....						4,720	210	73	152	9,360		
April.....						506.0	108	0	16.9	1,000		
May.....						223.4	57	0	7.21	443		
June.....						3,977	179	86	133	7,980		
July.....						7,225	236	229	235	14,350		
August.....						7,331	243	201	236	14,540		
September.....						7,204	247	238	240	14,290		
Water year 1936-37.....						56,587.6	247	0	155	112,200		

Deer Creek near Smartville, Calif.

Location.- Staff gage, lat.  $39^{\circ}13'20''$ , long.  $121^{\circ}16'00''$ , in sec. 23, T. 16 N., R. 6 E., 1 mile above mouth and 2 miles northeast of Smartville. Altitude, about 500 feet.

Drainage area.- 83.5 square miles.

Records available.- June 1935 to September 1937.

Extremes.- Maximum discharge during year, 7,520 second-feet Feb. 4 (gage height, 11.5 feet), from rating curve extended above 3,400 second-feet; minimum, 0.2 second-foot many days in August and September.

1935-37: Maximum discharge, that of Feb. 4, 1937; minimum, that of August and September 1937.

Remarks.- Records good. Storage and diversions above station; maximum diversion about 40 second-feet. At times water from South Fork of Yuba River is diverted into Deer Creek above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	24	14	54	130	122	180	130	19	3.6	0.7	0.4
2	9.5	21	15	46	398	138	306	138	16	1.8	.6	.3
3	8.5	21	28	44	770	138	425	130	14	1.4	.4	.2
4	11	22	26	24	4,510	138	332	130	14	1.6	.3	.4
5	12	24	28	73	2,620	146	260	130	17	1.2	.2	.2
6												
7	9	21	26	70	2,230	138	760	146	16	1.0	.4	.4
8	10	22	29	44	540	146	670	122	9	1.2	.3	.4
9	11	25	32	42	228	162	360	122	18	1.0	.4	.2
10	10	26	34	40	122	171	360	88	19	1.8	.3	.4
11	9	12	36	22	115	198	260	88	14	1.2	.6	.4
12												
13	10	10	36	51	130	218	238	82	9	1.2	.4	.2
14	10	10	32	49	390	2,140	260	82	12	1.0	.3	.4
15	11	12	34	36	1,670	3,340	238	74	14	1.0	.3	.4
16	10	11	36	114	1,880	360	282	74	76	.8	.2	.3
17	9.5	11	38	171	670	346	360	72	36	1.2	.2	.2
18												
19	10	11	34	189	238	332	390	53	33	1.2	.4	.2
20	10	10	36	64	218	306	425	43	28	.8	.4	.2
21	11	10	32	70	218	218	425	43	28	1.0	.4	.2
22	14	16	10	40	180	390	282	36	26	1.2	.4	.3
23	20	12	8	28	146	540	260	33	24	1.0	.4	.2
24												
25	19	13	5	29	146	2,820	282	31	16	.7	.4	.2
26	20	11	6.5	29	138	1,290	306	30	17	.6	.2	.2
27	26	9.5	4.8	26	130	670	306	27	24	1.2	.4	.2
28	24	9.5	5.5	25	138	1,430	260	26	25	1.0	.2	.2
29	24	13	11	25	249	715	218	25	26	.8	.4	.2
30												
31	22	13	12	29	198	360	218	24	24	.7	.4	.2
32	22	12	44	32	164	425	260	22	12	.6	.4	.3
33	23	16	62	260	130	360	218	20	7.5	.8	.4	.2
34	19	14	56	180	-	306	130	24	6.5	1.0	.4	.2
35	25	16	62	190	-	238	146	24	6	1.2	.2	.2
36	24	-	64	162	-	238	-	20	-	1.0	.4	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				468.5		28	8.5	15.1	929			
November.....				458.0		26	9.5	15.3	908			
December.....				897.8		64	4.8	29.0	1,780			
Calendar year 1936.....				57,561.3		3,670	4.8	157	114,200			
January.....				2,248		260	22	72.5	4,460			
February.....				18,586		4,510	115	664	36,860			
March.....				18,539		3,340	122	598	36,770			
April.....				9,417		760	130	314	18,680			
May.....				2,089		146	20	67.4	4,140			
June.....				607.0		76	6	20.2	1,200			
July.....				36.0		3.6	.6	1.16	71			
August.....				11.4		.7	.2	.37	23			
September.....				8.0		.4	.2	.27	16			
Water year 1936-37.....				53,365.7		4,510	.2	146	105,800			

## FEATHER RIVER BASIN

Bear River near Wheatland, Calif.

Location.- Water-stage recorder, lat. 39°00', long. 121°25', in sec. 3, T. 13 N., R. 5 E., 1 mile southeast of Wheatland, 6½ miles below Rock Creek, and 12 miles above mouth. Altitude, about 85 feet.

Drainage area.- 295 square miles.

Records available.- October 1928 to September 1937.

Extremes.- Maximum discharge during year, 12,000 second-feet Mar. 21 (gage height, 11.25 feet); minimum, 0.3 second-foot Sept. 30.

1928-37: Maximum discharge, 21,600 second-feet Apr. 8, 1935 (gage height, 15.15 feet); minimum, 0.2 second-foot Aug. 24, 25, 1933. Discharge of 29,600 second-feet recorded Jan. 14, 1909, at station 8 miles upstream.

Remarks.- Records good except those for Jan. 7-15, which were computed on basis of records for Deer Creek near Smartville and Yuba River at Smartville and are fair. Storage and many diversions and inflow from Yuba River Basin above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	20	32	125	212	731	1,030	606	7	4.2	3.9	3.0
2	9	25	24	99	551	712	1,290	474	5.5	5	3.0	3.9
3	8.5	21	24	82	460	685	1,180	454	5.5	5	3.0	3.4
4	13	22	23	75	3,040	666	990	448	6.5	3.8	2.0	3.9
5	15	28	23	95	5,550	640	938	308	6.5	3.0	3.4	4.5
6	17	43	31	111	5,400	614	2,000	182	8	3.0	3.0	4.5
7	21	41	34	100	3,060	575	1,370	130	9	3.4	3.9	3.9
8	23	40	34	85	1,190	539	1,100	60	10	4.2	3.9	3.0
9	46	36	36	75	868	498	1,180	47	10	3.4	4.5	2.6
10	47	37	33	75	777	476	990	284	10	3.0	3.9	2.3
11	47	41	33	100	784	440	870	302	10	3.8	4.5	2.0
12	46	36	34	100	1,260	1,280	825	290	8	3.4	3.4	2.0
13	43	36	34	120	2,230	1,840	802	284	8	3.4	3.9	2.0
14	41	31	28	145	5,530	1,000	576	290	8	2.6	3.9	1.7
15	40	18	28	145	2,490	840	123	308	8.5	2.6	3.9	1.7
16	41	18	232	280	1,360	780	375	302	8.5	1.8	2.6	1.7
17	47	16	260	226	1,010	772	735	273	8	1.8	3.0	1.7
18	44	16	260	142	903	1,030	742	212	7	3.4	2.3	1.7
19	41	16	256	135	882	900	712	202	5.5	4.6	3.0	1.7
20	38	17	248	104	791	1,250	698	80	5.5	4.2	3.0	1.5
21	33	18	236	82	757	5,100	683	36	5	3.4	2.6	.8
22	27	18	219	68	738	4,120	655	24	4.6	3.8	2.6	.6
23	22	19	130	66	724	2,810	634	18	4.2	3.8	2.6	.7
24	17	16	125	63	764	3,700	634	18	3.8	3.8	2.6	.6
25	15	32	125	63	938	2,580	627	14	5.5	3.8	2.3	.6
26	14	33	128	66	875	1,650	620	14	5.5	2.6	2.0	.6
27	14	33	193	111	798	1,730	655	14	5.5	2.6	1.5	.5
28	14	33	235	364	764	1,570	683	14	5.5	2.6	1.5	.4
29	15	34	401	410	-	1,220	655	12	3.8	2.6	2.3	.4
30	14	33	338	515	-	1,100	634	11	3.4	5	2.6	.4
31	16	-	190	300	-	1,030	-	10	-	3.9	2.0	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						838.0	47	8.5	27.0	1,660		
November.....						825	43	16	27.5	1,640		
December.....						4,027	401	23	130	7,990		
Calendar year 1936.....						213,668.0	10,900	8.5	584	423,800		
January.....						4,530	515	63	146	8,990		
February.....						44,708	5,550	212	1,596	88,670		
March.....						42,881	5,100	440	1,383	85,050		
April.....						25,006	2,000	123	834	49,600		
May.....						5,721	606	10	185	11,350		
June.....						201.8	10	3.4	6.73	400		
July.....						107.5	5	1.8	3.47	213		
August.....						92.6	4.5	1.5	2.99	164		
September.....						58.3	4.5	.4	1.94	116		
Water year 1936-37.....						128,994.2	5,550	.4	353	255,900		

## Bear River Canal near Colfax, Calif.

Location.— Water-stage recorder, lat. 39°07', long. 120°58', in sec. 28, T. 15 N., R. 9 E., just below lower spillway gates, 1½ miles below diversion dam on Bear River, and 2 miles northwest of Colfax. Altitude, about 1,950 feet.

Records available.— January 1912 to September 1937.

Average discharge.— 23 years (1914-37), 209 second-feet.

Extremes.— Maximum daily discharge during year, 476 second-feet July 17; minimum, 7 second-feet May 15.

1912-37: Maximum daily discharge recorded, that of July 17, 1937; no flow at times.

Remarks.— Canal diverts from left bank of Bear River in sec. 22, T. 15 N., R. 9 E. Water is first used to develop power at Halsey and Wise power houses; part of it is then distributed for irrigation, and part is eventually spilled into North Fork of American River. Record of daily discharge furnished by Pacific Gas & Electric Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	459	374	435	400	275	399	361	292	202	448	317	459
2	456	372	431	269	306	398	376	292	219	454	345	460
3	449	446	431	343	286	410	383	304	217	443	378	462
4	448	454	431	360	264	385	403	360	189	410	364	396
5	425	454	428	395	123	420	396	432	210	401	360	361
6	433	425	366	383	192	417	371	437	250	439	353	355
7	445	421	402	342	240	414	410	310	293	462	377	413
8	446	425	411	331	309	375	392	232	201	470	372	463
9	451	426	409	286	285	361	378	235	222	464	376	460
10	442	421	413	61	240	387	396	337	144	464	397	361
11	268	429	423	114	240	400	412	397	264	368	376	345
12	333	428	431	257	331	374	381	395	409	450	376	292
13	449	429	428	274	330	311	412	437	298	452	376	356
14	452	426	433	285	199	329	406	448	134	466	376	457
15	451	429	431	285	351	394	403	7	175	475	306	450
16	449	428	353	290	398	394	396	60	290	468	350	449
17	453	428	412	194	396	373	400	298	195	476	455	449
18	428	429	428	147	409	371	346	263	287	462	468	453
19	409	423	435	205	389	333	403	388	413	442	459	454
20	461	425	433	150	371	376	403	433	438	461	441	467
21	443	358	418	238	410	310	400	377	444	464	363	467
22	446	420	407	218	402	328	333	246	450	464	312	480
23	448	413	312	173	397	296	295	245	452	469	350	457
24	439	419	361	147	397	252	280	240	452	449	413	453
25	411	421	221	172	378	312	285	250	439	355	470	460
26	364	420	278	147	394	384	286	230	411	328	464	401
27	446	370	268	245	394	268	297	220	410	353	443	459
28	438	421	342	301	399	323	291	192	464	357	357	462
29	454	425	408	294	-	392	297	225	405	366	306	462
30	462	422	420	267	-	402	291	204	388	368	383	466
31	382	-	408	267	-	406	-	194	-	352	462	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	13,360	462	268	431	26,500
November.....	12,591	454	358	419	24,950
December.....	12,227	435	221	394	24,250
Calendar year 1936.....	117,654.6	469	0	321	235,400
January.....	7,840	400	61	253	15,550
February.....	9,111	410	129	325	19,070
March.....	11,304	420	252	365	22,420
April.....	10,613	412	285	364	21,650
May.....	8,996	446	7	290	17,640
June.....	9,363	464	134	312	18,570
July.....	13,300	476	328	429	26,590
August.....	11,838	470	302	382	23,480
September.....	12,974	467	292	432	25,730
Water year 1936-37.....	133,807	476	7	367	265,400



## North Fork of American River near Colfax, Calif.

Location.- Water-stage recorder, lat.  $39^{\circ}02'$ , long.  $120^{\circ}54'$ , in NW $\frac{1}{4}$  sec. 30, T. 14 N., R. 10 E., 50 feet downstream from bridge on Colfax-Forest Hill road, 200 feet below mouth of Shirltail Canyon Creek, and 5 miles southeast of Colfax. Zero of gage is 897.29 feet above mean sea level (general adjustment of 1929).

Drainage area.- 308 square miles.

Records available.- August 1911 to September 1937.

Average discharge.- 25 years (1911-13, 1914-37), 612 second-feet.

Extremes.- Maximum discharge during year, 6,650 second-feet Feb. 14 (gage height, 8.60 feet); minimum, 33 second-feet Oct. 17.

1911-37: Maximum discharge, by slope-area method, about 55,000 second-feet Mar. 25, 1928 (gage height, 25.2 feet, present datum); minimum, 15 second-feet July 22 to Aug. 7, Aug. 12-15, 1924, Aug. 28, 1931.

Remarks.- Records excellent except those for Oct. 1 and 2, which were computed on basis of records for Middle Fork of American River near Auburn and are fair. Small storage and diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	55	39	110	134	585	1,500	1,750	1,140	286	79	49
2	48	54	39	99	209	595	2,190	2,240	1,210	269	78	49
3	47	51	39	91	218	695	1,840	2,630	1,240	255	76	51
4	47	50	40	85	1,110	756	1,500	2,870	1,240	244	74	51
5	45	50	40	112	2,600	850	1,420	2,870	1,120	227	72	49
6	44	50	40	112	2,840	878	1,990	2,870	965	208	68	48
7	42	48	42	80	1,380	965	1,620	2,630	878	192	66	48
8	40	47	44	64	682	1,020	1,580	2,140	795	183	66	48
9	39	45	47	93	506	1,140	1,660	2,190	735	183	65	48
10	39	45	45	99	413	1,210	1,620	1,990	665	180	63	48
11	38	45	44	101	404	1,210	1,500	1,990	605	169	62	47
12	38	44	44	99	612	2,140	1,500	2,750	560	163	60	46
13	38	44	44	91	1,470	2,090	1,750	3,190	550	152	58	44
14	38	44	44	114	4,860	1,500	2,400	3,190	526	141	58	43
15	37	44	57	136	1,990	1,320	3,190	2,930	526	133	57	42
16	36	45	114	197	1,240	1,320	2,690	2,690	1,320	128	57	40
17	33	45	89	132	965	1,350	2,090	2,400	850	123	55	39
18	36	44	64	118	878	1,240	1,990	2,140	635	121	54	39
19	40	43	57	110	795	1,120	1,990	1,580	555	116	54	39
20	44	43	55	74	700	1,280	2,240	1,700	555	111	52	42
21	44	43	57	74	655	1,660	2,810	1,840	536	111	52	42
22	43	43	61	97	685	1,660	2,690	1,940	486	121	51	40
23	42	43	55	95	715	1,540	2,090	2,040	446	105	51	40
24	40	43	72	89	822	1,840	2,040	1,990	414	98	51	40
25	40	43	89	78	878	1,500	2,400	1,990	385	96	51	40
26	42	42	100	87	751	1,180	2,460	1,620	365	94	51	39
27	43	42	194	104	660	1,180	1,940	1,750	349	89	49	39
28	43	42	127	206	610	1,140	1,580	1,890	341	87	49	39
29	43	40	104	185	-	1,120	1,350	1,840	322	83	48	39
30	47	40	104	166	-	1,120	1,320	1,540	311	81	48	39
31	51	-	114	141	-	1,140	-	1,140	-	79	48	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						1,295	51	33	41.8	2,570		
November.....						1,357	55	40	45.2	2,690		
December.....						2,104	194	39	67.9	4,170		
Calendar year 1936.....						344,638	9,320	33	942	683,500		
January.....						3,439	206	64	111	6,820		
February.....						29,782	4,860	134	1,064	59,070		
March.....						38,344	2,140	585	1,237	76,050		
April.....						58,940	3,190	1,320	1,965	116,900		
May.....						65,320	3,190	1,140	2,204	135,500		
June.....						20,825	1,320	311	688	40,310		
July.....						4,628	286	79	149	9,180		
August.....						1,823	79	48	58.8	3,620		
September.....						1,307	51	39	43.6	2,590		
Water year 1936-37.....						231,964	4,860	33	636	460,100		

## North Fork of American River at Rattlesnake Bridge, Calif.

Location.- Water-stage recorder, lat. 38°49', long. 121°06', in SW¼ sec. 9, T. 11 N., R. 8 E., 800 feet downstream from Rattlesnake Bridge, 3 miles below Pilot Creek, and 6 miles south of Auburn. Altitude, about 350 feet.

Drainage area.- 999 square miles.

Records available.- November 1930 to September 1937.

Extremes.- Maximum discharge during year, 18,000 second-feet Feb. 14 (gage height, 10.93 feet); minimum, 88 second-feet Sept. 15.  
1930-37: Maximum discharge, 41,500 second-feet Apr. 8, 1935 (gage height, 17.6 feet); minimum, 6.5 second-feet Aug. 15, 1931.

Remarks.- Records good. Storage and regulation above station. At times water from Bear River and Yuba River Basins enters stream above station, amounting to as much as several hundred second-feet for parts of some days from June to November.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	294	403	424	652	712	2,030	4,060	5,050	3,820	1,090	259	223
2	321	419	435	616	1,200	1,970	6,300	6,520	3,900	1,020	262	252
3	300	386	441	502	1,000	2,150	5,240	7,940	4,160	978	266	244
4	265	414	441	534	3,130	2,400	4,670	9,480	4,240	820	256	184
5	330	419	435	560	9,520	2,670	4,220	9,740	3,980	820	234	182
6	322	404	424	698	9,520	2,810	5,440	9,740	3,490	862	225	170
7	319	414	408	602	6,130	3,030	4,860	9,220	3,000	799	219	220
8	302	414	414	483	3,160	3,260	4,670	7,460	2,860	750	216	233
9	302	414	424	287	2,100	3,490	4,760	7,220	2,570	736	210	234
10	302	408	453	246	1,740	3,730	4,860	6,740	2,430	694	207	192
11	266	406	459	257	1,510	3,730	4,490	6,980	2,160	597	205	177
12	266	408	444	444	2,040	5,440	4,400	8,440	1,980	634	200	174
13	264	408	453	554	3,040	6,080	4,760	10,300	1,920	603	202	165
14	271	408	453	514	14,300	4,490	6,300	11,000	1,920	579	207	162
15	334	408	471	750	7,460	3,970	8,960	10,300	1,800	567	200	156
16	339	408	581	900	4,490	3,890	8,180	9,040	3,530	543	189	235
17	344	414	820	560	3,410	4,140	6,080	8,080	4,020	537	253	246
18	353	424	616	398	3,030	4,060	5,640	7,420	2,230	501	249	228
19	358	441	508	477	2,740	3,650	5,860	5,520	1,980	473	244	222
20	368	430	483	418	2,400	4,490	6,300	5,620	2,040	495	222	222
21	382	408	502	272	2,150	7,000	8,180	5,920	2,040	446	174	223
22	382	414	508	360	2,210	6,660	8,440	6,540	1,920	462	172	234
23	382	414	424	378	2,280	5,240	6,080	6,550	1,800	435	170	251
24	372	408	465	353	2,470	6,080	5,860	6,340	1,580	415	170	254
25	372	408	465	318	3,100	5,140	6,740	6,550	1,470	334	205	251
26	377	414	471	376	2,670	4,140	7,700	5,140	1,420	326	231	243
27	382	430	812	453	2,280	4,060	6,080	5,620	1,280	314	242	279
28	382	435	682	949	2,030	3,730	5,050	5,920	1,280	299	182	275
29	382	408	668	1,080	-	3,570	4,490	6,130	1,230	282	172	266
30	387	382	668	996	-	3,410	4,220	5,520	1,230	272	170	279
31	403	-	720	780	-	3,490	-	3,980	-	275	187	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						10,423	403	264	336	20,670		
November.....						12,373	441	382	412	24,540		
December.....						15,981	820	408	516	31,700		
Calendar year 1936.....						1,126,378	32,200	184	3,078	2,254,000		
January.....						16,767	1,080	246	541	33,260		
February.....						101,822	14,300	712	5,636	202,000		
March.....						124,000	7,000	1,970	4,000	246,000		
April.....						172,890	8,960	4,060	5,763	342,900		
May.....						224,720	11,000	3,980	7,249	445,700		
June.....						73,270	4,240	1,230	2,442	145,300		
July.....						17,958	1,080	272	579	35,620		
August.....						6,600	266	170	213	13,090		
September.....						6,696	286	156	223	13,280		
Water year 1936-37.....						783,500	14,300	156	2,147	1,554,000		

## American River at Fair Oaks, Calif.

Location.- Water-stage recorder, lat. 38°38'15", long. 121°15'55", just above highway bridge at Fair Oaks, Sacramento County, and 10 miles below South Fork. Altitude, about 72 feet.

Drainage area.- 1,921 square miles.

Records available.- November 1904 to September 1937 (at various locations near highway bridge).

Average discharge.- 32 years (1905-37), 3,619 second-feet.

Extremes.- Maximum discharge during year, 33,000 second-feet Mar. 21 (gage height, 15.88 feet); minimum, 183 second-feet Sept. 22.

1904-37: Maximum discharge, 182,000 second-feet Mar. 25, 1928 (gage height, 31.45 feet, present datum); minimum, 3.6 second-feet Aug. 16, 1924.

Remarks.- Records good except those for Dec. 25 to Jan. 10, which were computed on basis of records for North and South Forks of American River and are fair. Storage, many diversions, and power plants above station. Some inflow from Bear and Yuba River basins.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	445	645	498	850	1,330	2,980	5,820	7,280	5,620	1,760	388	276
2	450	622	518	850	2,420	2,880	9,260	9,520	5,620	1,670	393	317
3	461	565	522	700	2,120	2,980	8,240	11,500	6,020	1,500	402	325
4	457	622	556	700	6,240	3,180	7,060	13,600	6,220	1,320	388	317
5	449	632	552	750	20,900	3,520	6,220	14,300	6,020	1,230	370	269
6	453	614	565	900	19,800	3,760	8,740	14,300	5,260	1,260	355	254
7	468	622	582	850	12,500	4,020	7,520	13,600	4,800	1,230	350	251
8	453	600	522	650	5,620	4,160	6,840	11,500	4,300	1,150	335	300
9	445	582	548	500	3,640	4,600	6,840	10,900	3,760	1,060	330	304
10	461	556	574	400	2,850	4,920	6,840	10,300	3,520	1,040	312	325
11	464	556	609	514	2,320	4,760	6,420	9,520	3,200	960	308	265
12	332	574	582	715	3,300	7,060	6,220	12,100	2,900	885	308	261
13	377	578	578	940	4,020	9,780	6,840	14,300	2,720	910	308	258
14	398	560	582	790	22,500	6,840	8,480	15,900	2,720	935	296	258
15	482	582	587	1,070	12,700	6,820	11,800	15,900	2,630	860	283	234
16	490	591	740	1,360	7,280	5,620	12,100	14,000	3,620	760	287	237
17	490	556	1,300	1,100	5,260	5,820	9,520	12,700	7,420	760	296	312
18	454	604	1,040	690	4,440	6,420	8,480	11,500	3,640	703	340	272
19	522	600	715	740	4,160	5,620	8,740	8,740	3,000	675	321	279
20	506	596	668	716	3,640	8,240	9,260	8,240	3,000	659	321	269
21	569	543	668	470	3,190	15,600	11,600	9,000	3,100	623	300	261
22	565	574	656	494	3,060	17,800	12,400	9,520	3,000	623	272	258
23	569	569	587	548	3,190	10,600	9,780	9,780	2,810	607	265	296
24	548	535	565	618	3,410	11,800	8,740	9,780	2,540	579	261	335
25	565	527	700	574	4,920	10,100	9,780	10,100	2,380	591	272	325
26	560	531	630	510	4,300	7,060	11,800	8,240	2,220	546	304	325
27	514	535	1,060	790	3,520	7,060	9,780	8,000	2,010	506	321	335
28	543	548	950	1,700	3,060	6,420	8,240	8,480	1,870	478	325	340
29	556	539	900	2,320	-	5,820	6,840	9,000	1,870	442	269	380
30	548	482	900	2,410	-	5,440	6,220	8,240	1,870	424	265	386
31	614	-	950	1,710	-	5,260	-	6,220	-	424	268	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					15,198	614	332	490	30,120			
November.....					17,240	645	482	575	34,200			
December.....					21,374	1,300	498	689	42,390			
Calendar year 1936.....					1,715,735	46,400	332	4,688	3,405,000			
January.....					27,928	2,410	400	901	55,390			
February.....					175,760	22,500	1,530	6,277	348,600			
March.....					205,950	17,800	2,880	6,644	408,600			
April.....					255,720	12,400	5,820	8,524	507,200			
May.....					335,060	15,900	6,220	10,940	666,600			
June.....					109,450	7,420	1,870	3,649	217,100			
July.....					27,070	1,760	424	873	53,690			
August.....					9,803	402	258	316	19,440			
September.....					8,824	386	234	294	17,600			
Water year 1936-37.....					1,210,377	22,500	234	3,316	2,401,000			

## American River at Sacramento, Calif.

Location.— Water-stage recorder, lat. 38°34'05", long. 121°25'20", at H Street Bridge, in City of Sacramento, Sacramento County, 6½ miles above mouth. Gage is set to datum of Corps of Engineers, U. S. Army.

Records available.— July to October 1921, October 1929 to October 1932, May 1934 to October 1937 (low-water periods only). Gage heights for high-water periods in years 1926-37 published by Division of Water Resources, Department of Public Works, State of California.

Extremes.— Minimum discharge June to October 1937, 194 second-feet Sept. 16 (gage height, 19.56 feet).  
1921, 1929-32, 1934-37: Minimum discharge recorded, 21 second-feet Aug. 14, 1931.

Remarks.— Records fair. Discharge for July 20 to Aug. 2 computed on basis of records for station at Fair Oaks. Storage, many diversions, and power plants above station; some inflow from Bear and Yuba River basins.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.						June	July	Aug.	Sept.	Oct.
1	486						-	1,750	380	282	406
2	470						-	1,550	370	315	400
3	492						-	1,480	366	360	505
4	476						-	1,280	366	350	500
5	459						-	1,180	345	300	522
6	492						-	1,190	325	290	527
7	525						-	1,190	306	272	544
8	520						-	1,140	301	320	505
9	503						-	1,060	288	340	483
10	508						-	1,030	292	350	385
11	514						-	980	283	305	264
12	464						-	876	278	277	315
13	448						-	908	288	282	439
14	464						-	940	265	268	527
15	498						-	845	270	242	638
16	492						-	743	265	238	834
17	531						-	715	265	315	687
18	508						-	696	315	330	680
19	508						-	676	320	315	638
20	514						-	650	310	310	626
21	537						-	630	292	290	596
22	549						-	600	242	295	596
23	549						-	580	252	315	596
24	543						-	560	270	375	584
25	531						-	560	270	380	549
26	585						2,460	530	300	365	560
27	556						2,140	490	320	355	578
28	585						1,880	460	345	370	572
29	611						1,820	420	277	385	572
30	598						1,880	400	277	412	560
31	618						-	400	264	-	572
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
1936							16,133	618	448	520	32,000
1937											
June 26-30.....							10,180	2,460	1,820	2,036	20,190
July.....							26,509	1,750	400	855	52,580
August.....							9,307	380	242	300	18,460
September.....							9,603	412	238	320	19,050
October.....							16,760	834	264	541	33,240
The period.....											143,500

## Middle Fork of American River near Auburn, Calif.

Location.- Water-stage recorder, lat. 38°55', long. 121°00', in NW¼ sec. 5, T. 12 N., R. 9 E., at Mountain Quarry Co.'s plant 1.7 miles above junction with North Fork of American River and ¾ miles northeast of Auburn. Altitude, about 580 feet.

Drainage area.- 619 square miles.

Records available.- December 1930 to September 1937. October 1911 to December 1930 at staff-gage site half a mile downstream.

Average discharge.- 26 years, 1,310 second-feet.

Extremes.- Maximum discharge during year, 10,600 second-feet Feb. 14 (gage height, 13.5 feet); minimum, 57 second-feet Sept. 30.  
1911-37: Maximum discharge, about 100,000 second-feet Mar. 25, 1928 (gage height, 35.6 feet, former site and datum), by slope-area method; minimum, 20 second-feet Sept. 6, 1931, Sept. 19, 1934.

Remarks.- Records excellent. Discharge interpolated July 28, 29. Small storage reservoirs and diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	82	70	172	236	920	2,250	3,600	2,450	615	153	80
2	68	86	71	159	347	920	3,800	4,690	2,590	545	154	81
3	71	82	71	150	315	1,030	3,240	5,720	2,740	510	153	81
4	73	80	71	142	1,480	1,190	2,660	6,480	2,820	462	142	80
5	73	80	72	158	4,110	1,380	2,380	6,480	2,660	462	128	80
6	71	79	72	188	4,930	1,480	2,980	6,640	2,310	446	122	80
7	70	78	73	153	2,980	1,630	2,740	6,320	2,010	402	119	78
8	67	74	78	118	1,480	1,730	2,890	5,310	1,840	360	114	76
9	64	74	80	113	965	1,900	2,660	5,310	1,680	347	110	75
10	64	74	81	145	780	2,010	2,740	4,610	1,680	347	107	73
11	63	74	80	153	685	2,010	2,660	4,330	1,380	329	105	72
12	63	75	78	148	920	3,060	2,590	6,000	1,190	315	102	70
13	62	74	75	143	1,680	3,420	2,900	6,980	1,190	300	98	69
14	63	71	75	177	8,240	2,520	4,000	7,340	1,190	286	95	67
15	63	71	92	210	3,800	2,190	6,000	6,980	1,170	264	94	65
16	61	72	178	277	2,310	2,190	5,310	6,160	2,730	248	93	64
17	59	73	334	202	1,730	2,310	4,110	5,560	2,640	234	93	62
18	59	73	192	175	1,530	2,250	3,900	3,050	1,530	228	92	60
19	67	72	142	178	1,530	1,950	4,000	3,700	1,280	220	90	58
20	71	71	123	142	1,140	2,250	4,330	3,700	1,280	210	89	61
21	78	71	114	108	1,060	2,900	5,720	4,900	1,280	202	87	62
22	78	71	113	143	1,060	3,060	5,720	4,330	1,170	192	86	62
23	73	68	111	153	1,120	2,660	4,450	4,450	1,030	185	85	62
24	69	68	123	152	1,260	2,900	4,330	4,330	942	180	85	62
25	67	68	152	142	1,530	2,520	5,050	4,450	840	178	85	62
26	67	68	148	145	1,240	2,010	5,580	3,420	800	182	85	62
27	66	68	286	170	1,060	1,950	4,450	3,700	760	172	84	61
28	67	68	211	298	965	1,840	3,600	4,000	740	164	83	60
29	67	68	167	310	-	1,730	3,060	4,110	702	157	81	59
30	68	69	161	305	-	1,730	2,900	3,600	702	150	79	58
31	73	-	186	260	-	1,900	-	2,520	-	147	79	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					2,092	78	58	67.5	4,150			
November.....					2,202	86	68	73.4	4,370			
December.....					3,680	334	70	125	7,700			
Calendar year 1936.....					678,397	19,800	58	1,854	1,346,000			
January.....					5,489	310	108	177	10,890			
February.....					50,283	8,240	236	1,796	99,730			
March.....					63,540	3,420	920	2,050	128,000			
April.....					112,700	6,000	2,250	3,757	223,500			
May.....					154,090	7,340	2,520	4,971	305,600			
June.....					47,226	2,820	702	1,574	93,670			
July.....					9,039	615	147	292	17,930			
August.....					3,172	154	79	102	6,290			
September.....					2,042	81	58	68.1	4,050			
Water year 1936-37.....					455,755	8,240	58	1,249	903,900			

## South Fork of American River near Kyburz, Calif.

Location.— Water-stage recorder, lat.  $38^{\circ}46'$ , long.  $120^{\circ}19'$ , in  $\frac{1}{4}$  sec. 29, T. 11 N., R. 15 E., beside Lincoln Highway, 0.5 mile below Silver Fork of South Fork of American River, and 2 miles west of Kyburz. Altitude, about 4,030 feet.

Drainage area.— 196 square miles.

Records available.— August to December 1907, October 1922 to September 1937.

Average discharge.— 15 years (1922-37), 228 second-feet.

Extremes.— Maximum discharge during year, 3,110 second-feet May 14 (gage height, 6.80 feet); minimum, 1.0 second-foot July 17.

1922-37: Maximum discharge, 5,020 second-feet Mar. 25, 1928 (gage height, 7.60 feet); minimum, 0.3 second-foot Nov. 9-11, 1929.

Remarks.— Records good except those for Oct. 1 to Feb. 4, which are fair. Discharge for period of ice effect, Jan. 7 to Feb. 4, computed on basis of one discharge measurement, weather records, and records for nearby streams. Storage and diversions above station. See record for El Dorado Canal, which diverts half a mile upstream.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.9	2.6	2.6	6	18	24	235	956	985	161	3.0	1.8
2	4.7	2.8	2.8	5	14	35	254	1,210	1,100	140	2.5	2.1
3	4.9	2.8	2.8	5	10	50	245	1,400	1,190	121	2.6	2.0
4	4.9	3.0	2.6	6	25	69	199	1,600	1,170	134	2.6	2.0
5	4.9	2.8	2.8	9	370	97	183	1,660	1,060	114	2.2	1.8
6	4.9	2.6	3.0	5	326	114	194	1,600	897	142	2.4	1.7
7	4.7	2.6	3.0	5	194	140	188	1,600	800	81	2.4	5
8	4.7	2.6	2.9	30	86	168	212	1,550	704	56	2.0	6.5
9	4.7	2.9	2.8	60	53	195	226	1,550	662	54	2.0	2.4
10	4.7	2.8	2.8	66	31	194	281	1,550	540	50	3.2	2.4
11	4.6	2.9	2.8	40	24	204	281	1,550	462	47	2.7	2.1
12	4.6	2.9	2.9	22	38	245	306	2,000	416	49	2.4	2.1
13	4.7	2.9	3.1	6	84	248	424	2,360	424	144	2.4	2.0
14	4.7	2.9	3.0	4	580	207	698	2,480	403	28	2.4	1.8
15	4.7	2.9	10	4	298	196	933	2,500	395	7	2.4	2.0
16	4.7	2.9	138	4	127	218	760	2,180	1,240	3.0	2.0	2.0
17	4.7	2.9	5	4	91	245	590	2,000	623	1.8	2.0	2.0
18	4.6	2.9	4.9	4	77	221	606	1,720	516	2.9	3.0	2.0
19	4.7	2.9	5	4	57	153	646	1,350	520	2.1	2.5	2.0
20	3.0	2.9	4.9	4	49	166	813	1,450	544	2.1	2.2	2.1
21	2.4	2.9	4.9	30	49	156	1,060	1,650	590	2.1	2.1	2.0
22	2.4	2.9	4.9	30	56	152	963	1,600	601	2.6	2.2	2.0
23	2.6	2.9	4.7	22	60	134	754	1,660	585	2.6	2.2	2.5
24	2.8	2.8	5	28	66	134	854	1,720	530	41	2.0	2.5
25	2.5	2.9	5	25	57	123	1,070	1,600	420	12	2.2	2.5
26	2.5	2.8	6	20	44	116	1,080	1,400	306	3.8	2.6	2.1
27	2.9	2.8	5.5	18	33	113	890	1,550	261	2.6	2.6	2.0
28	2.9	2.8	12	18	24	106	680	1,720	242	2.2	2.5	2.0
29	2.9	2.9	11	18	—	111	590	1,560	302	2.1	2.0	2.0
30	4.2	2.8	6	20	—	130	662	1,280	242	2.1	1.6	2.2
31	5	—	9	20	—	156	—	956	—	13	1.7	—

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	126.1	5	2.4	4.07	250
November.....	85.0	3.0	2.6	2.83	169
December.....	281.7	135	2.6	9.09	559
Calendar year 1936.....	145,704.9	2,720	2.4	398	289,000
January.....	542	66	4	17.5	1,080
February.....	2,941	580	10	105	5,830
March.....	4,648	248	14	150	9,220
April.....	16,876	1,080	183	563	33,470
May.....	50,542	2,430	956	1,630	100,200
June.....	19,730	1,240	242	624	37,150
July.....	1,446.0	181	1.8	46.6	2,870
August.....	72.5	3.2	1.6	2.34	144
September.....	69.6	6.5	1.7	2.32	138
Water year 1936-37 .....	96,359.9	2,480	1.6	264	191,100

## South Fork of American River near Camino, Calif.

Location.- Water-stage recorder, lat. 38°46', long. 120°42', in SW¼ sec. 25, T. 11 N., R. 11 E., 300 feet above mouth of Iowa Canyon Creek, 1 mile below intake of American River flume, and 3 miles northwest of Camino. Altitude, about 1,640 feet.

Drainage area.- 497 square miles.

Records available.- October 1922 to September 1937.

Average discharge.- 15 years, 672 second-feet.

Extremes.- Maximum discharge during year, 7,140 second-feet May 14 (gage height, 12.70 feet); minimum, 5 second-feet Sept. 27, 1922-37; Maximum discharge, 31,500 second-feet Mar. 25, 1928 (gage height, 24.4 feet); minimum, 1.2 second-feet Aug. 24, 1931.

Remarks.- Records good. Four storage reservoirs and several diversions above station. See records for American River flume, El Dorado Canal, and Fimmon Reservoir outlet.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	86	17	108	188	454	1,560	2,470	1,920	440	45	15
2	61	56	26	67	212	482	1,800	3,170	2,120	386	42	15
3	83	79	24	46	198	544	1,680	3,790	2,190	349	37	14
4	51	76	22	71	407	662	1,410	4,350	2,260	325	44	14
5	67	84	26	75	1,120	760	1,380	4,450	2,120	316	31	14
6	62	81	22	79	1,770	840	1,560	4,550	1,800	299	30	14
7	58	52	23	26	1,100	885	1,380	4,060	1,560	276	32	14
8	72	54	29	68	644	998	1,440	3,610	1,410	207	24	17
9	72	38	32	127	453	1,100	1,470	3,700	1,300	206	26	16
10	62	46	24	204	581	1,100	1,560	3,250	1,200	196	24	14
11	57	44	23	235	559	1,120	1,500	3,170	1,020	173	34	16
12	54	53	20	210	453	1,560	1,560	4,450	885	184	28	19
13	57	46	20	183	748	1,680	1,800	5,200	885	244	24	14
14	59	51	24	143	2,930	1,300	2,470	5,530	840	190	24	11
15	62	36	62	119	1,680	1,200	3,090	5,200	820	112	26	11
16	70	48	306	110	1,070	1,220	2,850	4,760	2,220	120	33	11
17	75	55	208	70	820	1,410	2,470	4,350	1,810	82	21	10
18	62	53	62	102	720	1,320	2,400	3,880	1,120	76	21	8
19	66	47	62	81	645	1,200	2,470	2,770	1,020	79	21	8.5
20	78	52	34	59	544	1,200	2,850	3,010	1,070	66	22	8
21	65	59	44	90	512	1,200	3,520	3,430	1,070	57	18	9
22	91	31	24	158	560	1,120	3,340	3,520	1,020	60	18	9
23	74	24	42	196	576	1,070	2,690	3,430	952	32	20	8.5
24	90	28	87	178	645	1,070	2,770	3,520	908	117	17	7.5
25	76	22	35	161	740	952	3,250	3,610	760	65	16	9
26	54	18	92	167	610	908	3,520	2,610	628	66	18	9.5
27	78	25	70	175	512	908	2,850	3,010	528	56	16	7.5
28	75	18	104	196	482	820	2,260	3,340	505	47	18	8.5
29	68	18	72	180	-	840	1,920	3,340	578	43	16	9.5
30	70	17	101	180	-	908	1,860	2,770	544	38	14	9.5
31	113	-	78	180	-	1,040	-	1,920	-	42	16	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					2,145	113	61	69.2	4,250			
November.....					1,397	86	17	46.6	2,770			
December.....					1,615	306	17	58.5	3,600			
Calendar year 1936 .....					415,438	9,360	17	1,135	824,100			
January.....					4,044	255	26	150	8,020			
February.....					21,079	2,930	188	753	41,810			
March.....					31,871	1,680	454	1,028	63,220			
April.....					66,680	3,520	1,380	2,223	132,300			
May.....					114,220	5,530	1,920	3,685	226,800			
June.....					37,063	2,260	505	1,235	73,510			
July.....					4,969	440	32	160	9,360			
August.....					766	45	14	24.7	1,520			
September.....					351.0	19	7.5	11.7	696			
Water year 1936-37 .....					286,400	5,530	7.5	785	568,200			

## AMERICAN RIVER BASIN

301

South Fork of American River at Coloma, Calif.

Location.- Water-stage recorder, lat. 38°48', long. 120°53', in SW¼ sec. 17, T. 11 N., R. 10 E., at highway bridge at Coloma, 0.6 mile below Irish Creek. Altitude, about 740 feet.

Drainage area.- 635 square miles.

Records available.- October 1929 to September 1937.

Extremes.- Maximum discharge during year, 7,790 second-feet Feb. 14 (gage height, 14.35 feet); minimum, 53 second-feet Sept. 20.  
1929-37: Maximum discharge, 13,300 second-feet Apr. 8, 1935 (gage height, 16.85 feet); minimum, 17 second-feet Aug. 25, 1931.

Remarks.- Records excellent. Irrigation diversions, four storage reservoirs, and two power plants above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

6.8	74	8.2	530	10.2	1,930
7.0	114	8.4	630	10.6	2,300
7.2	164	8.6	740	11.0	2,700
7.4	220	8.8	860	11.5	3,280
7.6	285	9.0	990	12.0	3,870
7.8	360	9.4	1,270	12.5	4,550
8.0	440	9.8	1,580	13.0	5,320
				14.0	7,040

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	181	257	85	235	278	668	1,700	2,800	2,160	636	178	126
2	184	151	94	229	458	674	2,650	3,380	2,250	570	181	124
3	198	178	121	192	368	712	2,200	4,000	2,500	512	178	114
4	198	209	114	184	1,720	848	1,930	4,550	2,450	454	175	114
5	170	200	126	214	3,380	934	1,750	4,700	2,350	503	164	119
6	186	203	131	223	4,700	990	2,300	4,700	2,080	476	159	119
7	186	198	119	181	2,160	1,020	1,980	4,270	1,800	462	154	116
8	178	170	126	164	1,100	1,160	1,840	3,870	1,620	388	159	116
9	195	186	131	206	724	1,240	1,840	3,870	1,500	360	148	131
10	184	156	138	232	580	1,270	1,680	3,500	1,420	376	146	119
11	184	170	119	288	540	1,270	1,840	3,260	1,500	328	148	116
12	172	167	121	268	812	1,800	1,800	4,550	1,100	356	148	119
13	164	164	126	254	1,530	2,200	2,020	5,160	1,100	388	143	121
14	178	175	110	274	5,640	1,700	2,350	5,640	1,020	400	138	94
15	178	178	154	271	2,500	1,460	3,260	5,480	1,060	292	143	92
16	192	146	389	328	1,540	1,420	3,260	5,000	2,180	257	148	96
17	192	161	424	214	1,160	1,620	2,760	4,550	2,180	260	138	87
18	200	467	206	220	1,060	1,660	2,600	4,130	1,340	226	138	92
19	156	187	175	212	969	1,540	2,650	3,030	1,240	228	141	85
20	189	156	165	148	830	2,020	2,810	3,200	1,270	220	141	83
21	200	167	138	138	752	3,090	3,620	3,500	1,240	212	141	90
22	200	181	159	154	752	2,810	3,740	3,620	1,240	198	128	96
23	203	133	136	244	776	2,250	2,920	3,500	1,160	203	138	92
24	200	133	175	220	884	2,500	2,920	3,740	1,130	220	138	92
25	214	136	226	209	1,270	1,930	3,380	3,870	990	254	131	99
26	164	110	151	212	962	1,540	3,740	2,860	842	214	138	116
27	175	126	320	238	800	1,650	3,080	3,200	734	209	133	96
28	189	112	238	408	712	1,600	2,600	3,500	712	195	131	126
29	186	119	232	336	-	1,380	2,160	3,620	724	184	136	138
30	192	92	235	328	-	1,340	2,110	3,140	740	170	121	138
31	203	-	244	274	-	1,420	-	2,200	-	172	131	-
Month	Second-foot-days					Maximum	Minimum	Mean	Run-off in acre-feet			
October.....	5,798					214	156	187	11,450			
November.....	4,866					257	92	162	9,660			
December.....	5,449					424	85	176	10,810			
Calendar year 1936.....	544,165					10,800	85	1,487	1,079,600			
January.....	7,298					408	138	235	14,480			
February.....	38,957					5,640	278	1,391	77,270			
March.....	47,626					3,090	668	1,536	94,460			
April.....	75,590					3,740	1,700	2,520	149,900			
May.....	120,190					5,640	2,200	3,877	238,400			
June.....	43,292					2,500	712	1,443	85,870			
July.....	9,921					636	170	320	19,680			
August.....	4,534					181	121	148	8,990			
September.....	3,266					138	83	109	6,480			
Water year 1936-37.....	366,779					5,640	83	1,005	727,500			



## Echo Lake flume near Vade, Calif.

Location.- Water-stage recorder, lat. 38°50', long. 120°02', in NW¼ sec. 6, T. 11 N., R. 18 E., half a mile below intake and 2 miles northeast of Vade post office (old town of Phillips). Altitude, about 7,500 feet.

Records available.- August 1923 to September 1937.

Extremes.- Maximum daily discharge during season, 23 second-feet Sept. 13-15; no flow during most of year.

1923-37: Maximum daily discharge, 25 second-feet Sept. 16-18, 1930; no flow during most of each year.

Remarks.- Records good. Flume diverts water from Echo Lake, in Truckee River Basin, into basin of South Fork of American River for power development.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17											0
2	16											0
3	15											0
4	14											0
5	13											0
6	11											0
7	11											15
8	9.5											22
9	9											22
10	8											22
11	7.5											22
12	6.5											22
13	6											23
14	5.5											23
15	4.3											23
16	2.6											22
17	3.2											22
18	2.7											22
19	2.2											22
20	1.7											22
21	1.2											22
22	1.2								*1			22
23	1.2											22
24	1.2											22
25	1.2											21
26	1.0											20
27	1.0											19
28	1.0											18
29	1.0											16
30	1.0											15
31	1.0											-
Month												
		Second-foot-days		Maximum		Minimum		Mean		Run-off in acre-feet		
October.....		177.9		17		1.0		5.74		353		
November.....		0		0		0		0		0		
December.....		0		0		0		0		0		
Calendar year 1936.....		723.9		22		0		1.96		1,430		
January.....		0		0		0		0		0		
February.....		0		0		0		0		0		
March.....		0		0		0		0		0		
April.....		0		0		0		0		0		
May.....		0		0		0		0		0		
June.....		1		-		0		.03		2		
July.....		0		0		0		0		0		
August.....		0		0		0		0		0		
September.....		501		23		0		16.7		994		
Water year 1936-37.....		679.9		23		0		1.86		1,350		

\*Special release for rating gage.

## Medley Lakes outlet near Vade, Calif.

Location.- Water-stage recorder, lat. 38°51', long. 129°08', in SW $\frac{1}{4}$  sec. 29, T. 12 N., R. 17 E., 1 mile below main dam at Medley Lakes and 5 miles northwest of Vade post office, old town of Phillips. Altitude, about 8,100 feet.

Drainage area.- 6.2 square miles.

Records available.- September 1922 to September 1937. No winter records for most years.

Extremes.- Maximum discharge during year, 81 second-feet June 4 (gage height, 2.15 feet); probably no flow at times during winter.

1922-37: Maximum discharge, 202 second-feet June 15, 16, 1929 (gage height, 3.42 feet); no flow at times.

Remarks.- Records good except those for Dec. 27 to May 5, which were estimated and are fair. Practically no available storage in Medley Lakes above station on Sept. 30, 1936, or Sept. 30, 1937.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.0	0.0	.7	5.5	1.4	30
.1	.2	.8	7.5	1.5	35
.2	.4	.9	10	1.6	41
.3	.8	1.0	13	1.7	47
.4	1.5	1.1	16	1.8	54
.5	2.5	1.2	20	1.9	61
.6	4.0	1.3	25	2.0	69
				2.2	85

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	6	0.8					12	39	42	73	17
2	7.5	6	.8					12	53	40	72	17
3	7.5	5.5	.8					12	53	40	72	17
4	7	5.5	.8					10	61	42	71	17
5	7	5.5	.7					8.5	65	44	71	17
6	7	5.5	.7					8	65	40	70	17
7	7	5.5	.7					7	67	35	70	14
8	7	5.5	.7					5.5	67	34	69	7.5
9	7	5.5	.6					5.5	67	26	68	7
10	7	5.5	.6					4.8	63	16	67	7
11	7	5.5	.6					6.5	50	16	67	7
12	7	5	.6					9	38	18	67	6.5
13	6.5	5	.6					12	39	19	66	6.5
14	6.5	5	.6					14	24	18	65	6.5
15	6.5	5	1.2					12	9	15	64	7
16	6.5	4.9	3.1					10	18	14	63	7
17	6.5	4.9	4.2					9	6.5	14	63	7
18	7	4.8	4.2					6.5	5.5	13	63	6.5
19	7	4.8	4.0					4.0	7	12	62	6.5
20	7	4.6	4.0					6.5	9	12	61	6.5
21	6.5	4.4	4.2					8	12	11	60	6.5
22	6.5	4.3	4.0					9	38	11	59	6.5
23	6.5	4.4	3.6					10	56	22	58	6.5
24	6.5	4.6	3.4					11	53	45	57	6.5
25	6.5	3.2	3.0					9	49	42	56	6.5
26	6.5	2.2	2.8					8	47	40	55	6.5
27	6	1.7	2.6					10	47	40	55	6.5
28	6	1.3	2.4					19	40	40	36	6.5
29	6	1.2	2.2					32	42	40	18	6.5
30	6	1.0	2.0					25	45	58	18	6.5
31	6	-	1.8					24	-	73	18	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				208.0	7.5	6	6.71	413				
November.....				133.8	6	1.0	4.46	265				
December.....				62.3	4.2	.6	2.01	124				
Calendar year 1936.....				6,970.3	91	.6	19.0	13,820				
January.....				31	-	-	1.0	61				
February.....				28	-	-	1.0	56				
March.....				62	-	-	2.0	123				
April.....				180	-	-	6.0	357				
May.....				339.8	32	4.0	11.0	674				
June.....				1,235.0	67	5.5	41.2	2,450				
July.....				932	73	11	30.1	1,850				
August.....				1,834	73	18	59.2	3,640				
September.....				269.6	17	6.5	8.98	535				
Water year 1936-37.....				5,315.4	73	-	14.6	10,550				

## Silver Lake outlet near Kirkwood, Calif.

Location.- Water-stage recorder, lat. 38°40', long. 120°08', in SW¼ sec. 32, T. 10 N., R. 17 E., 1,000 feet below Silver Lake Dam and 3 miles southwest of Kirkwood. Altitude, about 7,200 feet.

Drainage area.- 14.9 square miles.

Records available.- September 1922 to September 1937.

Average discharge.- 15 years, 28.9 second-feet.

Extremes.- Maximum discharge during year, 366 second-feet June 16 (gage height, 4.25 feet); minimum, probably less than 0.2 second-foot in December and January. 1922-37: Maximum discharge, 374 second-feet July 1, 1932 (gage height, 4.28 feet); minimum, 0.1 second-foot during that part of nearly every year when reservoir gate was closed.

Remarks.- Records good except those for Nov. 11 to Mar. 31 which were computed on basis of records for Twin Lakes outlet near Kirkwood and are fair. Storage in Silver Lake was 2,920 acre-feet on Sept. 30, 1936, and 3,560 acre-feet on Sept. 30, 1937. In addition to water released through dam and over spillway, some water escapes from Silver Lake through porous rock formation. See records for Seepage from Silver Lake near Kirkwood.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.5	0.2	1.4	40	2.8	172
.6	1.0	1.6	57	3.0	194
.7	3.0	1.8	75	3.2	216
.8	6.0	2.0	93	3.4	240
.9	9.5	2.2	111	3.6	265
1.0	14.0	2.4	131	3.8	291
1.2	25	2.6	151		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	3.3					18	70	98	5.5	1.8	1.2
2	71	3.0					19	76	108	5.5	1.6	2.0
3	69	2.8					19	87	131	5	1.2	2.2
4	66	2.4					18	90	135	4.8	1.4	2.0
5	63	2.2					18	94	146	4.5	2.2	1.8
6	61	2.0					18	99	102	4.2	1.8	1.8
7	58	2.0					18	130	75	3.3	1.0	42
8	55	1.6					17	172	77	3.0	1.4	68
9	52	1.2					16	188	45	3.0	2.6	66
10	49	1.0					16	183	6	3.6	1.8	66
11	46	.9					16	183	6.5	3.9	1.8	70
12	43	.8					16	240	7	4.2	2.4	70
13	39	.8					16	265	7	3.3	2.0	64
14	37	.8					18	291	6.5	2.6	1.8	52
15	34	.8					21	291	5.5	2.6	1.8	51
16	28	.8					24	278	166	2.8	1.0	53
17	25	.8					26	285	53	2.8	1.6	54
18	22	.8					28	252	98	3.0	2.6	56
19	19	.8					29	216	120	2.8	1.8	57
20	16	.7					31	216	83	3.3	1.2	57
21	14	.7					36	200	70	3.0	1.4	56
22	12	.7					41	216	76	2.8	2.2	56
23	11	.6					44	205	67	2.8	1.8	56
24	9	.6					48	228	57	3.3	1.2	56
25	8	.5					52	246	18	3.3	1.4	57
26	7.5	.4					56	222	21	2.4	2.2	56
27	6.5	.3					58	234	24	1.8	1.8	57
28	4.8	.2					58	252	29	1.2	1.2	59
29	4.2	.2					66	252	32	1.4	1.0	62
30	3.9	.2					70	205	17	1.6	2.0	63
31	3.6	-					-	133	-	2.2	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,011.5	74	3.6	32.6	2,010
November.....	33.9	3.3	.2	1.13	67
December.....	6.2	-	-	.2	12
Calendar year 1936 .....	15,803.8	291	.2	43.2	31,350
January.....	6.2	-	-	.2	12
February.....	84.0	-	-	3.0	167
March.....	217	-	-	7.0	430
April.....	830	70	16	31.0	1,340
May.....	6,079	291	70	195	12,060
June.....	1,886.5	166	5.5	62.9	3,740
July.....	99.5	5.5	1.2	3.21	197
August.....	52.4	2.6	1.0	1.69	104
September.....	1,415.0	70	1.2	47.2	2,810
Water year 1936-37 .....	11,821.2	291	-	32.4	23,450

## Seepage from Silver Lake near Kirkwood, Calif.

Location.- Staff gage, lat. 36°40', long. 120°07', in SW¼ sec. 32, T. 10 N., R. 17 E., just above road crossing half a mile northeast of Silver Lake Dam. Altitude, about 7,200 feet.

Records available.- October 1929 to September 1937.

Extremes.- Maximum discharge observed during year, 18 second-feet July 6; no flow during most of year.  
1929-37: Maximum discharge observed, 25 second-feet June 9, 1950; no flow during most of each year.

Remarks.- Records good except those for May 6-21 which were computed on basis of Silver Lake spill and are fair. Staff gage read to hundredths once daily. No flow when Silver Lake gage height is below 14.0 feet. This record shows amount of largest and only important seepage from Silver Lake through the porous rock formation. See records for Silver Lake outlet.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.9	0
1.0	.3
1.1	.9
1.2	2.0
1.3	4.0
1.4	7.0
1.5	10.5
1.6	14.0
1.7	17.5
1.8	21.0

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	3.0	16	12	5
2								0	3.0	16	12	5
3								0	4.0	16	12	4.6
4								0	4.0	16	12	4.6
5								0	4.0	16	12	4.0
6								.1	5.5	18	11	4.0
7								.2	7	16	11	4.0
8								.4	7	16	10	3.6
9								.5	8	16	10	3.0
10								.5	10	16	10	2.4
11								.7	10	16	10	1.6
12								.9	12	14	10	.9
13								.9	12	14	10	.7
14								.9	14	14	9	.5
15								.9	14	14	9	.3
16								.9	14	14	8.5	.2
17								.9	16	14	8.5	0
18								.9	16	14	8.5	0
19								.9	16	14	8	0
20								.9	16	14	8	0
21								.9	16	14	7.5	0
22								.9	16	14	7.5	0
23								.9	16	14	7	0
24								.9	16	14	7	0
25								.9	16	13	7	0
26								.9	16	13	6.5	0
27								.9	16	13	6.5	0
28								.9	16	13	6.5	0
29								1.4	16	13	6	0
30								1.4	16	12	6	0
31								3.0	-	12	6	-
Month								Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....								0	0	0	0	0
November.....								0	0	0	0	0
December.....								0	0	0	0	0
Calendar year 1936.....								1,231.8	19	0	3.37	2,440
January.....								0	0	0	0	0
February.....								0	0	0	0	0
March.....								0	0	0	0	0
April.....								0	0	0	0	0
May.....								23.5	3.0	0	.76	47
June.....								355.5	16	3.0	11.8	705
July.....								449	18	12	14.5	891
August.....								275.0	12	6	8.57	545
September.....								44.4	5	0	1.48	88
Water year 1936-37 .....								1,147.4	18	0	3.14	2,280

## Silver Fork of South Fork of American River near Kyburz, Calif.

Location.- Water-stage recorder, lat. 38°45', long. 120°17', in NE¼ sec. 34, T. 11 N., R. 15 E., 2 miles above mouth and 2 miles southeast of Kyburz. Altitude, about 4,850 feet.

Drainage area.- 108 square miles.

Records available.- August 1924 to September 1937.

Average discharge.- 13 years, 176 second-feet.

Extremes.- Maximum discharge during year, 1,920 second-feet May 13 (gage height, 5.05 feet); minimum, 24 second-feet Dec. 17 (gage height, 1.44 feet).  
1924-37: Maximum discharge, 3,620 second-feet Mar. 25, 1928 (gage height, 6.54 feet); minimum, 1.4 second-feet Dec. 6, 1929.

Remarks.- Records good except those for periods of ice effect, Jan. 4 and Jan. 6 to Mar. 11, which were computed on basis of records for South Fork of American River near Kyburz and are fair. No diversions. Storage in Twin Lakes (capacity, 21,250 acre-feet) and Silver Lake (capacity, 8,900 acre-feet).

Rating table, water year 1936-37 except for periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.4	22	3.0	270
1.6	35	3.2	332
1.8	54	3.4	410
2.0	76	3.6	512
2.2	106	3.8	644
2.4	138	4.0	810
2.6	174	4.4	1,210
2.8	216	4.8	1,650

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	119	51	79		40	182	637	415	163	57	111
2	116	125	54	79		40	190	748	439	142	56	99
3	116	128	62	78		41	188	910	485	133	60	99
4	112	133	49	78		41	163	1,000	485	132	62	99
5	114	135	62	79		42	156	1,050	448	135	62	99
6	119	106	84	75		42	158	960	372	165	66	99
7	120	85	62	78		43	156	900	316	119	65	114
8	120	81	58	78		43	169	890	291	98	63	98
9	122	92	57	78		44	178	900	264	91	63	89
10	120	95	56	90		44	205	784	212	99	73	86
11	122	96	56	96		44	209	830	194	102	72	88
12	124	96	60	96		44	224	1,220	182	100	72	89
13	127	95	60	90		48	285	1,450	184	167	72	88
14	125	98	55	78		61	448	1,540	178	85	75	69
15	127	98	75	68		63	616	1,420	180	74	75	58
16	128	98	111	65		57	485	1,300	627	75	75	69
17	127	96	32	65		50	381	1,170	359	79	75	69
18	124	95	50	65		56	402	970	282	86	81	70
19	130	95	52	65		109	424	775	294	86	81	72
20	124	93	51	65		140	549	820	300	89	79	72
21	122	93	50	70		138	706	850	361	96	78	70
22	128	96	49	68		128	615	840	361	99	85	69
23	133	96	48	65		124	485	860	372	102	84	69
24	133	46	49	65		120	555	910	350	99	79	69
25	136	42	60	65		116	683	860	276	79	78	72
26	136	42	54	65		111	667	731	201	75	84	72
27	135	42	78	65		109	537	801	182	77	84	70
28	135	45	89	65		105	397	870	172	78	82	72
29	138	45	89	65		108	354	850	207	82	105	72
30	138	49	79	65		120	410	644	190	85	112	77
31	122	-	79	65		145	-	439	-	68	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	3,687	138	112	125	7,710
November.....	2,668	135	42	88.9	5,290
December.....	1,921	111	32	62.0	3,810
Calendar year 1936.....	96,337	1,540	32	263	191,100
January.....	2,271	96	65	73.3	4,500
February.....	1,400	-	-	50	2,780
March.....	2,416	145	40	77.9	4,790
April.....	11,178	706	156	373	22,170
May.....	29,029	1,540	439	936	57,580
June.....	9,179	627	172	306	18,210
July.....	3,163	167	68	102	6,270
August.....	2,367	112	56	76.4	4,690
September.....	2,459	114	68	82.0	4,880
Water year 1936-37.....	71,938	1,540	32	197	142,700

## Twin Lakes outlet near Kirkwood, Calif.

Location.-- Water-stage recorder, lat. 38°42', long. 120°03', in SW¼ sec. 18, T. 10 N., R. 18 E., 500 feet below main dam and outlet gate of Twin Lakes and 1 mile east of Kirkwood. Altitude, about 7,900 feet.

Drainage area.-- 12.4 square miles.

Records available.-- September 1922 to September 1937.

Average discharge.-- 15 years, 29.0 second-feet (including flow over Twin Lakes spillway).

Extremes.-- Maximum discharge during year, 159 second-feet June 22-24 (gage height, 1.85 feet); minimum, 1.0 second-foot Sept. 8.

1922-37: Maximum discharge, 176 second-feet May 25-28, 1928 (gage height, 1.95 feet); minimum, 0.2 second-foot (leakage) at various times.

Remarks.-- Records excellent. No diversions. Storage in Twin Lakes was 16,500 acre-feet on Sept. 30, 1936, and 15,850 acre-feet on Sept. 30, 1937. No flow over Twin Lakes spillway during the year.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

.1	.4	1.1	60
.2	1.5	1.2	71
.3	3.8	1.3	82
.4	7.0	1.4	94
.5	11.5	1.5	106
.6	17.0	1.6	120
.7	23.5	1.7	135
.8	31.0	1.8	151
.9	40	1.9	167
1.0	50		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	100	44	66	48	1.5	1.5	2.0	2.0	61	24	62
2	34	106	46	66	30	1.5	1.4	2.0	2.0	46	26	76
3	35	110	45	66	21	1.5	1.4	2.2	1.7	46	30	78
4	37	114	44	66	15	1.5	1.5	2.2	2.0	47	30	79
5	46	105	64	66	1.5	1.5	1.5	2.2	2.0	74	34	79
6	52	78	58	66	1.5	1.5	1.7	2.2	2.0	80	36	80
7	55	73	50	66	1.5	1.5	1.5	2.0	2.0	42	36	41
8	57	76	50	66	1.5	1.5	1.5	2.0	2.0	25	36	2.2
9	60	78	50	76	1.5	1.5	1.5	2.0	2.0	30	41	2.2
10	64	81	50	87	1.5	1.5	1.5	1.7	2.0	35	45	1.7
11	68	81	50	86	1.5	1.5	1.5	2.4	2.0	35	45	1.4
12	72	81	49	86	1.5	1.5	1.5	2.2	2.0	67	45	1.4
13	76	82	48	79	1.5	1.5	1.7	2.6	2.0	42	48	1.3
14	78	82	49	62	1.5	1.5	1.7	2.6	3.1	15	50	1.4
15	82	82	42	54	1.5	1.5	2.2	2.2	5.5	20	51	1.4
16	87	82	18	55	1.5	1.5	2.0	2.4	8.5	24	50	1.5
17	88	82	29	55	1.5	1.5	1.7	2.0	6.5	32	53	1.5
18	90	82	40	55	1.5	1.5	1.7	1.7	5	36	55	1.5
19	94	82	40	55	1.5	1.5	1.7	2.0	6.5	40	55	1.5
20	93	82	40	68	1.5	1.5	1.7	2.0	56	47	55	1.5
21	100	83	40	64	1.5	1.7	2.0	2.2	135	53	57	1.4
22	105	84	40	55	1.5	1.7	1.4	2.2	153	54	59	1.4
23	109	80	40	55	1.5	1.5	1.7	2.4	159	52	57	1.5
24	109	33	44	55	1.5	1.5	2.0	3.1	154	31	55	1.5
25	113	33	50	55	1.5	1.5	2.0	3.6	113	31	57	1.5
26	113	33	56	55	1.5	1.5	1.5	3.3	55	34	59	1.5
27	113	33	76	55	1.5	1.4	1.5	2.9	41	38	58	1.5
28	114	34	75	55	1.5	1.4	1.5	2.0	45	42	67	1.5
29	117	35	69	55	-	1.4	1.5	2.0	72	44	88	1.5
30	113	44	70	55	-	1.5	1.7	1.7	72	44	88	1.5
31	94	-	71	55	-	1.5	-	2.0	-	22	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	2,500	117	32	80.6	4,960
November.....	2,211	114	33	73.7	4,390
December.....	1,537	76	18	49.6	3,050
Calendar year 1936.....	16,177.3	208	1.4	44.2	32,090
January.....	1,960	87	54	63.2	3,890
February.....	150.0	48	1.5	6.36	298
March.....	46.6	1.7	1.4	1.50	92
April.....	49.2	2.2	1.4	1.64	98
May.....	70.0	3.6	1.7	2.26	139
June.....	1,115.8	159	1.7	37.2	2,210
July.....	1,293	80	15	41.7	2,560
August.....	1,578	88	24	50.9	3,130
September.....	550.3	82	1.3	18.3	1,090
Water year 1936-37.....	13,060.9	159	1.3	35.8	25,910

## AMERICAN RIVER BASIN

El Dorado Canal near Kyburz, Calif.

Location.—Water-stage recorder, lat. 38°46', long. 120°19', in SE¼ sec. 29, T. 11 N., R. 15 E., 400 feet below intake and 2 miles west of Kyburz. Altitude, about 4,100 feet.

Records available.- October 1922 to September 1937.

Average discharge.- 15 years, 95.6 second-feet.

Extremes.- Maximum daily discharge during year, 156 second-feet July 8; no flow

1922-37: Maximum daily discharge, 158 second-feet June 18, 1931; no flow at times in most years.

Remarks.- Records excellent except those for periods of ice effect, Jan. 4, 6-12, 15-26, 31, Feb. 1, 3, 8-10, which were computed on basis of gage heights, weather records, and reported gate changes at canal intake and are fair. Canal diverts from left bank of South Fork of American River just below mouth of Silver Fork of South Fork of American River and 2 miles below Kyburg; water used for power and irrigation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	124	53	104	60	74	68	70	117	151	144	134
2	145	133	54	101	61	74	66	70	115	152	143	125
3	142	136	60	100	56	74	70	70	100	153	143	121
4	137	141	50	100	51	74	70	70	117	125	145	121
5	138	141	60	100	52	74	70	70	119	154	143	119
6	140	114	82	100	52	74	70	70	120	155	144	118
7	142	91	82	100	51	74	70	13	125	155	145	118
8	140	93	66	70	51	72	70	0	129	156	142	134
9	141	94	62	50	51	70	70	0	130	154	139	124
10	139	98	61	44	52	70	70	0	133	147	144	118
11	139	101	58	70	52	70	70	0	133	148	145	116
12	140	100	60	88	52	66	70	0	136	148	144	119
13	142	99	59	104	53	66	70	0	138	150	144	116
14	140	100	62	104	54	60	70	0	139	150	146	109
15	141	102	78	82	54	60	70	0	139	148	146	98
16	139	102	121	76	53	60	70	0	128	147	145	98
17	137	101	73	76	53	60	70	0	120	145	144	98
18	133	100	72	76	53	60	70	0	121	148	143	96
19	142	100	73	72	60	60	70	41	121	140	145	96
20	142	98	69	70	63	50	70	68	120	140	143	98
21	136	98	68	55	63	60	70	77	120	143	141	98
22	139	100	65	55	63	59	70	80	121	142	144	98
23	142	100	62	50	63	59	70	80	132	137	145	96
24	140	57	66	50	64	59	70	88	142	146	141	96
25	143	49	74	50	63	60	70	96	144	147	137	96
26	142	49	70	50	63	60	71	98	145	145	140	98
27	140	49	80	57	63	60	70	105	145	143	140	96
28	140	49	108	57	60	60	71	111	145	142	139	94
29	142	49	106	58	-	59	70	113	148	142	133	95
30	141	53	103	60	-	60	70	115	151	142	135	94
31	128	-	106	60	-	66	-	117	-	145	133	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						4,332	145	128	140	8,590		
November.....						2,321	141	49	94.0	5,600		
December.....						2,253	121	50	72.7	4,470		
Calendar year 1936.....						40,150.4	151	4.6	110	79,650		
January.....						2,289	104	44	73.8	4,540		
February.....						1,596	70	51	57.0	3,370		
March.....						2,008	74	59	64.8	3,930		
April.....						2,096	71	65	69.9	4,160		
May.....						1,828	117	0	52.5	3,230		
June.....						3,893	151	100	130	7,720		
July.....						4,538	156	125	146	9,000		
August.....						4,405	146	135	142	8,740		
September.....						3,237	134	94	108	6,420		
Water year 1936-37.....						35,096	156	0	96.2	69,620		

## Alder Creek near Whitehall, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}45'$ , long.  $120^{\circ}22'$ , in SW $\frac{1}{4}$  sec. 36, T. 11 N., R. 14 E., three-quarters of a mile above mouth and 2 miles southeast of Whitehall. Altitude, about 4,000 feet.

Drainage area.- 22.8 square miles.

Records available.- October 1922 to September 1937. Published records include diversions by feeder flume.

Average discharge.- 15 years, 27.4 second-feet.

Extremes.- Maximum discharge during year, 247 second-feet May 5 (gage height, 2.85 feet); minimum, 0.1 second-foot Sept. 10-30.

1922-37: Maximum discharge, about 2,060 second-feet Mar. 25, 1928 (gage height, 7.1 feet); minimum, 0.1 second-foot at times in 1924, 1926, 1931, 1933-37.

Remarks.- Records fair. Discharge interpolated Oct. 16-22 and Sept. 19-30; that for period of ice effect, Jan. 5 to Feb. 6, computed on basis of one discharge measurement, gage heights, and flow in feeder flume. Records include computed flow in feeder flume which diverted just above station to El Dorado Canal, Dec. 14 to Mar. 31.

Rating table, water year 1935-37 except for period of ice effect (gage height, in feet, and discharge, in second-feet)

0.8	0.0	1.6	28	2.4	150
1.0	.3	1.8	49	2.6	192
1.2	3.0	2.0	79	2.8	256
1.4	15	2.2	113		

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.5	0.3	1.7	1.6	22	57	146	47	6	0.8	0.2
2	.3	.5	.3	1.6	1.7	23	79	170	44	6	.8	.2
3	.4	.4	.3	1.6	1.7	27	82	166	40	5.5	.7	.2
4	.4	.4	.3	1.6	2.1	34	71	216	38	5	.7	.2
5	.3	.4	.3	1.6	62	34	66	225	34	5	.6	.2
6	.3	.4	.3	1.6	84	49	66	223	31	4.6	.6	.2
7	.3	.4	.3	1.6	106	56	66	210	28	4.2	.6	.2
8	.3	.4	.3	1.6	39	64	69	192	27	3.8	.6	.2
9	.3	.3	.4	1.6	24	68	79	183	26	4.2	.6	.2
10	.3	.3	.4	1.6	15	76	91	170	26	4.2	.5	.1
11	.3	.3	.4	1.6	13	81	93	168	23	4.2	.4	.1
12	.3	.3	.4	1.6	15	109	99	185	22	4.2	.4	.1
13	.3	.3	.4	1.6	27	112	115	205	21	3.8	.3	.1
14	.3	.3	.4	1.6	174	99	148	207	20	3.0	.2	.1
15	.3	.3	1.8	1.6	99	92	179	196	19	2.8	.2	.1
16	.3	.3	6.5	1.6	65	92	170	183	41	2.6	.2	.1
17	.3	.3	1.6	1.6	48	102	156	166	35	2.3	.2	.1
18	.3	.3	1.0	1.6	40	94	154	180	25	2.3	.2	.1
19	.3	.3	.9	1.6	34	82	158	127	21	2.1	.2	.1
20	.3	.3	.9	1.6	30	70	177	115	19	2.1	.2	.1
21	.3	.3	.8	1.6	28	63	205	113	16	1.7	.2	.1
22	.3	.3	.7	1.6	31	57	196	110	16	1.7	.2	.1
23	.3	.3	.7	1.6	33	50	179	106	14	1.7	.2	.1
24	.3	.3	.8	1.6	34	49	177	101	13	1.7	.2	.1
25	.3	.3	.9	1.6	31	44	192	96	11	1.7	.2	.1
26	.2	.3	1.5	1.6	27	41	192	88	9.5	1.2	.2	.1
27	.2	.3	2.6	1.6	24	40	177	79	9	1.2	.2	.1
28	.2	.3	2.0	1.6	22	38	150	74	7.5	1.0	.2	.1
29	.2	.3	1.8	1.6	-	37	131	69	8	.8	.2	.1
30	.2	.3	1.7	1.6	-	39	127	62	7	.8	.2	.1
31	.4	-	1.7	1.6	-	44	-	53	-	.8	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	9.1	0.4	0.2	0.29	18
November.....	10.0	.5	.3	.53	20
December.....	32.7	6.5	.3	1.05	65
Calendar year 1936.....	16,891.7	333	.2	46.2	33,500
January.....	49.7	1.7	1.6	1.60	99
February.....	1,112.1	174	1.6	39.7	2,210
March.....	1,888	112	22	60.9	3,740
April.....	3,901	205	57	130	7,740
May.....	4,584	225	53	148	9,090
June.....	697.0	47	7	23.2	1,380
July.....	92.2	.8	.8	2.87	133
August.....	11.2	.8	.2	.36	22
September.....	3.9	.2	.1	.13	7.7
Water year 1936-37.....	12,390.9	225	.1	33.9	24,570



## Plum Creek near Riverton, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}45'$ , long.  $120^{\circ}26'$ , in SE $\frac{1}{4}$  sec. 32, T. 11 N., R. 14 E.,  $1\frac{1}{2}$  miles above mouth and 2 miles southeast of Riverton. Altitude, about 4,100 feet.

Drainage area.- 6.8 square miles.

Records available.- November 1922 to September 1937.

Average discharge.- 15 years, 7.37 second-feet.

Extremes.- Maximum discharge during year, 213 second-feet Feb. 13 (gage height, 2.67 feet); minimum, 0.1 second-foot Aug. 15 to Sept. 6 and Sept. 12-16.  
1922-37: Maximum discharge, 635 second-feet Mar. 25, 1928 (gage height, 4.10 feet); minimum, 0.1 second-foot at times during 1924-26, 1930-35, and 1937.

Remarks.- Records good except those for period of backwater from leaves, those Oct. 1 to Dec. 14, and those for period of ice effect, Jan. 5 to Feb. 10 which were computed on basis of two discharge measurements and weather records and are fair. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.3	0.3	1.0	.8	13	58	23	3.6	1.0	0.2	0.1
2	.3	.3	.3	.9	.8	13	76	26	3.4	.9	.2	.1
3	.3	.3	.3	.8	.8	14	58	29	3.0	.8	.2	.1
4	.3	.3	.3	.7	.8	18	46	31	2.7	.6	.2	.1
5	.3	.3	.3	.7	1.0	23	40	30	2.6	.5	.2	.1
6	.3	.3	.3	.7	2	24	58	28	2.4	.5	.2	.1
7	.3	.3	.3	.7	3	26	48	26	2.2	.4	.2	.2
8	.3	.3	.3	.7	4	28	46	22	2.1	.4	.2	.2
9	.3	.3	.3	.7	5	31	46	19	2.1	.4	.2	.2
10	.3	.3	.3	.7	6	35	46	16	2.0	.4	.2	.2
11	.3	.3	.3	.7	9	36	44	15	2.0	.4	.2	.2
12	.3	.3	.3	.7	16	57	43	15	1.8	.4	.2	.1
13	.3	.3	.4	.7	64	57	46	15	1.7	.4	.2	.1
14	.3	.3	.4	.7	103	44	56	14	1.7	.4	.2	.1
15	.2	.3	2.4	.7	38	36	63	12	1.6	.4	.1	.1
16	.2	.3	2.4	.7	22	36	54	11	3.2	.4	.1	.1
17	.2	.3	1.3	.7	17	44	47	9	2.5	.4	.1	.2
18	.2	.3	.9	.7	17	40	42	8.5	2.2	.4	.1	.2
19	.2	.3	.8	.7	15	31	41	7.5	2.0	.4	.1	.2
20	.2	.3	.8	.6	13	27	43	7	2.0	.4	.1	.2
21	.2	.3	.7	.6	13	26	46	6.6	1.8	.3	.1	.2
22	.2	.3	.7	.6	14	22	46	6	1.7	.3	.1	.2
23	.2	.3	.6	.6	14	19	40	5.5	1.6	.3	.1	.2
24	.2	.3	.6	.6	15	17	35	5.5	1.5	.3	.1	.2
25	.2	.3	.9	.6	15	16	36	5.5	1.4	.3	.1	.2
26	.2	.3	1.1	.6	13	16	35	5	1.3	.3	.1	.2
27	.2	.3	2.0	.6	12	15	32	4.8	1.2	.3	.1	.2
28	.2	.3	1.1	.6	12	16	28	4.6	1.2	.2	.1	.2
29	.2	.3	.9	.6	-	19	25	4.4	1.1	.2	.1	.2
30	.2	.3	1.0	.6	-	25	22	4.0	1.1	.2	.1	.2
31	.3	-	1.1	.6	-	34	-	3.8	-	.2	.1	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						7.7	0.3	0.2	0.25	15		
November.....						9.0	.3	.3	.30	18		
December.....						24.0	2.4	.3	.77	48		
Calendar year 1936 .....						4,874.4	347	.2	13.3	9,660		
January.....						21.1	1.0	.6	.68	42		
February.....						446.2	103	.8	15.9	885		
March.....						868	57	13	27.7	1,700		
April.....						1,348	76	22	44.9	2,670		
May.....						419.6	31	3.8	13.5	832		
June.....						60.4	3.6	1.1	2.01	120		
July.....						12.8	1.0	.2	.41	25		
August.....						4.6	.2	.1	.15	8.9		
September.....						4.9	.2	.1	.16	9.7		
Water year 1936-37 .....						3,216.2	103	.1	8.81	6,370		

## Silver Creek at Union Valley, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}52'$ , long.  $120^{\circ}26'$ , in SE $\frac{1}{4}$  sec. 20, T. 12 N., R. 14 E., 1 mile below junction of North and Middle Forks of Silver Creek, near lower end of Union Valley. Altitude, about 4,530 feet.

Drainage area.- 82.7 square miles.

Records available.- October 1924 to September 1937.

Average discharge.- 12 years (1924-27, 1928-37), 189 second-feet.

Extremes.- Maximum discharge during year, 2,650 second-feet May 13 (gage height, 7.38 feet); minimum, 4.0 second-feet Dec. 4.

1924-37: Maximum discharge, about 9,600 second-feet Mar. 25, 1928 (gage height, 14.7 feet); minimum, 1.9 second-feet Aug. 27, 28, 1931.

Remarks.- Records excellent except those for Dec. 27 to Apr. 30, which are fair and were computed on basis of records for station near Placerville and South Fork of Silver Creek near Ice House. No diversions above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.4	2.4	1.8	114	3.5	472
.6	6.5	2.0	144	4.0	634
.8	16.0	2.2	178	4.5	825
1.0	30	2.4	216	5.0	1,060
1.2	46	2.6	256	5.5	1,325
1.4	64	2.8	298	6.0	1,630
1.6	87	3.0	342		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	9	6	9				785	550	97	13	6
2	6	9	6	9				1,040	634	87	12	6
3	6	9	6	9				1,240	617	77	12	6
4	6	8.5	6	9				1,380	600	75	12	6
5	6	8.5	6	9				1,410	518	74	11	6
6	6	8.5	7	8				1,350	444	65	11	6
7	5.5	8	7	8				1,160	378	59	10	5.5
8	5.5	8	9	8				1,010	333	54	9.5	5.5
9	5	8	8	8				1,010	327	50	9	5.5
10	5	7.5	8	8				848	296	60	9	5.5
11	5	8	6	8				1,010	256	63	8.5	5.5
12	5	8	6.5	8				1,380	238	95	8.5	5.5
13	5	8	7.5	8				1,630	250	61	8	5.5
14	5	8	7.5	8				1,660	228	48	7.5	5
15	5	8.5	32	8				1,550	244	42	7	5
16	4.5	8.5	136	8				1,220	840	38	7	5
17	4.8	8	35	8				1,110	354	36	7	5
18	5.5	8	25	8				915	268	33	6.5	5
19	7.5	7.5	20	8				707	250	30	6.5	4.8
20	7.5	7	16	8				870	260	27	6.5	5
21	7.5	7	17	8				960	242	25	6	5
22	7	7	17	8				938	212	23	6	5
23	6.5	7	16	8				960	185	22	6	5
24	6	7	16	8				938	176	22	6	5
25	6	7	14	8				870	152	23	6	5
26	6	6.5	12	8				726	144	22	6	5
27	6	6.5	11	8				848	133	20	6	5
28	6	6.5	10	8				915	128	17	6	4.8
29	6	6.5	10	8				805	131	16	6	4.8
30	6.5	6	10	8				617	118	14	6	5
31	9	-	10	8				487	-	13	6	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				183.3	9	4.5	5.91	364				
November.....				230.5	9	6	7.68	467				
December.....				503.5	136	6	16.2	999				
Calendar year 1936.....				105,080.8	2,250	4.5	287	208,400				
January.....				253	9	8	8.2	502				
February.....				2,520	-	-	90	5,000				
March.....				4,960	-	-	160	9,840				
April.....				15,000	-	-	500	29,760				
May.....				32,049	1,630	487	1,034	63,570				
June.....				9,506	840	118	317	18,850				
July.....				1,418	97	13	45.7	2,810				
August.....				247.5	13	6	7.98	491				
September.....				158.9	6	4.8	5.30	315				
Water year 1936-37.....				67,029.7	1,630	4.5	184	132,900				

## Silver Creek near Placerville, Calif.

Location.- Water-stage recorder, lat. 38°47', long. 120°35', in SW<sup>1</sup> sec. 13, T. 11 N., R. 12 E., a quarter of a mile above mouth and 12 miles northeast of Placerville.  
Altitude, about 2,250 feet.

Drainage area.- 176 square miles.

Records available.- December 1921 to September 1937.

Average discharge.- 15 years (1922-37), 339 second-feet.

Extremes.- Maximum discharge during year, 3,840 second-feet May 14 (gage height, 7.70 feet), from rating curve extended above 1,800 second-feet on basis of velocity-area studies; minimum, 28 second-feet Dec. 11, Sept. 18.  
1921-37: Maximum discharge, about 18,900 second-feet Mar. 25, 1928 (gage height, 18.0 feet, former site and datum), from rating curve extended above 2,600 second-feet on basis of velocity-area studies; minimum, 5.5 second-feet Sept. 18, 1934.

Remarks.- Records good except those for periods of ice effect, Jan. 6-18, Jan. 20 to Feb. 3, Feb. 11, 12, 17-27, which were computed on basis of weather records and records for nearby streams and are fair. No diversions.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.4	19	2.6	155	4.6	794
1.6	30	2.8	198	5.0	1,005
1.8	44	3.0	244	5.4	1,260
2.0	64	3.4	354	5.8	1,550
2.2	90	3.8	474	6.2	1,900
2.4	120	4.2	620	6.6	2,320
				7.0	2,780

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	41	34	56	32	211	519	1,190	870	260	56	33
2	30	42	36	52	34	220	746	1,590	978	237	56	33
3	31	38	36	52	40	247	681	1,900	1,000	216	55	33
4	32	38	39	44	189	278	563	2,160	950	205	53	33
5	32	38	35	44	458	326	519	2,210	896	209	51	33
6	32	37	41	42	746	354	582	2,210	794	196	48	32
7	31	36	38	40	601	382	537	2,000	681	172	46	32
8	30	34	42	38	382	424	544	1,710	620	156	45	31
9	30	34	41	36	340	458	563	1,710	582	174	44	31
10	30	34	39	36	270	458	601	1,510	563	166	43	31
11	30	35	35	35	200	474	320	1,510	488	147	43	30
12	30	33	33	35	244	601	620	2,100	448	189	43	30
13	30	32	35	35	382	640	724	2,320	458	152	42	29
14	30	32	38	34	1,000	537	870	2,540	439	129	40	29
15	30	32	54	34	640	491	1,300	2,580	448	117	40	28
16	29	32	218	34	455	519	1,360	2,050	1,190	109	40	28
17	29	32	107	33	382	601	1,220	1,960	770	100	39	27
18	30	32	66	33	330	563	1,100	1,570	526	97	38	26
19	34	32	56	32	300	488	1,160	1,160	468	93	37	28
20	38	32	52	32	280	461	1,260	1,560	484	84	37	28
21	38	32	52	32	270	455	1,630	1,550	471	76	36	28
22	36	33	50	32	275	430	1,800	1,590	436	72	35	28
23	36	34	44	32	280	409	1,360	1,550	400	71	35	28
24	35	35	54	32	290	394	1,330	1,550	362	72	35	28
25	35	35	52	32	300	362	1,630	1,470	346	74	35	28
26	34	35	59	30	260	354	1,800	1,160	326	74	35	28
27	34	35	56	30	230	357	1,360	1,330	312	71	34	28
28	34	35	52	30	216	334	1,040	1,440	301	65	34	28
29	33	35	51	30	-	348	870	1,360	309	62	34	29
30	34	35	54	30	-	362	870	1,120	298	58	33	29
31	38	-	54	30	-	397	-	844	-	56	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,005	38	29	32.4	1,990
November.....	1,040	42	32	34.7	2,060
December.....	1,652	218	33	53.3	3,280
Calendar year 1936.....	217,377	5,020	29	594	431,200
January.....	1,117	56	30	36.0	2,220
February.....	9,426	1,000	32	337	18,700
March.....	19,935	640	211	417	25,660
April.....	29,779	1,800	519	993	59,070
May.....	52,194	2,540	844	1,684	103,500
June.....	17,234	1,190	298	574	34,180
July.....	3,959	260	56	128	7,850
August.....	1,275	56	33	41.1	2,530
September.....	887	33	26	29.6	1,760
Water year 1936-37.....	132,503	2,540	26	363	262,800

## South Fork of Silver Creek near Ice House, Calif.

Location.- Water-stage recorder, lat. 38°49', long. 120°22', in SW¼ sec. 1, T. 11 N., R. 14 E., 1½ miles northeast of Ice House and 8 miles northeast of Riverton.  
Altitude, about 5,300 feet.

Drainage area.- 28.4 square miles.

Records available.- October 1924 to September 1937; July to October 1922 at site 1 mile upstream.

Average discharge.- 13 years (1924-37), 64.4 second-feet.

Extremes.- Maximum discharge during year, 782 second-feet May 14 (gage height, 3.85 feet); minimum, 0.3 second-foot Oct. 16.  
1924-37: Maximum discharge, 1,620 second-feet Mar. 26, 1928 (gage height, 5.35 feet); minimum, 0.1 second-foot Aug. 21 to Sept. 6, 1931.

Remarks.- Records fair. Discharge for period of ice effect, Dec. 27 to Feb. 20, computed on basis of weather records and records for nearby streams. No diversions.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.3	0.3	1.0	33	2.4	236
.4	2.0	1.2	50	2.6	298
.5	5	1.4	69	2.8	350
.6	9	1.6	91	3.0	416
.7	14	1.8	116	3.4	580
.8	20	2.0	150	3.8	760
.9	26	2.2	190		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	1.7	1.3	3	3	18	34	180	248	70	8	1.0
2	.8	1.5	1.3	3	3	18	43	263	274	61	7	1.0
3	.8	1.3	1.3	3	3	20	43	334	288	55	5	1.0
4	.8	1.3	1.3	3	3	23	38	399	285	59	3.5	1.0
5	.8	1.5	1.3	3	5	25	33	413	250	64	2.9	1.0
6	.8	1.5	1.3	3	20	26	32	416	214	54	2.3	1.0
7	.8	1.3	1.3	3	16	30	31	376	186	46	2.0	1.0
8	.6	1.3	1.3	3	14	31	33	325	162	43	2.0	1.0
9	.6	1.2	1.3	3	12	33	36	337	150	46	2.0	1.0
10	.6	1.2	1.3	3	10	35	42	298	136	36	2.0	1.0
11	.6	1.3	1.3	3	10	38	45	331	115	33	1.8	1.0
12	.6	1.3	1.3	3	10	42	47	486	104	31	1.8	1.0
13	.6	1.3	1.2	3	10	41	54	576	108	28	1.8	.8
14	.6	1.3	1.2	3	60	36	70	625	106	26	1.7	.8
15	.6	1.5	6.5	3	55	32	86	580	113	23	1.7	.8
16	.6	1.5	26	3	50	34	122	532	337	20	1.8	.6
17	.6	1.5	6	3	45	35	160	494	201	19	1.8	.5
18	.6	1.5	4.4	3	42	35	137	406	129	20	1.8	.5
19	1.2	1.5	3.8	3	42	30	126	312	116	18	1.7	.5
20	1.3	1.5	3.5	3	40	30	137	379	132	14	1.5	.5
21	1.3	1.3	3.5	3	38	25	197	435	129	13	1.3	.5
22	1.3	1.3	3.2	3	34	25	203	454	115	14	1.2	.5
23	1.2	1.3	3.2	3	27	24	146	462	104	15	1.2	.5
24	1.2	1.3	2.9	3	24	22	158	466	101	16	1.2	.5
25	1.2	1.3	3.2	3	22	25	214	427	87	16	1.0	.6
26	1.2	1.3	3.5	3	22	21	222	356	84	14	1.0	.6
27	1.0	1.3	3.5	3	21	20	166	409	82	12	1.0	.6
28	1.0	1.3	3.5	3	19	21	122	439	81	9	.8	.6
29	1.0	1.3	3.5	3	-	20	101	420	87	8	.8	.6
30	1.0	1.3	3.5	3	-	21	107	318	80	6.5	.8	.6
31	1.3	-	3.5	3	-	24	-	243	-	8.5	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	27.2	1.3	0.6	0.88	54
November.....	41.0	1.7	1.2	1.37	81
December.....	107.2	26	1.2	3.46	213
Calendar year 1936.....	37,738.7	670	.6	103	74,860
January.....	93	3	3	3.0	184
February.....	660	60	3	25.6	1,310
March.....	360	42	18	27.7	1,710
April.....	2,987	222	31	99.6	5,320
May.....	12,484	625	160	403	24,760
June.....	4,604	337	80	153	9,130
July.....	900.0	70	6.5	29.0	1,790
August.....	65.2	8	.8	2.10	129
September.....	22.6	1.0	.5	.75	45
Water year 1936-37.....	22,851.2	625	.5	62.6	45,330

## Finnon Reservoir outlet near Placerville, Calif.

Location.- Staff gage, lat. 38°46', long. 120°46', in SE¼ sec. 16, T. 11 N., R. 11 E., at weir 400 feet below Finnion Reservoir, 1½ miles above Jaybird Creek, and 10 miles northeast of Placerville. Altitude, about 2,450 feet.

Records available.- October 1922 to September 1937.

Average discharge.- 15 years, 3.15 second-feet.

Extremes.- Maximum daily discharge during year, 20 second-feet Sept. 28-30; no flow for several months.

1922-37: Maximum discharge, 106 second-feet Mar. 21, 1925 (gage height, 2.60 feet); no flow during some periods of nearly every year.

Remarks.- Records good. Staff gage read to hundredths once or twice daily. Water is diverted into Finnion Reservoir from One Eye and Slab Creeks. Flow from reservoir used by Pacific Gas & Electric Co. for power development.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0	0
.1	1.5
.2	3.0
.3	5.5
.4	8.5
.5	11.5
.6	14.5
.7	18.0
.8	21.5

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	2.4	2.4	1.5		0	0				0	0
2	2.4	2.4	2.4	1.5		0	0				0	0
3	2.4	2.4	2.4	1.5		0	0				0	.6
4	2.4	2.4	2.4	1.5		0	0				0	1.0
5	2.4	2.4	2.4	1.5		0	3.9				0	1.0
6	2.4	2.4	2.4	1.5		0	5.5				0	1.0
7	2.4	2.4	2.4	9.5		0	5.5				0	1.0
8	2.4	2.4	2.4	13		0	5.5				0	1.0
9	2.4	2.4	2.4	14		0	5.5				0	1.3
10	2.4	2.4	2.4	14		0	5.5				0	1.5
11	2.4	2.4	2.4	14		.2	5.5				0	1.5
12	2.4	2.4	2.4	14		.2	5.5				0	1.5
13	2.4	2.4	2.4	14		0	5.5				0	1.5
14	2.4	2.4	2.4	4.8		0	5.5				0	1.5
15	2.4	2.4	2.4	0		0	4.9				0	1.5
16	2.4	2.4	2.4	0		0	3.5				0	1.5
17	2.4	2.4	2.4	0		0	3.5				0	1.5
18	2.4	2.4	2.4	0		0	3.5				.9	1.5
19	2.4	2.4	2.4	3.6		0	3.5				1.5	1.5
20	2.4	2.4	2.4	8		0	3.5				1.5	1.5
21	2.4	2.4	2.4	1.2		0	3.5				1.5	1.5
22	2.4	2.4	2.4	1.2		0	3.5				1.5	1.5
23	2.4	2.4	2.4	1.2		0	3.5				1.5	1.5
24	2.4	2.4	2.4	1.2		0	3.5				1.5	1.2
25	2.4	2.4	2.4	1.2		0	3.5				1.5	1.0
26	2.4	2.4	2.4	1.2		0	3.5				7	1.0
27	2.4	2.4	2.4	1.2		0	3.5				0	14
28	2.4	2.4	6	.6		0	3.5				0	20
29	2.4	2.4	6	0		0	3.5				0	20
30	2.4	2.4	3.4	0		0	3.5				0	20
31	2.4	-	2.4	0		0	-				0	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						74.4	2.4	2.4	2.40	148		
November.....						72.0	2.4	2.4	2.40	143		
December.....						85.2	6	2.4	2.75	169		
Calendar year 1936 .....						2,272.7	76	0	6.21	4,510		
January.....						126.9	14	0	4.09	252		
February.....						0	0	0	0	0		
March.....						.4	.2	0	.01	.8		
April.....						110.8	5.5	0	3.69	220		
May.....						0	0	0	0	0		
June.....						0	0	0	0	0		
July.....						0	0	0	0	0		
August.....						15.4	7	0	.59	36		
September.....						105.1	20	0	3.50	208		
Water year 1936-37 .....						593.2	20	0	1.63	1,180		

## American River flume near Camino, Calif.

Location.— Water-stage recorder, lat.  $38^{\circ}46'$ , long.  $120^{\circ}42'$ , in SW $\frac{1}{4}$  sec. 25, T. 11 N., R. 11 E., 300 feet above Iowa Canyon Creek, 1 mile below diversion dam, and 3 miles northwest of Camino. Altitude, about 1,710 feet.

Records available.— November 1922 to September 1937.

Average discharge.— 15 years, 87.3 second-feet.

Extremes.— Maximum daily discharge during year, 166 second-feet June 4-6, 8, 9, July 13; no flow at times.

1922-37: Maximum daily discharge, that of June 4-6, 8, July 13, 1937; no flow at times in each year.

Remarks.— Records good. Flume diverts water from South Fork of American River in SW $\frac{1}{4}$  sec. 24, T. 11 N., R. 11 E., which is used to develop power in SW $\frac{1}{4}$  sec. 20, T. 11 N., R. 11 E. just above mouth of Rock Creek, where it is returned to river.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111	104	57	110			0	140	158	162	134	115
2	114	104	82	106			0	136	159	165	134	108
3	115	107	83	99			0	133	163	114	134	108
4	115	109	92	103			0	133	166	104	136	104
5	115	108	96	102			0	86	166	156	132	110
6	114	108	87	104			0	76	166	156	130	111
7	114	108	95	90			0	134	165	158	134	109
8	115	109	92	68			0	134	166	162	133	114
9	115	102	92	0			0	139	166	162	132	116
10	114	105	88	0			0	144	162	164	129	110
11	115	108	94	0			0	145	160	164	135	110
12	112	108	88	0			0	148	159	164	128	112
13	112	105	91	18			0	144	159	166	128	96
14	114	110	89	64			0	142	161	164	124	88
15	113	112	97	116			0	146	160	156	129	90
16	112	107	105	80			0	71	161	152	124	92
17	112	102	108	80			0	140	158	148	122	96
18	111	104	105	78			0	144	158	144	124	85
19	107	105	107	72			0	145	158	144	126	88
20	110	102	103	50			0	149	159	146	127	90
21	109	105	102	36			0	150	159	146	124	96
22	110	108	99	0			0	150	159	142	118	100
23	110	95	103	0			0	75	160	140	122	97
24	110	103	102	0			0	150	160	149	118	98
25	112	96	95	0			0	151	160	149	116	115
26	106	82	102	0			0	150	160	145	124	116
27	106	90	104	0			30	158	160	142	120	110
28	106	87	101	0			13	164	160	140	125	126
29	109	78	105	0			48	162	160	136	116	131
30	109	64	102	0			129	162	160	132	117	138
31	109	-	104	0			-	158	-	134	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	3,456	115	106	111	6,850
November.....	3,035	112	64	101	6,020
December.....	2,970	108	57	95.8	5,890
Calendar year 1936.....	32,448.7	115	0	88.7	64,350
January.....	1,376	116	0	44.4	2,730
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	220	129	0	7.3	436
May.....	4,258	164	71	137	8,450
June.....	4,828	166	158	161	9,580
July.....	4,606	166	104	149	9,140
August.....	3,913	136	116	126	7,760
September.....	3,177	138	85	106	6,300
Water year 1936-37.....	31,839	166	0	87.2	63,160

## CACHE CREEK BASIN

Clear Lake at Lakeport, Calif.

Location.- Staff gage, lat. 39°03', long. 122°55', in SE $\frac{1}{4}$  sec. 24, T. 14 N., R. 10 W., at municipal wharf on north side of Third Street in Lakeport. Zero of gage is 1,318.59 feet above mean sea level (general adjustment of 1929).

Drainage area.- 420 square miles including water surface of lake (65 square miles).

Records available.- January 1913 to September 1937.

Extremes.- Maximum gage height during year, 7.05 feet Apr. 17, 18; minimum, 1.35 feet Sept. 30.

1913-37: Maximum gage height, 11.12 feet Jan. 28, 1914; minimum, -3.50 feet Sept. 24-27, 1920.

Remarks.- Record of daily gage heights furnished by Clear Lake Water Co.

Gage height, in feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.50	2.05	1.90	1.97	2.12	5.05	6.80	6.75	5.95	4.90	3.50	2.15
2	2.45	2.05	1.90	2.00	2.25	5.07	6.80	6.75	5.90	4.90	3.42	2.07
3	2.45	2.05	1.90	2.00	2.35	5.07	6.82	6.75	5.90	4.80	3.37	2.05
4	2.45	2.02	1.90	2.00	2.45	5.07	6.87	6.75	5.87	4.70	3.32	2.00
5	2.45	2.00	1.90	2.00	3.20	5.10	6.87	6.72	5.82	4.70	3.30	1.97
6	2.40	2.00	1.90	2.00	3.40	5.12	6.90	6.62	5.75	4.70	3.27	1.95
7	2.40	2.00	1.90	1.95	3.42	5.12	6.95	6.62	5.70	4.65	3.22	1.90
8	2.40	1.97	1.87	1.92	3.50	5.12	6.95	6.62	5.67	4.50	3.20	1.85
9	2.40	1.97	1.87	1.92	3.60	5.12	6.97	6.62	5.65	4.57	3.20	1.82
10	2.37	1.97	1.87	1.92	3.60	5.20	7.00	6.60	5.60	4.55	3.15	1.80
11	2.37	1.95	1.87	1.92	3.60	5.25	7.00	6.60	5.55	4.52	3.05	1.77
12	2.35	1.95	1.87	2.05	3.75	5.50	7.00	6.57	5.50	4.45	3.00	1.75
13	2.32	1.92	1.87	2.05	3.75	5.50	7.00	6.52	5.45	4.40	2.95	1.72
14	2.32	1.90	1.87	2.05	4.40	5.60	7.02	6.50	5.40	4.35	2.92	1.70
15	2.32	1.90	1.85	2.05	4.65	5.65	7.02	6.48	5.40	4.30	2.87	1.67
16	2.30	1.90	1.85	2.05	4.65	5.72	7.02	6.45	5.40	4.25	2.85	1.65
17	2.27	1.90	1.85	2.05	4.70	5.75	7.05	6.40	5.35	4.25	2.80	1.62
18	2.25	1.90	1.85	2.05	4.72	5.80	7.05	6.40	5.35	4.20	2.75	1.60
19	2.22	1.90	1.85	2.05	4.80	5.82	7.00	6.37	5.32	4.15	2.70	1.55
20	2.20	1.90	1.85	2.05	4.82	5.90	7.00	6.32	5.30	4.10	2.65	1.52
21	2.20	1.90	1.85	2.00	4.85	5.92	6.95	6.30	5.30	4.05	2.60	1.50
22	2.20	1.90	1.85	2.00	4.87	6.15	6.90	6.27	5.27	4.00	2.55	1.45
23	2.20	1.90	1.85	2.05	4.87	6.20	6.90	6.25	5.27	3.95	2.50	1.42
24	2.17	1.90	1.85	2.05	4.87	6.42	6.85	6.25	5.25	3.90	2.45	1.40
25	2.15	1.90	1.85	2.05	4.92	6.47	6.85	6.22	5.17	3.85	2.40	1.40
26	2.15	1.90	1.92	2.05	5.00	6.57	6.75	6.17	5.15	3.82	2.37	1.40
27	2.15	1.90	1.95	2.05	5.00	6.60	6.75	6.10	5.10	3.80	2.32	1.40
28	2.15	1.90	1.97	2.10	5.05	6.65	6.75	6.10	5.00	3.75	2.30	1.37
29	2.10	1.90	1.97	2.10	-	6.67	6.75	6.10	5.00	3.70	2.25	1.37
30	2.07	1.90	1.97	2.12	-	6.70	6.75	6.10	5.00	3.65	2.20	1.35
31	2.07	-	1.97	2.12	-	6.75	-	5.97	-	3.60	2.15	-

## Cache Creek at Yolo, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}43'30''$ , long.  $121^{\circ}48'25''$ , in Rio Jesus Maria Grant, 800 feet above highway bridge and half a mile south of Yolo, Yolo County. Altitude, about 60 feet.

Drainage area.- 1,230 square miles.

Records available.- January 1903 to September 1937.

Average discharge.- 34 years, 480 second-feet.

Extremes.- Maximum discharge during year, 12,800 second-feet Feb. 14 (gage height, 21.42 feet); no flow for several months.  
1903-37: Maximum discharge, 21,100 second-feet Feb. 2, 1915 (gage height, 29.8 feet, present datum); no flow during some periods in nearly every year.

Remarks.- Records good. Numerous irrigation diversions above station; storage at Clear Lake.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.65	0	3.2	265	7.0	2,390
1.8	7	3.5	385	8.0	2,990
2.0	22	4.0	625	9.0	3,590
2.2	42	4.5	895	10.0	4,240
2.4	70	5.0	1,190	11.0	4,900
2.6	106	5.5	1,490	12.0	5,600
2.8	148	6.0	1,790	14.0	7,050
3.0	200	6.5	2,090	16.0	8,550
				18.0	10,100

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	276	530	33				
2					0	248	490	26				
3					366	237	444	29				
4					830	234	385	27				
5					7,460	224	349	26				
6					1,740	218	332	22				
7					1,100	212	354	16				
8					595	197	308	3.8				
9					328	190	290	0				
10					300	192	279	2.0				
11					258	195	254	6.5				
12					702	1,000	230	13				
13					1,320	2,630	215	0				
14					8,820	1,340	209	0				
15					2,360	812	224	0				
16					1,190	575	212	0				
17					795	444	197	0				
18					590	354	520	0				
19					525	304	840	0				
20					448	304	840	0				
21					372	968	840	0				
22					324	2,090	570	0				
23					293	980	785	0				
24					276	3,860	730	0				
25					300	4,040	702	0				
26					515	1,910	675	0				
27					398	1,730	217	0				
28					312	1,910	114	0				
29					-	1,190	85	0				
30					-	702	51	0				
31					-	595	-	0				
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						0	0	0	0	0		
Calendar year 1936.....						169,256.6	12,000	0	462	335,700		
January.....						0	0	0	0	0		
February.....						32,577	8,820	0	1,163	64,820		
March.....						30,161	4,040	190	975	59,820		
April.....						12,271	840	51	409	24,340		
May.....						204.3	33	0	6.58	405		
June.....						0	0	0	0	0		
July.....						0	0	0	0	0		
August.....						0	0	0	0	0		
September.....						0	0	0	0	0		
Water year 1936-37.....						75,213.3	8,820	0	206	149,200		



## North Fork of Cache Creek near Lower Lake, Calif.

Location.— Water-stage recorder, lat. 39°01', long. 122°33', in NE¼ sec. 31, T. 14 N., R. 6 W., 500 feet above Sweet Hollow Creek, 3 miles above mouth, and 7 miles north-east of Lower Lake. Altitude, about 1,050 feet.

Records available.— July 1930 to September 1937.

Extremes.— Maximum discharge during year, 9,300 second-feet Feb. 4 (gage height, 10.06 feet), from rating curve extended above 2,200 second-feet; minimum, 0.1 second-foot Oct. 1-31, Sept. 13-30.

1930-37: Maximum discharge, about 11,000 second-feet (revised) Dec. 26, 1931 (gage height, 9.65 feet), from rating curve extended above 2,200 second-feet; no flow at times in each year except 1937.

Remarks.— Records good. Several small diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.2	2.8	7	44	182	356	90	24	8	1.0	0.2
2	.1	.2	3.3	7.5	188	193	343	86	22	7	.8	.2
3	.1	.2	3.8	7.5	222	204	299	83	20	6	.8	.2
4	.1	.2	3.8	7.5	3,760	204	266	80	19	5.5	.7	.2
5	.1	.2	3.8	8	1,140	200	249	77	18	4.4	.6	.2
6	.1	.2	3.2	8	477	204	314	72	18	4.0	.5	.2
7	.1	.2	4.4	7.5	308	200	256	69	18	3.5	.5	.2
8	.1	.2	4.4	6	190	182	239	67	19	3.2	.4	.2
9	.1	.2	4.4	6.5	130	193	239	64	20	2.8	.4	.2
10	.1	.3	4.4	7.5	103	200	215	64	22	2.8	.4	.2
11	.1	.3	4.9	10	145	238	201	61	22	2.5	.4	.2
12	.1	.3	5.5	10	259	1,110	187	60	20	2.2	.4	.2
13	.1	.3	5.5	11	1,810	1,160	192	56	19	2.2	.3	.1
14	.1	.3	5.5	17	1,860	655	239	53	18	2.0	.3	.1
15	.1	.3	5.5	19	675	478	221	51	20	1.8	.3	.1
16	.1	.4	5.5	25	455	382	206	48	64	1.8	.3	.1
17	.1	.4	5.5	22	351	314	184	47	51	1.8	.3	.1
18	.1	.4	5.5	18	351	266	172	47	37	1.8	.3	.1
19	.1	.4	5.5	18	299	289	160	47	30	1.5	.2	.1
20	.1	.4	5.5	17	238	299	181	45	26	1.5	.2	.1
21	.1	.4	5.5	12	200	630	142	42	21	1.4	.2	.1
22	.1	.5	4.9	12	196	622	134	40	19	1.4	.2	.1
23	.1	.5	5.5	12	200	538	124	39	18	1.4	.2	.1
24	.1	.5	5.5	11	230	1,280	116	37	16	1.4	.2	.1
25	.1	.6	5.5	10	338	970	111	37	15	1.4	.2	.1
26	.1	.7	7	10	274	728	109	37	13	1.3	.2	.1
27	.1	1.2	5.5	15	215	590	107	33	12	1.2	.2	.1
28	.1	1.6	6.5	25	189	488	105	31	11	1.1	.2	.1
29	.1	1.8	4.9	31	-	424	102	29	9.5	1.1	.2	.1
30	.1	2.4	8	31	-	387	95	27	9	1.0	.2	.1
31	.1	-	7	30	-	360	-	26	-	1.0	.2	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				3.1		0.1	0.1	0.10	6.1			
November.....				15.8		2.4	.2	.53	31			
December.....				159.1		8	2.8	5.13	316			
Calendar year 1936.....				70,584.4		3,830	.1	193	140,000			
January.....				439.0		31	6	14.2	871			
February.....				14,847		3,760	44	530	29,450			
March.....				14,150		1,280	182	456	28,070			
April.....				5,834		356	95	194	11,570			
May.....				1,845		90	26	53.1	3,260			
June.....				650.5		64	9	21.7	1,290			
July.....				80.0		8	1.0	2.58	159			
August.....				11.3		1.0	.2	.56	22			
September.....				4.2		.2	.1	.14	8.3			
Water year 1936-37.....				37,839.0		3,760	.1	104	75,050			

## Putah Creek near Guenoc, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}46'$ , long.  $122^{\circ}31'$ , in sec. 22, T. 11 N., R. 8 W., just above dam site and  $3\frac{1}{2}$  miles downstream from highway bridge at Guenoc. Altitude, about 925 feet.

Drainage area.- 112 square miles.

Records available.- February 1904 to July 1906, July 1930 to September 1937.

Extremes.- Maximum discharge during year, 19,200 second-feet Feb. 4 (gage height, 19.35 feet); minimum, 0.9 second-foot Aug. 25 (gage height, 0.81 foot).  
1904-6; 1930-37: Maximum discharge, 24,800 second-feet Mar. 10, 1904 (gage height, 20.1 feet, former datum); minimum, 0.6 second-foot Sept. 30, Oct. 4, 1932.

Remarks.- Records good except those for Oct. 17 to Dec. 25, which are fair. Small diversions above station.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	2.7	2.3	2.4	341	137	256	71	21	15	6.5	4.2
2	3.4	2.6	2.3	2.4	1,500	131	236	69	20	14	6.5	4.6
3	3.4	2.6	2.3	2.3	1,230	123	208	66	20	13	5.5	4.4
4	3.5	2.5	2.3	2.3	8,120	116	189	62	18	13	6	4.4
5	3.5	2.5	2.3	2.4	2,520	108	180	61	18	10	6	4.4
6	3.4	2.4	2.4	2.4	1,130	104	240	59	18	10	6	4.1
7	3.4	2.3	2.4	2.4	662	98	184	59	19	11	6	4.1
8	3.5	2.3	2.3	2.5	418	94	170	57	18	11	6	4.1
9	3.5	2.4	2.2	2.7	300	100	165	56	19	10	6	4.1
10	3.6	2.4	2.2	3.6	238	100	148	54	20	9.5	6	4.0
11	3.6	2.4	2.2	3.8	548	128	137	51	19	9	6	4.0
12	3.6	2.4	2.2	4.2	792	1,660	129	49	18	8	5.5	3.8
13	3.5	2.3	2.2	6	4,230	934	199	46	18	8.5	5.5	3.8
14	3.4	2.3	2.2	8.5	2,880	523	270	42	16	8	5	3.6
15	3.2	2.3	2.2	24	950	376	195	41	17	8	5	3.6
16	3.0	2.3	2.2	73	628	300	165	39	90	7.5	5	3.5
17	3.0	2.2	2.1	59	446	252	146	38	56	6.5	5	3.5
18	3.1	2.3	2.0	50	432	218	134	38	39	7.5	5	3.4
19	3.1	2.2	2.0	66	337	289	125	37	32	7.5	4.8	3.5
20	3.1	2.2	2.0	49	278	347	116	36	28	7.5	4.8	3.5
21	3.0	2.4	2.0	36	234	1,620	108	36	25	7.5	4.7	3.4
22	2.9	2.4	2.0	31	208	995	100	34	23	7.5	4.7	3.4
23	2.9	2.4	2.0	28	189	923	95	32	22	5.5	4.6	3.4
24	2.9	2.4	2.2	26	206	2,780	91	31	20	5.5	4.6	3.4
25	2.7	2.4	2.1	25	226	1,330	89	31	19	7	2.9	3.4
26	2.6	2.4	4.2	28	187	830	86	30	18	7.5	3.4	3.3
27	2.6	2.4	2.9	137	165	628	86	28	17	7	4.2	3.1
28	2.6	2.4	2.4	409	149	476	86	27	16	4.7	4.4	3.1
29	2.6	2.4	2.3	256	-	389	81	25	15	4.9	2.6	3.3
30	3.0	2.3	3.5	236	-	328	76	24	14	5.5	4.2	3.3
31	2.9	-	2.6	159	-	285	-	22	-	6.5	4.4	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						97.9	3.6	2.6	3.16	194		
November.....						71.5	2.7	2.2	2.38	142		
December.....						72.5	4.2	2.0	2.34	144		
Calendar year 1936.....						79,439.2	8,290	2.0	217	157,600		
January.....						1,739.9	409	2.3	56.1	3,450		
February.....						29,544	8,120	94	1,055	58,600		
March.....						16,722	2,780	76	539	33,170		
April.....						4,488	270	76	150	8,900		
May.....						1,351	71	22	43.6	2,680		
June.....						713	90	14	23.8	1,410		
July.....						263.1	15	4.7	8.49	522		
August.....						156.8	6.5	2.6	5.06	311		
September.....						111.7	4.6	3.1	3.72	222		
Water year 1936-37 .....						55,331.4	8,120	2.0	152	109,700		

## Putah Creek near Winters, Calif.

Location.- Water-stage recorder, lat.  $38^{\circ}31'$ , long.  $122^{\circ}05'$ , in NE $\frac{1}{4}$  sec. 28, T. 8 N., R. 2 W., 6 miles west of Winters and 8 miles below Capell Creek. Altitude, about 180 feet.

Records available.- June 1930 to September 1937. Records for 1905-31 for station at Winters, 6 miles downstream, are comparable except for very low stages.

Extremes.- Maximum discharge during year, 41,100 second-feet Feb. 4 (gage height, 25.4 feet), from rating curve extended above 17,000 second-feet on basis of velocity-area studies; minimum, 0.9 second-foot part of Oct. 16 and 17.

1930-37: Maximum discharge, that of Feb. 4, 1937; minimum, 0.3 second-foot Aug. 23, 24, 26, 27, 1931. Discharge of 60,000 second-feet recorded Dec. 31, 1913, at former site, from rating curve extended above 12,000 second-feet on basis of velocity-area studies.

Remarks.- Records excellent except those below 15 second-feet, which are good. Several small diversions above station by pumping provide water for irrigation.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)  
(Shifting-control method used Dec. 26 to Jan. 15.)

2.2	0.9	5.5	335	9.0	1,900
2.5	5.0	6.0	475	10.0	2,730
2.9	15	6.5	635	11.0	3,830
3.3	34	7.0	820	14.0	9,000
3.8	67	7.5	1,030	16.0	13,600
4.5	140	8.0	1,280	18.0	18,800
5.0	222	8.5	1,570		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	3.1	7.5	10	360	335	780	183	48	24	10	7
2	5.5	4.6	7.5	10	2,020	308	722	175	45	22	10	7
3	6	6	9	9.5	2,350	286	635	165	41	20	9	7.5
4	6.5	4.3	8.5	9	11,600	284	565	156	39	18	9	7.5
5	6.5	3.1	8	9	15,000	246	535	150	38	18	9	7.5
6												
7	6	3.9	8.5	9	3,370	232	655	144	38	18	8.5	7.5
8	4.8	5.5	8.5	9	2,040	220	582	139	39	15	9	7
9	4.5	6	8.5	9	1,200	208	505	135	38	13	8.5	7
10	4.3	6	8	9	580	204	475	132	36	12	8.5	7
11	4.1	7	8	11	652	220	445	127	36	11	8	7
12												
13	3.9	7.5	7.5	14	600	220	400	124	40	11	6.5	7
14	3.7	7.5	8	14	2,090	2,280	372	122	40	12	5.5	6.5
15	3.4	8	8	13	6,590	3,280	360	116	39	11	4.8	6.5
16	2.5	8	8	13	15,600	1,420	520	108	38	9	4.5	6.5
17	1.7	8.5	8.5	30	2,940	985	490	102	38	10	4.1	6
18												
19	1.0	8.5	9	137	1,690	780	415	96	43	10	3.6	6
20	1.0	8.5	8.5	168	1,200	635	360	91	58	10	3.9	5
21	1.1	8.5	8	139	1,030	550	330	88	103	11	3.9	5.9
22	1.3	8	14	900	705	310	288	75	13	3.7	2.9	
23	3.1	7.5	8.5	116	722	900	288	85	62	13	6	3.1
24												
25	3.1	8	9	98	600	3,940	271	82	53	11	7	5
26	2.6	8	9	80	520	4,410	253	79	46	9.5	6.5	6
27	2.5	8.5	8.5	69	475	2,040	234	75	40	11	6	6
28	2.1	8.5	8.5	61	430	7,880	225	72	36	11	6	6
29	1.9	8.5	9	56	505	4,390	214	71	34	11	6	6
30												
31	2.2	8.5	11	52	520	2,350	208	70	34	8.5	6.5	6
32	4.5	8.5	15	63	415	1,760	210	68	28	7.5	6.5	5.5
33	3.6	8.5	12	140	372	1,420	226	65	30	7	6.5	4.1
34	3.1	8.5	9.5	600	-	1,160	212	59	30	7	6.5	3.2
35	2.8	8.5	11	582	-	985	195	56	28	8	6.5	3.2
36	2.6	-	12	652	-	880	-	52	-	9.5	6.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	107.4	6.5	1.0	3.46	213
November.....	214.0	8.5	3.1	7.15	424
December.....	278.5	15	7.5	8.98	552
Calendar year 1936.....	174,582.2	14,200	1.0	477	346,300
January.....	3,295.5	652	9	106	6,540
February.....	74,451	15,000	360	2,659	147,700
March.....	46,491	7,880	204	1,487	90,220
April.....	11,973	780	195	399	23,750
May.....	5,273	183	52	106	6,490
June.....	1,291	103	28	43.0	2,560
July.....	382.0	24	7	12.3	758
August.....	208.5	10	3.6	6.66	410
September.....	176.4	7.5	2.9	5.88	350
Water year 1936-37.....	141,139.3	15,000	1.0	387	280,000

## Conn Creek near St. Helena, Calif.

Location.- Water-stage recorder, lat. 38°29', long. 122°24', in NW¼ sec. 3, T. 7 N., R. 5 W., a quarter of a mile upstream from highway bridge, 4 miles southeast of St. Helena, and 6 miles above mouth. Altitude, about 180 feet.

Drainage area.- 52.0 square miles.

Records available.- November 1929 to September 1937.

Extremes.- Maximum discharge during year, 4,600 second-feet Feb. 4 (gage height, 10.3 feet), from rating curve extended above 2,200 second-feet; no flow for several months.

1929-37: Maximum discharge, that of Feb. 4, 1937; no flow for several months each year.

Remarks.- Records good. Small diversions for irrigation above station.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	1.8	15	23	58	12	1.3			
2			0	1.6	54	20	53	12	1.1			
3			0	1.8	31	20	47	11	.9			
4			0	1.4	1,490	19	41	11	1.1			
5			0	1.4	418	18	41	10	1.3			
6			0	1.3	206	16	55	10	1.3			
7			0	1.1	102	15	38	9	1.3			
8			0	.9	68	14	37	9	1.1			
9			0	.7	52	17	35	9	1.3			
10			0	1.4	41	16	31	9	1.5			
11			0	5.5	80	15	30	8.5	1.3			
12			0	7.0	85	138	28	7.5	1.1			
13			0	4.8	747	92	27	7	.9			
14			0	7.5	454	60	27	7	.7			
15			0	8.5	175	49	25	6	.7			
16			0	10	112	42	24	6	3.9			
17			0	6.5	80	37	23	5.5	2.7			
18			0	4.5	74	34	20	5.5	1.5			
19			0	4.2	58	58	19	5.5	1.3			
20			0	3.9	49	49	19	4.6	.9			
21			0	3.3	44	487	18	4.6	.6			
22			0	3.3	38	312	18	3.9	.4			
23			0	3.0	35	215	16	3.9	.1			
24			0	3.0	34	786	16	3.9	0			
25			0	3.0	38	328	16	4.6	0			
26			2.6	3.3	30	197	16	3.9	0			
27			4.8	4.2	28	155	16	2.7	0			
28			2.1	9.5	26	112	16	2.2	0			
29			1.4	20	-	89	14	2.2	0			
30			2.1	28	-	76	14	1.8	0			
31			3.3	22	-	65	-	1.5	-			
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				0	0	0	0	0				
November.....				0	0	0	0	0				
December.....				16.3	4.8	0	.53	32				
Calendar year 1936.....				12,484.1	1,450	0	34.1	24,750				
January.....				178.4	28	.7	5.75	354				
February.....				4,664	1,490	15	167	9,250				
March.....				3,575	786	14	115	7,090				
April.....				838	58	14	27.9	1,660				
May.....				200.3	12	1.6	6.46	397				
June.....				28.3	3.9	0	.94	56				
July.....				0	0	0	0	0				
August.....				0	0	0	0	0				
September.....				0	0	0	0	0				
Water year 1936-37.....				9,500.3	1,490	0	26.0	18,840				

## Lake Pillsbury at Hullville, Calif.

Location.- Staff gage, lat. 39°24', long. 122°57', on line between secs. 14 and 23, T. 18 N., R. 10 W., at Scott Dam on Eel River, at Hullville, 0.3 mile below Rice Fork.

Records available.- October 1922 to September 1937.

Remarks.- Lake Pillsbury is a storage reservoir of Pacific Gas & Electric Co. Elevation of crest of dam, 1,920 feet above mean sea level. Water is released down Eel River to Van Arsdale Reservoir, where it is diverted through tunnel to power plant at Potter Valley; part is then used for irrigation, and remainder flows into East Fork of Russian River. Table of contents shows storage available for release. Record of daily gage heights furnished by Pacific Gas & Electric Co. No record on days for which contents are not shown.

Contents, in acre-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60,230	49,300	42,220	32,960	24,660	61,510	83,340	92,560	91,670	89,120	-	67,140
2	59,670	48,980	41,930	32,730	24,660	62,800	83,770	92,330	91,670	88,890	78,620	-
3	59,510	48,660	41,350	32,480	24,980	64,280	83,990	92,330	91,870	88,670	-	-
4	59,160	48,180	41,060	32,110	27,280	65,800	83,560	92,800	91,870	88,670	-	-
5	58,800	47,710	40,770	31,730	36,600	67,330	83,560	93,260	91,640	88,220	-	66,560
6	58,440	47,390	40,480	31,490	36,340	69,080	84,210	93,190	91,640	87,770	77,160	-
7	58,090	47,070	40,060	31,010	36,870	70,850	84,650	93,720	91,400	87,540	-	-
8	57,740	46,760	39,630	30,770	37,000	72,850	84,650	93,490	91,400	87,090	-	-
9	57,380	46,450	39,350	30,550	37,140	74,880	85,540	93,260	91,180	86,370	76,120	-
10	57,030	46,300	39,070	30,290	37,140	77,360	85,980	92,800	91,180	86,420	-	-
11	56,680	46,140	38,790	30,050	37,140	79,470	86,420	92,800	90,950	86,200	-	-
12	56,330	45,520	38,510	29,820	38,100	83,770	86,370	93,260	90,950	85,980	74,880	-
13	55,990	45,220	37,960	29,340	39,350	84,210	88,670	93,720	90,490	85,540	-	-
14	55,640	45,370	37,690	29,110	47,390	82,030	91,400	93,720	90,490	85,310	-	-
15	55,290	45,370	37,410	28,880	49,950	80,740	92,330	93,720	90,260	85,090	73,660	60,960
16	54,950	45,370	37,140	28,630	50,920	80,740	92,800	93,720	90,950	84,650	73,260	-
17	54,610	45,370	36,600	28,420	51,750	81,600	93,030	93,720	91,400	84,210	-	-
18	54,270	45,370	36,240	28,190	52,580	82,030	93,960	93,720	91,400	-	-	-
19	53,930	45,370	36,070	27,960	53,250	82,460	94,200	93,490	91,400	-	-	-
20	53,580	45,370	35,670	27,740	53,930	82,900	92,330	93,720	91,400	83,120	-	-
21	53,250	45,220	35,280	27,280	54,440	83,770	91,400	93,720	91,400	-	-	-
22	52,580	45,220	35,020	27,060	55,120	84,650	91,870	93,720	91,180	82,460	-	-
23	52,250	44,920	34,760	26,620	55,640	85,090	92,330	93,960	90,950	-	-	-
24	51,910	44,610	34,500	26,400	56,680	86,200	92,800	93,960	90,720	-	-	-
25	51,560	44,310	34,240	26,180	56,090	84,210	93,030	93,720	90,490	-	-	-
26	51,250	43,700	33,990	25,960	59,160	82,460	93,260	93,260	90,260	81,170	-	-
27	50,920	43,410	33,990	25,740	59,870	82,900	93,260	93,030	90,260	80,960	-	-
28	50,600	43,110	33,990	25,520	60,590	83,120	93,260	92,800	89,800	-	-	-
29	50,270	42,810	33,740	25,300	-	83,120	92,800	92,560	89,580	-	-	-
30	49,950	42,510	33,480	25,090	-	83,120	92,800	92,330	-	-	-	-
31	49,620	-	33,230	24,870	-	83,120	-	92,100	-	-	-	-

## Eel River at Hullville, Calif.

Location.- Water-stage recorder, lat. 39°24', long. 122°58', in NE¼ sec. 22, T. 18 N., R. 10 W., half a mile below Scott Dam, half a mile above Soda Creek, and half a mile west of Hullville. Altitude, about 1,800 feet.

Records available.- November 1922 to September 1937.

Average discharge.- 14 years (1923-37), 355 second-feet.

Extremes.- Maximum discharge during year, 3,650 second-feet Mar. 12 (gage height, 9.51 feet); minimum, 31 second-feet Nov. 14-22.

1922-37: Maximum discharge, 32,600 second-feet Mar. 26, 1928 (gage height, 21.0 feet, present datum); practically no flow at times, owing to regulation.

Remarks.- Records good. See record for Lake Pillsbury, which stores water above station. Gage-height record furnished by Pacific Gas & Electric Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

2.8	18	5.0	442
3.0	33	5.3	568
3.2	50	5.6	708
3.4	69	6.0	920
3.6	90	6.5	1,210
3.8	114	7.0	1,540
4.0	147	7.5	1,910
4.2	189	8.0	2,310
4.4	239	8.5	2,750
4.6	298	9.0	3,200
4.8	366	9.5	3,650

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	169	176	165	167	97	975	594	180	165	163	180
2	176	169	176	178	167	91	1,030	594	165	165	165	180
3	176	169	176	178	167	91	1,030	442	149	165	163	180
4	176	169	176	178	196	73	1,000	370	149	165	161	178
5	176	167	176	178	189	60	838	374	171	165	161	178
6	176	167	176	178	185	51	810	423	171	165	161	178
7	174	167	176	178	182	45	838	577	163	167	163	178
8	174	167	174	178	182	67	683	621	153	167	163	176
9	174	126	174	182	182	73	626	621	155	165	167	174
10	174	99	174	169	182	79	501	450	157	165	169	174
11	174	171	174	174	185	81	438	337	163	163	165	174
12	174	163	174	163	187	1,850	412	223	167	167	167	171
13	171	106	176	171	198	3,380	653	298	167	167	174	171
14	171	31	176	171	205	2,570	1,330	393	167	167	174	169
15	171	31	176	171	200	1,430	1,640	454	169	167	171	176
16	133	31	176	171	200	593	1,360	450	140	176	180	178
17	174	31	176	171	200	398	691	442	128	180	189	178
18	174	31	176	169	200	431	581	434	138	178	185	178
19	178	31	178	165	200	454	1,480	314	151	176	185	176
20	189	31	180	163	200	486	2,110	234	151	171	182	176
21	189	31	180	163	203	537	929	203	157	167	182	176
22	182	80	180	171	203	590	594	212	165	165	182	176
23	182	159	180	174	203	971	603	281	167	163	180	174
24	182	163	176	165	207	2,680	608	337	167	163	180	171
25	178	174	169	165	207	2,940	612	438	165	165	178	171
26	171	174	153	165	148	1,410	612	450	165	167	180	171
27	171	174	128	161	79	892	603	404	163	169	180	169
28	171	178	153	167	84	920	599	330	163	167	180	169
29	171	174	187	167	-	920	599	274	161	167	180	169
30	171	167	176	167	-	920	594	268	165	167	180	167
31	171	-	161	167	-	920	-	259	-	165	180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	5,400	189	133	174	10,710
November.....	3,700	178	31	123	7,540
December.....	5,361	187	128	173	10,630
Calendar year 1936.....	202,200	10,200	17	552	401,000
January.....	5,283	182	161	170	10,480
February.....	5,108	207	79	182	10,130
March.....	25,901	3,380	48	836	51,370
April.....	25,379	2,110	412	846	50,540
May.....	12,051	621	203	389	23,900
June.....	4,792	180	128	160	9,500
July.....	5,189	180	163	167	10,290
August.....	5,390	189	161	174	10,690
September.....	5,236	180	167	175	10,390
Water year 1936-37.....	108,790	3,380	31	298	215,800

Eel River at Van Arsdale Dam, near Potter Valley, Calif.

Location.— Water-stage recorder, lat. 39°23', long. 123°07', in NE¼ sec. 30, T. 18 N., R. 11 W., 500 feet below Van Arsdale Dam and 5 miles north of Potter Valley. Prior to Mar. 1, 1937, staff gage at same site and datum. Altitude, about 1,400 feet.

Drainage area.— 347 square miles.

Records available.— October 1927 to September 1937; November 1909 to September 1927 at site above dam, 1,300 feet upstream (combined monthly discharge, only, for this station and Snow Mountain Water & Power Co.'s tailrace near Potter Valley, 1909-22).

Average discharge.— 14 years (1922-26, 1927-37), 198 second-feet.

Extremes.— Maximum discharge during year, 4,360 second-foot Mar. 12 (gage height, 11.86 feet); minimum, 0.9 second-foot Nov. 23-26, Dec. 6, 7.  
1909-37: Maximum discharge, about 40,000 second-feet Mar. 26, 1928 (gage height, 27.0 feet); minimum, 0.4 second-foot Oct. 12, 13, 1931.

Remarks.— Records fair October to February; good March to September. Staff gage read twice daily, with extra readings during high water, October to February. Water is diverted from Van Arsdale Reservoir through tunnel to power plant at Potter Valley, after which part is used for irrigation and remainder flows into East Fork of Russian River. Records show flow passing dam down Eel River. Gage-height record furnished by Pacific Gas & Electric Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

3.1	0.7	3.8	17	5.1	236	7.0	876	10.0	2,590
3.2	1.0	4.0	31	5.4	320	7.5	1,070	11.0	3,470
3.3	1.6	4.2	53	5.7	416	8.0	1,290	12.0	4,460
3.4	3.0	4.5	101	6.0	518	8.5	1,550		
3.6	8	4.6	164	6.5	692	9.0	1,860		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	2.7	1.1	1.4	4.6	61	1,050	491	47	1.4	1.7	2.6
2	1.3	2.7	1.1	2.2	69	99	1,090	491	14	1.4	1.9	2.3
3	1.3	2.7	1.1	3.0	48	101	1,050	372	1	1.6	2.6	2.3
4	1.3	2.7	1.0	3.0	1,550	97	990	262	1.4	2.7	2.4	2.3
5	1.3	2.7	1.0	3.0	484	67	933	246	1.9	3.0	2.3	2.4
6	1.9	2.7	.9	3.0	202	59	971	273	10	2.7	1.9	2.3
7	1.9	2.7	1.0	2.9	127	41	914	416	16	2.7	1.7	2.6
8	1.9	2.7	1.1	2.9	90	56	819	491	4.2	2.7	1.7	2.6
9	1.5	2.7	2.4	3.4	67	118	710	481	2.6	2.7	1.4	2.6
10	1.3	2.7	2.4	4.6	59	87	586	353	3.0	2.7	1.4	2.6
11	1.3	2.7	1.6	51	183	133	535	236	3.2	2.7	1.4	2.4
12	1.6	2.7	1.1	7	158	1,650	440	78	4.4	2.6	1.3	2.3
13	1.9	2.7	1.1	4.2	418	3,860	619	114	2.9	2.4	1.1	2.2
14	1.9	2.7	1.1	4.0	764	2,840	1,390	207	1.5	2.3	1.1	2.0
15	1.9	2.7	1.3	4.0	335	1,670	1,860	290	3.2	2.2	1.0	1.9
16	1.9	2.7	1.4	3.8	276	728	1,550	299	7.5	2.0	1.0	2.0
17	1.9	2.7	1.6	3.6	224	413	860	265	4.6	2.2	1.0	2.0
18	1.9	2.7	1.5	3.6	262	399	620	273	2.4	2.3	1.4	2.0
19	1.9	2.7	1.2	3.2	207	450	1,190	208	1.9	2.4	1.6	2.3
20	1.9	2.7	1.7	2.7	174	569	2,140	53	2.3	2.4	1.7	2.3
21	2.2	2.7	2.2	2.3	184	800	1,110	33	2.0	2.6	1.9	2.4
22	2.4	2.4	2.3	1.5	181	746	586	42	2.0	2.7	2.0	2.4
23	2.4	.9	2.6	1.6	205	1,180	569	56	2.0	2.7	2.2	2.3
24	2.7	.9	3.0	2.2	212	3,020	569	122	2.0	2.9	2.2	2.3
25	2.7	.9	3.4	2.0	224	3,290	569	273	2.2	2.6	2.3	2.3
26	2.9	.9	3.0	1.6	120	1,870	552	320	2.4	2.4	2.4	2.3
27	4.2	1.4	2.2	2.2	142	1,090	535	257	2.7	2.4	2.6	2.4
28	5.5	1.4	1.6	6.6	27	1,030	535	217	2.7	2.3	2.6	2.6
29	4.2	1.4	2.4	131	-	1,010	615	180	2.9	1.9	2.6	2.4
30	2.9	1.4	2.7	109	-	1,010	501	116	1.9	1.7	2.6	2.3
31	2.7	-	3.0	3.4	-	990	-	112	-	1.9	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	67.9	5.5	1.3	2.19	136
November.....	68.3	2.7	.9	2.22	136
December.....	55.1	3.4	.9	1.78	109
Calendar year 1936.....	194,383.7	12,800	.9	531	385,600
January.....	378.9	181	1.4	12.2	752
February.....	7,009.6	1,550	4.6	250	15,900
March.....	29,532	3,860	41	953	58,580
April.....	26,568	2,140	440	885	52,680
May.....	7,557	491	33	244	14,990
June.....	166.0	47	1.4	5.53	329
July.....	73.2	3.0	1.4	2.36	145
August.....	57.6	2.6	1.0	1.86	114
September.....	69.7	2.6	1.9	2.32	138
Water year 1936-37.....	71,693.3	3,860	.9	196	142,000

## Eel River at Scotia, Calif.

Location.- Wire-weight gage, lat. 40°29', long. 124°06', in sec. 7, T. 1 N., R. 1 E., at Wildwood Bridge, half a mile north of Scotia. Altitude, about 50 feet.

Drainage area.- 3,070 square miles.

Records available.- December 1910 to February 1915, October 1916 to September 1937.

Average discharge.- 24 years (1911-14, 1916-37), 5,584 second-feet. Figure published in Water-Supply Paper 811 is in error.

Extremes.- Maximum discharge during year, 134,000 second-feet Feb. 5 (gage height, 37.0 feet, from floodmarks); minimum, 58 second-feet Oct. 11.  
1910-15; 1916-37: Maximum discharge, about 290,000 second-feet Feb. 2, 1915 (gage height, 55.5 feet), from rating curve extended above 114,000 second-feet; minimum, 10 second-feet Aug. 12-14, 1924.

Remarks.- Records good. Storage in Lake Pillsbury and diversions above station for power and irrigation near Potter Valley.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	63	84	910	8,440	9,180	13,700	4,900	1,830	790	194	100
2	71	65	84	756	18,400	14,700	18,400	5,640	1,700	700	189	100
3	69	67	84	565	19,100	13,400	16,000	5,380	1,700	614	175	100
4	67	65	89	508	44,500	12,100	13,400	5,380	1,680	657	155	100
5	65	67	93	495	95,300	11,200	11,800	5,380	1,620	614	144	100
6	63	67	89	485	29,300	10,600	15,000	5,140	1,460	614	137	100
7	63	67	91	499	17,300	9,740	15,000	5,140	1,340	574	144	106
8	63	69	93	492	11,200	8,900	13,100	4,900	1,280	534	137	106
9	63	67	93	478	8,340	8,900	14,700	4,660	1,230	519	141	100
10	62	67	93	535	6,160	9,740	13,700	4,420	1,280	504	144	100
11	60	67	93	542	6,160	9,460	12,100	3,980	1,340	475	137	106
12	60	75	98	542	19,100	10,000	10,600	3,560	1,340	453	137	97
13	62	75	104	580	16,700	12,800	22,100	3,560	1,280	433	121	100
14	60	75	104	702	49,200	16,700	47,000	3,760	1,230	386	115	95
15	62	75	104	1,010	30,500	14,100	35,200	3,980	1,120	354	118	95
16	63	80	104	2,090	17,700	10,600	32,100	3,980	3,000	341	118	90
17	63	80	104	2,090	13,100	8,620	23,700	3,560	5,380	341	112	84
18	67	84	106	1,950	12,500	8,060	18,700	3,360	3,760	328	112	84
19	65	84	109	2,400	12,500	8,340	14,100	3,360	2,680	316	109	90
20	63	84	115	2,090	10,000	14,700	12,800	3,360	2,240	304	115	87
21	63	84	115	1,740	8,900	19,100	12,100	3,180	1,830	292	118	79
22	67	84	109	1,290	8,340	21,300	11,800	3,000	1,700	286	124	77
23	67	84	126	1,060	8,340	26,100	10,300	2,530	1,400	280	121	84
24	67	82	172	960	9,180	66,500	8,620	2,680	1,220	268	118	84
25	67	84	207	960	12,100	46,500	8,060	2,640	1,160	246	121	84
26	63	84	386	1,010	10,600	29,700	7,500	2,680	1,100	223	124	77
27	67	86	1,170	2,090	8,620	23,700	6,940	2,680	990	207	115	74
28	63	84	1,610	4,680	7,500	19,100	6,160	2,530	990	207	118	72
29	63	84	1,230	4,460	-	16,500	5,640	2,530	940	203	112	74
30	67	84	860	4,040	-	14,400	5,140	2,240	890	203	97	87
31	67	-	860	3,440	-	13,400	-	1,960	-	203	100	-
Month				Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet			
October.....				2,001		71	60	64.5	3,970			
November.....				2,283		86	63	76.1	4,530			
December.....				8,979		1,810	84	290	17,810			
Calendar year 1936 .....				2,728,395		182,000	60	7,455	5,411,000			
January.....				45,437		4,680	478	1,466	90,120			
February.....				518,080		95,300	6,160	18,500	1,028,000			
March.....				517,940		66,500	8,060	16,710	1,027,000			
April.....				455,460		47,000	5,140	15,180	903,400			
May.....				116,250		5,640	1,960	3,760	230,600			
June.....				50,510		5,380	890	1,684	100,200			
July.....				12,469		790	203	402	24,730			
August.....				4,022		194	97	150	7,980			
September.....				2,732		108	72	91.1	5,420			
Water year 1936-37.....				1,736,163		95,300	60	4,767	3,444,000			



## Potter Valley power-house tailrace near Potter Valley, Calif.

Location.— Water-stage recorder, lat.  $39^{\circ}21'$ , long.  $123^{\circ}07'$ , in NW $\frac{1}{4}$  sec. 6, T. 17 N., R. 11 W., at power house of Pacific Gas & Electric Co. 3 miles northwest of Potter Valley. Altitude, about 1,000 feet.

Records available.— October 1922 to September 1937.

Average discharge.— 15 years, 197 second-feet.

Extremes.— Maximum daily discharge during year, 194 second-feet Jan. 10; minimum, 18 second-feet Nov. 14.

1922-37: Maximum daily discharge, 321 second-feet Aug. 26, 1933; no flow for several days in October 1924, January 1934.

Remarks.— Records fair. Water is diverted from Eel River above Van Arsdale Dam. After passing through power plant part of it is used for irrigation in Potter Valley and remainder flows into East Fork of Russian River. Irrigation water diverted from tailrace above gage is included in tables of discharge. Gage-height record for tailrace and daily-discharge record for irrigation ditches diverting above gage furnished by Pacific Gas & Electric Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	181	188	186	185	186	188	183	181	182	182	175
2	185	182	185	186	185	176	184	184	181	183	187	180
3	178	181	185	185	185	186	186	184	182	183	189	187
4	183	185	185	184	129	188	186	180	182	183	188	186
5	184	184	187	185	183	186	186	181	181	184	192	187
6	187	184	185	185	186	189	186	181	182	187	191	185
7	185	182	185	185	186	188	186	180	177	183	184	186
8	184	181	185	185	185	185	186	174	183	187	183	188
9	185	181	185	185	183	186	186	176	184	185	191	187
10	181	86	184	194	185	186	186	178	183	180	186	190
11	184	189	187	53	185	184	126	174	182	186	181	188
12	185	176	187	176	184	184	188	180	183	185	182	189
13	182	146	185	185	182	184	188	177	184	180	180	189
14	185	18	185	185	178	183	185	178	182	183	182	189
15	186	22	186	184	185	185	185	178	183	183	186	189
16	138	22	184	185	178	185	183	179	184	181	189	187
17	181	24	185	185	186	171	184	178	184	179	186	189
18	181	24	187	184	186	186	183	177	183	185	186	187
19	182	24	186	186	186	188	185	179	182	187	187	188
20	182	23	185	186	185	188	184	179	182	178	188	188
21	182	24	188	188	184	66	183	180	182	173	184	188
22	182	37	184	192	185	182	183	179	182	182	186	188
23	181	187	187	166	180	185	184	182	186	185	186	190
24	181	188	187	186	186	185	183	182	181	186	186	188
25	182	187	184	184	185	185	183	181	181	191	189	191
26	183	186	185	185	185	185	183	181	182	188	188	188
27	181	185	187	183	184	185	180	182	183	184	187	188
28	183	185	187	89	188	189	180	183	180	188	184	186
29	183	187	187	185	-	186	183	178	186	187	187	185
30	183	153	187	185	-	186	185	178	184	188	185	186
31	183	-	185	185	-	186	-	179	-	170	181	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						5,626	187	138	181	11,160		
November.....						3,913	189	18	130	7,760		
December.....						5,759	188	184	186	11,420		
Calendar year 1936.....						63,659	226	15	174	126,500		
January.....						5,497	194	53	177	10,900		
February.....						5,108	188	129	182	10,130		
March.....						5,564	188	66	179	11,040		
April.....						5,480	188	126	183	10,870		
May.....						5,565	184	174	180	11,040		
June.....						5,472	186	177	182	10,850		
July.....						5,683	191	170	183	11,270		
August.....						5,763	192	180	186	11,430		
September.....						5,612	191	175	187	11,130		
Water year 1936-37.....						65,040	194	18	178	129,000		

Williamson River below Sprague River, near Chiloquin, Oreg.

Location.- Water-stage recorder, lat. 42°34', long. 121°52', in sec. 3, T. 35 S., R. 7 E., a quarter of a mile below mouth of Sprague River, and three-quarters of a mile southwest of Chiloquin. Zero of gage is 4,155.66 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,000 square miles.

Records available.- June 1917 to September 1937

Average discharge.- 20 years, 818 second-feet.

Extremes.- Maximum discharge during year, 2,540 second-feet Apr. 20 (gage height, 4.47 feet); minimum, 402 second-feet July 21 (gage height, 2.17 feet).

1917-37: Maximum discharge, about 7,000 second-feet Apr. 27, 1917, computed by combining discharge of Sprague River at Chiloquin (4,490 second-feet) with that of Williamson River at Chiloquin (estimated at 2,500 second-feet); minimum, 320 second-feet Oct. 14, 1920.

Remarks.- Records good except those for period of missing gage heights, Dec. 15-20 (computed on basis of records for Sprague River and weather records), and those for Dec. 30 to Feb. 28, which are fair. Diversions for irrigation above station. Manipulation of gates at dams above causes fluctuation at times. Water-stage recorder inspected by employee of The California Oregon Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	492	561	525	531	555	592	961	1,120	752	604	503	465
2	492	555	549	492	561	598	961	1,140	744	592	503	465
3	492	549	543	537	555	598	943	1,120	728	585	481	460
4	492	555	520	537	549	604	1,060	1,080	713	573	481	460
5	492	555	567	549	555	618	1,200	1,040	699	573	492	460
6	498	555	579	520	555	604	1,310	1,070	713	555	492	455
7	498	549	567	498	561	618	1,360	1,100	699	555	492	455
8	498	549	561	525	567	624	1,310	1,180	543	555	486	455
9	498	555	561	514	567	678	1,210	1,280	567	549	486	455
10	503	549	549	476	567	736	1,100	1,330	598	585	486	460
11	498	549	508	481	567	760	808	1,310	934	561	481	460
12	525	537	508	492	561	816	907	1,260	720	481	481	486
13	525	561	503	503	579	934	1,200	1,220	657	476	486	503
14	579	567	520	514	579	1,020	1,330	1,180	644	470	486	456
15	567	567	550	520	573	1,100	1,550	1,140	650	498	481	476
16	567	585	570	520	592	1,150	1,450	1,110	664	555	481	465
17	555	579	580	531	592	1,180	1,580	1,070	664	503	481	503
18	573	573	590	543	592	1,100	1,890	943	592	440	476	514
19	573	573	580	531	592	952	2,300	943	561	411	411	486
20	555	573	570	514	592	856	2,480	1,020	598	411	445	460
21	549	579	573	543	592	880	2,180	1,050	752	406	481	460
22	555	579	573	531	592	907	1,850	970	816	420	476	455
23	561	573	573	531	592	889	1,570	943	816	430	430	455
24	598	573	573	543	585	848	1,380	943	848	440	411	455
25	598	579	573	531	598	816	1,290	934	1,060	445	416	455
26	604	573	579	543	592	800	1,260	864	943	476	416	460
27	567	573	585	549	592	800	1,210	840	832	561	425	470
28	585	543	561	531	598	816	1,150	792	768	549	425	470
29	592	525	531	555	-	848	1,120	752	736	503	430	470
30	579	526	531	537	-	889	1,120	752	664	498	440	470
31	567	-	520	537	-	916	-	752	-	492	445	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet.		
October.....						16,827	604	492	543	33,380		
November.....						16,818	585	525	561	33,360		
December.....						17,172	590	503	554	34,060		
Calendar year 1936.....						313,392	2,680	470	856	621,600		
January.....						18,259	555	476	524	32,250		
February.....						16,152	598	549	577	32,040		
March.....						25,547	1,180	592	824	50,670		
April.....						41,040	2,480	808	1,368	81,400		
May.....						32,248	1,330	752	1,040	63,960		
June.....						21,675	1,060	543	722	42,990		
July.....						15,752	604	406	508	31,240		
August.....						14,465	503	411	467	28,690		
September.....						14,029	514	455	468	27,830		
Water year 1936-37.....						247,984	2,480	406	679	491,900		

## Upper Klamath Lake near Klamath Falls, Oreg.

Location.— Water-stage recorder, lat. 42°15', long. 121°48', in SW¼ sec. 19, T. 38 S., R. 9 E., 1 mile above outlet of Upper Klamath Lake and 2 miles northwest of Klamath Falls. Zero of gage is 4,134.15 feet (general adjustment of 1929) or 4,135.93 feet (Bureau of Reclamation datum) above mean sea level. All elevations given for the lake are referred to Bureau of Reclamation datum.

Records available.— May 1904 to September 1937.

Extremes.— Maximum elevation during year, 4,143.04 feet May 29; minimum, 4,138.14 feet Dec. 6, 23. Maximum mean daily elevation, 4,142.66 feet May 4; minimum, 4,138.35 feet Dec. 6.

1904-37: Maximum elevation recorded, 4,144.98 feet about Apr. 20, 1904, determined from high-water marks; minimum recorded, 4,135.6 feet Oct. 9, 1926 (revised), Buena Vista Landing; maximum and minimum mean daily elevations occurred during periods when no continuous recorder was in operation and were not determined.

Remarks.— Lake elevations, particularly extremes, are very much affected by wind. Considerable regulation due to operation of dam at outlet of lake since Apr. 15, 1919. Water-stage recorder inspected by employees of The California Oregon Power Co.

Elevation, in feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39.69	39.16	38.55	38.91	39.13	39.74	41.19	42.31	42.25	42.44	41.35	40.28
2	39.65	38.94	38.60	38.91	39.15	39.77	41.22	42.28	42.29	42.42	41.39	40.21
3	39.51	38.88	38.60	38.91	39.15	39.80	41.17	42.40	42.26	42.49	41.33	40.10
4	39.55	38.89	38.48	38.90	39.19	39.82	41.11	42.66	42.22	42.46	41.24	40.06
5	39.50	38.88	38.48	38.95	39.26	39.85	41.17	42.48	42.22	42.55	41.25	40.11
6	39.52	38.99	38.35	38.95	39.30	39.88	41.40	42.26	42.20	42.46	41.22	40.16
7	39.45	38.89	38.40	38.92	39.31	39.90	41.37	42.01	42.20	42.40	41.18	40.11
8	39.41	38.82	38.56	38.88	39.32	39.94	41.22	42.31	42.12	42.30	41.14	40.04
9	39.37	38.78	38.61	38.85	39.33	39.98	41.36	42.35	42.05	42.25	41.12	40.05
10	39.37	38.77	38.61	38.88	39.34	40.03	41.55	42.20	42.14	42.25	41.11	40.02
11	39.37	38.77	38.60	38.89	39.32	40.07	41.52	42.29	42.18	42.25	41.12	40.02
12	39.32	38.76	38.60	38.88	39.33	40.11	41.31	42.56	42.22	42.23	41.06	39.98
13	39.32	38.73	38.60	38.86	39.39	40.19	41.45	42.40	42.27	42.14	41.05	39.95
14	39.37	38.71	38.60	38.89	39.45	40.23	41.56	42.37	42.22	42.03	41.06	39.94
15	39.45	38.70	38.60	38.91	39.46	40.29	41.94	42.39	41.95	41.98	40.94	39.91
16	39.41	38.66	38.60	38.96	39.46	40.34	42.01	42.32	42.16	41.93	40.82	39.90
17	39.25	38.65	38.59	38.96	39.46	40.46	41.93	42.24	42.26	41.88	40.81	39.80
18	39.24	38.65	38.64	38.99	39.51	40.44	42.10	42.41	42.25	41.87	40.79	39.88
19	39.29	38.64	38.65	39.02	39.54	40.52	42.08	42.32	42.27	41.83	40.75	39.80
20	39.21	38.64	38.66	38.99	39.56	40.15	42.11	42.31	42.31	41.92	40.70	39.75
21	39.23	38.64	38.63	38.95	39.58	40.32	42.44	42.36	42.37	41.75	40.67	39.82
22	39.17	38.71	38.59	38.95	39.59	40.55	42.30	42.42	42.42	41.68	40.70	39.86
23	39.16	38.75	38.55	38.97	39.61	40.44	42.22	42.40	42.49	41.61	40.58	39.75
24	39.11	38.70	38.71	39.02	39.62	40.66	42.12	42.20	42.64	41.56	40.52	39.76
25	39.16	38.64	38.70	39.02	39.66	40.84	41.69	42.35	42.61	41.62	40.44	39.68
26	39.09	38.63	38.51	39.05	39.66	40.76	42.13	42.34	42.50	41.61	40.43	39.61
27	39.11	38.62	38.38	39.07	39.68	40.87	42.37	42.35	42.45	41.58	40.50	39.62
28	39.04	38.59	38.90	39.12	39.72	40.97	42.41	42.52	42.42	41.52	40.55	39.63
29	38.97	38.63	38.85	39.14	-	40.93	42.29	42.59	42.38	41.52	40.39	39.57
30	38.93	38.66	38.89	39.15	-	40.95	42.28	42.61	42.55	41.55	40.28	39.28
31	39.12	-	38.92	39.14	-	40.94	-	42.32	-	41.55	40.32	-

Note.— Add 4,100 feet to obtain elevations above mean sea level, Bureau of Reclamation datum.

Monthly elevation and contents, water year October 1936 to September 1937

Date	Elevation in feet	Contents in acre-feet	Change in contents during month in acre-feet
Sept. 30	4,139.60	276,800	-
Oct. 31	4,139.01	240,100	-36,700
Nov. 30	4,138.61	215,700	-24,400
Dec. 31	4,138.90	233,400	+17,700
Jan. 31	4,139.14	248,000	+14,600
Feb. 28	4,139.72	284,600	+36,600
Mar. 31	4,141.05	386,800	+102,200
Apr. 30	4,142.33	496,900	+110,100
May 31	4,142.40	503,000	+6,100
June 30	4,142.42	504,800	+1,800
July 31	4,141.46	421,400	-83,400
Aug. 31	4,140.30	328,400	-93,000
Sept. 30	4,139.48	269,000	-57,400
The water year			27,800

Note.— To compensate for wind effect, elevation given for last day of month is mean of elevations for last 4 days of month and first 3 days of following month. Contents given are those above elevation 4,135 feet.

## Link River at Klamath Falls, Oreg.

Location.- Water-stage recorder, lat. 42°13', long. 121°49', in sec. 32, T. 38 S., R. 9 E., 200 yards above outlet of Keno Canal and three-eighths of a mile above Main Street bridge at Klamath Falls. Zero of gage is 4,083.71 feet (general adjustment of 1929) or 4,085.50 feet (Bureau of Reclamation datum) above mean sea level.

Drainage area.- 3,812 square miles (revised), including Crater Lake Basin.

Records available.- May 1904 to September 1937.

Average discharge.- 33 years, 1,602 second-feet (including Keno Canal).

Extremes.- Maximum combined daily discharge of Link River and Keno Canal during year, 2,270 second-feet Nov. 6; minimum, 19 second-feet Apr. 25; minimum daily discharge, 23 second-feet Apr. 25.

1904-37: Maximum discharge, 9,400 second-feet May 12, 1904 (gage height, 7.30 feet, former site and datum); minimum, 22 second-feet Aug. 30, 1918; minimum daily discharge, that of Apr. 25, 1937.

Remarks.- Records good. Regulation since April 1919 due to storage of water in Upper Klamath Lake. Water diverted above station by the main or "A" Canal and Keno Canal. Other small diversions above lake. Discharge tables include flow of Keno Canal. Water-stage recorder inspected by employee of The California Oregon Power Co.

## Corrigenda, 1936

Daily discharge, in second-feet, for Apr. 28 and 29 as given below are the figures for the misprints contained in Water-Supply Paper 811 (page 302).

Apr. 28 1,450  
29 1,770

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,820	1,440	1,580	1,240	1,380	855	50	427	805	925	708	978
2	1,870	1,760	1,670	976	1,360	38	53	30	785	513	972	1,100
3	1,340	1,900	1,580	1,350	1,350	594	38	664	976	459	1,070	1,250
4	810	2,080	1,580	1,350	665	672	36	610	969	136	1,100	990
5	1,610	2,220	1,120	1,360	28	401	38	704	779	178	1,410	993
6	1,860	2,000	432	1,350	628	40	48	687	590	1,140	1,410	1,010
7	1,860	1,390	1,210	1,930	1,080	40	38	731	1,110	1,060	560	1,080
8	1,980	1,470	660	2,160	1,080	43	31	931	1,110	1,120	585	1,030
9	1,870	1,810	572	1,980	1,080	38	46	567	449	1,180	1,320	1,260
10	1,360	1,690	554	1,270	1,220	31	300	1,060	650	1,140	1,090	1,360
11	1,490	1,600	966	1,370	1,370	33	30	1,100	1,010	845	1,090	1,310
12	1,860	1,810	1,370	1,350	649	36	704	1,110	232	1,420	1,100	1,010
13	1,860	1,800	1,050	909	30	41	28	1,090	54	1,420	1,100	1,190
14	1,710	1,640	1,370	837	476	37	28	1,110	525	1,440	1,100	1,340
15	1,450	1,670	1,360	646	1,080	36	38	930	657	1,350	1,170	1,340
16	1,350	1,890	1,150	781	579	33	38	315	236	855	1,280	1,500
17	1,190	1,890	1,070	733	639	36	33	1,060	411	681	1,390	1,750
18	955	1,880	1,080	1,080	648	33	43	970	42	715	1,390	1,510
19	1,620	1,730	562	1,140	472	31	38	798	470	1,410	1,390	1,130
20	1,830	1,470	307	1,900	516	30	43	566	41	1,130	1,390	1,060
21	1,830	1,230	1,110	2,110	613	31	58	323	756	1 410	1,160	1,110
22	1,820	963	971	1,160	778	40	378	330	557	1,340	1,100	1,170
23	1,710	1,670	905	32	781	38	420	510	535	1,400	1,310	1,240
24	1,360	1,850	414	182	710	40	270	948	808	893	1,400	1,340
25	1,560	1,570	654	1,240	487	31	23	615	847	313	1,390	1,340
26	1,760	1,390	294	872	802	30	276	737	480	1,060	1,390	1,320
27	1,760	1,390	877	768	365	33	145	787	464	1,340	1,390	1,330
28	1,760	1,390	945	767	697	33	200	560	797	1,010	1,320	1,320
29	1,700	1,570	940	864	-	31	333	473	959	770	1,390	1,150
30	1,480	1,750	1,030	983	-	31	504	510	1,040	595	1,390	906
31	1,300	-	1,030	1,000	-	31	-	787	-	765	1,200	-
Month	River including Keno Canal				River including Keno and "A" Canals							
	Maximum	Minimum	Mean	Run-off in acre-feet	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....	1,980	810	1,594	98,630	1,980	810	1,694	98,030				
November.....	2,220	963	1,663	98,980	2,220	963	1,663	98,980				
December.....	1,580	294	987	60,680	1,580	294	987	60,680				
Calendar year 1936	2,790	35	1,206	875,200	2,960	740	1,450	1,052,000				
January.....	2,160	32	1,154	70,970	2,160	32	1,154	70,970				
February.....	1,390	28	770	42,770	1,390	28	770	42,770				
March.....	855	30	112	6,880	855	30	112	6,880				
April.....	704	23	144	8,540	777	28	178	10,550				
May.....	1,110	30	711	43,690	1,760	416	1,282	76,970				
June.....	1,110	41	638	37,950	1,920	121	1,061	63,120				
July.....	1,440	136	968	59,530	2,480	634	1,837	113,000				
August.....	1,410	560	1,196	73,520	2,320	1,260	1,912	117,600				
September.....	1,750	906	1,214	72,230	2,250	1,170	1,597	95,000				
Water year 1936-37	2,220	23	931	673,800	2,480	28	1,181	854,400				

## Klamath River at Keno, Oreg.

Location.- Water-stage recorder, lat. 42°08', long. 121°58', in SE $\frac{1}{4}$  sec. 35, T. 39 S., R. 7 E., 2 miles west of Keno and 5 miles above mouth of Spencer Creek.

Drainage area.- 3,920 square miles (not including Lost River or Lower Klamath Lake Basins).

Records available.- June 1904 to December 1913, January 1930 to September 1937.

Extremes.- Maximum discharge during year, 2,670 second-feet Jan. '7 (gage height, 6.76 feet); minimum, 53 second-feet May 7 (gage height, 1.63 feet); minimum daily discharge, 61 second-feet May 16.

1904-13, 1930-37: Maximum discharge, 5,220 second-feet Apr. 19, 20, 1907; minimum, 35 second-feet Aug. 4, 1934; minimum daily discharge, 60 second-feet May 19, 1934.

Maximum discharge known, 9,250 second-feet about May 10, 1904.

Remarks.- Records good. Records for Jan. 12-15, 20-23 furnished by The California Oregon Power Co. from records at Keno Dam. Diversions for irrigation above station. Lost River Diversion Canal enters or diverts from Klamath River above station. See records for Lost River Diversion Canal and Diversion from Klamath River to Lost River near Olene, Oreg. The following diversions, in acre-feet, through Klamath Strait into Lower Klamath Lake were computed by U. S. Bureau of Reclamation from gate openings at Ady: October, 0; November, 369; December, 710; January, 738; February, 666; March, 311; April, 375; May, 3,220; June, 2,330; July, 2,290; August, 871; September, 625; the year, 12,500. Flow regulated by storage in Upper Klamath Lake since 1919 and in Lake Ewauna and Klamath River above Keno since September 1931. Water-stage recorder inspected by employee of The California Oregon Power Co.

Rating table, water year 1935-37 (gage height, in feet, and discharge, in second-feet)

1.6	50	2.4	172	4.0	740	5.6	1,680
1.8	73	2.8	280	4.4	945	6.0	1,980
2.0	100	3.2	410	4.8	1,170	6.5	2,390
2.2	132	3.6	560	5.2	1,410	7.0	2,880

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,060	1,470	1,640	1,330	1,500	980	406	188	472	708	358	1,110
2	1,720	1,900	1,720	1,230	1,540	458	406	71	382	457	844	1,200
3	1,470	2,000	1,720	1,440	1,540	804	406	594	417	300	796	1,440
4	962	2,170	1,720	1,470	950	894	406	434	420	72	539	1,080
5	1,780	2,390	1,410	1,470	325	780	403	424	150	65	1,170	1,080
6	1,980	2,140	444	1,470	804	382	400	418	73	664	1,170	1,060
7	1,980	1,270	1,280	2,200	1,230	248	400	362	512	668	394	1,080
8	2,140	1,680	762	2,480	1,230	346	396	218	628	590	296	1,080
9	2,140	1,860	586	2,300	1,230	560	400	312	347	732	1,140	1,350
10	1,410	1,770	892	1,500	1,330	540	612	470	350	554	972	1,470
11	1,540	1,720	1,030	1,500	1,500	520	350	560	968	387	890	1,470
12	2,060	1,900	1,410	1,490	970	520	820	500	324	972	840	1,110
13	2,060	1,900	1,060	1,100	205	520	454	640	118	1,060	840	1,230
14	1,820	1,680	1,440	755	520	500	226	623	554	1,060	840	1,440
15	1,540	1,700	1,440	645	1,230	500	200	468	667	947	918	1,470
16	1,440	1,980	1,220	740	740	520	166	61	397	478	1,110	1,640
17	1,400	1,960	1,200	825	805	520	265	470	507	85	1,350	1,900
18	1,030	1,980	1,210	1,230	776	500	324	718	256	164	1,320	1,540
19	1,760	1,840	808	1,350	682	500	212	720	553	953	1,230	1,170
20	1,980	1,320	397	2,120	674	480	174	314	145	674	1,200	1,060
21	1,980	1,210	1,030	2,240	568	476	97	193	718	724	1,030	1,140
22	1,980	1,540	1,020	1,510	788	476	338	184	441	723	918	1,230
23	1,850	1,740	976	365	995	473	382	121	374	918	1,140	1,410
24	1,440	2,020	560	354	968	473	73	569	454	510	1,260	1,440
25	1,660	1,780	765	1,160	702	469	100	296	516	73	1,260	1,500
26	1,900	1,540	406	1,050	772	410	324	476	325	766	1,280	1,500
27	1,860	1,500	842	810	444	382	99	482	214	1,140	1,260	1,540
28	1,860	1,300	1,020	886	804	354	82	262	478	810	1,170	1,500
29	1,780	1,720	1,070	920	-	382	208	138	556	556	1,230	1,200
30	1,530	1,890	1,100	1,240	-	406	353	62	765	348	1,290	1,080
31	1,380	-	1,230	1,180	-	406	-	416	-	513	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	53,492	2,140	962	1,726	106,100
November.....	52,890	2,390	1,210	1,763	104,900
December.....	33,398	1,720	397	1,077	66,240
Calendar year 1936.....	477,516	2,670	205	1,306	947,200
January.....	40,340	2,480	354	1,301	80,010
February.....	26,822	1,540	205	922	51,280
March.....	15,769	980	248	509	31,280
April.....	9,482	820	73	316	18,810
May.....	11,664	720	61	376	23,140
June.....	13,253	968	73	442	26,290
July.....	18,573	1,140	65	599	36,840
August.....	31,824	1,360	296	1,020	62,730
September.....	39,640	1,900	1,060	1,321	78,620
Water year 1936-37.....	345,947	2,480	61	948	686,200

## Klamath River below Fall Creek, near Copco, Calif.

Location.— Water-stage recorder, lat. 41°58', long. 122°22', in NE¼ sec. 36, T. 48 N., R. 5 W., 500 feet below mouth of Fall Creek, half a mile below Copco 2 plant of The California Oregon Power Co. and 1 mile south of Copco post office. Zero of gage is about 2,310 feet above mean sea level determined from river profile.

Drainage area.— 4,370 square miles.

Records available.— October 1928 to September 1937 October 1923 to September 1928, at site above Fall Creek.

Average discharge.— 14 years, 1,318 second-feet, including that of Fall Creek.

Extremes.— Maximum discharge recorded during year, 3,240 second-feet Oct. 23, July 28 (gage height, 4.50 feet); minimum, 72 second-feet May 12 (gage height, 1.01 feet); minimum daily discharge, 92 second-feet May 30.

1923-37: Maximum discharge, 6,950 second-feet above Fall Creek, Mar. 26, 1928; minimum, about 10 second-feet several times in 1925 and 1928. Minimum daily discharge, 83 second-feet below Fall Creek Aug. 2, 1931.

Remarks.— Records excellent except those for periods when recorder failed, Oct. 1-8, Aug. 25-31, Sept. 5-8, which were computed from electrical output of Copco 2 power plant and are fair. Diversions and regulation above station. Water-stage recorder inspected by employee of The California Oregon Power Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.0	70	2.5	910
1.2	112	3.0	1,420
1.4	170	3.5	1,970
1.6	255	4.0	2,570
1.8	360	4.5	3,240
2.0	495		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,120	797	2,220	674	1,700	1,280	1,100	276	848	928	288	1,820
2	2,270	2,400	2,460	1,950	1,810	1,100	1,080	111	832	1,010	1,280	2,190
3	959	2,700	2,380	412	1,840	978	522	354	976	504	1,300	1,960
4	464	2,810	2,190	1,760	1,440	1,060	266	946	810	277	1,250	688
5	1,950	2,270	662	2,100	1,330	939	1,160	866	470	278	1,270	395
6	2,190	2,240	524	2,400	820	371	1,250	948	268	890	1,250	244
7	2,500	1,690	1,400	2,190	538	672	1,020	1,190	830	962	558	1,640
8	2,500	597	1,360	2,320	1,730	1,310	1,100	791	823	1,060	280	1,900
9	2,670	2,280	1,790	1,910	1,780	1,120	998	254	945	1,070	1,390	1,750
10	1,720	2,490	1,890	989	1,780	1,040	615	974	945	958	1,400	2,090
11	528	2,540	1,780	1,660	1,290	1,170	106	946	844	280	1,290	1,140
12	2,120	2,340	482	1,310	552	1,330	850	978	478	931	1,580	458
13	2,140	2,510	716	1,550	611	1,200	1,010	946	318	998	1,500	2,240
14	2,230	1,660	1,880	1,410	323	444	1,010	942	1,010	978	709	2,190
15	2,210	942	1,540	1,690	1,370	1,080	1,230	380	934	1,140	286	2,240
16	2,210	2,200	1,570	1,210	1,390	1,070	1,320	106	1,280	1,250	1,500	2,190
17	1,200	2,490	1,580	402	1,350	1,110	643	932	938	279	1,580	2,130
18	578	1,990	1,770	1,510	1,330	1,200	116	892	1,110	283	1,760	736
19	2,150	2,260	674	1,730	1,680	1,250	900	954	528	1,080	1,840	380
20	2,280	2,150	326	2,090	585	675	956	916	288	1,060	1,680	1,630
21	2,270	1,320	1,570	1,870	206	285	838	1,030	898	1,250	604	2,030
22	2,720	589	1,760	1,380	1,180	1,210	966	428	952	1,150	503	1,970
23	2,740	2,160	1,770	786	1,330	1,150	845	102	952	1,160	1,580	1,860
24	1,330	2,270	1,340	312	1,810	1,090	166	944	992	310	1,590	1,910
25	650	2,690	401	1,370	1,360	965	318	956	971	302	1,870	906
26	2,210	644	655	1,330	1,530	889	998	870	454	1,180	1,880	520
27	2,310	2,220	420	1,390	833	143	957	840	296	1,140	1,880	1,600
28	2,370	2,610	1,720	1,530	373	127	956	915	966	1,090	907	1,770
29	2,210	498	1,810	1,630	-	985	960	530	1,020	1,190	420	1,330
30	2,200	1,670	1,740	892	-	1,130	648	92	858	1,150	1,480	1,820
31	1,700	-	1,780	1,130	-	924	-	285	-	442	1,480	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	59,699	2,740	464	1,926	118,400
November.....	58,027	2,810	498	1,934	115,100
December.....	44,080	2,460	326	1,422	87,450
Calendar year 1936.....	589,197	3,100	282	1,610	1,169,000
January.....	44,937	2,400	312	1,450	89,130
February.....	33,471	1,840	206	1,195	66,390
March.....	29,297	1,330	127	945	58,110
April.....	24,904	1,320	106	830	49,400
May.....	22,254	1,190	92	718	44,160
June.....	23,734	1,280	268	791	47,060
July.....	26,580	1,250	277	887	52,720
August.....	35,185	1,880	280	1,232	75,740
September.....	46,127	2,240	244	1,538	91,490
Water year 1936-37.....	451,295	2,810	92	1,236	895,100

## Klamath River at Somesbar, Calif.

Location.- Water-stage recorder, lat. 41°23', long. 123°29', in SW<sup>1</sup>/<sub>4</sub> sec. 3, T. 11 N., R. 5 E., 300 feet below mouth of Salmon River and 1 mile west of Somesbar post office. Altitude, about 450 feet.

Drainage area.- 8,490 square miles.

Records available.- October 1927 to September 1937.

Extremes.- Maximum discharge during year, 59,500 second-feet Apr. 14 (gage height, 27.6 feet); minimum, 1,040 second-feet Dec. 15, regulated.

1927-37: Maximum discharge, 60,300 second-feet Mar. 26, 1928 (gage height, 27.9 feet); minimum, 218 second-feet Aug. 26, 1931, regulated.

A stage of about 50.8 feet occurred on Feb. 21, 1927 (discharge not computed).

Remarks.- Records good except those for periods of missing gage heights, Nov. 23 to Dec. 3, Apr. 15-23, which were computed on basis of records for Klamath River near Copco and Trinity River near Hoopa, and are fair. Storage, large diversions for irrigation, and considerable regulation by power plants above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,420	2,420	2,100	2,630	2,160	5,200	13,900	10,800	9,780	5,660	2,020	2,150
2	2,770	1,900	2,900	1,840	3,220	11,800	13,200	11,800	10,800	4,970	1,620	2,490
3	3,070	2,350	3,200	2,160	3,000	8,820	11,200	13,500	11,800	4,750	1,720	3,020
4	2,080	3,370	3,070	1,860	4,960	7,700	9,400	14,500	11,800	4,340	2,350	3,020
5	1,390	3,440	2,920	2,020	4,640	8,260	5,640	14,100	10,800	3,770	2,280	1,960
6	2,090	3,070	1,900	2,920	3,370	9,400	9,400	13,300	10,000	3,340	2,280	1,560
7	2,920	2,840	1,370	2,920	2,630	7,980	8,820	13,300	9,000	3,420	2,280	1,270
8	3,220	2,490	1,840	2,840	2,090	7,980	8,540	12,600	9,000	3,680	2,080	1,700
9	3,220	1,840	2,090	2,640	2,560	11,800	9,100	12,100	9,260	3,600	1,510	2,490
10	3,220	2,160	2,350	2,920	3,000	12,000	9,700	11,100	9,520	3,600	1,670	2,560
11	2,770	3,070	2,560	1,900	3,000	9,820	9,820	12,600	9,520	3,340	2,280	2,560
12	1,500	3,300	2,630	2,490	3,600	10,300	8,260	14,100	8,720	2,860	2,230	2,350
13	2,020	2,920	1,610	2,350	3,520	10,300	40,700	15,400	7,600	2,640	2,350	1,460
14	2,770	3,220	1,190	2,350	3,600	8,700	55,000	15,400	7,320	2,940	2,280	2,110
15	2,770	2,490	2,090	2,220	3,220	8,260	44,000	15,100	7,880	2,860	2,150	2,860
16	2,770	2,090	2,420	2,560	3,220	7,980	33,000	14,600	10,300	2,860	1,320	2,940
17	2,770	2,090	2,560	2,350	3,520	7,700	24,000	13,300	10,000	3,020	1,540	2,860
18	2,160	3,220	2,280	1,720	4,450	7,180	19,000	13,500	8,720	2,490	2,280	2,780
19	1,600	2,700	2,490	1,840	4,000	6,920	16,500	13,000	9,260	1,960	2,640	1,920
20	2,090	2,700	2,020	2,420	3,840	3,680	16,000	12,600	11,800	2,150	2,620	1,510
21	2,840	2,840	1,230	2,700	3,000	6,140	17,500	12,600	10,800	2,560	2,560	1,590
22	2,840	2,220	1,660	2,770	2,700	5,400	16,500	13,300	9,780	2,710	1,720	2,710
23	3,300	1,800	2,920	2,420	3,140	6,270	14,500	13,500	8,720	2,490	1,450	2,640
24	3,440	2,200	3,680	1,960	3,760	7,180	13,500	13,800	7,600	2,560	1,670	2,560
25	2,220	3,000	2,700	1,440	4,180	7,440	13,000	14,800	7,190	2,220	2,280	2,560
26	1,710	3,300	2,160	1,680	4,000	7,180	13,300	13,300	6,800	1,780	2,640	2,020
27	2,220	2,000	1,900	2,490	4,000	7,440	12,800	12,800	6,150	2,020	2,640	1,410
28	2,920	3,000	1,720	2,490	3,760	6,920	11,600	13,000	5,540	2,420	2,560	1,760
29	3,000	3,100	1,960	2,350	-	6,660	10,800	12,300	6,150	2,350	2,150	2,490
30	2,920	1,800	2,770	2,770	-	7,180	10,600	10,800	6,150	2,280	1,460	2,490
31	2,840	-	2,840	2,020	-	7,980	-	9,780	-	2,350	1,800	-
Month												
	Second-foot-days						Maximum	Minimum	Mean	Run-off in acre-feet		
October.....	79,890						3,440	1,590	2,577	158,400		
November.....	75,940						3,440	1,800	2,631	156,600		
December.....	70,920						3,680	1,190	2,288	140,700		
Calendar year 1936.....	2,445,300						52,800	1,150	6,681	4,850,000		
January.....	72,340						2,920	1,440	2,334	143,500		
February.....	96,140						4,960	2,090	3,434	190,700		
March.....	251,730						12,000	5,200	8,120	499,500		
April.....	498,190						55,000	8,260	16,610	988,100		
May.....	406,580						15,400	9,780	12,120	806,400		
June.....	287,360						11,800	5,640	8,912	530,300		
July.....	93,990						5,660	1,780	3,032	186,400		
August.....	64,290						2,640	1,320	2,074	127,500		
September.....	67,790						3,020	1,270	2,260	134,600		
Water year 1936-37.....	2,048,140						55,000	1,190	5,611	4,062,000		

## Sprague River near Chiloquin, Oreg.

Location.- Water-stage recorder, lat. 42°35', long. 121°51', in NE¼ sec. 35, T. 34 S., R. 7 E., 1½ miles east of Chiloquin and 4 miles above Modoc Point Canal Intake.

Drainage area.- 1,580 square miles.

Records available.- August 1931 to September 1937. July 1920 to September 1931, at station at McCready ranch, 12 miles upstream, records equivalent except those for extremely low stages.

Average discharge.- 16 years (1921-37), 396 second-feet.

Extremes.- Maximum discharge during year, 2,080 second-feet Apr. 19, 20 (gage height, 4.11 feet); minimum, 124 second-feet Aug. 24 (gage height, 1.33 feet).

1920-37: Maximum discharge, 3,920 second-feet Mar. 29, 1928; minimum daily discharge estimated, 50 second-feet May 26, 27, 1926.

Maximum discharge known, 4,490 second-feet at Chiloquin, Apr. 27, 1917.

Remarks.- Records good except those for periods of ice effect, Nov. 27 to Dec. 5, Dec. 10-18, Dec. 28 to Feb. 20 (computed on basis of one discharge measurement, weather records, and records for Williamson River, below Sprague River, near Chiloquin), and those for periods of missing gage heights, Oct. 28-30, July 5-9, 12-18, 28-30, and Sept. 20 (computed on basis of weather records and records for Williamson River below Sprague River, near Chiloquin), which are fair. Diversions above station for irrigation; regulation by pondage at irrigation dams. Water-stage recorder inspected by employee of The California Oregon Power Co.

Rating table, water year 1936-37, except periods of ice effect (gage height, in feet, and discharge in second-feet)

1.2	92	2.8	920
1.4	144	3.2	1,230
1.7	254	3.6	1,580
2.0	410	4.0	1,980
2.4	555	4.5	2,520

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	160	217	200	200	220	273	584	785	452	325	229	164
2	160	217	220	170	230	313	590	755	446	318	217	167
3	157	213	210	210	220	325	610	766	440	318	199	170
4	160	217	190	210	210	334	707	726	428	313	199	170
5	160	217	230	220	220	360	844	707	416	300	199	170
6	160	217	246	190	210	366	941	720	399	270	199	174
7	160	217	229	170	210	382	976	759	350	260	195	177
8	160	217	234	190	220	388	920	824	209	260	191	174
9	160	221	242	180	220	452	837	913	225	250	188	174
10	160	217	220	160	220	494	726	934	310	278	188	170
11	160	209	180	170	220	512	488	906	584	264	188	177
12	181	206	170	160	220	584	603	857	382	190	191	209
13	188	229	180	170	230	668	804	824	334	170	195	217
14	242	225	190	180	230	740	913	798	323	160	191	199
15	229	234	210	190	220	792	1,090	766	323	190	188	184
16	225	250	240	200	240	818	1,030	733	334	240	188	177
17	216	238	250	210	240	850	1,170	707	359	200	188	229
18	221	234	240	220	240	792	1,449	610	242	160	198	217
19	206	234	242	210	240	894	1,930	629	234	141	174	188
20	202	234	234	190	240	554	2,030	707	288	141	160	175
21	202	234	238	210	242	554	1,730	707	458	144	191	174
22	202	229	238	200	238	566	1,390	642	494	151	177	174
23	209	229	242	208	242	542	1,130	622	524	157	133	170
24	250	229	246	210	242	512	983	636	590	164	124	174
25	242	234	246	210	250	488	913	616	746	167	130	177
26	242	229	246	200	250	470	878	566	636	210	130	181
27	225	220	246	210	254	470	837	524	536	280	140	181
28	250	200	220	200	284	482	792	476	482	270	140	177
29	240	190	200	220	-	518	772	446	452	230	150	181
30	225	190	200	210	-	542	778	452	377	220	150	181
31	217	-	190	210	-	566	-	458	-	209	160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	6,148	250	157	198	12,190
November.....	6,647	250	190	222	13,180
December.....	6,669	250	170	222	13,520
Calendar year 1936.....	179,963	2,190	138	492	359,600
January.....	6,078	220	150	196	12,060
February.....	6,482	264	210	232	12,860
March.....	16,404	850	273	529	32,540
April.....	29,426	2,030	488	981	58,370
May.....	21,501	934	446	697	42,840
June.....	12,553	746	209	412	24,500
July.....	8,953	328	141	224	13,790
August.....	5,480	229	124	177	10,870
September.....	5,452	229	164	182	10,810
Water year 1936-37.....	129,893	2,030	124	356	257,600



## Fourmile Lake Reservoir near Odessa, Oreg.

Location.- Staff gage, lat. 42°27', long. 122°14', in NW¼ sec. 9, T. 36 S., R. 5 E., at dam at outlet of Fourmile Lake, 15 miles northwest of Odessa. Gage readings are elevations above mean sea level, irrigation-company datum.

Records available.- June 1923 to September 1930, June 1932 to September 1937.

Extremes.- Maximum contents observed during year, 15,810 acre-feet June 28 (elevation, 6,002.68 feet); minimum, 7,345 acre-feet Nov. 8, 27 (elevation, 5,992.30 feet). 1923-30, 1932-37: Maximum content, that of June 28, 1937; no storage at times.

Remarks.- Records fair. Month-end contents October, November, and July to September estimated from occasional readings of gage. Water turned out of reservoir is diverted 300 feet below dam into Cascade Canal, which conveys it across divide into drainage above Fish Lake in Rogue River Basin. See records for Cascade Canal near Fish Lake.

Monthly stage and contents, water year 1936-37

Date	Elevation in feet	Contents in acre- feet	Change in contents during month in acre-feet
Sept. 30	-	7,688	-
Oct. 31	-	7,399	-289
Nov. 30	-	7,345	-54
May 31	5,999.6	12,970	*+5,625
June 30	6,002.6	15,740	+2,770
July 31	-	10,640	-5,100
Aug. 31	-	8,779	-1,861
Sept. 30	-	8,613	-166
The water year			+925

\*For period Dec. 1 to May 31.

## Cascade Canal near Fish Lake, Oreg.

Location.- Water-stage recorder, lat. 42°24', long. 122°16', in SE¼ sec. 30, T. 36 S., R. 5 E., at divide between Rogue River and Klamath River Basins, 3 miles above Fish Lake.

Records available.- June 1924 to September 1937 (irrigation seasons only).

Extremes.- Maximum discharge observed during year, 48 second-feet July 25 (gage height, 2.03 feet); no flow at times.

Remarks.- Records poor. Discharge extrapolated for May 13-22 and interpolated for May 24-25, 30, 31, June 2-5, 7-27. Water stored in Fourmile Lake Reservoir was released to canal June 28 to Aug. 11. This canal diverts water from Fourmile Creek in Klamath River Basin and discharges it into lava bed 1½ miles above Fish Lake in Rogue River Basin. Entire flow sinks in lava bed, reappearing in springs at head of Fish Lake. Gaging station is 10 miles below point of diversion.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	1	39	43	
2								-	1	39	42	
3								-	1	40	43	
4								-	1	40	42	
5								-	1	40	42	
6								-	1	40	42	
7								-		40	42	
8								-		40	41	
9								-		41	41	
10								-		40	41	
11								-		40	27	
12								-		40	0	
13								-		40	0	
14								-		40	0	
15								-		40	0	
16								-		40	0	
17								3	1	40	0	
18								3		40	0	
19								3		40	0	
20								3		41	0	
21								-		42	0	
22								-		42	0	
23								3		42	0	
24								3		42	0	
25								3		42	0	
26								2		44	0	
27								2		45	0	
28								2	6	43	0	
29								1	27	42	0	
30								1	36	42	0	
31								1	-	42	0	
Month								Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....												
November.....												
December.....												
Calendar year .....												
January.....												
February.....												
March.....												
April.....												
May 13-31 .....								48	3	1	2.5	95
June.....								96	36	1	3.2	190
July.....								1,266	44	39	40.8	2,510
August.....								446	43	0	14.4	885
September.....								0	0	0	0	0
The period.....												3,680

Note.- No records Oct. 1 to May 12; some flow in canal at times from melting snow.

## "A" Canal at Klamath Falls, Oreg.

Location.- Water-stage recorder, lat. 42°14', long. 121°48', in NE¼ sec. 30, T. 38 S., R. 9 E., 300 feet below head gates of canal and 1 mile northwest of Klamath Falls.

Records available.- October 1912 to September 1937 in reports of U. S. Geological Survey; October 1910 to September 1912 in reports of State engineer.

Average discharge.- 27 years, 164 second-feet.

Extremes.- Maximum discharge during year, 1,100 second-feet July 20 (gage height, 10.43 feet); no flow Oct. 1 to Apr. 18.

1910-37: Maximum discharge, that of July 20, 1937; maximum stage, 10.72 feet June 27, 1925.

Remarks.- Records good. "A" Canal diverts water from Upper Klamath Lake, in NE¼ sec. 30, T. 38 S., R. 9 E., for irrigating lands east of Klamath River on both sides of Lost River. Most of return waters reach Lost River. Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	299	562	663	815	395
2							0	386	609	620	816	439
3							0	417	656	545	817	461
4							0	419	690	498	835	413
5							0	421	721	543	886	375
6							0	441	764	679	914	353
7							0	467	813	770	826	349
8							0	496	797	822	672	364
9							0	517	728	866	756	410
10							0	537	542	942	806	430
11							0	554	335	936	836	419
12							0	556	291	932	797	427
13							0	581	237	952	793	390
14							0	632	203	936	764	430
15							0	661	195	936	690	421
16							0	676	129	1,024	708	470
17							0	695	99	1,012	716	501
18							0	698	102	918	735	490
19							15	639	95	992	726	424
20							19	576	80	1,058	712	350
21							19	602	139	1,070	674	334
22							18	588	211	1,053	633	314
23							18	545	217	1,012	621	287
24							26	582	294	970	626	274
25							45	596	332	919	643	276
26							86	576	392	864	643	281
27							103	543	465	854	632	338
28							151	549	607	866	582	395
29							242	534	667	866	540	366
30							273	484	698	864	523	264
31							-	493	-	900	437	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						0	0	0	0	0		
November.....						0	0	0	0	0		
December.....						0	0	0	0	0		
Calendar year .....						89,222	1,004	0	244	177,000		
January.....						0	0	0	0	0		
February.....						0	0	0	0	0		
March.....						0	0	0	0	0		
April.....						1,015	273	0	33.8	2,010		
May.....						16,780	698	299	541	33,280		
June.....						12,690	813	80	423	25,170		
July.....						26,932	1,070	498	869	53,420		
August.....						22,184	914	437	716	44,000		
September.....						11,480	501	264	383	22,770		
Water year 1936-37.....						91,081	1,070	0	250	180,600		

## Keno Canal at Klamath Falls, Oreg.

Location.- Staff gage, lat. 42°13', long. 121°48', in SW $\frac{1}{4}$  sec. 32, T. 38 S., R. 9 E., 200 feet above penstock to west-side plant of The California Oregon Power Co. and a quarter of a mile above Link River bridge at Klamath Falls.

Records available.- October 1923 to September 1937.

Average discharge.- 14 years, 200 second-feet.

Extremes.- Maximum daily discharge during year, 293 second-feet Feb. 11; no flow at times.

1923-37: Maximum daily discharge, that of Feb. 11, 1937.

Remarks.- Records good. Discharge determined from record of electrical output of power plant 200 feet below gage combined with spill at wasteway above canal gage. Canal diverts water from Upper Klamath Lake at Link River storage dam in SE $\frac{1}{4}$  sec. 30. Water used for developing power and returned to Link River in SW $\frac{1}{4}$  sec. 32. Flow controlled by gates at head of canal. Gage-height and electrical-output records furnished by The California Oregon Power Co.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	259	245	265	257	278	0		0	267	162	264	260
2	261	255	266	222	279	0		0	274	3	260	260
3	260	261	265	272	274	0		0	281	5	265	264
4	260	263	261	269	95	0		0	269	0	266	262
5	260	265	204	272	0	0		0	271	129	266	265
6	259	271	266	269	0	0		0	272	279	266	271
7	258	275	263	266	0	0		10	275	274	264	271
8	256	268	274	262	0	0		133	274	265	267	263
9	259	266	272	264	0	0		246	269	265	265	265
10	262	268	264	270	139	0		265	269	265	264	265
11	261	271	270	271	293	0		272	186	262	263	266
12	260	272	264	268	111	0		261	2	265	264	265
13	256	265	262	271	0	8		272	2	265	265	264
14	263	265	263	203	0	4		275	3	271	265	264
15	263	263	263	2	0	0		229	2	266	259	263
16	267	263	263	4	0	0		272	2	244	255	256
17	260	261	263	4	0	0		275	2	232	258	260
18	263	265	268	4	0	0		276	2	261	263	267
19	263	271	273	29	0	0		275	2	269	264	272
20	264	271	276	231	0	0		275	1	261	261	265
21	253	271	270	261	0	0		277	0	263	262	265
22	254	278	271	200	0	0		282	3	269	264	265
23	267	269	263	6	0	0		283	5	262	261	265
24	262	272	264	8	0	0		280	5	258	263	265
25	260	266	262	160	0	0		281	5	270	264	265
26	255	271	264	206	0	0		277	5	266	263	265
27	254	266	263	6	0	0		275	5	265	262	263
28	255	266	263	10	0	0		282	5	266	266	268
29	269	270	266	97	-	0		281	151	262	269	280
30	260	264	269	278	-	0		274	272	270	268	252
31	205	-	258	277	-	0		271	-	261	260	-
Month					Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet			
October.....					7,977	267	205	257	15,820			
November.....					7,994	278	245	266	15,860			
December.....					8,156	276	204	263	16,180			
Calendar year 1936.....					65,913	278	0	180	180,700			
January.....					5,419	278	2	175	10,750			
February.....					1,469	293	0	52.5	2,910			
March.....					12	8	0	.4	24			
April.....					0	0	0	0	0			
May.....					6,397	283	0	206	12,690			
June.....					3,381	281	0	113	6,710			
July.....					7,144	279	0	230	14,170			
August.....					8,142	267	265	263	16,150			
September.....					7,901	272	252	263	16,670			
Water year 1936-37.....					63,992	293	0	175	126,900			

## Lost River Diversion Canal near Olene, Oreg.

Location.- Staff gages above and below head gate at intake of canal at Lost River Dam; water-stage recorder, lat. 42°09', long. 121°42', in SW¼ sec. 30, T. 39 S., R. 10 E., 1½ miles below intake and 5 miles southwest of Olene. Station was moved downstream about 1 mile in 1931.

Records available.- May 1912 to September 1937.

Average discharge.- 21 years (1912-15, 1919-37), 103 second-feet.

Extremes.- Maximum daily discharge during year, 500 second-feet Mar. 16; no flow at times.

1912-37: Maximum discharge, 1,320 second-feet Apr. 11, 1935.

Remarks.- Records fair. Discharge computed from daily record of openings and head on gate; water-stage recorder used to indicate changes between readings. Canal diverts water from Lost River in SW¼ sec. 29, T. 39 S., R. 10 E., and discharges it into Klamath River to assist in reclamation of bed of Tule Lake. At times direction of flow is reversed and water diverted from Klamath River into Lost River. See record for Diversion from Klamath River to Lost River near Olene. Records furnished by Bureau of Reclamation.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	100	99	94	90	149	325		0	0	0	131
2	116	100	99	93	91	193	306		0	0	0	131
3	116	101	101	92	98	262	291		0	0	0	131
4	118	101	101	91	99	288	310		0	0	0	131
5	117	100	105	92	101	298	333		0	0	0	131
6	117	100	105	93	101	311	351		0	0	0	132
7	111	101	104	89	91	320	361		0	0	0	154
8	112	101	94	88	90	320	354		0	0	0	135
9	111	101	95	91	91	327	297		0	0	0	137
10	115	101	95	88	90	331	256		92	0	0	154
11	128	101	92	90	98	331	253		102	0	0	165
12	129	101	94	90	98	335	259		130	0	0	160
13	128	101	94	93	95	337	227		100	0	0	155
14	118	101	93	93	91	371	156		82	0	0	139
15	111	101	96	90	92	495	161		82	0	0	135
16	106	101	96	88	90	500	232		144	0	0	99
17	99	101	95	84	95	497	259		166	0	0	86
18	100	101	95	90	99	466	264		96	0	0	86
19	100	101	93	98	101	364	228		83	0	0	82
20	98	101	93	95	95	370	121		104	0	0	69
21	95	93	89	95	97	372	89		38	0	0	115
22	95	95	94	95	100	372	57		0	0	0	144
23	95	109	97	101	100	359	0		0	0	0	148
24	97	101	96	94	108	351	0		0	0	0	148
25	97	103	98	88	105	340	0		0	20	0	148
26	97	101	98	88	97	304	0		0	41	0	147
27	95	101	98	94	90	327	0		0	36	0	146
28	99	100	98	93	100	339	0		0	32	0	146
29	99	99	98	91	-	359	0		0	65	0	145
30	101	99	97	90	-	347	0		0	75	0	145
31	102	-	96	91	-	347	-		-	115	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	3,356	129	95	108	6,620
November.....	3,017	109	93	101	5,980
December.....	2,998	105	89	96.7	5,950
Calendar year 1936 .....	53,355	1,097	0	146	105,800
January.....	2,842	101	84	91.7	5,640
February.....	2,693	108	90	96.2	5,340
March.....	10,652	500	149	344	21,130
April.....	5,520	361	0	184	10,950
May.....	0	0	0	0	0
June.....	1,219	166	0	40.6	2,420
July.....	0	0	0	0	0
August.....	387	115	0	12.5	768
September.....	3,933	165	62	131	7,800
Water year 1936-37 .....	36,597	500	0	100	72,600

Diversion from Klamath River to Lost River near Olene, Oreg.

Location.- Water-stage recorder, lat. 42°09', long. 121°42', in SW<sup>1</sup> sec. 30, T. 39 S., R. 10 E., 5 miles southwest of Olene; staff gage above rectangular gate at wasteway 0.4 mile (revised) east of recorder.

Records available.- April 1931, when diversion began, to September 1937.

Extremes.- Maximum daily discharge during year, 506 second-feet May 11; no flow at times. 1931-37: Maximum daily discharge, 564 second-feet Apr. 13, 1933.

Remarks.- Records fair. Discharge computed from record of gate openings and gage readings at wasteway; recorder used as index of changes between readings. This canal was built to divert water from Lost River to Klamath River and thereby assist in the reclamation of the bed of Tule Lake. See record for Lost River diversion canal near Olene. Beginning in April 1931 water has been diverted at times from Klamath River and released into drain that empties into Lost River, from which it is rediverted for irrigation of lands near Tule Lake. Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	0	233	146	107	
2							0	0	273	0	108	
3							0	66	307	0	136	
4							0	144	330	79	153	
5							0	223	341	186	153	
6							0	255	343	228	123	
7							0	232	297	245	105	
8							0	330	261	260	74	
9							0	422	194	224	55	
10							0	478	40	299	99	
11							0	506	0	274	132	
12							0	496	0	258	105	
13							0	368	0	258	104	
14							0	339	0	284	98	
15							0	356	0	301	55	
16							0	353	0	328	21	
17							0	320	0	360	36	
18							0	281	0	377	84	
19							0	237	0	376	147	
20							0	169	0	399	144	
21							0	148	10	420	87	
22							0	126	117	402	55	
23							25	175	175	339	55	
24							61	236	154	266	55	
25							60	253	155	187	26	
26							20	227	154	107	0	
27							20	211	121	134	0	
28							0	206	138	162	0	
29							0	178	240	152	0	
30							0	158	264	123	0	
31							-	159	-	105	0	
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
October.....							0	0	0	0	0	
November.....							0	0	0	0	0	
December.....							0	0	0	0	0	
Calendar year 1936.....							11,999	317	0	32.8	23,800	
January.....							0	0	0	0	0	
February.....							0	0	0	0	0	
March.....							0	0	0	0	0	
April.....							186	61	0	6.2	369	
May.....							7,691	506	0	248	15,250	
June.....							4,147	343	0	138	8,230	
July.....							7,289	420	0	235	14,460	
August.....							2,316	155	0	74.7	4,580	
September.....							0	0	0	0	0	
Water year 1936-37.....							21,629	506	0	59.3	42,900	

## Fall Creek at Copco, Calif.

Location.- Staff gage, lat. 41°58', long. 122°22', in NE¼ sec. 36, T. 48 N., R. 5 W., at railway crossing 500 feet above mouth and 1 mile south of Fall Creek power plant and Copco post office.

Records available.- July 1928 to September 1937.

Extremes.- Maximum discharge observed during year, 122 second-feet Apr. 13 (gage height, 1.90 feet); minimum, 24 second-feet on many days during June, July, August, and September.

1928-37: Maximum discharge (estimated), 190 second-feet Jan. 10, 1936 (gage height, 2.60 feet, from floodmarks); minimum, that of June to September 1937.

Remarks.- Records poor. Discharge interpolated for days when gage was not read. Discharge computed by shifting-control Nov. 2 to Sept. 30. A small quantity of water is occasionally diverted above station for irrigation. Since December water has been diverted through 8-inch pipe to State fish hatchery and returned from there to creek below gage. Gage readings furnished by The California Oregon Power Co.

## Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.			
1	28	*29	*28	*28	28	*42	48	32	*25	26	*24	*25			
2	28	29	28	*28	28	48	48	31	*25	*26	*24	25			
3	28	*29	28	28	*28	48	48	31	25	*25	24	*26			
4	28	*30	*28	28	*28	48	51	*32	*25	25	*24	26			
5	28	*30	28	28	28	54	51	32	*24	25	*25	26			
6	27	30	*28	*28	*28	65	*46	31	24	24	25	*26			
7	27	30	28	*28	28	68	41	31	25	24	25	*26			
8	28	*30	28	28	*28	*63	41	*31	*27	24	25	26			
9	28	30	28	28	28	*58	41	*31	29	*24	25	25			
10	28	*30	28	*28	27	*54	41	31	*28	24	*25	24			
11	28	30	28	29	30	*49	*41	*30	28	*24	*25	24			
12	27	29	*28	29	30	44	41	30	27	*24	*24	25			
13	28	*30	*28	29	33	44	122	30	*26	24	*24	*26			
14	28	30	28	29	33	44	*109	27	26	*24	*24	26			
15	28	*30	*28	*30	32	*42	96	26	26	24	24	*26			
16	28	30	28	30	32	41	*74	*28	27	*24	*24	*25			
17	28	*30	28	28	32	41	51	30	26	24	25	*24			
18	28	30	29	*28	31	41	44	32	*26	24	*25	24			
19	28	*30	29	*28	30	37	44	26	26	25	25	*25			
20	29	30	29	28	30	37	41	26	26	25	*25	26			
21	28	*30	*29	28	30	37	41	32	26	25	*25	*26			
22	*28	29	29	28	*34	*39	37	31	26	*24	*25	*26			
23	*27	30	28	28	*37	41	37	*29	26	24	25	*26			
24	27	30	*28	*28	41	54	37	*28	26	25	*25	26			
25	*29	29	29	28	36	48	37	26	26	25	25	*26			
26	31	29	29	*28	35	*50	37	*26	*26	25	*25	26			
27	31	29	*28	28	35	*52	37	*26	*25	25	25	*26			
28	30	*29	28	28	36	54	*35	*26	25	25	*24	27			
29	30	*28	28	*28	-	51	33	*26	26	25	24	*26			
30	29	28	28	*28	-	*50	32	*25	*26	*25	24	26			
31	*29	-	*28	*28	-	48	-	*25	-	*25	25	-			
Month						Second-foot-days		Maximum		Minimum		Mean		Run-off in acre-feet	
October.....						877		31		27		28.3		1,740	
November.....						887		30		28		29.6		1,760	
December.....						875		29		28		28.2		1,740	
Calendar year 1936.....						11,491		150		25		31.4		22,790	
January.....						876		30		28		28.3		1,740	
February.....						876		41		27		31.3		1,740	
March.....						1,492		68		37		48.1		2,960	
April.....						1,482		122		32		49.4		2,940	
May.....						898		32		25		29.0		1,780	
June.....						779		29		24		26.0		1,550	
July.....						762		26		24		24.6		1,510	
August.....						763		25		24		24.6		1,510	
September.....						767		27		24		25.6		1,520	
Water year 1936-37 .....						11,334		122		24		31.1		22,490	

\*Interpolated.

## Hyatt Prairie Reservoir near Ashland, Oreg.

Location.- Staff gage, lat.  $42^{\circ}10'$ , long.  $122^{\circ}28'$ , in sec. 16, T. 39 S., R. 3 E., at dam of Talent Irrigation District, 3 miles north of Ashland-Klamath Falls highway and 20 miles east of Ashland. Gage readings are elevation above mean sea level (Talent Irrigation District datum).

Records available.- December 1922 to September 1937.

Extremes.- Maximum contents observed during year, 10,230 acre-feet June 24, 28 (elevation, 5,008.6 feet); minimum, 3,319 acre-feet Dec. 1 (elevation, 4,997.2 feet).  
1922-37: Maximum contents, 15,920 acre-feet May 15, 16, 1928 (elevation, 5,015.70 feet); no storage at times.

Remarks.- Records fair. Hyatt Prairie Reservoir Dam was constructed in 1922-23 by Talent Irrigation District to store water for irrigation of lands near Ashland and Talent, this water to be diverted through Keene Creek Canal. Month-end contents interpolated from gage readings averaging one a week applied to capacity table furnished by Talent Irrigation District.

Monthly stage and contents, water year 1936-37

Date	Contents in acre-feet	Change in contents during month in acre-feet
Sept. 30	3,420	
Oct. 31	3,366	-54
Nov. 30	3,319	-47
Dec. 31	3,508	+189
Mar. 31	4,727	+1,219
Apr. 30	6,435	+1,708
May 31	9,513	+3,078
June 30	10,158	+645
July 31	8,628	-1,530
Aug. 31	5,536	-3,092
Sept. 30	4,876	-660
Water year		+1,456

\*For period Dec. 31 to Mar. 31.



## KLAMATH RIVER BASIN

Keene Creek Canal near Ashland, Oreg.

Location.- Water-stage recorder, lat. 42° 09', long. 122° 30', in NW¼ sec. 29, T. 39 S., R. 3 E., 400 feet above short tunnel through Cascade Divide, 2 miles north of Ashland-Klamath Falls highway, and 16 miles southeast of Ashland.

Records available.- June 1923 to September 1937 (some years incomplete).

Extremes.- Maximum discharge during year, 47 second-feet, Aug. 17, 19, 20, 25 (maximum gage height, 2.94 feet Aug. 31 to Sept. 2); no flow at times.  
1923-37: Maximum discharge, 78 second-feet Aug. 18, 1928.

Remarks.- Records good except those for May 2-10, 12, 17-24 (computed on basis of two discharge measurements), and those for Sept. 3-28, which are fair. Discharge Oct. 1-3, Aug. 6 to Sept. 26, computed by shifting-control method. Water released from Hyatt Prairie Reservoir is diverted by this canal from Keene Creek in SE¼ sec. 20, T. 39 S., R. 3 E., and discharged into Emigrant Creek Basin for irrigation of lands near Ashland and Talent. Negligible flow in canal Oct. 4 to Apr. 30, Sept. 27-30. Stored water released from reservoir June 4-8, June 27 to Sept. 19.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0.5	4.5	16	35	43
2									3.0	16	35	43
3									2.0	17	36	32
4									5	18	36	16
5								.5	25	18	36	13
6									26	19	39	9.0
7									26	21	44	8.0
8									27	21	45	8.0
9									20	20	45	8.5
10									7	22	45	9.5
11								3.5	6	22	45	10
12								9	6	22	45	11
13								9	3.5	22	45	12
14								8	2.0	22	46	13
15								7	2.0	23	46	13
16								4.5	2.0	23	46	13
17								3.0		22	47	13
18								4.5		20	46	13
19								4.5		19	47	9.5
20								1.5	.5	19	47	3.5
21								0		20	46	2.0
22								0		22	46	1.0
23								0		22	46	1.0
24								0	.5	22	46	.5
25								0	7	22	47	.5
26								0	12	22	46	.5
27								0	6	22	45	0
28								0	15	22	45	0
29								5	17	22	44	0
30								10	17	22	43	0
31								7	-	27	43	-
Month							Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet	
October.....							3	1	0	0.1	6	
November.....							0	0	0	0	0	
December.....							0	0	0	0	0	
Calendar year .....												
January.....							0	0	0	0	0	
February.....							0	0	0	0	0	
March.....							0	0	0	0	0	
April.....							0	0	0	0	0	
May.....							81.5	10	0	2.63	162	
June.....							246.0	27	-	8.17	486	
July.....							647	27	16	20.9	1,230	
August.....							1,353	47	35	43.6	2,680	
September.....							506.5	43	0	10.2	608	
Water year 1936-37.....							2,636.0	47	0	7.22	5,220	

## Shasta River near Yreka, Calif.

Location.- Water-stage recorder, lat. 41°49', long. 122°35', in NE¼ sec. 24, T. 46 N., R. 7 W., 0.6 mile above mouth and 6 miles north of Yreka. Altitude, about 2,000 feet.

Drainage area.- 804 square miles.

Records available.- October 1933 to September 1937.

Extremes.- Maximum discharge during year, 500 second-feet Apr. 15 (gage height, 3.86 feet); minimum, 3.7 second-feet July 14.

1933-37: Maximum discharge, 1,000 second-feet Jan. 15, 1936 (gage height, 4.80 feet), by slope-area method; minimum, that of July 14, 1937.

Remarks.- Records good except those for period of ice effect, Jan. 7 to Feb. 1, which were computed on basis of one discharge measurement, gage heights, and weather records and are fair. Storage and many irrigation diversions above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.4	6	2.1	44	2.8	152
1.5	9	2.2	54	2.9	180
1.6	12.5	2.3	66	3.0	210
1.7	17	2.4	78	3.2	272
1.8	22	2.5	92	3.4	338
1.9	28	2.6	108	3.6	408
2.0	35	2.7	128	3.8	478

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	110	120	122	112	166	210	89	23	29	12	34
2	75	112	126	120	114	177	240	73	28	23	12	34
3	75	114	124	118	122	174	225	63	23	25	13	37
4	84	114	122	118	158	172	180	62	22	25	13	31
5	94	116	122	116	172	166	168	57	18	26	12	22
6	103	116	124	114	158	169	168	40	22	27	15	29
7	102	114	124	112	145	172	165	49	22	20	16	32
8	95	112	124	112	133	169	122	45	28	26	18	31
9	95	114	114	110	130	180	124	44	66	17	20	23
10	100	114	105	110	130	192	122	34	97	15	11	18
11	100	114	108	108	138	183	116	25	110	13	12	16
12	100	114	114	108	189	177	120	20	120	11	12	16
13	102	114	116	108	204	169	177	18	122	8.5	12	18
14	100	112	118	108	186	160	392	24	106	6.5	10	17
15	102	118	118	108	172	140	442	25	106	6	13	23
16	105	118	118	108	166	135	365	22	135	9.5	11	21
17	108	118	120	108	177	133	272	20	147	9.5	9	32
18	108	118	120	108	215	135	240	35	152	11	8	38
19	105	120	120	108	210	135	234	78	152	12	13	46
20	106	120	122	106	195	133	225	118	147	8	12	66
21	106	120	122	100	196	140	204	110	130	10	11	79
22	106	120	122	108	189	174	145	53	97	7	7.5	70
23	108	120	124	108	192	222	130	38	52	6	7.5	65
24	108	120	126	108	216	288	124	37	45	12	17	63
25	108	120	124	108	216	285	122	32	36	17	14	75
26	106	120	128	108	198	285	124	32	35	33	18	73
27	102	120	124	108	183	259	120	29	29	25	17	66
28	110	120	122	108	169	256	118	27	23	17	12	65
29	108	120	120	108	-	240	110	26	29	15	11	65
30	114	120	122	108	-	219	100	24	30	14	18	66
31	116	-	122	110	-	207	-	25	-	16	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	3,124	116	73	101	6,200
November.....	3,502	120	110	117	6,950
December.....	3,733	128	106	120	7,400
Calendar year 1936.....	39,275.0	878	6.5	107	77,900
January.....	3,412	122	100	110	6,770
February.....	4,776	216	112	171	9,470
March.....	5,812	288	133	187	11,530
April.....	5,585	442	100	186	11,080
May.....	1,375	118	18	44.4	2,730
June.....	2,152	152	18	71.7	4,270
July.....	500.0	33	6	15.1	992
August.....	422.0	25	7.5	13.6	837
September.....	1,273	79	16	42.4	2,520
Water year 1936-37.....	35,666.0	442	6	97.7	70,750

## Salmon River at Somesbar, Calif.

Location.- Water-stage recorder, lat.  $41^{\circ}23'$ , long.  $123^{\circ}28'$ , in NW $\frac{1}{4}$  sec. 2, T. 11 N., R. 8 E., half a mile east of Somesbar post office and  $1\frac{1}{2}$  miles above mouth. Altitude, about 500 feet.

Drainage area.- 737 square miles.

Records available.- September 1911 to September 1915, October 1927 to September 1937.

Average discharge.- 11 years (1911-13, 1927-29, 1930-37), 1,337 second-feet.

Extremes.- Maximum discharge during year, 19,400 second-feet Apr. 13 (gage height, 12.18 feet), from rating curve extended above 9,500 second-feet; minimum, 102 second-feet Dec. 4 (gage height, 3.09 feet).  
1927-37: Maximum discharge, 21,600 second-feet Jan. 14, 1936 (gage height, 13.0 feet), from rating curve extended above 9,500 second-feet; minimum, 70 second-feet Aug. 26, Sept. 4, 5, 1931.

Remarks.- Records good except those for period of ice effect Jan. 20-23, and those for Dec. 20-25, Jan. 3-11, 15, 16, which were computed on basis of records for Trinity River near Hoopa and weather records and are fair. No large diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	129	117	190	260	1,300	3,140	3,050	3,590	1,680	330	176
2	121	129	125	161	296	2,950	3,960	3,920	4,040	1,430	316	178
3	121	129	121	160	286	1,910	3,040	4,610	4,500	1,340	304	174
4	125	133	117	160	928	1,690	2,470	5,200	4,380	1,300	294	182
5	125	133	137	155	755	2,000	2,300	4,610	4,040	1,200	282	206
6	125	133	149	150	446	2,300	2,250	4,260	3,700	1,060	277	196
7	125	133	161	155	354	1,970	2,060	4,500	3,370	976	272	182
8	121	133	177	160	328	2,030	2,140	3,920	3,160	932	266	174
9	117	133	157	170	298	3,240	2,340	3,610	3,370	910	260	169
10	113	133	145	190	275	2,950	2,390	3,370	3,160	844	255	164
11	113	133	141	190	316	2,350	2,250	3,700	2,850	600	250	156
12	117	133	133	190	510	2,420	2,260	4,720	2,540	780	245	152
13	117	133	129	194	706	2,340	13,200	5,680	2,370	740	235	148
14	117	133	133	203	755	2,110	15,700	5,680	2,350	700	230	144
15	117	133	137	250	582	1,900	12,000	5,320	2,490	655	230	144
16	113	133	153	220	532	1,720	8,000	5,320	3,700	619	220	140
17	113	133	153	194	540	1,650	5,920	4,840	3,160	575	215	132
18	113	133	153	216	735	1,480	4,960	4,960	2,580	550	210	132
19	113	133	149	212	643	1,380	4,500	4,150	2,950	525	205	144
20	117	133	150	160	540	1,260	4,500	3,920	4,380	509	196	152
21	117	129	160	180	495	1,270	5,200	4,260	3,700	485	196	152
22	117	129	180	190	495	1,190	4,380	4,840	3,050	469	192	144
23	117	129	200	200	548	1,260	3,920	5,200	2,470	458	192	140
24	117	129	250	203	679	1,520	3,810	5,680	2,150	424	192	140
25	113	125	300	185	815	1,540	4,380	5,680	2,040	431	192	132
26	113	125	328	208	706	1,440	4,260	4,500	1,970	417	182	132
27	113	125	298	230	615	1,540	3,700	4,500	1,960	396	178	128
28	117	121	240	221	735	1,510	3,160	4,840	1,940	375	174	128
29	117	117	203	208	-	1,520	2,780	4,380	2,150	362	169	128
30	117	121	216	198	-	1,680	2,720	3,700	1,930	342	169	128
31	125	-	208	194	-	1,760	-	3,480	-	356	178	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						3,647	125	113	118	7,230		
November.....						3,898	133	117	130	7,750		
December.....						5,440	328	117	175	10,790		
Calendar year 1936.....						567,144	16,200	113	1,522	1,105,000		
January.....						5,697	250	150	190	11,700		
February.....						15,186	928	260	542	30,120		
March.....						57,100	3,240	1,190	1,842	113,300		
April.....						137,700	15,700	2,060	4,590	273,100		
May.....						140,600	5,680	3,050	4,535	276,900		
June.....						90,040	4,500	1,930	3,001	178,600		
July.....						22,601	1,680	336	729	44,830		
August.....						7,105	330	169	229	14,090		
September.....						4,598	205	128	153	9,120		
Water year 1936-37.....						493,813	15,700	113	1,353	979,500		

## Trinity River at Lewiston, Calif.

Location.— Water-stage recorder, lat.  $40^{\circ}42'$ , long.  $122^{\circ}48'$ , in NW $\frac{1}{4}$  sec. 19, T. 33 N., R. 8 W., at highway bridge at Lewiston, 0.8 mile below Deadwood Creek. Zero of gage is 1,794.72 feet above mean sea level (general adjustment of 1929).

Drainage area.— 7 $\frac{1}{4}$  square miles.

Records available.— August 1911 to September 1937.

Average discharge.— 26 years, 1,394 second-feet.

Extremes.— Maximum discharge observed during year, 13,500 second-feet Apr. 13 (gage height, 13.5 feet from rating curve extended above 4,500 second-feet); minimum, 90 second-feet Jan. 10.

1911-37: Maximum discharge, about 31,900 second-feet Nov. 30, 1926 (gage height, 18.3 feet), from rating curve extended above 10,000 second-feet on basis of measurement of 28,700 second-feet made by slope-area method; minimum, 23 second-feet July 30, 1924.

Remarks.— Records good except those for periods of missing gage heights, Dec. 16 to Jan. 6, Jan. 18, which are fair. Discharge based on twice-daily readings of staff gage Jan. 7 to Mar. 6, Mar. 19 to Apr. 19, Sept. 11-30. Stage graph constructed from gage readings Jan. 20 to Mar. 6, Mar. 19 to Apr. 19.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	127	118	170	183	725	2,300	4,360	3,230	1,440	292	135
2	109	132	116	160	148	1,150	3,410	5,520	3,560	1,280	288	137
3	114	132	116	155	196	1,070	2,480	6,800	3,890	1,160	268	137
4	114	132	114	150	275	1,040	2,390	7,820	3,890	1,120	253	139
5	134	132	116	140	196	1,270	2,210	6,400	3,450	1,040	250	150
6	116	130	123	130	294	1,670	2,480	5,680	3,120	920	239	158
7	118	130	130	107	338	1,670	2,260	5,860	2,650	850	232	155
8	120	130	132	100	240	1,840	2,480	4,620	2,500	808	222	148
9	116	130	134	120	224	3,760	3,080	4,760	3,450	752	219	143
10	114	130	130	95	183	3,080	2,870	4,240	3,450	724	216	141
11	112	130	132	175	196	2,570	2,870	3,890	3,230	696	213	145
12	109	130	130	183	196	5,520	2,970	5,820	2,650	724	204	133
13	109	130	127	191	294	4,500	9,180	7,600	2,300	692	195	129
14	107	130	130	183	512	2,970	11,700	7,820	2,210	632	190	125
15	109	132	130	186	432	2,480	11,000	6,600	2,500	684	188	125
16	109	132	130	191	361	2,210	6,900	5,800	5,900	557	165	127
17	112	134	130	170	361	2,120	4,920	6,040	3,780	520	178	123
18	114	130	135	210	408	1,950	4,370	6,800	2,900	500	172	113
19	114	130	135	202	408	1,790	4,370	4,760	2,750	475	170	123
20	118	130	135	166	361	1,570	4,780	4,360	3,120	455	160	129
21	118	125	140	128	361	1,870	6,000	4,620	2,800	435	155	127
22	118	123	150	210	432	1,710	4,120	5,200	2,500	412	152	131
23	114	123	170	275	570	1,460	3,890	5,680	2,080	394	150	129
24	112	120	200	183	692	1,750	4,120	6,400	1,850	376	141	129
25	112	123	240	148	860	1,750	4,900	5,860	1,760	381	145	125
26	112	120	210	159	692	1,540	5,200	4,240	1,620	376	145	109
27	112	118	190	183	600	1,460	4,240	4,240	1,580	363	143	119
28	112	118	180	196	570	1,460	3,450	4,900	1,620	350	137	119
29	116	118	180	183	-	1,540	3,010	4,360	1,670	336	135	119
30	118	118	180	210	-	1,600	3,230	3,560	1,620	318	133	117
31	123	-	180	170	-	1,850	-	3,230	-	300	133	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						3,544	134	107	114	7,030		
November.....						3,821	134	118	127	7,580		
December.....						4,563	240	114	147	9,050		
Calendar year 1936 .....						506,048	10,800	105	1,383	1,004,000		
January.....						5,229	275	95	169	10,370		
February.....						10,563	660	148	378	20,990		
March.....						62,925	5,520	2,250	2,030	124,800		
April.....						131,180	11,700	2,210	4,373	260,200		
May.....						168,540	7,820	3,230	5,437	334,300		
June.....						83,630	5,900	1,580	2,788	165,900		
July.....						19,972	1,440	300	644	39,610		
August.....						5,903	292	133	190	11,710		
September.....						3,939	158	109	131	7,610		
Water year 1936-37 .....						503,829	11,700	95	1,380	999,400		

## Trinity River near Burnt Ranch, Calif.

Location.- Water-stage recorder, lat.  $40^{\circ}47'$ , long.  $123^{\circ}25'$ , in sec. 29, T. 5 N., R. 7 E., 2 miles above highway bridge at Cedar Flat and 7 miles above Burnt Ranch. Zero of gage is 1,007.98 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,400 square miles.

Records available.- October 1931 to September 1937.

Extremes.- Maximum discharge during year, 23,400 second-feet Apr. 14 (gage height, 16.50 feet), from rating curve extended above 9,000 second-feet; minimum, 146 second-feet Sept. 27.

1931-37: Maximum discharge, 31,000 second-feet Jan. 15, 1936 (gage height, 19.27 feet); minimum, 89 second-feet Oct. 5, 1931.

Remarks.- Records excellent except those for Jan. 14-23 (computed on basis of records for Stations at Lewiston and near Hoopa) and those for extremely high water, which are good. Slight regulation and small diversions above station for mining and irrigation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	160	198	202	313	381	1,530	4,920	5,400	4,760	2,360	446	198
2	163	204	204	237	357	2,320	6,410	6,580	5,080	2,000	438	204
3	164	210	210	270	370	2,640	5,730	7,360	5,730	1,800	426	204
4	166	212	200	258	688	2,470	4,920	9,640	6,070	1,760	406	216
5	168	216	206	295	600	2,860	4,450	8,830	5,400	1,620	388	224
6	190	216	208	295	524	3,500	4,450	7,860	4,920	1,490	378	231
7	175	214	216	263	532	3,380	4,150	7,860	4,300	1,370	364	233
8	175	212	228	214	565	3,620	4,000	7,120	3,850	1,370	344	224
9	179	212	231	220	537	5,460	4,760	6,760	4,300	1,330	334	214
10	175	212	228	298	482	8,030	4,760	6,410	5,080	1,250	325	210
11	170	212	228	322	532	5,950	4,450	5,730	4,600	1,180	322	198
12	168	210	224	354	610	10,100	4,150	6,760	4,000	1,180	307	192
13	170	210	220	360	726	12,900	8,630	8,430	3,490	1,180	290	184
14	170	212	216	360	1,070	8,240	21,600	10,100	3,280	1,100	278	182
15	171	208	216	370	1,040	6,410	19,400	9,230	3,420	1,040	273	177
16	171	212	224	380	880	5,400	13,600	9,030	7,040	970	270	170
17	171	214	226	395	880	4,760	9,030	8,430	6,410	910	263	170
18	173	216	222	380	910	4,300	7,870	8,630	4,760	844	251	168
19	175	212	224	330	910	3,780	7,300	7,480	4,150	804	242	166
20	179	212	224	270	860	3,420	7,480	6,580	4,760	765	235	171
21	180	212	228	214	844	3,350	8,830	6,580	4,920	732	226	180
22	179	208	233	260	880	3,490	8,240	7,120	4,150	704	222	186
23	175	204	242	300	1,000	3,150	7,120	7,670	3,350	672	220	184
24	179	204	313	360	1,250	3,850	6,580	8,630	2,890	645	220	180
25	175	204	338	290	1,740	4,150	7,300	8,430	2,710	625	214	179
26	173	202	406	331	1,490	3,860	8,060	6,760	2,530	620	220	177
27	179	204	384	324	1,290	3,560	7,120	6,240	2,480	595	216	166
28	179	204	344	347	1,330	3,490	6,070	6,940	2,530	555	204	166
29	180	202	325	328	-	3,480	5,080	6,760	2,590	524	204	170
30	182	202	334	328	-	3,560	4,760	6,730	2,650	494	198	168
31	190	-	331	328	-	3,860	-	4,920	-	462	198	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	5,404	190	160	174	10,720
November.....	6,270	216	198	209	12,440
December.....	7,635	406	200	253	15,540
Calendar year 1936.....	870,929	28,200	152	2,380	1,728,000
January.....	9,634	395	214	311	19,110
February.....	23,268	1,740	357	831	46,150
March.....	140,860	12,900	1,530	4,544	279,400
April.....	222,680	21,600	4,000	7,423	441,700
May.....	230,700	10,100	4,920	7,442	457,600
June.....	128,200	7,040	2,480	4,207	250,300
July.....	32,951	2,350	452	1,063	65,360
August.....	8,920	446	198	288	17,690
September.....	5,682	233	156	189	11,270
Water year 1936-37.....	820,404	21,600	156	2,248	1,627,000

## Trinity River near Hoopa, Calif.

Location.- Water-stage recorder, lat. 41°02', long. 123°39', in SE¼ sec. 31, T. 8 N., R. 5 E., on Hoopa Indian Reservation, half a mile below Campbell Creek and 2 miles southeast of Hoopa. Altitude, about 315 feet.

Drainage area.- 2,820 square miles.

Records available.- October 1931 to September 1937, October 1911 to January 1914 and November 1918 to August 1918, staff gage at Hoopa, 2 miles downstream.

Extremes.- Maximum discharge during year, 39,700 second-feet Apr. 14 (gage height, 18.25 feet); minimum, 286 second-feet Sept. 28 (gage height, 2.87 feet).  
1911-14; 1916-18; 1931-37: Maximum discharge, about 89,000 second-feet Dec. 31, 1913 (gage height, 28.1 feet, former site and datum), from rating curve extended above 12,000 second-feet; minimum, 162 second-feet Oct. 4, 1931.

Remarks.- Records excellent. Small diversions for mining and irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	359	380	668	916	5,310	11,100	9,050	7,050	3,360	765	350
2	313	374	383	600	1,170	8,300	15,400	10,600	7,050	2,940	740	353
3	316	380	390	558	1,140	8,300	13,000	12,200	7,550	2,680	718	356
4	318	386	390	558	2,800	7,300	11,100	13,800	8,050	2,550	695	371
5	318	393	393	645	3,800	7,800	10,300	13,200	7,550	2,380	672	399
6	323	396	412	666	2,330	9,050	10,300	12,200	6,800	2,220	650	409
7	345	399	435	600	1,780	8,800	9,560	11,900	6,080	2,020	628	406
8	326	390	459	480	1,500	9,050	9,300	11,400	5,530	1,980	605	396
9	323	386	456	406	1,400	11,900	10,900	10,300	5,640	1,890	560	377
10	323	390	452	499	1,260	13,200	10,600	9,820	6,560	1,760	560	362
11	318	390	445	558	1,360	12,400	10,100	9,300	6,320	1,720	560	350
12	316	390	442	600	1,780	15,200	9,820	10,100	5,640	1,680	540	356
13	318	386	428	622	2,280	13,900	21,500	11,900	4,880	1,690	520	325
14	318	390	415	690	3,100	14,600	37,800	13,200	4,570	1,560	501	319
15	318	393	419	690	2,860	11,900	34,900	12,700	4,670	1,480	482	312
16	318	390	452	740	2,530	10,300	27,600	12,400	7,550	1,380	482	299
17	316	399	473	690	2,430	9,560	20,300	11,900	9,050	1,320	464	294
18	318	399	452	740	2,920	8,550	16,300	11,600	6,560	1,260	446	291
19	318	399	445	790	2,800	7,800	14,600	10,900	5,640	1,200	429	281
20	320	396	445	690	2,630	7,300	14,300	9,560	6,080	1,170	409	296
21	328	393	448	538	2,330	7,050	16,000	9,300	6,320	1,120	399	301
22	331	390	452	499	2,330	7,300	15,200	9,820	5,530	1,090	390	309
23	326	383	518	579	2,530	7,300	12,700	10,300	4,770	1,030	383	309
24	328	383	715	690	3,160	9,050	11,900	11,100	4,120	1,000	386	304
25	328	383	740	690	4,290	9,560	12,400	11,400	3,870	1,000	386	299
26	326	380	918	690	3,870	8,800	13,000	10,100	3,640	1,000	377	294
27	326	383	1,030	790	3,290	8,550	12,200	8,800	3,500	978	360	291
28	331	383	840	840	3,640	8,300	10,600	9,300	3,500	922	368	272
29	334	383	740	765	-	8,060	9,300	9,300	3,500	895	356	282
30	339	383	740	740	-	8,300	8,630	8,300	3,670	840	353	286
31	350	-	740	740	-	8,800	-	7,500	-	790	350	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						10,040	350	310	324	19,910		
November.....						11,629	399	369	368	23,070		
December.....						16,447	1,030	380	531	32,620		
Calendar year 1936 .....						1,770,128	67,900	298	4,836	3,511,000		
January.....						20,053	840	406	647	39,770		
February.....						68,128	4,290	918	2,433	135,100		
March.....						296,580	18,900	5,310	9,567	588,300		
April.....						440,630	37,800	8,650	14,690	874,000		
May.....						333,060	13,800	7,300	10,740	660,600		
June.....						171,040	9,050	3,500	5,701	339,300		
July.....						48,895	3,360	790	1,577	96,980		
August.....						15,554	765	350	502	30,850		
September.....						9,839	409	272	328	19,520		
Water year 1936-37.....						1,441,885	37,800	272	3,950	2,860,000		

## SMITH RIVER BASIN

Smith River near Crescent City, Calif.

Location.- Water-stage recorder, lat. 41°47', long. 124°04', in SW¼ sec. 10, T. 16 N., R. 1 E., half a mile below South Fork and 9 miles east of Crescent City.

Drainage area.- 613 square miles.

Records available.- October 1931 to September 1937.

Extremes.- Maximum discharge during year, 70,100 second-feet Apr. 13 (gage height, 27.80 feet) from rating curve extended above 25,000 second-feet; minimum, 188 second-feet Dec. 3 (gage height, 3.50 feet).  
1931-37: Maximum discharge, that of Apr. 13, 1937; minimum, 188 second-feet Oct. 21, 1931.

Remarks.- Records excellent. No diversions or regulation.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

3.4	168	5.8	1,010	12	8,600
3.6	208	6.2	1,220	13	10,720
3.8	252	6.6	1,470	15	15,600
4.0	305	7.0	1,760	17	21,500
4.2	365	7.5	2,180	19	28,300
4.4	425	8.0	2,650	21	36,300
4.6	495	8.5	3,180	23	45,000
4.8	570	9.0	3,750	25	55,000
5.0	650	10.0	5,050	27	65,700
5.4	815	11	6,680		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	230	208	190	1,060	5,070	13,900	13,800	3,070	2,450	2,040	610	386
2	226	208	190	860	6,000	17,600	10,900	3,400	2,450	1,880	590	371
3	228	208	190	750	5,050	9,620	8,200	3,750	2,400	1,760	570	362
4	230	208	190	750	17,200	7,800	8,200	3,510	2,220	1,840	550	362
5	230	206	206	1,370	11,600	7,800	8,600	3,290	2,040	1,580	550	392
6	230	206	250	1,250	5,830	7,220	8,200	3,180	1,920	1,470	530	374
7	226	206	590	1,040	3,990	5,830	6,860	3,290	1,800	1,370	530	359
8	221	206	530	860	3,070	5,830	6,340	3,290	1,640	1,310	512	344
9	215	204	344	815	2,550	7,800	7,800	3,290	1,720	1,250	495	344
10	212	204	260	860	2,270	6,680	11,600	4,510	2,320	1,190	495	338
11	215	204	239	750	2,600	5,670	9,620	10,500	2,650	1,160	495	326
12	217	204	226	690	10,000	6,000	8,690	7,220	2,220	1,110	460	320
13	221	202	221	710	8,600	5,830	61,900	5,830	1,960	1,060	456	317
14	219	200	215	1,250	7,400	5,350	45,500	4,770	1,840	1,040	450	308
15	215	200	212	1,540	5,200	4,770	34,700	4,570	2,040	1,010	436	302
16	210	202	294	2,040	6,340	4,370	19,000	3,990	4,710	960	425	294
17	208	206	383	1,470	8,080	4,110	12,800	3,510	4,650	935	425	288
18	206	206	277	1,960	11,900	3,870	9,620	3,290	4,110	910	422	288
19	206	204	252	2,090	7,040	4,370	7,800	3,070	8,970	895	407	314
20	210	200	241	1,540	5,050	6,340	6,860	2,550	15,600	838	404	317
21	208	196	245	1,250	4,240	6,680	6,680	2,850	10,900	815	398	306
22	204	194	590	1,080	3,990	5,510	5,670	2,850	7,400	770	404	288
23	204	192	2,230	985	3,870	7,600	4,910	2,850	6,000	770	422	283
24	204	192	4,150	1,080	3,990	8,600	4,500	2,850	4,770	750	404	274
25	202	190	1,760	1,060	4,240	6,340	4,500	6,570	3,990	730	398	270
26	200	190	2,660	1,540	3,750	5,200	4,240	5,350	3,400	690	386	267
27	200	190	3,870	3,290	3,290	5,350	3,750	4,110	2,960	690	374	262
28	200	190	2,000	3,180	4,550	5,050	3,400	3,650	2,650	670	371	264
29	202	190	1,310	2,140	-	4,770	3,070	3,070	2,400	650	362	267
30	204	190	1,580	1,640	-	5,200	3,070	2,750	2,220	630	356	277
31	206	-	1,370	1,720	-	6,170	-	2,500	-	610	353	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						6,611	230	200	213	13,110		
November.....						6,006	208	190	200	11,910		
December.....						27,265	4,150	190	890	54,080		
Calendar year 1936.....						1,024,298	47,600	190	2,799	2,032,000		
January.....						42,620	3,290	690	1,375	84,540		
February.....						166,760	17,200	2,270	5,956	330,800		
March.....						207,230	17,600	3,870	6,685	411,000		
April.....						350,780	61,900	3,070	11,690	695,800		
May.....						123,160	10,500	2,500	3,973	244,500		
June.....						116,280	15,600	1,640	3,676	230,600		
July.....						53,175	2,040	610	1,070	65,800		
August.....						14,070	610	356	454	27,910		
September.....						9,466	392	262	316	18,780		
Water year 1936-37.....						1,103,421	61,900	190	3,023	2,189,000		

In addition to the records of stream flow obtained at gaging stations in the Pacific slope basins in California and reported in the preceding pages, measurements of flow were made also at the points indicated in the following tables.

## Streams south of San Francisco Bay

## Tia Juana River at International Boundary

Date	Discharge Sec.-ft.	Date	Discharge Sec.-ft.	Date	Discharge Sec.-ft.	Date	Discharge Sec.-ft.
Jan. 23	20	Jan. 30	13	Feb. 6	13	June 7	13
24	23	31	17	Mar. 8	83	10	11
25	19	Feb. 1	16	Apr. 12	117	14	7.9
26	15	2	15	16	100	18	5.7
27	16	3	13	21	150	23	1.8
28	15	4	11	24	131	27	2.2
29	13	5	9.6	28	117	July 4	1.7

## Tia Juana River (North Channel) 0.9 mile below Nestor gaging station, Calif.

Jan. 23	5.0	Jan. 30	0	Apr. 12	61	June 14	1.3
24	3.9	Feb. 1	0	16	51	18	0
25	1.3	2	0	21	84	23	0
26	.5	3	0	24	68	27	0
27	0	4	0	28	55	July 4	0
28	0	5	0	June 7	7.3		
29	0	6	0	10	3.0		

## Tia Juana River (South Channel) 0.9 mile below Nestor gaging station, Calif.

Jan. 23	0	Jan. 30	0	Feb. 6	0	June 10	0.40
24	0	31	0	Apr. 12	50	14	.48
25	0	Feb. 1	0	16	36	18	.36
26	0	2	0	21	70	23	.32
27	0	3	0	24	61	27	.38
28	0	4	0	28	41	July 4	.25
29	0	5	0	June 7	.6		

## Dulzura Conduit at Summit, Calif.

Aug. 2	47	Aug. 13	43				
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## Cottonwood Creek at Barrett, Calif.

Apr. 28	42	May 17	20	June 14	5.5	July 21	2.0
May 5	28	27	9.6	28	6.7	Aug. 2	.8
10	28	June 2	7.8	July 9	4.5		

## Tecate Creek near Dulzura, Calif.

May 21, 7.6 second-feet

## Dulzura Creek at Otay Lake, Calif.

Aug. 2	44	Aug. 13	44				
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## San Luis Rey River at crossing at Bonsall, Calif.

Dec. 10	0.9	Jan. 10	84	May 18	33	June 22	16
18	8	15	72	24	47	July 7	2.5
23	4.8	Feb. 4	38	June 3	32	19	1.6
30	66	May 4	68	10	20		

## San Luis Rey River at Rancho Guajomita, Calif.

Dec. 18	6.6	Jan. 15	75	May 24	55	July 7	2.1
23	4.8	Feb. 4	41	June 3	41		
30	77	May 4	81	10	28		
Jan. 10	88	18	40	22	12		

## Arroyo Seco at Nigger Canyon, near Temecula, Calif.

May 11	7.3	June 25	1.3				
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## Santa Ana River at Orange Street, Redlands, Calif.

May 24	189	June 2	121	June 9	97		
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## Meeks &amp; Daley Canal at headworks near Colton, Calif..

June 14, 18.7 second-feet



## MISCELLANEOUS DISCHARGE MEASUREMENTS

## Streams south of San Francisco Bay--Continued

## Upper diversion from Haines Creek near Tujunga, Calif.

Date	Discharge Sec.-ft.	Date	Discharge Sec.-ft.	Date	Discharge Sec.-ft.	Date	Discharge Sec.-ft.
Apr. 21	0.18	June 21	0.06	Aug. 2	0.07	Aug. 24	0.06
May 24	.08						

## Fillmore Land &amp; Water Co.'s diversion from Seape Creek near Sespe, Calif.

Nov. 6	2.3	May 19	17.8	July 26	16	Sept. 13	9.7
Dec. 7	12.7	June 22	19	Aug. 25	11.6	29	10.8
Apr. 20	*.5						

\*Estimated.

## Mono Creek at junction with Santa Ynez River, near Santa Barbara, Calif.

July 2	2.0	July 8	0.63	July 15	0.12	July 15	
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## Camesa Creek at junction with Santa Ynez River, near Santa Barbara, Calif.

Jan. 5	0.44	July 2	0.10	July 8	0.06		0.02
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## Gidney Creek at junction with Santa Ynez River, near Santa Barbara, Calif.

Jan. 5	1.5	July 8	0.18	July 15	0.19	July 22	0.11
July 2	.23						

## Hot Springs at junction with Santa Ynez River, near Santa Barbara, Calif.

Nov. 17	0.24	May 13	0.75	July 22	0.50	Sept. 23	0.32
Apr. 22	.95	June 24	.65				

## Santa Agueda Creek at junction with Santa Ynez River, near Santa Ynez, Calif.

Oct. 3	0	Dec. 5	0	Feb. 6	827	Apr. 24	0.31
Nov. 21	0	Jan. 13	2.4	Mar. 18	1.5	May 22	0.11

## Santa Cota Creek at junction with Santa Ynez River, near Santa Ynez, Calif.

Oct. 3	0.8	Jan. 14	5.0	May 22	1.6	July 24	1.2
Nov. 21	.7	Mar. 18	3.4	June 26	1.2	Sept. 27	.77
Dec. 5	.9	Apr. 24	1.7				

## Alamo Pintado Creek 1.1 miles above junction with Santa Ynez River, near Solvang, Calif.

Oct. 3	0.18	Jan. 14	0.24	Apr. 24	0.37	July 24	0.19
Nov. 21	.11	Mar. 18	.43	June 26	.21	Sept. 27	.18
Dec. 5	.10						

## Alisal Creek at junction with Santa Ynez River, near Solvang, Calif.

Oct. 3	0	Jan. 14	8.5	May 22	1.7	July 24	0.21
Nov. 21	0	Mar. 18	26	June 26	.44	Sept. 27	.09
Dec. 5	Trace						

## Nojoqui Creek at junction with Santa Ynez River near Buellton, Calif.

Oct. 3	0	Dec. 5	0	Feb. 6	62	May 22	0.2
Nov. 21	0	Jan. 14	2.3	Mar. 18	1.9		

## Salsipuedes Creek 0.9 mile above junction with Santa Ynez River, near Lompoc, Calif.

Oct. 23	0.26	Jan. 15	13	June 11	0.7	Aug. 6	0.33
Dec. 12	.34	May 17	1.2	July 16	.48	Sept. 24	.29

## Alamo Creek at junction with Cuyama River, near Santa Maria, Calif.

Jan. 6	3.0	Feb. 12	76	Mar. 26	47	May 18	5.4
Apr. 21	17	Mar. 2	13	Apr. 8	24	July 27	3.2

## SALINAS RIVER BASIN

Nacimiento River at mouth, near Bradley, Calif.

Date	Discharge Sec.-ft.	Date	Discharge Sec.-ft.	Date	Discharge Sec.-ft.	Date	Discharge Sec.-ft.
Mar. 5	322	Apr. 7	365	June 9	17.1		

## SAN JOAQUIN RIVER BASIN

Rabbit Creek at former gaging station 600 feet above mouth and 3 miles northwest  
of Camanche, Calif.  
(Tributary to Mokelumne River)

Dec. 30	41.3	Jan. 30	205	Mar. 19	3.0	Mar. 27	176
Jan. 12	11.3	Feb. 4	201	23	29.4	31	4.3
28	77.0	17	5.1	24	284		

## SACRAMENTO RIVER BASIN

Kosk Creek at mouth, near Big Bend, Calif.  
(Tributary to Pit River)

June 12, 150 second-feet  
Sept. 16, 32.9 second-feet

Crystal Creek below Tower House ditch diversion, near Tower House, Calif.  
(Tributary to Clear Creek)

Aug. 22, 2.0 second-feet

Crystal Creek below return from Tower House ditch wasteway, Calif.

Aug. 22, 2.0 second-feet

Tower House Ditch near Tower House, Calif.  
(Diverts water from Crystal Creek)

Aug. 22, 4.6 second-feet

# INDEX

	Page		Page
"A" Canal at Klamath Falls, Oreg.....	336	Bowman Lake, Calif., Canyon Creek	
Accuracy of data and computed results..	2-3	below.....	289
Acre-foot, definition of.....	1	Bowman Lake near Graniteville, Calif...	288
Agencies other than Geological Survey,		Bowman-Spaulding Canal at intake,	
records collected by.....	8	Calif.....	280
Alameda Creek near Niles, Calif.....	151	Brea Creek at Fullerton, Calif.....	98
Alamitos Creek near Edenvale, Calif....	146	Buchanan dam site, Calif., Chowchilla	
Alamo Creek at junction with Cuyama		River at.....	187
River, Calif., discharge measure-		Buck Meadows, Calif., Middle Tuolumne	
ments of.....	350	River near.....	205
Alamo Pintado Creek above junction		Bucks Creek storage reservoir near	
with Santa Ynez River, Calif.,		Bucks ranch, Calif.....	270
discharge measurements of.....	350	Bucks ranch, Calif., Bucks Creek	
Alder Creek near Whitehall, Calif.....	309	storage reservoir near.....	270
Alisal Creek at junction with Santa		Burnt Ranch, Calif., Trinity River	
Ynez River, Calif., discharge		near.....	346
measurements of.....	350	Butt Creek above Tunnel No. 1, near	
Aliso Creek at El Toro, Calif.....	40	Prattville, Calif.....	267
American River at Fair Oaks, Calif....	296	Butte City, Calif., Sacramento River	
at Sacramento, Calif.....	297	at.....	240
flume near Camino, Calif.....	315	Butte Creek near Chico, Calif.....	261
Middle Fork of, near Auburn, Calif..	298	Cache Creek at Yolo, Calif.....	317
North Fork of, at Rattlesnake		North Fork of, near Lower Lake, Calif.	318
Bridge, Calif.....	295	Cache Creek Basin, Calif., gaging-	
near Colfax, Calif.....	294	station records in.....	316-318
Silver Fork of South Fork of, near		Cajon Creek near Keenbrook, Calif.....	70
Kyburz, Calif.....	308	Calabasas, Calif., Malibu Creek near...	117
South Fork of, at Coloma, Calif.....	301	Calaveras River at Jenny Lind, Calif...	217
near Camino, Calif.....	300	Calaveras River Basin, Calif., gaging-	
near Kyburz, Calif.....	299	station records in.....	217-218
American River Basin, Calif., gaging-		Camino, Calif., American River flume	
station records in.....	294-315	near.....	315
Antler, Calif., Sacramento River at...	237	South Fork of American River near...	300
Arroyo Seco, at Nigger Canyon, Calif.,		Camp Bonita, Calif., San Gabriel River	
discharge measurements of.....	349	near.....	86-87
near Pasadena, Calif.....	108	Camp Rincon, Calif., West Fork of San	
near Soledad, Calif.....	135	Gabriel River at.....	89
Arrowhead Springs, Calif., Strawberry		Campbell Creek at Saratoga, Calif.....	148
Creek near.....	60	Campo Creek near Campo, Calif.....	14
Waterman Canyon Creek near.....	61	Camuesa Creek at junction with Santa	
Ashland, Oreg., Hyatt Prairie Reservoir		Ynez River, Calif., discharge	
near.....	341	measurements of.....	350
Keene Creek Canal near.....	342	Canby, Calif., Pit River near.....	245
Auburn, Calif., Middle Fork of		Canyon Creek below Bowman Lake, Calif..	289
American River near.....	298	Carbon Creek at Olinda, Calif.....	99
Avery, Calif., Middle Fork of		Cascade Canal near Fish Lake, Oreg....	335
Stanislaus River near.....	209-211	Cherry Creek near Hetch Hetchy, Calif..	201
North Fork of Stanislaus River near..	214	Chico, Calif., Butte Creek near.....	261
Azusa, Calif., Azusa Canal near.....	90	Chico Creek near Chico, Calif.....	258
Rogers Creek near.....	91	Chicoquin, Oreg., Sprague River near...	333
San Gabriel River near.....	88	Williamson River near.....	327
Baird, Calif., McCloud River at.....	253	Chino Creek near Prado, Calif.....	79
Bakersfield, Calif., Kern River near...	154	Chowchilla River at Buchanan dam site,	
Ballona Creek near Culver City, Calif..	115	Calif.....	187
Bear Creek near Vermilion Valley,		City Creek near Highland, Calif.....	62-63
Calif.....	180	City Creek Water Co.'s canal near	
Bear River Canal near Colfax, Calif....	293	Highland, Calif.....	64
Bear River (Feather River Basin) near		Claremont, Calif., San Antonio Creek	
Wheatland, Calif.....	292	near.....	80-81
Bear River (Mokelumne River Basin) at		Southern California Edison Co.'s	
Pardee Camp, Calif.....	227	canal near.....	82
Bidwell Bar, Calif., Middle Fork of		Clear Lake at Lakeport, Calif.....	316
Feather River at.....	276	Clements, Calif., Mokelumne River near.	223
Big Bar, Calif., North Fork of Feather		Cliff Camp, Calif., North Fork of Kings	
River at.....	264	River near.....	166
Big Bend, Calif., Pit River at.....	248	Clito, Calif., Middle Fork of Feather	
Big Creek, Calif., Florence Lake near..	170	River near.....	275
Huntington Lake near.....	182	Clipper Mills, Calif., Forbestown Ditch	
San Joaquin River above.....	172	near.....	279
Shaver Lake near.....	184	Lost Creek near.....	278
Big Creek below Huntington Lake, Calif.	183	Coalinga, Calif., Los Gatos Creek near.	169
Big Trees, Calif., San Lorenzo River		Colby Ranch, Calif., Fox Creek near...	105
at.....	137	Tujunga Creek near.....	103
Bonsall, Calif., San Luis Rey River		Cold Creek near Mokelumne Peak, Calif..	226
near.....	24	Colfax, Calif., Bear River Canal near..	283
Borel Canal at Tilley Creek, Calif.....	156	North Fork of American River near...	294
Boulder Creek at Cuyamaca Reservoir,		Coloma, Calif., South Fork of American	
near Julian, Calif.....	19	River at.....	301
		Colton, Calif., Lytle Creek (west	
		channel) at.....	69

	Page		Page
Colton, Calif., Meeks & Daley Canal	72	Exchequer, Calif., Lake McClure at.....	191
near.....	72	Merced River at.....	192
Warm Creek near.....	58-59	Fall Brook, Calif., Santa Margarita	
Colusa, Calif., Sacramento River at.....	241	River near.....	30-31
Computations, results of, accuracy of.....	2-3	Fall Creek (Klamath River Basin) at	
Concow Creek near Yankee Hill, Calif.....	273	Copo, Calif.....	340
Control, definition of.....	1	Falls Creek (Tuolumne River Basin) near	
Conn Creek near St. Helena, Calif.....	321	Hetch Hetchy, Calif.....	290
Cooperation, record of.....	8-9	Fair Oaks, Calif., American River at.....	200
Copo, Calif., Fall Creek at.....	340	Fall River Mills, Calif., Pit River at.....	246
Klamath River near.....	331	Feather River at Nicolaus, Calif.....	266
Corona, Calif., Santa Ana River near.....	45-46	Middle Fork of, at Bidwell Bar, Calif.....	276
Temescal Creek near.....	78	near Clito, Calif.....	275
Cosgrove Creek near Valley Springs,		near Oroville, Calif.....	265
Calif.....	218	North Fork of, at Big Bar, Calif.....	264
Cosummes River at Michigan Bar, Calif.....	233	near Prattville, Calif.....	263
North Fork of, near El Dorado, Calif.....	232	South Fork of, at Enterprise, Calif.....	277
Cottonwood Creek (Goose Lake Basin)		West Branch of, near Yankee Hill,	
near Lakeview, Oreg.....	236	Calif.....	272
Cottonwood Creek (Tia Juana River Basin)		Feather River Basin, Calif., gaging-	
above Tecate Creek, near Dulzura,		station records in.....	262-293
Calif.....	11	Fillmore, Calif., Sespe Creek near.....	120
at Morena Dam, Calif.....	10	Fine Gold Creek near Friant, Calif.....	185
discharge measurements of.....	349	Finnon Reservoir outlet near	
near Dulzura, Calif.....	10	Placerville, Calif.....	314
Coyote Creek near Edenville, Calif.....	150	Fish Creek near Duarte, Calif.....	92
near Madrone, Calif.....	149	Fish Lake, Oreg., Cascade Canal near.....	335
Coyote Creek (Ventura River Basin) near		Florence Lake, Calif., South Fork of	
Ventura, Calif.....	124	San Joaquin River near.....	171
Crescent City, Calif., Smith River near	348	Florence Lake near Big Creek, Calif.....	170
Crescent Mills, Calif., Indian Creek		Florence Lake Tunnel. See Ward Tunnel	
near.....	268	Fontana, Calif., Fontana Pipe line	
Craftonville, Calif., Mill Creek near.....	52-53	near.....	68
Mill Creek power canal 1 near.....	55	Lytle Creek near.....	66-67
Mill Creek power canals 2 and 3 near.....	54	Forbestown Ditch near Clipper Mills,	
Crystal Creek, Calif., discharge		Calif.....	279
measurements of.....	351	Foster, Calif., San Vicente Creek at.....	20
Cucamonga Creek near Upland, Calif.....	74	Fourmile Lake Reservoir near Odessa,	
Culver City, Calif., Ballona Creek near.....	115	Oreg.....	334
Cupertino, Calif., Stevens Creek near.....	143	Fox Creek near Colby Ranch, Calif.....	105
Cuyama River near Santa Maria, Calif.....	130	Fresno River near Knowles, Calif.....	186
Dalton Creek near Glendora, Calif.....	96	Friant, Calif., Fine Gold Creek near.....	185
Data, accuracy of.....	2-3	San Joaquin River near.....	174
explanation of.....	1-2	Fullerton, Calif., Brea Creek at.....	98
Day Creek near Etiwanda, Calif.....	73	Gidney Creek, Calif., discharge	
Deer Creek near Smartville, Calif.....	291	measurements of.....	350
near Vina, Calif.....	257	Glendora, Calif., Dalton Creek near.....	96
Devil Canyon Creek near San Bernardino,		Goodyears Bar, Calif., North Fork of	
Calif.....	65	Yuba River below.....	287
Dinkey Creek at mouth, Calif.....	168	Goose Lake Basin, Calif., gaging-	
Diversion from Klamath River to Lost		station records in.....	234-236
River near Olene, Oreg.....	339	Grantville, Calif., Bowman Lake near.....	288
Don Pedro Reservoir near La Grange,		Greenspot pipe line and Southern	
Calif.....	198	California Edison Co.'s canal	
Downey, Calif., Los Angeles River near.....	100	near Mentone, Calif.....	50-51
Rio Hondo near.....	113	Grindstone Creek near Elk Creek, Calif.....	260
Drew Creek near Lakeview, Oreg.....	234-235	Grizzly Creek near Storrie, Calif.....	271
Duarte, Calif., Fish Creek near.....	92	Guadalupe Creek at Guadalupe, Calif.....	144
Dulzura, Calif., Cottonwood Creek near.....	10-11	at San Jose, Calif.....	145
Tia Juana River near.....	12	Guadalupe Creek Basin, Calif., gaging-	
Dulzura Conduit, Calif., discharge		station records in.....	144-148
measurements of.....	349	Guenoc, Calif., Putah Creek near.....	319
Dulzura Creek, Calif., discharge		Haines Creek near Tujunga, Calif.....	107
measurements of.....	349	upper diversion from, discharge	
East Highlands, Calif., Plunge Creek		measurements of.....	350
near.....	56	Hat Creek near Hat Creek, Calif.....	251
Eaton Creek near Pasadena, Calif.....	111	Henleyville, Calif., Elder Creek near.....	255
Echo Lake flume near Vado, Calif.....	302	Hetch Hetchy, Calif., Cherry Creek near	201
Edenville, Calif., Alamitos Creek near.....	146	Eleanor Creek near.....	203
Coyote Creek near.....	150	Falls Creek near.....	200
Eel River at Hullville, Calif.....	323	Hetch Hetchy Reservoir at.....	196
at Scotia, Calif.....	325	Lake Eleanor near.....	202
at Van Arsdale Dam, near Potter		Tuolumne River near.....	197
Valley, Calif.....	324	Highland, Calif., City Creek near.....	62-63
Eel River Basin, Calif., gaging-station		City Creek Water Co.'s Canal near.....	64
records in.....	322-326	Hoops, Calif., Trinity River near.....	347
El Dorado, Calif., North Fork of		Hot Springs (tributary to Santa Ynez	
Cosummes River near.....	232	River), Calif., discharge	
El Dorado Canal near Kyburz, Calif.....	308	measurements of.....	350
El Toro, Calif., Aliso Creek at.....	40	Huasna River near Santa Maria, Calif.....	131
Elder Creek near Henleyville, Calif.....	255	Hullville, Calif., Eel River at.....	323
Eleanor Creek near Hetch Hetchy, Calif.....	203	Lake Pillsbury at.....	322
Elk Creek, Calif., Grindstone Creek		Hume, Calif., Kings River near.....	163
near.....	260	Huntington Lake, Calif., Big Creek	
Elsinore, Calif., Elsinore Lake at.....	77	below.....	183
San Jacinto River near.....	76	Huntington Lake near Big Creek, Calif.....	182
Enterprise, Calif., Palermo Canal at.....	280	Hyatt Prairie Reservoir near Ashland,	
South Fork of Feather River at.....	277	Oreg.....	341
Etiwanda, Calif., Day Creek near.....	73	Ice House, Calif., South Fork of Silver	
		Creek near.....	313

	Page		Page
Indian Creek near Crescent Mills, Calif.....	268	Livingston, Calif., Merced River near..	193
Irvine ranch drainage canal near Tustin, Calif.....	85	Lone Pine Creek near Keenbrook, Calif..	71
Isabella, Calif., South Fork of Kern River at.....	158	Long Beach, Calif., Los Angeles River at.....	101
Jacksonville, Calif., Woods Creek near..	206	Lompoc, Calif., Santa Ynez River near..	129
Jenny Lind, Calif., Calaveras River at..	217	Los Angeles River at Long Beach, Calif..	101
Julian, Calif., Boulder Creek near.....	19	near Downey, Calif.....	100
Kaweah River near Three Rivers, Calif..	161	Los Angeles River Basin, Calif., gaging- station records in.....	100-114
North Fork of, at Kaweah, Calif.....	162	Los Gatos Creek (Guadalupe River Basin) at Los Gatos, Calif.....	147
Keddie, Calif., Spanish Creek at.....	269	Los Gatos Creek (Tulare River Basin) near Coalinga, Calif.....	169
Keenbrook, Calif., Cajon Creek near.....	70	Los Molinos, Calif., Mill Creek near....	254
Lone Pine Creek near.....	71	Los Trancos Canal near Stanford University, Calif.....	141
Keene Creek Canal near Ashland, Oreg....	342	Los Trancos Creek at Stanford University, Calif.....	140
Kennett, Calif., Sacramento River at....	238	Lost Creek near Clipper Mills, Calif....	278
Keno, Oreg., Klamath River at.....	330	Lost River Diversion Canal near Olene, Oreg.....	338
Keno Canal at Klamath Falls, Oreg.....	337	Lower Lake, Calif., North Fork of Cache Creek near.....	318
Kerckhoff power house, Calif., San Joaquin River below.....	173	Lytlo Creek near Fontana, Calif.....	66-67
Kern River near Bakersfield, Calif.....	154	east channel of, at San Bernardino, Calif.....	69
near Kernville, Calif.....	152-153	west channel of, at Colton, Calif.....	69
South Fork of, at Isabella, Calif.....	158	Madrone, Calif., Coyote Creek near....	149
near Onyx, Calif.....	157	Malibu Creek at Crater Camp, near Calabasas, Calif.....	117
Kern River Basin, Calif., gaging- station records in.....	152-158	Matilija Creek at Matilija, Calif.....	122
Kern River No. 3 Canal near Kernville, Calif.....	155	Medley Lakes outlet near Vade, Calif....	303
Kernville, Calif., Kern River near.....	152-153	Weeks & Daley Canal, Calif., discharge measurement of.....	349
Kern River No. 3 Canal near.....	155	near Colton, Calif.....	72
Kings River above North Fork, Calif....	164	McCloud River at Baird, Calif.....	253
at Piedra, Calif.....	165	near McCloud, Calif.....	252
near Hume, Calif.....	163	Melones power house, Calif., Stanislaus River below.....	213
North Fork of, below Ranchoeria Creek, Calif.....	167	Melones Reservoir at Melones Dam, Calif.	212
near Cliff Camp, Calif.....	166	Mentone, Calif., Santa Ana River near..	41-42
Kirkwood, Calif., Seepage from Silver Lake near.....	305	Southern California Edison Co.'s canal and Greenspot pipe line near.....	50-51
Silver Lake outlet near.....	304	Merced River at Exchequer, Calif.....	192
Twin Lakes outlet near.....	307	at Happy Isles Bridge, near Yosemite, Calif.....	188
Kittridge, Calif., Merced River at.....	190	at Kittbridge, Calif.....	190
Klamath Falls, Oreg., "A" Canal at.....	336	at Pohono Bridge, near Yosemite, Calif.....	189
Keno Canal at.....	337	near Livingston, Calif.....	193
Link River at.....	329	Merced River Basin, Calif., gaging- station records in.....	188-194
Upper Klamath Lake near.....	328	Mesa Grande, Calif., San Luis Rey River near.....	22
Klamath River at Keno, Oreg.....	330	Santa Isabel Creek near.....	21
at Somesbar, Calif.....	332	Michigan Bar, Calif., Cosumnes River at Middle Tuolumne River near Buck Meadows, Calif.....	205
below Fall Creek near Copco, Calif....	331	Mill Creek near Los Molinos, Calif.....	254
Klamath River Basin, Oreg.-Calif., gaging-station records in.....	327-347	Mill Creek (Santa Ana River Basin) near Crafterville, Calif.....	52-53
Knights Ferry, Calif., Oakdale Canal near.....	216	Mill Creek power canal 1 near Crafterville, Calif.....	55
South San Joaquin Canal near.....	215	Mill Creek power canals 2 and 3 near Crafterville, Calif.....	54
Knights Landing, Calif., Sacramento River at.....	243	Milton, Calif., Middle Fork of Yuba River at.....	281
Knowles, Calif., Fresno River near.....	186	Milton-Bowman Tunnel at outlet, Calif..	284
Kosk Creek, Calif., discharge measure- ments of.....	351	Modesto Canal near La Grange, Calif....	207
Kyburz, Calif., El Dorado Canal near....	308	Mokelumne Hill, Calif., Mokelumne River near.....	221
Silver Fork of South Fork of American River near.....	306	Mokelumne Peak, Calif., Cold Creek near Mokelumne River at Lancha Plana, Calif.	222
South Fork of American River near....	299	at Woodbridge, Calif.....	224
La Grange, Calif., Don Pedro Reservoir near.....	198	Middle Fork of, at West Point, Calif. near Clements, Calif.....	228
Modesto Canal near.....	207	near Mokelumne Hill, Calif.....	221
Tuolumne River near.....	199	North Fork of, below Salt Springs Dam, Calif.....	220
Turlock Canal near.....	208	South Fork of, near West Point, Calif.	229
Lagunita Canal at Stanford University, Calif.....	142	Mokelumne River Basin, Calif., gaging- station records in.....	219-233
Lake Almanor near Prattville, Calif.....	262	Mono Creek (San Joaquin River Basin) near Vermillion Valley, Calif.....	181
Lake Eleanor near Hetch Hetchy, Calif..	202	Mono Creek (Santa Ynez River Basin) Calif., discharge measurements of	350
Lake Hodges, Calif., San Dieguito River at.....	22	Monrovia, Calif., Monrovia pipe line near.....	94
Lake McClure at Exchequer, Calif.....	191		
Lake Pillsbury at Hullville, Calif.....	322		
Lakeport, Calif., Clear Lake at.....	316		
Lakeside, Calif., San Diego River near..	16		
Lakeview, Oreg., Cottonwood Creek near..	236		
Drew Creek near.....	234-235		
Lancha Plana, Calif., Mokelumne River at.....	222		
Lewiston, Calif., Trinity River at.....	345		
Likely, Calif., South Fork of Pit River near.....	250		
Link River at Klamath Falls, Oreg.....	329		
Little Santa Anita Creek near Sierra Madre, Calif.....	110		
Little Tujunga Creek near San Fernando, Calif.....	106		

	Page		Page
Monrovia, Calif., Sawpit Creek near.....	93	Rattlesnake Bridge, Calif., North Fork	
Montebello, Calif., Rio Hondo near.....	112	of American River at.....	295
Rio Hondo Slough near.....	114	Red Bluff, Calif., Sacramento River	
Montecito, Calif., Santa Ynez River		near.....	239
near.....	125	Redlands, Calif., San Timoteo Creek	
Morena Dam, Calif., Cottonwood Creek at	10	near.....	57
Morgan Hill, Calif., Uvas Creek near.....	136	Rio Hondo near Downey, Calif.....	113
Murrieta Creek at Temecula, Calif.....	34-35	near Montebello, Calif.....	112
Nacimiento River at mouth, Calif.,		Rio Hondo Slough near Montebello, Calif.	114
discharge measurements of.....	351	Riverton, Calif., Plum Creek near.....	310
Napa River Basin, Calif., gaging-		Rogers Creek near Azusa, Calif.....	91
station records in.....	321	Run-off in inches, definition of.....	1
Nestor, Calif., Tia Juana River near.....	13	Sacramento, Calif., American River at..	297
Newman, Calif., Orestimba Creek near...	195	Sacramento River at Antler, Calif.....	237
San Joaquin River near.....	175	at Butte City, Calif.....	240
Nicolaus, Calif., Feather River at.....	266	at Colusa, Calif.....	241
Niles, Calif., Alameda Creek near.....	151	at Kennett, Calif.....	238
Nojoqui Creek, Calif., discharge		at Knights Landing, Calif.....	245
measurements of.....	350	at Verona, Calif.....	244
North Fork, Calif., Kings River above..	164	below Wilkins Slough, Calif.....	242
North San Juan, Calif., Middle Fork of		near Red Bluff, Calif.....	239
Yuba River near.....	282	Sacramento River Basin, Calif., gaging-	
Oregon Creek near.....	285	station records in.....	237-320
Oakdale Canal near Knights Ferry, Calif.	216	St. Helena, Calif., Conn Creek near....	321
Oakland Recreation Camp, Calif., South		Salinas River near Santa Margarita,	
Fork of Tuolumne River near.....	204	Calif.....	132
Oceanside, Calif., San Luis Rey River		near Spreckels, Calif.....	133
at.....	25	Salinas River Basin, Calif., gaging-	
Odessa, Oreg., Fourmile Lake Reservoir		station records in.....	132-135
near.....	334	Salmon River at Somesbar, Calif.....	344
Olene, Oreg., diversion from Klamath		Salspuedes Creek, Calif., discharge	
River to Lost River near.....	339	measurements of.....	350
Lost River Diversion Canal near.....	338	Salt Springs Dam, Calif., North Fork of	
Olinda, Calif., Carbon Creek at.....	99	Mokelumne River below.....	220
O'Neill Ditch near Ysidora, Calif.....	36-37	Tiger Creek power-house conduit below	225
Onyx, Calif., South Fork of Kern River		Salt Springs Reservoir near West Point,	
near.....	157	Calif.....	219
Oregon Creek near North San Juan, Calif.	285	San Antonio Creek near Claremont, Calif.	80-81
Orestimba Creek near Newman, Calif.....	195	San Antonio River at Pleyto, Calif.....	134
Oroville, Calif., Feather River near.....	265	San Bernardino, Calif., Devil Canyon	
Otay River at Savage Dam, Calif.....	15	Creek near.....	65
Paccolma Creek near San Fernando, Calif.	102	Lytle Creek (east channel) at.....	69
Pajaro River Basin, Calif., gaging-		Santa Ana River near.....	43
station record in.....	136	San Diego River at El Capitan Dam, near	
Pala, Calif., San Luis Rey River near..	23	Lakeside, Calif.....	16
Palermo Canal at Enterprise, Calif.....	280	near Santee, Calif.....	17-18
Palo Alto, Calif., San Francisquito		San Diego River Basin, Calif., gaging-	
Creek at.....	139	station records in.....	16-20
Pardoe Camp, Calif., Bear River at.....	227	San Dieguito River at Lake Hodges,	
Pasadena, Calif., Arroyo Seco near.....	108	Calif.....	22
Eaton Creek near.....	111	San Dieguito River Basin, Calif.,	
Paskenta, Calif., Thomas Creek at.....	256	gaging-station records in.....	21-22
Piedra, Calif., Kings River at.....	165	San Dimas Creek near San Dimas, Calif..	95
Piru Creek near Piru, Calif.....	119	San Fernando, Calif., Little Tujunga	
Pit No. 4 Dam, Calif., Pit River below.	247	Creek near.....	106
Pit River at Big Bend, Calif.....	248	Paccolma Creek near.....	102
at Fall River Mills, Calif.....	246	San Francisquito Creek at Palo Alto,	
below Pit No. 4 Dam, Calif.....	247	Calif.....	139
near Canby, Calif.....	245	at Stanford University, Calif.....	138
near Ydelpom, Calif.....	249	San Francisquito Creek Basin, Calif.,	
South Fork of, near Likely, Calif....	250	gaging-station records in.....	138-142
Pit River Basin, Calif., gaging-station		San Gabriel River near Azusa, Calif....	88
records in.....	245-253	near Camp Bonita, Calif.....	86-87
Placerville, Calif., Fannon Reservoir		West Fork of, at Camp Rincon, Calif..	89
outlet near.....	314	San Gabriel River Basin, Calif.,	
Silver Creek near.....	312	gaging-station records in.....	86-99
Pleyto, Calif., San Antonio River at..	134	San Jacinto River near Elsinore, Calif.	76
Plum Creek near Riverton, Calif.....	310	near San Jacinto, Calif.....	75
Plunge Creek near East Highlands, Calif.	56	San Joaquin River above Big Creek,	
Porterville, Calif., Tule River near.....	159	Calif.....	172
Potter Valley, Calif., Bel River near..	324	below Kerckhoff power house, Calif....	173
Potter Valley power-house tailrace		near Friant, Calif.....	174
near.....	326	near Newman, Calif.....	175
Prado, Calif., Chino Creek near.....	79	near Vernalis, Calif.....	176-177
Santa Ana River near.....	47-48	South Fork of, near Florence Lake,	
Prattville, Calif., Butt Creek above		Calif.....	171
Tunnel No. 1.....	267	San Joaquin River Basin, Calif.,	
Lake Almanor near.....	262	gaging-station records in.....	170-233
North Fork of Feather River near.....	263	San Jose, Calif., Guadalupe Creek at...	145
Publications on stream flow, by		San Jose Creek near Whittier, Calif....	97
Geological Survey.....	3-6	San Juan Capistrano, Calif., San Juan	
by State agencies.....	6-7	Creek near.....	38
information concerning.....	3-7	Trabuco Creek near.....	39
Putah Creek near Guenoc, Calif.....	319	San Juan Creek near San Juan	
near Winters, Calif.....	320	Capistrano, Calif.....	38
Rabbit Creek, Calif., discharge measure-		San Juan Creek Basin, Calif., gaging-	
ments of.....	351	station records in.....	38-39
Rancheria Creek, Calif., North Fork of		San Lorenzo River at Big Trees, Calif..	137
Kings River below.....	167		

	Page		Page
San Luis Rey River at Lake Henshaw, near Mesa Grande, Calif.....	22	Silver Creek, South Fork of, near Ice House, Calif.....	313
at Monserate Narrows, near Pala, Calif.....	23	Silver Lake outlet near Kirkwood, Calif.	304
at Oceanside, Calif.....	25	Smartville, Calif., Deer Creek near....	291
discharge measurements of.....	349	Yuba River at.....	283
near Bonsall, Calif.....	24	Smith River near Crescent City, Calif....	348
San Luis Rey River Basin, Calif.....	22-25	Soledad, Calif., Arroyo Seco near....	135
gaging-station records in.....	20	Solvang, Calif., Santa Ynez River at....	128
San Vicente Creek at Foster, Calif.....	57	Somesbar, Calif., Klamath River at.....	332
San Timoteo Creek near Redlands, Calif.	350	Salmon River at.....	344
Santa Agueda Creek, Calif., discharge measurements of.....	84	South San Joaquin Canal near Knights Ferry, Calif.....	215
Santa Ana, Calif., Santiago Creek at...	47	Southern California Edison Co.'s canal and Greenspot pipe line near Mentone, Calif.....	50-51
Santa Ana River at Atchison, Topeka & Santa Fe Railway Bridge, near Prado, Calif.....	46	Southern California Edison Co.'s canal near Claremont, Calif.....	82
at Auburndale Bridge, near Corona, Calif.....	45	Sprague River near Chilcoquin, Oreg.....	335
at Hammer Avenue, near Corona, Calif.	44	Spanish Creek at Keddie, Calif.....	269
at Riverside Narrows, near Arlington, Calif.....	49	Spreckels, Calif., Salinas River near....	135
at Santa Ana, Calif.....	41-42	Spring Valley Ditch near Yankee Hill, Calif.....	274
discharge measurements of.....	48	Stage-discharge relation, definition of	1
near Mentone, Calif.....	43	Stanford University, Calif., Lagunita Canal at.....	142
near Prado, Calif.....	41-85	Los Trancos Canal near.....	141
Santa Ana River Basin, Calif., gaging- station records in.....	109	Los Trancos Creek at.....	140
Santa Anita Creek near Sierra Madre, Calif.....	125-126	San Francisco Creek at.....	138
Santa Barbara, Calif., Santa Ynez River near.....	118-121	Stanislaus River below Melones power house, Calif.....	213
Santa Clara River Basin, Calif., gaging-station records in.....	118	Middle Fork of, at Sand Bar Flat, near Avery, Calif.....	209-211
Santa Clara River near Saugus, Calif....	350	North Fork of, near Avery, Calif.....	214
Santa Cota Creek, Calif., discharge measurements of.....	132	Stanislaus River Basin, Calif., gaging- station records in.....	209-216
Santa Margarita, Calif., Salinas River near.....	32-33	Stevens Creek near Cupertino, Calif....	143
Santa Margarita River at Ysidora, Calif.	30-31	Stony Creek above Stony Gorge Reservoir, Calif.....	259
Santa Margarita River Basin, Calif., gaging-station records in.....	26-37	Stony Creek Basin, Calif., gaging- station records in.....	259-260
Santa Maria River Basin, Calif., gaging-station records in.....	130-131	Stony Gorge Reservoir, Calif., Stony Creek above.....	259
Santa Maria, Calif., Cuyama River near.	130	Storrie, Calif., Grizzly Creek near....	271
Huasna River near.....	131	Strawberry Creek near Arrowhead Springs, Calif.....	60
Santa Paula Creek near Santa Paula, Calif.....	121	Success, Calif., South Fork of Tule River near.....	160
Santa Ynez River at Juncal Reservoir, near Montecito, Calif.....	125	Sunland, Calif., Tujunga Creek near....	104
at Solvang, Calif.....	128	Sutter Creek near Sutter Creek, Calif..	231
below Gibraltar Dam, near Santa Barbara, Calif.....	126	Sweetwater River at Sweetwater Dam, Calif.....	15
near Lompoc, Calif.....	129	Tecate Creek, Calif., discharge measurement of.....	349
near Santa Barbara, Calif.....	125	Temecula Creek at Nigger Canyon, near Temecula, Calif.....	26-27
near Santa Ynez, Calif.....	127	at Railroad Canyon, near Temecula, Calif.....	28-29
Santa Ynez River Basin, Calif., gaging- station records in.....	125-129	Temecula, Calif., Murrieta Creek at....	34-35
Santa Ysabel Creek near Mesa Grande, Calif.....	21	Temecula Creek near.....	26-29
Santee, Calif., San Diego River near....	17-18	Temescal Creek near Corona, Calif.....	78
Santiago Creek at Santa Ana, Calif.....	84	Tenaya Creek near Yosemite, Calif.....	194
near Villa Park, Calif.....	83	Terms, definition of.....	1
Saratoga, Calif., Campbell Creek at....	148	Thomas Creek at Paskenta, Calif.....	256
Saugus, Calif., Santa Clara River near.	118	Three Rivers, Calif., Kaweah River near	161
Savage Dam, Calif., Otay River at.....	15	Tia Juana River discharge measurements of.....	349
Sawpit Creek near Monrovia, Calif.....	93	near Dulzura, Calif.....	12
Scottia, Calif., Eel River at.....	325	near Nestor, Calif.....	13
Second-feet per square mile, definition of.....	1	Tia Juana River Basin, Calif., gaging station records in.....	10-14
Second-foot, definition of.....	1	Tiger Creek power-house conduit below Salt Springs Dam, Calif.....	225
Second-foot-day, definition of.....	1	Tilley Creek, Calif., Borel Canal at....	156
Seepage from Silver Lake near Kirkwood, Calif.....	305	Topanga Creek near Topanga Beach, Calif.	116
Sespe Creek, Calif., Fillmore Land & Water Co.'s diversion from,.....	350	Tower House Ditch, Calif., discharge measurement of.....	351
discharge measurements of.....	120	Trabuco Creek near San Juan Capistrano, Calif.....	39
Sespe Creek near Fillmore, Calif.....	343	Trinity River at Lewiston, Calif.....	345
Shasta River near Yreka, Calif.....	184	near Burnt Ranch, Calif.....	346
Shaver Lake near Big Creek, Calif.....	286	near Hoopa, Calif.....	347
Sierra City, Calif., North Fork of Yuba River near.....	110	Tujunga, Calif., Haines Creek near....	107
Sierra Madre, Calif., Little Santa Anita Creek near.....	109	Tujunga Creek near Colby Ranch, Calif..	103
Santa Anita Creek near.....	311	near Sunland, Calif.....	104
Silver Creek at Union Valley, Calif.....	312	Tulare Lake Basin, Calif., gaging- station records in.....	159-169
near Placerville, Calif.....		South Fork of, near Success, Calif....	160
		Tule River near Porterville, Calif.....	159
		Tuolumne River above La Grange Dam, near La Grange, Calif.....	199

	Page		Page
Tuolumne River near Hetch Hetchy, Calif.....	197	Waterman Canyon Creek near Arrowhead Springs, Calif.....	61
South Fork of, near Oakland Recreation Camp, Calif.....	204	West Point, Calif., Middle Fork of Mokelumne River at.....	228
Tuolumne River Basin, Calif., gaging- station records in.....	196-208	Salt Springs Reservoir near.....	219
Turlock Canal near La Grange, Calif....	208	South Fork of Mokelumne River near...	229
Tustin, Calif., Irvine ranch drainage canal near.....	85	Wheatland, Calif., Bear River near....	292
Twin Lakes outlet near Kirkwood, Calif.	307	Whitehall, Calif., Alder Creek near....	309
Union Valley, Calif., Silver Creek at..	311	Whittier, Calif., San Jose Creek near..	97
Upland, Calif., Cucamonga Creek near...	74	Wilkins Slough, Calif., Sacramento River below.....	242
Upper Klamath Lake near Klamath Falls, Oreg.....	328	Williamson River below Sprague River near Chilquin, Oreg.....	327
Uvas Creek near Morgan Hill, Calif.....	136	Winters, Calif., Putah Creek near.....	320
Vade, Calif., Echo Lake flume near.....	302	Woodbridge, Calif., Mokelumne River at.	224
Medley Lakes outlet near.....	303	Woodbridge Canal at.....	230
Valley Springs, Calif., Cosgrove Creek near.....	218	Woods Creek near Jacksonville, Calif...	206
Ventura, Calif., Coyote Creek near.....	124	Work, division of.....	9
Ventura River near Ventura, Calif.....	123	scope of.....	1
Ventura River Basin, Calif., gaging- station records in.....	122-124	Yankee Hill, Calif., Concow Creek near.	273
Vermillion Valley, Calif., Bear Creek near.....	180	Spring Valley Ditch near.....	274
Mono Creek near.....	181	West Branch of Feather River near....	272
Vernalis, Calif., San Joaquin River near.....	176-177	Ydalpom, Calif., Pit River near.....	249
Verona, Calif., Sacramento River at....	244	Yolo, Calif., Cache Creek at.....	317
Villa Park, Calif., Santiago Creek near	85	Yosemite, Calif., Merced River near...188-189	194
Vina, Calif., Deer Creek near.....	257	Tenaya Creek near.....	343
Ward Tunnel at intake, Calif.....	178	Yreka, Calif., Shasta River near.....	36-37
at outlet, Calif.....	179	Ysidora, Calif., O'Neill Ditch near....	32-33
Warm Creek near Colton, Calif.....	58-59	Santa Margarita River at.....	283
		Yuba River at Smartville, Calif.....	281
		Middle Fork of, at Milton, Calif.....	282
		near North San Juan, Calif.....	282
		North Fork of, below Goodyears Bar, Calif.....	287
		near Sierra City, Calif.....	286



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